

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

JAN 24 2013

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Rotam Agrochemical Company Limited  
c/o Cheryl Wagner  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Dear Ms. Wagner,

Subject: Fast track amendment to add avocado and citrus fruit, increase application rate to trees (but not increase rate per acre) and addition of several pests  
LADA 2F Insecticide  
EPA Registration No. 83100-6

The labeling referred to above submitted in connection with the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable.

Submit one copy of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records. If you have any questions regarding this label, please contact Autumn Metzger at (703) 305-5314 or metzger.autumn@epa.gov

Sincerely,

Venus Eagle  
Product Manager 01  
Insecticide-Rodenticide Branch  
Registration Division (7505P)

2/25

**LADA™ 2F Insecticide**

For Foliar and systemic insect control in turfgrass (including sod farms), landscape ornamentals, listed fruit and nut trees, interior plantscapes, nursery and greenhouse grown ornamentals, vegetable plants and herbs.

**ACTIVE INGREDIENT:**

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2 imidazolidinimine.....21.4%

**OTHER INGREDIENTS:**..... 78.6%

**Total:**.....100.0%

Contains 2 pounds of imidacloprid per gallon.

EPA Reg. No.: 83100-6

EPA Est. No.:

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este producto hasta que la etiqueta haya sido explicada ampliamente.

(TO THE USER: if you cannot read or understand English, do not use this product until the label has been fully explained to you.)

**SEE FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

<b>FIRST AID (neonicotinoid)</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move the person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have a product container or label with you when calling a poison control center or doctor, or going for treatment. Contact your local poison control center for emergency medical treatment.	
<b>Note To Physician (neonicotinoid):</b> No specific antidote is available. Treat the patient symptomatically.	

**Manufactured By:**  
ROTAM AGROCHEMICAL COMPANY LIMITED  
7/F CHEUNG TAT CENTRE  
18 CHEUNG LEE STREET  
CHAI WAN, HONG KONG  
1-866-926-6826

Net Contents: \_\_\_ gal.

**ACCEPTED**  
1/24/13  
Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended, for the  
pesticide registered under:

EPA. Reg. No: 83100-6

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if absorbed through skin. Harmful if Inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber, Selection Category A).

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and Other Handlers Must Wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.
- Shoes plus socks.

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

**ENGINEERING CONTROLS STATEMENTS**

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 170.240(d)(4-6)], 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:**

**User should:**

- Wash hands thoroughly with soap and water after handling and 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 wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on the foliage of blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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

## 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.

Shake well before using.

### 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 any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- 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 FISH PONDS.**

#### **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**

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and pest management practices for your area. For resistance management purposes, do not use a foliar application of any chloronicotinyl insecticide following a LADA 2F Insecticide soil application in the same cropping sequence.

This product contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by this product and to other Group 4A products.

The active ingredient in this product is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of this product and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Rotam strongly encourages the rotation to a block of applications with effective products of a different mode before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of this product or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with long-residual, soil-applied products from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage® and Trimax™. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://irac-online.org/>.

#### 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, soybeans, sugar beet and wheat.

#### 30-Day Plant-back:

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

#### 12-Month Plant-back:

All other crops

### PRODUCT INFORMATION AND INSTRUCTIONS

LADA 2F Insecticide is for insect control on ornamental and vegetable plants in nurseries, greenhouses and interior landscapes. LADA 2F Insecticide is a systemic product and will be translocated upward within the plant. To assure effectiveness, the LADA 2F Insecticide 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, chemigation and broadcast sprays. Mix product with the required amount of water and apply as desired dependent upon the selected use pattern.

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. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

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.

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

**RESTRICTIONS:**

- For applications outdoors (except plants grown in trays or benches), do not apply more than 0.5 lbs. active ingredient per acre per year (365 days) regardless of formulation and method of application.
- Do not apply to soils that are water-logged or saturated, which will not allow the penetration of the insecticide into the root zone of the plants.
- Do not graze treated areas or use clippings from treated areas for feed or forage.
- On plants with a production cycle of less than one year, application is not to exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than one year, application may not exceed once a year.

**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.

**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.

**Compatibility**

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

- 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 your local Rotam representative.

**Application Instructions**

Apply this product 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 specified on crop 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.

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### **Application Through Irrigation Systems (CHEMIGATION)**

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LADA 2F Insecticide 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 LADA 2F Insecticide 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.
- Remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system.
- 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, 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.

- 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.
- 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 over-flow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The 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 inter-lock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 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.
- 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.
- 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:**

- 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 back flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The 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 inter-lock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Water Volume**

When applying this product through chemigation, make application 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.



**DRENCH AND IRRIGATION APPLICATIONS**

For use only on ornamentals, vegetable and herb plants grown in small containers in greenhouses, nurseries and interior plantscapes using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

PEST	CONTAINERIZED PLANTS					
	Container Size (inches)	Herbaceous Species-including Vegetable Plants and Herbs (1 or 2 plants per pot)	Woody Perennials, Herbaceous Species-including Vegetable Plants and Herbs (3 or more plants per pot)			
		# of Containers treated with 2.0 fl. oz. (60 mL)				
Adelgids	2	3000	2000			
Aphids						
Armored scale (suppression)						
Fungus gnats <sup>1</sup> (larvae only)						
Leaf beetles				3	2000	1350
Japanese Beetle (adults)						
Lacebugs						
Leaf beetles (including elm and viburnum leaf beetles)						
Leaf hoppers (including glassy-winged sharpshooter)						
Leafminers						
Mealybugs						
Psyllids						
Root mealybugs <sup>2</sup>						
Root Weevil Complex (Such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil <sup>3</sup> )	4	1500	1000			
Soft Scale						
Thrips (suppression) <sup>4</sup>						
White Grub larvae (such as Japanese Beetle, Masked Chafer, European Chafer, Oriental Beetle, Asiatic Garden Beetle)						
Whiteflies						
White Grub larvae (such as Japanese Beetle, Masked Chafer, European Chafer, Oriental Beetle, Asiatic Garden Beetle)						
<b>Footnotes</b>				5	1200	800
<sup>1</sup> <b>Fungus gnat larvae</b> 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.						
<sup>2</sup> <b>Root Mealybug</b> control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 2.0 fluid ounces (60 ml) in 150 gallons of water.						
<sup>3</sup> <b>Citrus Root Weevil</b> : For use on non-bearing citrus nursery stock.						
<sup>4</sup> <b>Thrips</b> suppression on foliage only. Thrips in buds and flowers will not be suppressed.						
<b>Restrictions:</b>						
• For ornamentals grown outdoors in the 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 year.						
	7	850	550			
				8	750	500
	9	675	450			
				10	600	400
	11	550	350			
				12	500	300
	<b>APPLICATION INSTRUCTIONS:</b> Use sufficient water volume to wet potting medium without loss of liquid through leaching. Apply according to label directions. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.					
	<b>PLANTS IN FLATS, ON BENCHES, OR IN BEDS</b>					
	0.67 fluid ounces (20 ml) per 1,000 square feet					
	<b>APPLICATION INSTRUCTIONS:</b>					
	Mix required amount in sufficient water to uniformly and accurately cover the area being treated. Do not use less than 2 gallons of mixture per 1000 sq. ft. Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. If application is made to established plants, irrigate lightly after application. Allow no leaching or run out for 10 days after application.					

PEST	CONTAINERIZED PLANTS		
	Container Size (inches)	Herbaceous Species-including Vegetable Plants and Herbs (1 or 2 plants per pot)	Woody Perennials, Herbaceous Species-including Vegetable Plants and Herbs (3 or more plants per pot)
		# of Containers treated with 2.0 fl. oz. (60 mL)	
<ul style="list-style-type: none"> <li>For use on the following vegetable plants intended for resale only: 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</li> <li>For use on the following herbs intended for resale only: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, Camomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander(cilantro or Chinese parsley leaves), Costmary, Culantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood.</li> </ul>			

DRENCH & IRRIGATION APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS AND HERBS GROWN IN LARGE CONTAINERS, IN FLATS, ON BENCHES, OR IN BEDS		
Application instructions: Use 2.0 fl. oz. (60 ml) of product in an appropriate amount of water to prevent leaching. 2.0 fl. oz. (60 ml) will treat the number of containers specified below, based on container size.		
PEST	Container Size (gallons)	# of Containers treated with 2.0 fluid ounces (60 ml)
Adelgids	1	340 - 244
Aphids		
Armored scale (suppression)	2	280 - 210
Fungus gnats <sup>1</sup> (larvae only)		
Flea beetles	3	220 - 185
Japanese Beetle (adults)		
Lacebugs	5	160 - 110
Leaf beetles (including elm and viburnum leaf beetles)		
Leaf hoppers (including glassy-winged sharpshooter)	7	100 - 75
Leafminers		
Mealybugs	10	60 - 45
Psyllids		
Root mealybugs <sup>2</sup>	15	40 - 30
Root Weevil Complex (Such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil <sup>3</sup> )		
Soft Scale	20	20 - 15
Thrips (suppression) <sup>4</sup>		
White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	20	20 - 15
Whiteflies		
White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	20	20 - 15
Whiteflies		

**Application Instructions:**

- Use sufficient water volume to wet potting medium without loss of liquid through leaching.
- Apply according to label directions.
- Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.

**Footnotes:**

<sup>1</sup> **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.

<sup>2</sup> **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 2.0 fluid ounces (60 ml) in 150 gallons of water.

<sup>3</sup> **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

<sup>4</sup> **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

**Restrictions:**

- For ornamentals grown outdoors 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 year.
- For use on the following vegetable plants intended for resale: 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
- For use on the following herbs intended for resale only: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, Camomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander(cilantro or Chinese parsley leaves), Costmary, Culantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood.

**SOIL APPLICATIONS: Field and Forest Nurseries**

PESTS CONTROLLED	APPLICATION RATE
White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	1.7 fl oz (50 ml) per 1000 ft. of row or 3000 sq. ft.

**Application Instructions:**

- Apply as a uniform band on either side of row using a band six (6) inches wider than the actual root ball diameter to be dug.
- Apply May through July.
- Time application such that rainfall or irrigation occurs within 24 hours after treatment.
- Mow vegetation in surrounding areas to a height of 3 inches or less prior to treatment. To ensure greater control, mow to the lowest height possible.

For grub control in areas of turf, apply as a broadcast application using 1.35 to 1.7 fl oz (40 to 50 ml) per 3000 sq. ft.

**Restrictions:**

- Do not use less than 2 gallons of spray volume per 1000 square feet.
- DO NOT exceed 25.6 fluid ounces/acre per year (1.6 pints) (0.4 lbs. AI/A)
- Do not allow bands in adjacent rows to overlap

**APPLICATIONS FOR NURSERY, GREENHOUSE AND INTERIORSCAPE PLANTS**

Adelgids	Leaf beetles (including elm and viburnum leaf beetles)	Roundheaded borers (including Asian longhorned beetles)
Aphids		
Armored scales (suppression)	Leafhoppers (including glassy-winged sharpshooter)	Royal palm bugs
Black vine weevil larvae		Sawfly larvae*
Eucalyptus longhorned borers	Leafminers	Soft scales
Flatheaded borers (including Emerald Ash borer, bronze birch and alder borers)	Mealybugs	Thrips (suppression)
	Pine Tip moth larvae	White grub larvae
Japanese beetles (adults)	Plant Bugs	Whiteflies
Lacebugs	Psyllids	

<b>Trees</b>	
Use the following rates as a function of tree diameter at breast height (DBH):	
<ul style="list-style-type: none"> <li>Apply 0.1 - 0.4 fl. oz. per inch of trunk diameter (DBH). You may use the higher rate (0.3 - 0.4 fl. oz.) only for trees greater than 15 DBH to control the following pests: Asian Longhorned Beetle, Emerald Ash Borer, Eucalyptus Longhorned Borer, Bronze Birch Borer, and Alder Borer.</li> <li>Diameter at Breast Height (D.B.H.) = is measured at 4.5 feet from the ground.</li> </ul>	
<b>Restriction:</b>	
<ul style="list-style-type: none"> <li>Do not apply more than 25.6 fl. oz. (0.4 lb. of active ingredient) per acre per year.</li> </ul>	
<b>Soil Injection:</b>	
<b>GRID SYSTEM:</b> Space holes on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree.	
<b>CIRCLE SYSTEM:</b> 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.	
<b>BASAL SYSTEM:</b> 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.	
<b>New York State Specific Restriction:</b> No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.	
<b>Soil Drench:</b> 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.	
<b>For Control of Specified Borers:</b> Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.	
<b>Shrubs</b>	
<b>Application Rate:</b> 0.1 to 0.2 fl. oz. (3 to 6 ml) per foot of shrub height	
<b>Soil Injection:</b> 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.	
<b>New York State Specific Restriction:</b> No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.	
<b>Soil Drench:</b> 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.	
<b>Flowers and Ground Covers</b>	0.46 to 0.6 fl. oz. (14 to 17 ml) per 1,000 sq. ft.
Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, irrigate lightly after application.	
*Sawfly larvae feed on mature foliage starting in early spring. Make treatments in the fall before sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.	
<b>Restriction:</b> Do not exceed 1.6 pt (0.4 lb. of active ingredient) per acre per year.	

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**APPLICATION TO ORNAMENTALS AND VEGETABLE PLANTS (Nurseries, Greenhouses, Interior  
Plantscapes)**

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**LADA 2F Insecticide** controls insects on ornamental and vegetable plants through translocation upward into the plant system. For optimum control, apply **LADA 2F Insecticide** where the growing portion of the target plant can absorb the active ingredient. Uptake of the active ingredient into the plant system can be enhanced by adding a

nitrogen containing fertilizer into the solution. **LADA 2F Insecticide** can be applied by foliar application or soil application including soil injection drenching and broadcast spray.

Systemic activity of **LADA 2F Insecticide** will be delayed when making soil applications to plants with woody stems until the active ingredient is translocated throughout the plant. Make application before anticipated pest infestation.

Media with 30% or more bark content may confer a shorter period of protection when treated with **LADA 2F Insecticide**.

Some insects develop resistance to insecticides after repeated use. Resistance to **LADA 2F Insecticide** cannot be predicted. Use of **LADA 2F Insecticide** must conform to resistance management practices established for the use area. Consult your local or state pest management authorities for details.

<b>FOLIAR &amp; BROADCAST APPLICATIONS: ORNAMENTAL TREES (including non-bearing fruit &amp; 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).</b>	
<b>FOLIAR APPLICATIONS</b>	
<b>PEST</b>	<b>Dosage - LADA 2F INSECTICIDE</b>
Adelgids Aphids Honeylocust Plant bug Diptera (including Rhododendron gall midge, Honeylocust pod gall midge) Froghopper Galls (including Hickory stem gall) Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers (including Boxwood leafminer) Mealy bugs Planthoppers Psyllids Sawfly larvae Scales (including Lecanium, Azalea bark, Calico, Cottony Camellia, Cottony Maple, Cottony taxus) Spittlebugs Thrips (suppression) (including Flower, Pear and Pine thrips) Treehoppers Weevils (including White Pine and Black Vine) Whiteflies	1.7 fl. oz. (50 mL) per 100 gallons of water  When making 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.
<b>Application Instructions:</b> Start treatments prior to establishment of high pest populations and reapply on an as needed basis. For resistance management purposes, do not apply by foliar application after a soil application on the same crop.	
<b>BROADCAST APPLICATIONS</b>	
<b>PEST</b>	<b>Dosage - LADA 2F INSECTICIDE</b>
White grub larvae (such as Japanese beetle larvae, Chafers, <i>Phyllaphaga</i> spp., Asiatic garden beetle, Oriental beetle)	0.46 to 0.60 fl. oz. (14 to 17 mL) per 1,000 sq. ft.
<b>Application Instructions:</b> 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. Following application, irrigate thoroughly to incorporate this insecticide into the upper soil profile. Refer to use directions specific for Flowers and Ground Covers concerning additional use directions.	
<b>RESTRICTION:</b> • For use on the following vegetable plants intended for resale: 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.

- Do not harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- For outdoor plants grown in ground, do not exceed a total of 1.6 pints (0.4 lb. of active ingredient) per acre per year.

### APPLICATION TO GRASSY AREAS IN NURSERIES

LADA 2F Insecticide can be used 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 the outside perimeter of nurseries.

The active ingredient in LADA 2F Insecticide has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. 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. Optimum control will be achieved when applications are made prior to egg hatch of the target pests. Follow applications with sufficient irrigation or rainfall to move the active ingredient through the thatch.

#### Restrictions for Grassy Areas in Nurseries:

- Do not make applications 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.
- Application cannot exceed a total of 1.6 pint (0.4 lb. of active ingredient) per acre per year.
- Refer to the "Application to turfgrass" section for additional applications and rates.

#### Application Equipment for Grassy Areas in Nurseries:

Apply LADA 2F Insecticide in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for soil application of 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.

### GRASSY AREAS OF FIELD & FOREST NURSERIES

Larvae of the following Pests	Dose Rate
Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass atanius Cutworms (suppression) European chafer European Crane fly Green June beetle Japanese beetle May or June beetle Northern masked chafer Oriental beetle Phyllophaga spp. Southern masked chafer	19.2 to 25.6 fl. oz. acre (1.25 to 1.6 pt. per acre) or 0.46 to 0.60 fl. oz. (14 to 17 mL) per 1,000 sq. ft.
Chinchbugs (suppression) Mole crickets	25.6 fl. oz. per acre (1.6 pt per acre) or 0.60 fl. oz. (17 mL) per 1,000 sq. ft.

#### Application Instructions:

For optimum control of grubs, billbugs and annual bluegrass-weevil, make application prior to egg hatch of the target pest. Be sure to read "Application Equipment for Grassy Areas in Nurseries" 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 application with a remedial insecticide. Follow label instruction for other insecticides when tank-mixing.

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

**RESTRICTIONS:**

- Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.
- Do not mow treated turf or lawn area until sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.
- Application cannot exceed a total of 1.6 pint (0.4 lb. of active ingredient) per acre per year.

**EBB & FLOOD APPLICATION**

LADA 2F Insecticide may be applied through Ebb and Flood applications to ornamental and vegetable plants (intended for resale only) grown in containers. Prior to treatment, bring a minimum of 10 plants up to known field capacity and allow to dry out for one or two days to assure accurate uptake. 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 should minimize the return back to the storage tank. Reuse the returned volume with subsequent irrigation or nutrients on the same plants.

<b>EBB &amp; FLOOD APPLICATIONS: ORNAMENTAL and VEGETABLE PLANTS GROWN IN CONTAINERS</b>		
Adelgids	Leafhoppers (including glassy-winged sharpshooter)	Soft Scales
Aphids	Leafminers	Thrips (suppression) <sup>4</sup>
Armored scales (suppression)	Mealybugs	Whiteflies
Fungus Gnats (larvae only) <sup>1</sup>	Psyllids	White Grub Larvae: (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)
Japanese Beetles (adults)	Root mealybugs <sup>2</sup>	
Lacebugs	Root Weevil Complex: (such as Apopka Weevil, Black Vine Weevil, Citrus Root Weevil <sup>3</sup> )	
Leaf beetles (including elm and viburnum leaf beetles)		
Pot sizes (inches)	Herbaceous species including vegetable plants <sup>5</sup> (1 or 2 plants per pot)	Woody perennials, Herbaceous species including vegetable plants <sup>5</sup> (3 or more plants per pot)
	mL/100 plants	
2	1.6	2.5
3	2.5	3.7
4	3.3	5.0
5	4.2	6.3
6	5.0	7.7
7	5.9	9.1
8	6.6	10.0
9	7.4	11.1
10	8.3	12.5
11	9.0	14.3
12	10.0	16.7

<sup>1</sup> **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 LADA 2F INSECTICIDE from a healthy root system translocating the active ingredient up into the plant.

<sup>2</sup> **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 2.0 fl. oz. (60 ml) in 150 gallons of water.

<sup>3</sup> **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

<sup>4</sup> **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

**Restrictions:**

- For use on the following vegetable plants intended for resale only 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.
- For outdoor ornamentals grown in ground, applications of LADA 2F Insecticide cannot exceed a total of 1.6 Pints (0.4 lb. of active ingredient) per acre per year.

### APPLICATION TO TURFGRASS

LADA 2F Insecticide can be used as directed on turfgrass in sites such as, residential 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 LADA 2F Insecticide has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests. High levels of control can be achieved when applications are made preceding or during the egg laying period. 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. Optimum control will be achieved when applications are made prior to egg hatch of the target pests. Follow applications with sufficient irrigation or rainfall to move the active ingredient through the thatch.

**Application Methods**

Apply LADA 2F Insecticide 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 that 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 APPLICATIONS		
PEST	DOSAGE LADA 2F Insecticide	REMARKS
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworm (suppression) European chafer European crane fly Green June beetle Japanese beetle May or June beetle Northern masked chafer Southern masked chafer Oriental beetle <i>Phyllophaga</i> spp.	1.25 to 1.6 pt. per acre or 0.46 to 0.6 fl. oz. (14 to 17 ml) per 1000 sq. ft.	For optimum control of grubs, billbugs and annual bluegrass weevil, and European crane fly make application prior to egg hatch of the target pest. Be sure to read " <b>APPLICATION METHODS</b> " 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, LADA 2F Insecticide application should be accompanied by a remedial insecticide. Follow the most restrictive label instructions when tank mixing.
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Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application.

**RESTRICTIONS:**

- If there is no rainfall within 24 hours, follow treatment with irrigation to move the active ingredient through the thatch.
- Do not apply more than 1.6 pt (0.4 lb. of active ingredient) per acre per 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.
- Do not apply to turfgrass through any irrigation system.
- 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.

**APPLICATION TO LANDSCAPE ORNAMENTALS**

LADA 2F Insecticide can be applied on ornamentals in commercial and residential landscapes and interior plantscapes, on sites such as: residential lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields and sod farms. It is a systemic product and will be translocated upward into the plant system from root uptake. To assure effectiveness, LADA 2F Insecticide 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. Foliar applications offer locally systemic activity against insect pests.

**Application Methods:**

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

**Soil Applications:**

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 should be made prior to anticipated pest infestation to achieve optimum levels of control.

For outdoor ornamentals, broadcast applications cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

LADA 2F insecticide is compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of LADA 2F Insecticide may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

**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.

**ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, INTERIOR PLANTSCAPES AND GROUNDCOVERS (in and around the perimeter of industrial and commercial buildings and residential areas)****FOLIAR APPLICATIONS**

PEST	USE RATE	REMARKS
Adelgids Aphids Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Sawfly larvae Thrips (suppression) Whiteflies	1.7 fl oz (45 ml) per 100 gal of water	Start treatments prior to establishment of high pest populations and reapply on as needed basis.  Do not make a foliar application following a soil application in the same crop for resistance management purposes.  When making 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.

**BROADCAST APPLICATIONS**

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 1000 sq ft. For optimum control, irrigate thoroughly to incorporate LADA 2F Insecticide into the upper soil profile. Refer to use direction specific for FLOWERS and GROUND COVERS concerning additional use directions.
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**RESTRICTIONS:**

- DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs. AI) per acre per year.
- DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- DO NOT apply through any irrigation system.
- Additional restrictions may apply to Commercial Agricultural use of this product to ornamentals grown in nurseries, greenhouses and interior plantscapes. See "APPLICATIONS TO ORNAMENTAL, VEGETABLE AND HERB PLANTS (Including: nurseries, greenhouses and interior plantscapes)" in the AGRICULTURAL USE REQUIREMENTS section of this label.

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**ORNAMENTAL TREES, SHRUBS, FLOWERS AND GROUNDCOVERS**

For use only in and around the outside perimeter of industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas for the insect pests listed below.

PEST	USE RATE *	INSTRUCTIONS
Adelgids Alder borer Aphids Armored scales (suppression) Black vine weevil larvae Eucalyptus longhorned borer Flatheaded borers (including emerald ash borer, bronze birch and alder borer) Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae Psyllids Roundheaded borers (including Asian Longhorned beetles) Royal palm bugs Sawfly larvae* Soft scales Thrips (suppression) White grub larvae Whiteflies	<p><b>FOR TREES:</b></p> <p>Use the following rates as a function of tree diameter at breast height (DBH).</p> <p>Diameter at Breast Height (D.B.H.) = is measured at 4.5 feet from the ground:</p> <p>Apply 0.1 - 0.4 fl. oz. per inch of trunk diameter (DBH). You may use the higher rate (0.3 - 0.4 fl. oz.) only for trees greater than 15 DBH to control the following pests:</p> <p>Asian Longhorned Beetle, Emerald Ash Borer, Eucalyptus longhorned Borer, Bronze Birch Borer, Alder Borer</p> <p><b>Restriction:</b> Do not apply more than 25.6 fl. oz. (0.4 lb. of active ingredient) per acre per year.</p>	<p><b>TREES</b></p> <p><b>Soil Injection:</b></p> <p><b>GRID SYSTEM:</b> Space holes on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree.</p> <p><b>CIRCLE SYSTEM:</b> 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.</p> <p><b>BASAL SYSTEM:</b> Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base.</p> <p>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.</p> <p><b>New York State Specific Restriction:</b> No Soil Injection applications allowed in Nassau or Suffolk Counties of New York.</p> <p><b>Soil Drench:</b> Uniformly apply the dosage in no less than 10 gallons of water per 1000 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.</p> <p>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.</p> <p><b>For Control of Specified Borers:</b></p> <p>Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.</p>

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<b>SHRUBS</b>	
0.1 to 0.2 fl. oz. (3 to 6 ml) per foot of shrub height	<p><b>Soil Injection:</b> 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.</p> <p><b>New York State Specific Restriction:</b> No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.</p> <p><b>Soil Drench:</b> 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.</p>
<b>FLOWERS &amp; GROUNDCOVERES</b>	
0.46 to 0.6 fl. oz. (14 to 17 ml) per 1,000 sq. ft.	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, irrigate thoroughly after application.

\*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.

**RESTRICTIONS:**

- DO NOT apply more than 25.6 fluid ounces (1 .6 pints) (0.4 lbs. AI) per acre per year.
- DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year (365 days) of application.
- DO NOT apply through any irrigation system.

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**Pome Fruits - FOLIAR: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince** (around perimeter of industrial and commercial buildings and on residential areas)—

Not for use in California on Pears

Not for use in California on Pome fruits around perimeter of industrial and commercial buildings

PEST	RATE LADA 2F Insecticide
Aphids (except Woolly apple aphid)	1.5 fl. oz. (45 mL) per 100 gal. of water
Leafhoppers (including glassy winged sharpshooter)***	or
Leafminer	6.0 fl. oz. per acre <sup>1</sup>
Mealybugs*	
San Jose scale**	

**APPLICATION 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. LADA 2F INSECTICIDE will not control late stage larvae.

\* For optimal control of mealybug, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug.

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

\*\*\*For late season (preharvest) control of leafhopper species, apply LADA 2F INSECTICIDE while most leafhoppers are in the nymphal stage.

<sup>1</sup>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 year.
- Allow 10 or more days between applications.
- Allow at least 7 days between last application and harvest.

**Pecans\* - FOLIAR** (around perimeter of industrial and commercial buildings and on residential areas)

PEST	USE RATE
Yellow pecan aphid	1.5 fl. oz. (45 mL) per 100 gal of water
Black margined aphid	or
Pecan leaf phylloxera	6.0 fl. oz. per acre <sup>1</sup>
Pecan spittlebug	
Pecan stem phylloxera	

**APPLICATION 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 labeled use rate may improve coverage.

<sup>1</sup>The amount of LADA 2F INSECTICIDE 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 LADA 2F INSECTICIDE per acre per year.
- Do not make more than 3 applications.

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- Allow 10 or more days between applications.
  - Allow at least 7 days between last application and harvest.
  - Do not apply through any irrigation system.
- \*Not for use in California unless directed by supplemental labeling.

**GRAPES - FOLIAR: For use only in and around industrial, commercial buildings and residential planting areas.**

PEST	RATE PER APPLICATION	
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.5 fl. oz. (45 ml) Per 100 gal. of water	3.0 fl. oz./A (90 ml)

**APPLICATION:**

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

**RESTRICTIONS:**

- Do not apply more than a total of 6.0 fl. ounces of LADA 2F Insecticide per acre per year.
- Applications can be made up to and including day of harvest.
- Allow at least 14 days between applications.
- Do not apply through any irrigation system.

**CITRUS - FOLIAR: 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 Termites (FL only) Whiteflies	1.5 fl. oz. (45 mL) per 100 gallons of water or 6.0 fl. oz./Acre <sup>1</sup>

**APPLICATION 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, ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybugs.

<sup>1</sup> 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 year.

- 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.

**AVOCADO - FOLIAR: (around perimeter of industrial and commercial buildings and on residential areas)**

PEST	RATE
Aphids Avocado lacebug Leafhoppers Whiteflies	1.5 fl. oz. per 100 gallons of water or 6.0 fl. oz. / Acre <sup>1</sup>

**APPLICATION INSTRUCTIONS:**

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

<sup>1</sup>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 6.0 fluid ounces per acre per year.
- Allow at least 14 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.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**Pesticide Storage:** Store in a tightly closed container in a cool, dry place.

**Pesticide Disposal:** Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed 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 Disposal (Nonrefillable container 5 gallons or less):** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, or puncture and dispose of in a sanitary landfill, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. **Residue Removal:** Triple rinse or pressure 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. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. Use standard industry practices for cleaning refillable containers.

**Spills:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call **CHEMTREC** Day or Night, DOMESTIC NORTH AMERICA **1-800-424-9300**.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ROTAM AGROCHEMICAL COMPANY LIMITED or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ROTAM AGROCHEMICAL COMPANY LIMITED and Seller harmless for any claims relating to such factors.

ROTAM AGROCHEMICAL COMPANY LIMITED warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ROTAM AGROCHEMICAL COMPANY LIMITED, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM AGROCHEMICAL COMPANY LIMITED MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, ROTAM AGROCHEMICAL COMPANY LIMITED or Seller shall not be held liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR



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Registered: March 25, 2009

Notification: (Name Change) June 26, 2007

Amended: (Use Dir/Herbs) tba