

SPIROTETRAMAT

GROUP

23

INSECTICIDE

ASTERIATM

Contains spirotetramat, the active ingredient used in Kontos®.

For Foliar and Systemic Insect Control on Ornamentals, Non-Bearing Fruit and Nut Trees,
and Vegetable Plants in Greenhouses, Nurseries and Interiorscapes

ACTIVE INGREDIENT:

(% by weight)

Spirotetramat: *cis*-3-(2,5-dimethylphenyl)-8-methoxy-2-oxo-1-azaspiro[4,5]dec-3-en-4-yl-ethyl carbonate 22.4%

OTHER INGREDIENTS: 77.6%

TOTAL 100.0%

Contains 2 pounds of spirotetramat per US gallon

EPA Reg. No.: 91234-394

KEEP OUT OF REACH OF CHILDREN CAUTION

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

See below for additional Precautionary Statements

FIRST AID	
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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If 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.
NOTE TO PHYSICIAN: No specific antidote is available. Treat patient symptomatically.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

AsteriaTM is not manufactured, or distributed by Bayer CropScience, seller of Kontos®.



Manufactured for:
Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if 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 contaminated clothing and wash before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as: Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, and Viton ≥ 14 mils.
- Shoes plus socks

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.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607 (d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove Personal Protective Equipment 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

For Terrestrial Use: This pesticide is toxic to aquatic invertebrates and oysters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. This product may contaminate water through drift of spray in wind. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This product is potentially toxic to honey bee larvae through residues in pollen and nectar, but not to adult honey bees. Exposure of adult bees to direct treatment or residues on blooming crops can lead to effects on honey bee larvae. See the **Directions for Use** section of this label for specific crop application instructions that minimize risk to honey bee larvae.

ENDANGERED SPECIES ADVISORY

The use of any pesticide in a manner that may kill or otherwise harm endangered species or adversely modify their habitat is a violation of Federal law.

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

Do not enter or allow worker entry into treated areas during the REI of **24 hours** following application.

Exception: If the product is applied by drenching, 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water is:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves such as: Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils, and Viton ≥ 14 mils.
- Shoes plus socks

PRODUCT INFORMATION

Asteria is a suspension concentrate formulation. For foliar and systemic insect control on ornamental plants in greenhouses, nurseries, and interior landscapes, including nonbearing fruit and nut trees (i.e., trees that will not bear fruit or nuts for one year after application) and vegetables for resale.

APPLICATION INFORMATION

Following application to plant foliage, **Asteria** is fully systemic, moving through phloem and xylem to all plant tissues including new shoot, leaf and root growth. Spray adjuvants with spreading / penetrating characteristics may improve leaf uptake and systemic concentration of active ingredient. The active ingredient contained in **Asteria** is active primarily by ingestion. Fecundity of adult insects and mites may be reduced. Make applications as preventative treatments or to coincide with early threshold levels in developing insect and mite populations. **Asteria** can be applied by ground equipment (including hand-held application equipment) or through chemigation.

FOLIAR SPRAY APPLICATIONS

Foliar applications must be made using properly calibrated ground sprayers (including hand-held and backpack sprayers), through properly designed, sprinkler-type, chemigation equipment (See **Chemigation Application directions** below).

CHEMIGATION APPLICATION DIRECTIONS

Application through irrigation systems

Asteria may be applied at rates on this label either alone or in tank mixture with other pesticides and chemicals registered for application through irrigation systems. The normal dilution ratio is 1:10 to 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

Remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system.

Apply **Asteria** only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, ebb and flood, or hand-held or motorized calibrated irrigation equipment.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from nonuniform distribution of treated water.

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

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or a person who is under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Safety Devices for Irrigation Systems Connected to Public Water Supplies:

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

Safety Devices for Irrigation Systems Not Connected to a Public Water Supply:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.



Ebb and Flood Application

To assure accurate uptake, it is recommended that, prior to treatment, a minimum of 10 plants be brought up to a known field capacity and allowed to dry out for one or two days. Rewet these plants to determine how much water on average each plant will absorb to bring it back to field capacity. Use the volume absorbed per plant (keeping pot sizes uniform) multiplied by the number of pots being treated. Add to this volume a required minimum amount to flood the smallest treatment area. This process should minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

RESISTANCE MANAGEMENT

For resistance management, **Asteria** contains a Group 23 insecticide. Any insect population may contain individuals naturally resistant to **Asteria** and other Group 23 insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of **Asteria** or other Group 23 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):
 - 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.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - 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/acaricides 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 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 Atticus, LLC at 984-465-4800.

SPRAY DRIFT REDUCTION MANAGEMENT

Do not apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

IMPORTANCE OF DROPLET SIZE

An important factor influencing drift is droplet size. Select nozzles and pressure that deliver medium spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain crop coverage. Low humidity and high temperature increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

WIND SPEED RESTRICTIONS

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Avoiding applications when wind direction is toward an aquatic area can reduce risk exposure to sensitive aquatic areas.

RESTRICTIONS DURING TEMPERATURE INVERSIONS

Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature 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, the movement of smoke from a ground source can also identify inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

AIRBLAST (AIR ASSIST) SPECIFIC RECOMMENDATIONS

Airblast sprayers carry droplets into the canopy via a radial or lateral directed air stream. The following drift management practices should be followed:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy;
- Block off upward pointed nozzles when there is no overhanging canopy;
- Use enough air volume to penetrate the canopy and provide good coverage;
- Do not allow the spray to go beyond the edge of the cultivated area (i.e., turn off sprayer when turning at end rows);
- For applications to the outside rows, only spray inward, toward the targeted plants.

RUNOFF MANAGEMENT

This product may contaminate water through runoff or drift of spray in wind. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. 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 for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

MIXING INSTRUCTIONS

COMPATIBILITY / MIXING / ORDER-OF-MIXING

Observe all cautions and limitations on labeling of all products used in mixtures.

Asteria is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. When considering mixing **Asteria** with other pesticides, or other additives, first contact your supplier for advice. For further information, contact your local Atticus, LLC representative. If your supplier and Atticus, LLC representative have no experience with the combination you are considering, conduct a test to determine physical compatibility. To determine physical compatibility, add the recommended proportions of each chemical with the same proportion of water as will be present in the chemical supply tank, into a suitable container, mix thoroughly, and allow the mixture to stand for five minutes. If the combination remains mixed, or can be readily remixed, the mixture is considered physically compatible.

The proper mixing procedure for **Asteria** alone or in tank mix combinations with other pesticides is:

- 1) Fill the spray tank 1/4 to 1/3 full with clean water;
- 2) While recirculating and with the agitator running, add any labeled amounts of this product. Allow time for thorough mixing;
- 3) Continue to fill spray tank with water until 1/2 full;
- 4) Add any other wettable powder (WP) or wettable granules (WG) products;
- 5) Allow enough time for thorough mixing of each product added to tank;
- 6) If applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers, micronutrients, spray adjuvants.
- 7) Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

CROP TOLERANCE

Asteria has been evaluated for phytotoxicity on a wide range of ornamental plants. However, due to the large number of species and varieties of ornamental plants, it is impossible to test every one for tolerance to **Asteria**. Prior to commercial use, determine if **Asteria** can be used safely. In a small area, test the rates on a small number of plants for phytotoxicity prior to widespread use. Before using **Asteria** in tank mixture with other products and adjuvants, test the mixture on a small number of plants for phytotoxicity prior to widespread use.

If you have any questions, consult your local Atticus, LLC representative, or call the Atticus, LLC customer service line at 984-465-4800.

Asteria is not recommended for use on the following varieties: geraniums (*Pelargonium* spp.), orchids, *hoya*, *Dracaena*, *Cordyline*, *Schefflera*, neanthe bella palm, and ferns.

Do not make more than one application per season to Hydrangea, *Impatiens* spp., crotons (*Codiaeum* spp.), *Fuchsia* hybrids, *Petunia*, *Peperomia*, stock, or cyclamens (*Cyclamen* spp.).

SPECIMEN

CONTAINER DRENCH APPLICATIONS - SMALL CONTAINERS

For application only to ornamental plants in greenhouses, nurseries, and interior plantscapes, including non-bearing fruit and nut trees (i.e., trees that will not bear fruit or nuts for one year after application) and vegetable transplants*, using soil drench, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held motorized irrigation equipment.

Pest	Use Pattern	Dosage		Remarks
Adelgids Aphids Leafhoppers Mealybugs Psyllids Rust Mites ¹ Scales (crawlers) Spider mites ¹ Spittlebugs Tarsonemid Mites ¹ Thrips (immature) ² Whiteflies	Containerized Plants	Container Size (inches)	No. Pots Treated with 1.7 – 3.4 fl. oz. (50 - 100 mL) of product	Exact drenching volume is dependent upon pot size, potting medium, and plant type. Apply product in sufficient volume of water to wet the potting medium, without loss of liquid from the bottom of the container. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient from the bottom of the container. The mode of action of Asteria is inhibition of lipid biosynthesis (IRAC Group 23 Insecticide). If retreatment is necessary, treat using a product with an alternative mode of action.
	Herbaceous species, 1-2 plants per pot	2	3,000	
		3	2,000	
		4	1,500	
		5	1,200	
		6	1,000	
		7	850	
		8	750	
		9	650	
		10	600	
		11	550	
		12	500	
		Woody perennials	2	
	3		1,350	
	4		1,000	
	5		800	
	6		650	
	7		550	
	8		500	
	9		450	
	10		400	
	11		350	
	12		300	

*VEGETABLE TRANSPLANTS:

FRUITING VEGETABLES: Eggplant, Groundcherry, Pepinos, Pepper (*Capsicum* spp., including Bell, Chili, Cooking, Pimento and Sweet), Tomatillo, Tomato

LEAFY VEGETABLES: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum (edible-leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Florence fennel (Finocchio), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach including New Zealand and vine (Malabar spinach, Indian spinach), Swiss chard, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese mustard cabbage (gai choy), Kohlrabi, Rape greens

TUBEROUS AND CORM VEGETABLES: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible), Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Sweet potato, Tanier, Turmeric, Yam bean, Yam (true)

¹**Mites** - If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected (use the higher dosage (3.4 fl. oz. of product)). **Asteria** will not control heavy populations of existing mites. If a second miticide application is necessary to achieve control, use a product with an alternative mode of action.

²**Thrips** - Full control of thrips will be observed only on foliage; thrips in buds will be suppressed; thrips controlled will only be immature thrips. If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected on foliage. For thrips control on woody perennials use the higher dosage (3.4 fl. oz. of product).

- Do not apply more than 25 fl. oz. (750 ml) (0.4 lb. ai) per acre of nursery per season.
- Vegetable Transplants:**
 - Do not apply more than 5 fl. oz. of product (0.08 lb. ai) per acre per season to vegetable transplants.
 - Do not apply to greenhouse-grown vegetables other than vegetable transplants.

CONTAINER DRENCH APPLICATIONS – LARGE CONTAINERS

For application only to ornamental plants in greenhouses, nurseries, and interior plantscapes, including non-bearing fruit and nut trees (i.e., trees that will not bear fruit or nuts for one year after application), using soil drench, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held motorized irrigation equipment.

Pest	Use Pattern	Dosage		Remarks
Adelgids Aphids Leafhoppers Mealybugs Psyllids Rust Mites ¹ Scales (crawlers) Spider mites ¹ Spittlebugs Tarsonemid mites ¹ Thrips (immature) ² Whiteflies	Containerized Plants	Container Size (gallons)	No. pots treated with 1.7 – 3.4 fl. oz. (50-100 ml) of product	Exact drenching volume is dependent upon pot size, potting medium, and plant type. Apply product in sufficient volume of water to wet the potting medium, without loss of liquid from the bottom of the container. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient from the bottom of the container. The mode of action of Asteria is inhibition of lipid biosynthesis (IRAC Group 23 Insecticide). For resistance management purposes, if retreatment is necessary, treat using a product with an alternative mode of action.
		1	340 to 244	
		2	280 to 210	
		3	220 to 165	
		5	160 to 110	
		7	100 to 75	
		10	60 to 45	
		15	40 to 30	
		20	20 to 15	

¹**Mites** - If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected (use the higher dosage (3.4 fl. oz. of product)). **Asteria** will not control heavy populations of existing mites. If a second miticide application is necessary to achieve control, use a product with an alternative mode of action.

²**Thrips** - Full control of thrips will be observed only on foliage; thrips in buds will be suppressed; thrips controlled will only be immature thrips. If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected on foliage. For thrips control on woody perennials use the higher dosage (3.4 fl. oz. product).

- Do not apply more than 25 fl. oz. (750 ml) (0.4 lb. ai) per acre of nursery per season.

FOLIAR APPLICATIONS FOR ORNAMENTALS GROWN IN GREENHOUSES

For foliar insect control in greenhouses.

CROP	PEST	DOSAGE	REMARKS
Flowers Foliage Plants Groundcovers Ornamentals in flats and plugtrays	Adelgids Aphids Leafhoppers Mealybugs ¹ Psyllids	1.7 – 3.4 fl. oz. (50 - 100 ml) of product / 100 gal. of water	Foliar Applications: Start treatments prior to establishment of high pest population and reapply on a 14-28 day interval as-needed for all listed crops except vegetable transplants. Apply when pests first appear or when damage is first noticed. Spray thoroughly. The addition of a spreader sticker may improve efficacy.
Shrubs Evergreens Trees - including Non-bearing Fruit and Nut Trees (Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application)	Scales (crawlers) Spider mites ² Spittlebugs Tarsonemid mites ² Thrips ³ Whiteflies	or 0.051 – 0.1 fl. oz. (1.5 - 3.0 ml) of product / 3 gal. of water	Make ground applications to foliage in a minimum of 10 gallons of spray solution per acre. Make airblast application in a minimum of 50 gallons of spray solution per acre. If concentrate or mist type spray equipment is used, use an equivalent amount of product on the area sprayed as would be used in a dilute application.
Vegetable transplants*			

(continued)

***VEGETABLE TRANSPLANTS:**

FRUITING VEGETABLES: Eggplant, Groundcherry, Pepinos, Pepper (*Capsicum* spp., including Bell, Chili, Cooking, Pimento and Sweet), Tomatillo, Tomato

LEAFY VEGETABLES: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Rocket), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum (edible-leaved and garden), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Florence fennel (Finocchio), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach including New Zealand and vine (Malabar spinach, Indian spinach), Swiss chard, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese mustard cabbage (gai choy), Kohlrabi, Rape greens

TUBEROUS AND CORM VEGETABLES: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible), Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Sweet potato, Tanier, Turmeric, Yam bean, Yam (true)

¹**Mealybugs** - If populations are heavy, make two foliar applications at 14-21 day intervals to control mealybug larvae that emerge after the first application.

²**Mites** - If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected. **Asteria** will not control heavy populations of spider mites. If a second miticide application is necessary to achieve control, use a product with an alternative mode of action.

³**Thrips** - Full control of thrips will be observed only on foliage; thrips in buds will be suppressed. If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected on foliage.

USE RESTRICTIONS:

- Do not apply more than 25 fl. oz. (750 ml) (0.4 lb. ai) per acre of nursery per season (excluding vegetable transplants*).
- Vegetable Transplants:**
 - Do not apply more than 10 fl. oz. of product (300 ml) (0.16 lb. ai) per acre per season to vegetable transplants.
 - Minimum Interval Between Foliar Applications to Vegetable Transplants:** 7 days
 - Do not apply to greenhouse-grown vegetables other than vegetable transplants.

FOLIAR APPLICATIONS FOR ORNAMENTALS GROWN OUTSIDE GREENHOUSES

For foliar insect control around greenhouses, field grown nurseries and container stocks, outdoor ornamentals, and ornamentals grown in flats, benches or beds.

CROP	PEST	DOSAGE	REMARKS
Flowers Foliage Plants Groundcovers Ornamentals in flats and plug-trays	Adelgids Aphids Leafhoppers Mealybugs ¹ Psyllids Scales (crawlers)	1.7 – 3.4 fl. oz. (50 - 100 ml) of product / 100 gal. of water or 0.051 – 0.1 fl. oz. (1.5 - 3.0 ml) of product / 3 gal. of water	Foliar applications: Start treatments prior to establishment of high pest population and reapply on a 14-28 day interval as-needed for all listed crops except vegetable transplants. Apply when pests first appear or when damage is first noticed. Spray thoroughly. The addition of a spreader sticker may improve efficacy. Make ground applications to foliage in a minimum of 10 gallons of spray solution per acre. Make airblast application in a minimum of 50 gallons of spray solution per acre. If concentrate or mist type spray equipment is used, use an equivalent amount of product on the area sprayed as would be used in a dilute application.
Shrubs Evergreens Trees - including Non-bearing Fruit and Nut Trees (Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application)	Spider mites ² Spittlebugs Tarsonemid mites ² Thrips ³ Whiteflies		
Vegetable transplants*			

***VEGETABLE TRANSPLANTS:**

FRUITING VEGETABLES: Eggplant, Groundcherry, Pepinos, Pepper (*Capsicum* spp., including Bell, Chili, Cooking, Pimento and Sweet), Tomatillo, Tomato

LEAFY VEGETABLES: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Rocket), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum (edible-leaved and garden), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Florence fennel (Finocchio), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach including New Zealand and vine (Malabar spinach, Indian spinach), Swiss chard, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese mustard cabbage (gai choy), Kohlrabi, Rape greens

TUBEROUS AND CORM VEGETABLES: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible), Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Sweet potato, Tanier, Turmeric, Yam bean, Yam (true)

¹**Mealybugs** - If populations are heavy, make two foliar applications at 14-21 day intervals to control mealybug larvae that emerge after the first application.

²**Mites** - If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected. **Asteria** will not control heavy populations of spider mites. If a second miticide application is necessary to achieve control, use a product with an alternative mode of action.

³**Thrips** - Full control of thrips will be observed only on foliage; thrips in buds will be suppressed. If populations are heavy at the time of application, control may not be achieved rapidly enough to prevent economic damage to the plant. Make applications preventatively, or when populations are first detected on foliage.

USE RESTRICTIONS:

- Do not apply more than 25 fl. oz. (750 ml) (0.4 lb. ai) per acre of nursery per season (excluding vegetable transplants*).
- Do not apply more than 5.1 fl. oz. of product (153 ml) (0.081 lb. ai) per acre per application to outdoor ornamentals.
- Do not apply until after petal fall to stone fruit, pome fruit, and tree nuts.
- Do not apply this product to citrus within 10 days prior to bloom, during bloom, or until petal fall is complete.
- Vegetable Transplants:**
 - Do not apply more than 10 fl. oz. of product (300 ml) (0.16 lb. ai) per acre per season to vegetable transplants.
 - Do not apply to greenhouse-grown vegetables other than vegetable transplants.
 - Minimum Interval Between Foliar Applications to Vegetable Transplants:** 7 days



STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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:

For containers ≤ 5 gallons: 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

For containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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 other procedures allowed by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

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

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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