



SYSTEMIC AND FOLIAR INSECT CONTROL OF LISTED PESTS IN TURFGRASS (INCLUDING SOD FARMS), LANDSCAPE ORNAMENTALS, ON ORNAMENTAL AND FRUIT AND NUT TREES, ON ORNAMENTAL AND VEGETABLE PLANTS IN GREENHOUSES, NURSERIES, AND INTERIOR PLANTSCAPES

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KEEP OUT OF REACH OF CHILDREN CAUTION - PRECAUCIÓN

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 Precautionary Statements and Directions for Use.

	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	Take off contaminated clothing.			
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.			
If inhaled:	Move person to fresh air.			
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.			
	 Call a poison control center or doctor for further treatment advice. 			
	NOTE TO PHYSICIAN			
No specific antidote is available. Treat the patient symptomatically.				
	HOT LINE NUMBER			
Have the produc	et 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)



PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of barrier laminate, butyl rubber > 14 mils, nitrile rubber > 14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, Viton® > 14 mils.
- Shoes plus socks

WPS Uses: Applicators and Other Handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR part 170) in general, agricultural plant uses such as sod farms, commercial production of ornamentals, non-bearing fruit and nut trees and vegetable transplants in greenhouses and nurseries, must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of barrier laminate, butyl rubber > 14 mils, nitrile rubber > 14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, Viton® > 14 mils.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment, 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, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

User Safety Recommendations

lisers should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- · Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This product is highly toxic to aquatic invertebrates. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops/plants or weeds. DO NOT apply this product or allow it to drift to blooming crops/plants or weeds if bees are foraging the treatment area. This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where the soil is permeable, particularly where the water table is shallow, may result in groundwater contamination.

Physical or Chemical Hazards

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Indestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop site, for foliar applications, follow these application directions for food/feed and commercially grown ornamentals that are attractive to pollinators and non-agriculture use sites:

FOR FOOD CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

📻 Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.



NON-AGRICULTURAL USE SITES:



Do not apply this product while bees are foraging. Do not apply this product to plants that are flowering. Only apply after all flower petals have fallen off.

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 registration.

DO NOT apply this product, by any application method, to linden, basswood or other *Tilia* species in the State of Oregon.

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

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. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: If the product is soil-injected 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.

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

- Coveralls
- Chemical-resistant gloves made of barrier laminate, butyl rubber > 14 mils, nitrile rubber > 14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, Viton® > 14 mils.
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep children and pets off treated area until dry.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES. RESERVOIRS. RIVERS. PERMANENT STREAMS. MARSHES OR NATURAL PONDS. ESTUARIES AND COMMERCIAL FISHPONDS.

RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

ENDANGERED SPECIES NOTICE

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

RESISTANCE MANAGEMENT

For resistance management, Mineiro 2 F Flex contains imidacloprid a Group 4A insecticides. The resistant to Mineiro 2 F Flex and other Group 4A 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 Mineiro 2 F Flex or other Group 4A 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 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).
 - 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/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 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 your local Atticus, LLC representative by calling 984-465-4800.

USE INFORMATION

Mineiro 2 F Flex is a suspension concentrate. Settling may occur during shipment or storage. Shake well for sizes ≤ 5 gallons, or stir for > 5 gallons, prior to mixing the spray solution. Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. This product may not knockdown established and heavy insect populations. Two applications may be required to achieve control; retreat if needed and as directed on this label. Tank mix this product with other insecticides as recommended for knockdown of pests or for improved control of other pests.

Rotational Crops

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plantback interval must be observed. IMPORTANT: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

Immediate Plant-back:

All crops on this label plus the following crops not on this label: barley, canola, corn (field, sweet and pop), rapeseed, sorghum, sugar beet and wheat.

30-Day Plant-back:

Cereals (including buckwheat, millet, oats, rice, rye and triticale), soybeans and safflower

12- Month Plant-back:

All other crops



MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required amount of water to the spray tank, begin agitation, and add this product. Complete filling tank with the balance of water needed. Be sure to maintain agitation during both mixing and application.

This product may also be used with other pesticides and/or fertilizer solutions; refer to the **Compatibility** Section below. When tank mixtures of this product and other pesticides are involved, prepare the tank mixture as specified above and follow the suggested Mixing Order below.

Tank Mixing Order

When pesticide mixtures are needed, add wettable powders first, this product or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added and do not add an additional component until the previous is thoroughly mixed. A fertilizer / pesticide compatibility agent may be needed if a fertilizer solution is to be added to the mixture. Be sure to maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

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.

Compatibility

Before adding this product to the spray or mix tank, test the compatibility of the intended tank mixture using the following:

- 1. Add proportionate amount of each ingredient in the appropriate order to a pint or a quart jar;
- 2. Cap and shake for 5 minutes;
- 3. Let set for 5 minutes.

DO NOT use if poor mixing or formation of precipitates that do not readily re-disperse occur, indicating an incompatible mixture. For further information, contact an Atticus, LLC representative.

APPLICATION INSTRUCTIONS

Apply this product only as a directed or broadcast foliar spray using properly calibrated ground application equipment as allowed in the specific application section. For insecticidal efficacy, thorough coverage of all target foliage without runoff is necessary. To obtain thorough coverage use adequate spray volumes, properly calibrated application equipment and a spray adjuvant if necessary. Failure to provide adequate coverage and retention of this product on leaves and fruit, if present, may result in loss of insect control or delay in onset of activity. Minimum spray volumes, unless otherwise specific application sections, are 10 gallons/acre by ground. This product may also be applied by chemigation (see **APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)**) section below) if allowed in the specific application section.

SPRAY DRIFT MANAGEMENT

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.

Mixing and Loading Requirements

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

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. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions

Because the potential for spray drift is high during temperature inversions, do NOT make ground applications 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, inversions can also be identified by the movement of smoke from a ground source. 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 mixing.

No-Spray Zone Requirements for Foliar Applications

Do not apply by ground within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

This product may be applied at rates specified 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 1:100 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.

- 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.
- Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment and only as specified in the use directions.
 DO NOT apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- 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.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

If the source of water for your irrigation system is a public water supply, follow the instructions below.

- 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.

Water Volume

When applying this product through chemigation make it as concentrated as possible. Retention of this product on target site of insect infestation is necessary for optimum activity. DO NOT use this product by chemigation in water volumes exceeding 0.10 inches/acre.

Uniform Water Distribution and System Calibration

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Chemigation Monitoring

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

Drift

Do not apply when the wind favors drift beyond the area intended for treatment.

APPLICATION TO TURFGRASS

Use this product for the control of listed soil inhabiting pests of turfgrass, including Northern & Southern masked chafers, Cyclocephala borealis, C. immaculata, and/or C. lurida; Asiatic garden beetle, Maladera castanea; European chafer, Rhizotroqus majalis; Green June beetle, Cotinis nitida; May or June beetle, Phyllophaga spp.; Japanese beetle, Popillia japonica; Oriental beetle, Anomala orientalis; Billbugs, Sphenophorus spp.; Annual bluegrass weevil, Listronotus spp.; Black turfgrass ataenius, Ataenius spretulus and Aphodius spp.; European crane fly, Tipula paludosa; and mole crickets, Scapteriscus spp. Use this product for suppression of cutworms and chinch bugs. Use as directed on turfgrass in home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields and sod farms.

The active ingredient in this product has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. Base the need for an application on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

RESTRICTIONS

- DO NOT make applications when turfgrass areas are waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated turf area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Do not exceed a total of 1.6 pints (0.4 lb. of active ingredient) per acre per calendar year.

Application Methods

Apply this product in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of turfgrass insecticides is required. Use equipment which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

TURFGRASS		
PEST	USE RATE	INSTRUCTIONS
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms (suppression) European chafer European crane fly Green June beetle Japanese beetle Northern masked chafer Oriental beetle Phyllophaga spp. Southern masked chafer	1.25 to 1.6 pt. per acre or 0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq ft	For control of grubs, billbugs, annual bluegrass weevil, and European crane fly make application prior to egg hatch of the target pest. Use higher rate for heavy infestation and the lower rate for light infestation. Read "Application Methods" Section for Application to Turfgrass.
Chinchbugs (suppression) Mole crickets	1.6 pt. per acre or 0.6 fl oz (17 ml) per 1,000 sq ft	For suppression of chinchbugs, make application prior to or during the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, accompany the application of this product with a remedial insecticide. Follow the most restrictive label instructions when tank mixing.

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

- DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.
- DO NOT mow turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.
- Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.
- DO NOT allow this product to contact plants in bloom while bees are foraging the treatment area.
- DO NOT graze treated areas or use clippings from treated areas for feed or forage.
- DO NOT allow runoff or puddling of irrigation water following application.
- Keep children and pets off treated area until dry.
- DO NOT use for seed production.



APPLICATION TO LANDSCAPE ORNAMENTALS

Use this product on ornamentals in and around the perimeter of commercial and residential landscapes and interior plantscapes. It is a systemic product and will be translocated upward into the plant system from root uptake. Apply this product to areas where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution has been shown to enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications; including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests.

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. In some cases, this translocation delay could take 60 days or longer. For this reason, applications must be made prior to anticipated pest infestation to achieve control.

For outdoor applications, DO NOT exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.

Ant Management Programs

Use this product to control aphids, scale insects, mealybugs and other sucking pests on ornamentals to limit the honeydew available as a food source for ant populations. Applications can then be supplemented with residual sprays, bait placements or other ant control tactics to further reduce the pest population.

Application Methods

Mix product with the required amount of water and apply as dependent upon the selected use pattern.

When making foliar applications on hard-to-wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker will improve coverage. If concentrate or mist type spray equipment is used, apply an equivalent amount of product on the area sprayed, as would be used in a dilute application.

This insecticide has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of this product may vary with different sources of pesticide products and local cultural practices. Prepare, on a small scale (pint or quart jar), any tank mixture which has not been previously tested by using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

RESTRICTION: DO NOT apply through any irrigation system.

ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES (in and around the perimeter of industrial and commercial buildings and residential areas)				
FOLIAR APPLICATIONS				
PEST	USE RATE	INSTRUCTIONS		
Adelgids Aphids Japanese beetles (adults) Lace bugs Leaf beetles (including Elm and Viburnum leaf beetles) Leafhoppers (including Glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips (suppression) Whiteflies	1.7 fl oz (50 ml) per 100 gallons of water	Start treatments prior to establishment of high pest populations and reapply on an as needed basis. For resistance management purposes, an imidacloprid foliar application following a soil application in the same crop is not recommended.		
	BROADCAST APPLICATIONS			
PEST	USE RATE	INSTRUCTIONS		
White grub larvae (such as Japanese beetle larvae, chafers, <i>Phyllophaga</i> spp., Asiatic Garden beetle, Oriental beetle)	0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq ft	Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. DO NOT use less than 2 gallons of water per 1,000 square feet. Irrigate thoroughly to incorporate this insecticide into the upper soil profile. Refer to use directions (found below) specific for Flowers and Ground Covers. Use higher rate for heavy infestation and the lower rate for light infestation.		

- DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs. a.i.) per acre per calendar year.
- DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year of application.
- DO NOT apply through any irrigation system.
- Follow application restrictions for Non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.



ORNAMENTAL TREES, SHRUBS, FLOWERS AND GROUNDCOVERS (in and around the perimeter of industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas for the insect pests listed below)

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PEST	USE RATE	INSTRUCTIONS
Adelaids		SOIL INJECTION & SOIL DRENCH APPLICATIONS TO TREES
Alder borer	For TREES:	
Aphids	1	Soil Injection:
Armored scales (suppression)	Use the following rates as a function of	GRID SYSTEM: Holes must be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree.
Asian longhorned beetle	tree diameter at breast height (DBH):	CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line
Black vine weevil larvae	Apply 0.1 - 0.4 fl.oz. (3 to 12 mL) per inch	of the tree extending in from that line.
	of trunk diameter (DBH)	BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base.
Bronze birch borer		Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution
Emerald ash borer	You may use the higher rate	for distribution of the liquid into the retreatment zone. Keep the treated area moist for 7 to 10 days. DO NOT use less than 4 holes per tree.
Eucalyptus longhorned borer	(0.3 - 0.4 fl.oz.) only for trees > 15 inches	
Flatheaded borers	(DBH) to control:	NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.
(including Bronze birch and Alder)	Asian longhorned beetle, Emerald ash	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree,
Japanese beetles	borer, Eucalyptus longhorned borer,	directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
Lace bugs	Bronze birch borer, and Alder borer	For Control of Specified Borers:
Leaf beetles	RESTRICTION: DO NOT apply more	Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
(including elm and viburnum leaf beetles)	than 25.6 fl.oz. (0.4 lb. a.i.) per acre per	, , , , , , , , , , , , , , , , , , , ,
Leafhoppers	calendar year.	Basal Drench using Slow-Release Irrigation Bags (such as Treegator® 15, 20, or 50 Gallon capacity): Follow manufacturer's
(including glassy-winged sharpshooter)	1	instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this
Leafminers	Diameter at Breast Height (DBH) is	product for the tree diameter to which the bag is attached. Add remaining volume of water needed to fill bag.
Mealybugs	measured at 4.5 feet from the ground.	, , , , , , , , , , , , , , , , , , , ,
Pine tip moth larvae		
Psyllids		
Royal palm bugs		
Sawfly larvae*		
Soft scales		
Thrips (suppression)		
White grub larvae		
Whiteflies		
Adelgids		SOIL INJECTION & SOIL DRENCH APPLICATIONS TO SHRUBS
Alder borer		Soil Injection: Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in
Aphids		each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist
Armored scales (suppression)		for 7 to 10 days. DO NOT use less than 4 holes per shrub.
Asian longhorned beetle	0.1 to 0.2 fl oz	NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.
Black vine weevil larvae	(3 to 6 ml)	
Bronze birch borer	per foot of	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree,
Emerald ash borer	shrub height	directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
Eucalyptus longhorned borer		Basal Drench using Slow Release Irrigation Bags (such as Treegator® 15, 20, or 50 Gallon capacity): Follow manufacturer's
Flatheaded borers		instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this
(including Bronze birch and Alder)		product for the shrub height to which the bag is attached. Add remaining volume of water needed to fill bag.
Japanese beetles		BROADCAST APPLICATION TO FLOWERS & GROUNDCOVERS
Lace bugs		
Leaf beetles		Apply as a broadcast treatment and incorporate into the soil before planting or apply prior to bloom or after all flower petals have fallen off for
(including elm and viburnum leaf beetles)		established plants. If application is made to established plants, irrigate thoroughly after application.
Leafhoppers		
(including glassy-winged sharpshooter)		
Leafminers		
Mealybugs	0.40.4.00.7	
Pine tip moth larvae	0.46 to 0.6 fl oz	
Psyllids	(14 to 17 ml)	
	per 1000 sq ft	
Royal palm bugs		
Sawfly larvae*		
Soft scales		
Thrips (suppression)		
White grub larvae		
Whiteflies		
		INSTRUCTIONS

INSTRUCTIONS

*Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage. Use higher rate for heavy infestation and the lower rate for light infestation.

- DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs. a.i.) per acre per calendar year.
 DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year of application.
- DO NOT apply through any irrigation system.
- Follow application restrictions for Non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.
 Do not apply to areas which are waterlogged or saturated, which will not allow penetration into the root zone of the plant.



POME FRUITS: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince (around perimeter of industrial and commercial buildings and on residential areas.)		
PEST	USE	RATE
Aphids (except Wooly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs* San Jose scale*	1.5 fl oz (45 ml) per 100 gal of water	6.0 fl oz/A¹
INSTRUCTIONS		

Apply specified dosage as foliar spray as needed after petal-fall is complete.

For control of Rosy apple aphid, apply prior to leafrolling caused by the pest.

For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late-stage larvae.

For San Jose Scale, time applications to the crawler stage. Treat each generation.

For late season (preharvest) control of leafhopper species, apply this product while most leafhoppers are in the nymphal stage. For control of mealybugs, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybugs.

1 The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

RESTRICTIONS

- **DO NOT** apply more than 6.0 fluid ounces per acre in a single application.
- DO NOT make more than 4 applications per calendar year.
- DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lb. ai) per acre per calendar year.
- Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.
- Follow application restrictions for Non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.
- DO NOT consume or harvest fruits or nuts from trees that have been treated within one year.
- * Not for use in California for control on pears.

PECANS* (around perimeter of industrial and commercial buildings and on residential areas.)		
PEST USE RATE		
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1.5 fl oz (45 ml) per 100 gal of water	

INSTRUCTIONS

Make foliar applications as pests begin to build before populations become extreme. Two applications at a 10 to 14-day interval may be required to achieve control. Scout and retreat if needed. Thorough uniform coverage of foliage is necessary for control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's specified use rate may improve coverage

1 The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

RESTRICTIONS:

- DO NOT apply more than a total of 18.0 fluid ounces of this product per acre per calendar year.
- DO NOT make more than 3 applications per calendar year.
- Allow at least 7 days between last application and harvest.
- Allow 10 or more days between applications.
- DO NOT apply through any irrigation system.
- Follow application restrictions for Non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.
- * Use on pecans not permitted in California unless otherwise directed by state-specific Special Local Need (SLN).

GRAPES: (around perimeter of industrial and commercial buildings and on residential areas.)		
PEST RATE		
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.5 fl oz (45 ml) per 100 gal of water	3.0 fl oz/A¹
INCEDITIONS		

¹Apply specified dosage as a foliar spray using 200 gallons of water per acre.

- DO NOT apply more than a total of 6.0 ounces of this product per acre per calendar year.
- Allow at least 14 days between applications.
- Applications may be applied up to and including day of harvest.
- DO NOT apply through any irrigation system.
- Follow application restrictions for Non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.



CITRUS: Citrus and Citrus hybrids, Orange (sweet and sour), Calamondin, Grapefruit, Kumquat, Lemon, Lime, Pummelo, Tangerine, Tangelo (around perimeter of industrial and commercial buildings and on residential areas)		
PEST	USE	RATE
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/ Sharpshooters Mealybugs Scales Whiteflies	1.5 fl oz (45 ml) per 100 gal of water	6.0 fl oz/A¹

INSTRUCTIONS

Apply specified dosage as foliar spray as needed after petal-fall is complete.

For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late stage larvae.

For late season (preharvest) control of leafhopper species, apply this product while most leafhoppers are in the nymphal stage.

For control of mealybugs, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybugs.

The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

RESTRICTIONS:

- DO NOT apply more than 6.0 fluid ounces per acre in a single application.
- **DO NOT** make more than 5 applications per calendar year.
- Maximum amount of product allowed per calendar year: 32 fluid ounces/acre (0.50 lb. a.i./A)
- Allow 10 or more days between applications.
- Allow at least 7 days between last application and harvest.
- DO NOT apply through any irrigation system.
- DO NOT apply pre-bloom or during bloom or when bees are actively foraging.
- · Follow application restrictions for non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry

AVOCADO (around perimeter of industrial and commercial buildings and on residential areas.)		
PEST	RATE	
Aphids Avocado lacebug Leafhoppers Whiteflies	1.5 fl oz (45 ml) per 100 gal of water	

INSTRUCTIONS

1 The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

- DO NOT apply more than a total of 6.0 ounces of this product per acre per calendar year.
- Allow at least 14 days between applications.
- Allow at least 7 days between application and harvest.
- DO NOT apply through any irrigation system.
- DO NOT apply pre-bloom or during bloom or when bees are actively foraging.
- Follow application restrictions for non-agricultural use sites to protect bees and other insect pollinators.
- Keep children and pets off treated area until dry.



APPLICATION TO GRASSY AREAS IN NURSERIES

This product can be used for the control of listed soil inhabiting pests of grassy areas of nurseries, including Northern and Southern masked chafers, Cyclocephala borealis, C. immaculata, and/or C. lurida; Asiatic garden beetle, Maladera castanea; European chafer, Rhizotroqus majalis; Green June beetle, Cotinis nitida; May or June beetle, Phyllophaga spp.; Japanese beetle, Popillia japonica; Oriental beetle, Anomala orientalis; Billbugs, Spherophorus spp.; Annual bluegrass weevil, Hyperodes spp.; Black turfgrass ataenius, Ataenius spretulus and Aphodius spp. and mole crickets, Scapteriscus spp. This product can also be used for suppression of cutworms and chinchbugs. Use product as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries.

The active ingredient in this product has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. When applications are made prior to egg hatch of the target pests, sufficient irrigation or rainfall is needed to allow the movement of the active ingredient through the thatch.

RESTRICTIONS:

- DO NOT make application when grassy areas are waterlogged, or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.
- Do not exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.

Application Equipment for Use on Grassy Areas in Nurseries

Apply this product in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for the application of soil insecticides is required. Use equipment which will produce a uniform, course droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

GRASSY AREAS OF FIELD & FOREST NURSERIES		
PEST	USE RATE	
Larvae of:		
Annual bluegrass weevil		
Asiatic garden beetle		
Billbugs		
Black turfgrass ataenius	19.2 to 25.6 fl oz per acre	
Cutworms (suppression)	(1.25 to 1.6 pt. per acre)	
European chafer	or	
European crane fly	0.46 to 0.6 fl oz	
Green June beetle	(14 to 17 ml)	
Japanese beetle	per 1,000 sq ft	
Northern masked chafer		
Oriental beetle		
Phyllophaga spp.		
Southern masked chafer		
	25.6 fl oz per acre	
	(1.6 pt. per acre)	
Chinchbugs (suppression)	or	
Mole crickets	0.6 fl oz	
	(17 ml)	
	per 1,000 sq ft	
INSTRUCTIONS		

For control of grubs, billbugs and annual bluegrass-weevil, make application prior to egg hatch of the target pest.

Read APPLICATION EQUIPMENT section of this label.

For suppression of chinchbugs, make application prior to or during the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, accompany the application of this product with a remedial insecticide. Follow the most restrictive label instructions when tank-mixing.

Use higher rate for heavy infestation and the lower rate for light infestation.

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

- DO NOT apply more than 25.6 fluid ounces (1.6 pt.) (0.4 lb. of active ingredient) per acre per calendar year.
- Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.
- DO NOT mow turf or lawn area until after sufficient irrigation or rainfall has occurred. Do not allow this product to contact plants in bloom if bees are foraging the treatment area.
- DO NOT graze treated areas or use clippings from treated areas for feed or forage.



APPLICATION TO ORNAMENTALS AND VEGETABLE PLANTS

Nurseries, Greenhouses, Interior Plantscapes

This product is for insect control on ornamental and vegetable plants in nurseries and greenhouses and interior plantscapes. This product is a systemic product and will be translocated upward into the plant system. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. The addition of a nitrogen containing fertilizer, where applicable, into the solution may enhance the uptake of the active ingredient. Application can be made by foliar application or soil applications: including soil injection, drenches, and broadcast sprays.

When making soil applications to plants with woody stems, systemic activity will be delayed until the active ingredient is translocated throughout the plant. Make application prior to anticipated pest infestation.

Bark Media: Media with 30% or more bark content may confer a shorter period of protection when treated with this product.

Resistance: Some insects are known to develop resistance to insecticides after repeated use. Because the development of resistance cannot be predicted, the use of this product must conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

Application Equipment for Ornamentals and Vegetable Plants

Mix product with the required amount of water and apply as specified for the selected use pattern.

When making foliar applications on hard-to-wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker will improve coverage. If concentrate or mist type spray equipment is used, apply an equivalent amount of product on the area sprayed, as would be used in a dilute application.

This product has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of this product may vary with different sources of pesticide products and local cultural practices. For any tank mixture that has not been previously tested, prepare on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

FOLIAR & BROADCAST APPLICATIONS: ORNAMENTAL TREES ('including non-bearing fruit & nut trees), SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES, VEGETABLE PLANTS* (around field-grown nursery and container stock, indoor and outdoor ornamentals (including both greenhouse and interior plantscapes) and ornamentals grown in flats, benches or beds)

1 Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application.

FOLIAR APPLICATIONS		
PEST	PEST USE RATE INSTRUCTIONS	
Adelgids Aphids Japanese beetles (adults) Lace bugs Leaf beetles (including Elm and Viburnum leaf beetles) Leafhoppers (including Glassy-winged sharpshooter) Leafminers Mealy bugs Sawfly larvae Thrips (suppression) Whiteflies	1.7 fl oz (50 ml) per 100 gallons of water	Start treatments prior to establishment of high pest populations and reapply on an as needed basis. For resistance management purposes, DO NOT make an imidacloprid foliar application following a soil application in the same crop.
		BROADCAST APPLICATIONS
PEST	USE RATE	INSTRUCTIONS
White grub larvae (such as Japanese beetle larvae, chafers, <i>Phyllophaga</i> spp., Asiatic Garden beetle, Oriental beetle)	0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq ft	Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. DO NOT use less than 2 gallons of water per 1,000 square feet. Irrigate thoroughly to incorporate this insecticide into the upper soil profile. Refer to specific use directions (found below), for Flowers and Ground Covers. Use higher rate for heavy infestation and the lower rate for light infestation.

- Only for use on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussel Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.
- For outdoor plants grown in ground, applications of this product cannot exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.
- Follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SÉRVICES BUT ARE ATTRACTIVE TO POLLINATORS to protect bees and
 other insect pollinators.



SOIL APPLICATIONS: NURSERY, GREENHOUSE, AND INTERIORSCAPE PLANTS			
PEST	USE RATE APPLICATION SITE		
	OUL HAIL		
Adelgids Alder borer Aphids Armored scales (suppression) Asian longhorned beetle Black vine weevil larvae Bronze birch borer Emerald ash borer Eucalyptus longhorned borer Flatheaded borers (including Bronze birch and Alder) Japanese beetles (adult) Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae Psyllids Royal palm bugs Sawfly larvae*	For TREES: Use the following rates as a function of tree diameter at breast height (DBH): Apply 0.1 – 0.4 fl.oz. (3 to 12 mL) per inch of trunk diameter (DBH) You may use the higher rate (0.3 – 0.4 fl.oz.) only for trees >15 inches (DBH) to control: Asian longhorned beetle, Emerald ash borer, Eucalyptus longhorned borer, Bronze birch borer, and Alder borer RESTRICTION: DO NOT apply more than 25.6 fl.oz. (0.4 lb. a.i.) per acre per calendar year. Diameter at Breast Height (DBH) is measured at 4.5 feet from the ground.	TREES Soil Injection: GRID SYSTEM: Holes must be spaced on 2.5-foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. DO NOT use less than 4 holes per tree. NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York. Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress. Basal Soil Drench using Slow Release Irrigation Bags (such as Treegator® 15, 20, or 50 Gallon capacity): Follow manufacturer's instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this product for the tree diameter to which the bag is attached. Add remaining volume of water needed to fill bag.	
Sawfly larvae* Soft scales Thrips (suppression) White grub larvae Whiteflies		CHDIDE	
Adelgids Alder borer Aphids Armored scales (suppression) Asian longhorned beetle Black vine weevil larvae Bronze birch borer Emerald ash borer Emerald ash borer Eucalyptus longhorned borer Flatheaded borers (including Bronze birch and Alder) Japanese beetles (adult) Lace bugs Leaf beetles (including elm and viburnum leaf beetles)	0.1 to 0.2 fl oz (3 to 6 ml) per foot of shrub height	Soil Injection: Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. DO NOT use less than 4 holes per shrub. NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York. Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. Basal Soil Drench Using Slow Release Irrigation Bags (such as Treegator® 15, 20, or 50 Gallon capacity): Follow manufacturer's instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this product for the shrub height to which the bag is attached. Add remaining volume of water needed to fill bag.	
Leafhoppers			
(including glassy-winged sharpshooter)		FLOWERS & GROUNDCOVERS	
Leafminers Mealybugs Pine tip moth larvae Psyllids		Apply as a broadcast treatment and incorporate into the soil before planting or apply prior to bloom or after all flower petals have fallen off for established plants. If application is made to established plants, irrigate thoroughly after application.	
Royal palm bugs Sawfly larvae* Soft scales Thrips (suppression) White grub larvae Whiteflies	0.46 to 0.6 fl oz (14 to 17 ml) per 1000 sq ft	INSTRUCTIONS	

INSTRUCTIONS

*Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage. Use higher rate for heavy infestation and the lower rate for light infestation.

- **DO NOT** apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs. a.i.) per acre per calendar year.
- For use only on non-bearing fruit and nut trees. Non-bearing trees are those that will not bear fruit or nuts for one year after application.
 Follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS to protect bees and other insect pollinators.
- **DO NOT** apply this product, by any application method, to linden, basswood or other *Tilia* species.



<u>SOIL APPLICATIONS:</u> FIELD AND FOREST NURSERIES						
PEST	FLUID OZ / 1,000 FT OF ROW	FLUID OZ / 1,000 SQUARE FT				
For control of: White grub larvae¹ (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	1.7 fl oz (50 ml)	0.6 fl oz (17 ml) 25.6 fl oz / Acre				

APPLICATION METHODS

Apply as a uniform band on either side of the row using a band width six (6) inches wider than the actual root ball diameter to be dug. DO NOT allow bands in adjacent rows to overlap.

INSTRUCTIONS

Mowing of the vegetation in the area to be treated to a height of 3 inches or less prior to application will improve the consistency of control.

Apply May through July. Time the treatment so that rainfall or irrigation occurs within 24 hours following the application.

For grub control in areas of turf, apply as a broadcast application using 0.46 - 0.60 fluid ounces (14 - 17 ml) per 1,000 square feet (19.6 - 25.6 fluid ounces / A)

RESTRICTIONS:

- DO NOT use less than 2 gallons of spray volume per 1,000 square feet (85 GPA).
- DO NOT exceed 25.6 fluid ounces / acre per calendar year (1.6 pints) (0.4 lbs. a.i./A).
- Follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS to protect bees and
 other insect pollinators

EBB & FLOOD APPLICATIONS

This product may be applied through Ebb and Flood applications to Ornamental and Vegetable Plants (intended for resale only) grown in containers. To assure accurate uptake, prior to treatment, bring a minimum of 10 plants up to a known field capacity and allow to dry out for one or two days. Re-wet these plants to determine how much water on average each plant will absorb to bring it back at 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 to flood your smallest treatment area. This will minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

EBB & FLOOD APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN CONTAINERS						
PEST	Container size (in)	Herbaceous species including vegetable plants (1 or 2 plants/pot)	Woody perennials, Herbaceous species including vegetable plants (3 or more/pot)			
		ml/100 plants				
Adelgids	2	1.6	2.5			
Aphids	3	2.5	3.7			
Armored scales (suppression) Fungus gnats (larvae only) ¹	J					
Japanese beetles (adults)	4	3.3	5.0			
Lacebugs	5	4.2	6.3			
Leaf Beetles (including Elm and Viburnum)	0					
Leafhoppers/ Glassy-winged Sharpshooters	6	5.0	7.7			
Leafminers	7	5.9	9.1			
Mealybugs Psyllids	8	6.6	10.0			
Root mealybugs ²	U					
Root weevil complex: (such as Apopka, Black vine, Citrus root) ³	9	7.4	11.1			
Soft scales	10	8.3	12.5			
Thrips (suppression) ⁴ Whiteflies	11	9.0	14.3			
White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic Garden beetle)	12	10.0	16.7			
INSTRUCTIONS						

- INSTRUCTIONS
- ¹ Fungus gnat larvae in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of this product from a healthy root system translocating the active ingredient up into the plant.
- ² Root Mealybug control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fluid ounces (50 ml) in 150 gallons of water.
- ³ Citrus Root Weevil: For use on non-bearing citrus nursery stock.
- ⁴ Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.

Do not allow leachate run out for first 10 days after application, in order to retain the product and facilitate full plant uptake of the active ingredient

- For outdoor use, follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS to
 protect bees and other insect pollinators.
- Do not apply this product to soils which are water logged or saturated, which will not allow penetration into the root zone of the plants.
- For outdoor plants grown in ground, applications of this product cannot exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.
- Use only on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.



DRENCH & IRRIGATION APPLICATIONS

This product may be applied through Drench and Flood applications. See instructions above For Application Through Irrigation Systems. Apply only to greenhouse and nursery grown ornamentals, vegetable plants (intended for resale only), and interiorscape plants using soil drenches, mircoirrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

DRENCH & IRRIGATION APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN SMALL CONTAINERS, IN FLATS, ON BENCHES, OR IN BEDS					
	CONTAINERIZED PLANTS (small containers)				
PEST	Container Size (inches)	Herbaceous species including vegetable plants (1 or 2 plants/pot)	Woody perennials, Herbaceous species including vegetable plants (3 or more/pot)		
	` [# of Containers treated with 2.0 fl. oz. (60 ml)			
Adelgids	2	3000	2000		
Aphids	3	2000	1350		
Fungus gnats (larvae only) ¹	4	1500	1000		
Japanese beetles (adults)	5	1200	800		
Lacebugs Leaf Beetles	6	1000	650		
(including Elm and Viburnum leaf beetles)	7	850	550		
Leafhoppers	8	750	500		
(including glassywinged sharpshooter)	9	675	450		
Leafminers Mealybugs	10	600	400		
Psyllids	11	550	350		
Root mealybugs ²	12	500	300		
Root weevil complex:	12	***	***		
(such as Apopka, Black vine, Citrus root weevils) ³	Application Methods				
Soft scales	Use sufficient volume to wet most of the potting medium without loss of liquid from the bottom of the container. Apply according to label directions. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to prevent loss				
Thrips (suppression) ⁴ Whiteflies	of active ingredient due to leaching.				
White grub larvae	PLANTS IN FLATS. ON BENCHES. OR IN BEDS				
(such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic Garden beetle)	1,				
	Application Methods Mix required amount in sufficient water to uniformly cover the area being treated. DO NOT use less than 2 gallons of mixture per 1,000 square feet. Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established.				
Lightly water the treated areas if application is made to established plants. Do not allow leachate run out for the first 10 d					
	application, in order to retain the product and facilitate full plant uptake of the active ingredient.				
INSTRUCTIONS					

- For outdoor use, follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS to protect bees and other insect pollinators
- Do not apply this product to soils which are water logged or saturated, which will not allow penetration into the root zone of the plants.
- For outdoor plants grown in ground, applications of this product cannot exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.
- Use only on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.



Fungus gnat larvae in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of this product from a healthy root system translocating the active ingredient up into the plant.

Root Mealybug control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fluid ounces (50 ml) in 150 gallons of water.

Citrus Root Weevil: For use on non-bearing citrus nursery stock.

¹ Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.

DRENCH AND IRRIGATION APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN LARGE CONTAINERS Application instructions: Use 1.7 fl oz (50 ml) of product in an appropriate amount of water to prevent leaching. 1.7 fl oz (50 ml) will treat the number of containers specified below, based on container size. Container Size (Gallons) # of Containers treated with 1.7 fluid ounces (50 ml) Adelaids 340 - 244 Aphids Fungus gnats (larvae only)1 2 280 - 210 Japanese beetles (adults) 3 220 - 165Lacebugs Leaf Beetles (including Elm and Viburnum leaf beetles) 5 160 - 110 Leafhoppers (including glassywinged sharpshooter) Leafminers 7 100 - 75Mealybugs 10 60 - 45Psyllids Root mealybugs² 15 40 - 30 Root weevil complex: (such as Apopka, Black vine, Citrus root)3 Soft scales Thrips (suppression)4 20 20 - 15 Whiteflies

Application Methods

Apply in sufficient water to wet the potting medium. Make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone. Do not allow leachate run out for first 10 days after application, in order to retain the product and facilitate full plant uptake of the active ingredient.

INSTRUCTIONS

- Fungus gnat larvae in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of this product from a healthy root system translocating the active ingredient up into the plant.
- ² Root Mealybug control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fluid ounces (50 ml) in 150 gallons of water.
- 3 Citrus Root Weevil: For use on non-bearing citrus nursery stock.
- ⁴ Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.

(such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic Garden beetle)

SPE

RESTRICTIONS:

White grub larvae

- For outdoor use, follow the application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS to
 protect bees and other insect pollinators
- For outdoor plants grown in ground, applications of this product cannot exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb. of active ingredient) per acre per calendar year.
- Use only on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.



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 quidance. **CONTAINER HANDLING:**

Nonrefillable container. Do not reuse or refill this container. If empty: Offer for recycling if available or discard in a sanitary landfill. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

For HDPE plastic 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 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 other procedures allowed by state and local authorities.

For HDPE plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promotly after emotying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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

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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