

INSECTICIDE

SPECIMEN LABEL

Not for residential use.

For use on ornamentals, conifers, Christmas trees and non-bearing fruit, nut and vines grown in commercial greenhouses, shadehouses and nurseries.

ACTIVE INGREDIENT: Cyclaniliprole*	4.55%
OTHER INGREDIENTS:	95.45%
TOTAL:	100.00%

Contains 0.42 pounds Cyclaniliprole per Gallon (50 grams per liter).

EPA Reg. No. 71512-32-59807

CAUTION

Read entire label carefully and use only as directed.

FIRST AID			
If on skin:	 Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 		
If swallowed:	 Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person. 		
If in eyes:	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. 		

EPA Est. No. 1022-TN-001

FIRST AID continued

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For **24-Hour Medical Emergency Assistance**(Human or Animal)
Call **1-800-356-4647**.

For **Chemical Emergency**, Spill, Leak, Fire or Accident, Call **CHEMTREC 1-800-424-9300**.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves made of any waterproof material (such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton), and protective eyewear.

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



Net Contents: 0.5 Gallon (64 fl. oz. or 1.892 L)

Engineering Control Statements

When handlers use closed systems or 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/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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates and oysters. Do not apply directly to water. Drift and runoff may be hazardous to aquatic organisms in water adjacent to use sites. This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms. Do not apply this product or allow it to drift to blooming crops or weeds while bees or other pollinating insects are foraging the treatment area.

DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate waters when disposing of equipment washwater or rinsate. DO NOT apply when weather conditions favor drift from the treated areas. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

DIRECTIONS FOR USE

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

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

(continued)

this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

AGRICULTURAL USE REQUIREMENTS

DO NOT enter or allow worker entry into treated areas during the **Restricted Entry Interval (REI)** of four (4) hours.

PPE required 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, are: coveralls, chemical resistant gloves made of waterproof material (such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton), shoes plus socks, and protective eyewear.

Commercial greenhouses and nurseries are within the scope of the Worker Protection Standard.

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR PEST CONTROL.

Product Restrictions: Not for residential use.

New York State Only:

The following restrictions are required to permit use of **SARISA** in the State of New York:

- Not for sale, sale into, distribution and/or use in Nassau and Suffolk Counties of New York.
- Aerial application is prohibited in New York State.
- In New York State, a 25 ft. vegetated and noncropped buffer strip untraversed by drainage tiles, must be maintained between the treatment area and lakes, rivers, reservoirs, permanent streams, marshes, natural ponds, estuaries or coastal areas.

PRODUCT INFORMATION

SARISA is an insecticide with foliar activity for use on ornamentals, conifers, Christmas trees and non-bearing fruit, nut and vines grown in commercial greenhouses, shadehouses and nurseries. **SARISA** must be applied in protective programs and used in rotation with products with a different mode of action.

MIXING AND SPRAYING

SARISA can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for pest control.

NOTE: Slowly invert container several times to assure uniform mixture of formulation before adding this product to the spray tank.

SARISA may be applied with all types of spray equipment normally used for ground, chemigation and through sprinkler irrigation applications and aerial applications.

The required amount of **SARISA** should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of **SARISA** in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations. DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application.

(continued)

Apply **SARISA** in sufficient water to obtain adequate coverage of the foliage. Gallonage to be used will vary by the size of the ornamental plant and amount of growth. Spray volume will usually range from 20 to 100 gallons per acre (200 to 1000 liters per hectare) for dilute sprays, and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground and aerial sprays. For aerial applications, apply **SARISA** in a minimum of 5 gallons of water per acre. For application through sprinkler irrigation systems see application and calibration instructions below.

TANK MIX COMPATIBILITY

SARISA is physically compatible (no nozzle or screen blockage) with many products recommended for control of diseases and insects on ornamentals. Read and follow all manufacturer's label recommendations for the tank mix companion product. It is the applicator's responsibility to ensure that the companion product is EPA approved for use on the intended ornamental crop. SARISA is generally compatible with other insecticides, fungicides, adjuvants, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. The use of a high quality adjuvant at a rate of 0.025% to 0.1% on volume to volume basis may improve performance under extreme conditions. However, not all ornamental varieties have been tested with all possible tank mix combinations. Thus the combination should be tested for plant safety on a small portion of the ornamental crop to ensure that a phytotoxic response will not occur. In addition, the physical compatibility of SARISA with tank mix partners must be evaluated before use. Conduct a jar test with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water. Add the products to be tank-mixed in the following order: (a) wettable powders (b) dry flowable, (c) aqueous suspensions, (d) SARISA (e) liquids, (f) solutions and emulsifiable liquid concentrates, 2) Mix thoroughly and 3) Allow to stand for 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that SARISA should not be used in the tank-mix.

INTEGRATED PEST MANAGEMENT

SARISA is an excellent insect pest control agent when used according to label directions for control of labeled insect pests. SARISA is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of pest-resistant crop varieties, cultural practices, crop rotation, biological control agents, pest scouting and pest forecasting systems aimed at preventing economic pest damage. Practices known to reduce insect pest development should be followed. Consult your state cooperative extension service or local agricultural authorities for additional IPM strategies established in your area. SARISA may be used in State Agricultural Extension advisory (insect pest forecasting) programs that recommend application timing based upon environmental factors that favor insect pest development.

RESISTANCE MANAGEMENT

Some insect pests are known to develop resistance to products used repeatedly for insect control. **SARISA** is an anthranilic diamide in IRAC Group 28 with the mode/target site of action being Ryanodine receptor modulation. An insect pest management program that includes alternation or tank mixes between **SARISA** and other labeled insecticides that have a different mode of action and/or control insect pests not controlled with **SARISA** is essential to prevent insecticide resistant insect pest populations from developing. **SARISA** should not

be utilized continuously nor tank mixed with insecticides that have shown to have developed insecticide resistance to the target insect pest.

Since insect pests differ in their potential to develop resistance to insecticides, follow the directions outlined in the "Directions For Use" section of this label for specific resistance management strategies. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of **SARISA** in programs that seek to minimize the occurrence of insect pest resistance.

Follow these instructions to postpone insecticide resistance unless directed otherwise in the specific directions for use sections of this label:

- Do not use the same mode of action (IRAC group number) on consecutive generations of insect pests.
- Do not apply SARISA or other Group 28 insecticide more than 3 times per pest generation to the same insect species on an ornamental crop.
- Application to the next generation of insect pest(s) must be with a product with a different mode of action (non-Group 28 insecticide).
- Do not use below the labeled rates of SARISA alone or in tank mixtures.
- Applications to the target pest(s) should be made to the most susceptible insect life stages.
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- 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.
- More information on insect resistance is available online from the Insecticide Resistance Action Committee (IRAC) at http://www.irac-online.org.

For further information or to report suspected resistance contact OHP, Inc. at 1-800-356-4647.

APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

Plant injury or lack of effectiveness can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

DO NOT apply **SARISA** through irrigation systems connected to a public water system. "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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treat-

ed irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low-pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

Always inject SARISA into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

DO NOT apply when wind speed favors drift beyond the area intended for treatment.

SPRAY DRIFT MANAGEMENT

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

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provide a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMD's and lower drift potential.

CONTROLLING DROPLET SIZE - GROUND APPLICATION

Nozzle Type - Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.

Pressure - The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet spectrum.

Flow Rate/Orifice Size - Using the highest flow rate nozzles

(largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

CONTROLLING DROPLET SIZE - AIRCRAFT

Number of Nozzles - Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.

Nozzle Orientation - Orienting nozzles in a manner that minimizes the effects of air shear will produce the coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back parallel to the airstream will produce a coarser droplet spectrum than other orientations.

Nozzle Type - Solid stream, or other low drift nozzles produce the coarsest droplet spectra.

Do not apply as a ULV application.

BOOM LENGTH AND HEIGHT

Boom Length (aircraft) - The boom length must not exceed 3/4 of the wing length; using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.

Boom Height (aircraft) - Application more than 10 ft. above the canopy increases the potential for spray drift. Applications made at the lowest height consistent with pest control objectives, and the safe operation of the aircraft will reduce the potential for spray drift.

Boom Height (ground) - Applications made at the lowest height consistent with pest control objectives, and that allow the applicator to keep the boom level with the application site and minimize bounce, will reduce the exposure of spray droplets to evaporation and wind and reduce spray drift potential.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WIND-LESS CONDITIONS. Do not make applications when wind speeds are greater than 15 mph.

Note: Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

SURFACE TEMPERATURE INVERSIONS

Do not make applications into temperature inversions. Drift potential is high during a surface temperature inversion.

Surface inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature 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 a

surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED (AIRBLAST) FIELD SPRAYERS

Air assisted field sprayers carry droplets to the target via a

downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration.

Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

DIRECTIONS FOR USE			
Pest	Rate (fl. oz./100 gal)	Rate (fl. oz. / acre)	Instructions
Foliage Feeding Caterpillars (including Armyworms, Loopers, Webworms, Leafrollers/Folders, Gypsy Moth, etc.)	10.9 - 16.4 fl. oz. (0.036 to 0.054 lb. a.i./100 gal)	10.9 - 16.4 fl. oz. (0.036 to 0.054 lb. a.i./A)	Container and Field Grown (Bed) Plants SARISA can be applied to ornamentals, including conifers, grown in containers in greenhouses and outdoor nurseries. Apply SARISA as a foliar spray in sufficient spray solution to thoroughly wet the foliage to the point of run-off, generally not to exceed 100 gallons per acre. If a larger volume is needed to wet the foliage, do not exceed the maximum rate of 27 fl. oz. per acre. Begin applications when pests first appear and reapply on a 7-14 day interval depending upon pest
Foliage Feeding Beetles (including Japanese Beetles, Flea Beetles, Leaf Beetles) Adelgids	16.4 - 27 fl. oz. (0.054 to 0.090 lb. a.i./100 gal)	16.4 - 27 fl. oz. (0.054 to 0.090 lb. a.i./A)	
Borers			and level of infestation.
(Beetle and Caterpillar)			Stink bugs** SARISA provides suppression of stink bug NYMPHS ONLY. Use as a part of an Integrat-
Cotton/Melon Aphid			ed Pest Management (IPM) program and target the
Lace Bugs			most susceptible life stages and application timings. Use in conjunction with other modes of action
Leafminers			and effective control products. Performance is en-
Mealybugs**			hanced when used with an effective adjuvant. For best results, use the high labeled rate when target-
Midges			ing stink bug nymphs.
Psyllids (including Asian Citrus Psyllid)			Mealybugs** SARISA provides suppression of mealybugs. Use as a part of an Integrated Pest Management (IPM) program and in conjunction with
Root Weevil Complex (Adults)			other modes of action and effective control products. For best results, use the high labeled rate.
Sawflies			All Labeled Pests: For best results and maximum
Soft Scales			residual control, use the high labeled rate.
Stink Bug spp.** Thrips (Foliage Feeding)**			Resistance Management: Do not apply SARISA or other Group 28 insecticide more than 3 times within a single generation of insect pest(s) on an ornamental crop.
Whiteflies			Restrictions: Foliar application of this product on
** Suppression only. Use in conjunction with an effective control program.			outdoor ornamental plants during bloom is prohibited from onset of flowering until flowering is complete; unless the rate is limited to 16.4 fl. oz./acre (0.054 lb. a.i./acre) and the application is made in the evening when bees are less likely to be actively foraging (2 hours prior to sunset to 8 hours prior to sunrise). This product has been determined to have a short residual toxicity (RT25) time, therefore the hazard to bees is significantly reduced soon after application.
			Minimal interval between treatment is 7 days.
			Do not apply more than 82 fl. oz. SARISA per acre per year (0.27 lb. a.i./acre/year). [In New York State, do not apply more than 54 fl. oz. per acre per year (0.18 lb. a.i./acre/year).]
			** Suppression only. Use in conjunction with an effective control program.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container, in a secured, dry, cool place separate from food, pet food, feed, seed and fertilizer. Avoid cross-contamination with other pesticides.

PESTICIDE DISPOSAL: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Nonrefillable container DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ½ 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants to those persons lawfully acquiring title to this product that at the time of first sale of this product by Seller that this product conformed to its chemical description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use. To the extent consistent with applicable law, buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES. SELL-**ER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY** OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANT-ABILITY, AND NO AGENT OF SELLER IS AUTHORIZED **TO DO SO.** To the extent consistent with applicable law, in no event shall Seller's liability for any breach of warranty or guaranty exceed the purchase price of the product as to which a claim is made. To the extent consistent with applicable law, Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with other products unless otherwise expressly provided in Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.

Sarisa is a trademark of OHP, Inc.

Produced for: OHP, Inc. PO Box 746 Bluffton, SC 29910-0746 (800) 356-4647

OHP987100 ESL041819 REV50319

