7/6/2009 (



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (H7505P) 1200 Pennsylvania Avenue NW Washington, D.C. 20460 EPA Reg.

Number:

82542-24

Date of Issuance:

Term of Issuance: Conditional

Name of Pesticide Product:

Solera Imidacloprid 2F T&O Insecticide

NOTICE OF PESTICIDE:

x Registration

\_\_ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Mr. Rufus Bastian Source Dynamics LLC 10039 E. Troon North Drive Scotttsdale, AZ 85262

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above ERA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A). Once a pesticide is registered, however, it is not regarded as permanently acceptable. Registration does not eliminate the need for continual reassessment of pesticides. If the Agency determines that, at any time, additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under FIFRA section (3)(c)(2)(B).

1. Revise the EPA Registration Number to read, EPA Reg. No. "82542-24"

Signature of Approving Official:

1011110

Product Manager 01

Insecticide-Rodenticide Branch

Registration Division (7505P)

Date:

JUL 0 6 2009

- 2. Within eighteen months of the date of this registration, submit to the Agency the required one year storage stability study (830.6317) for the proposed product under warehouse conditions. The corrosion characteristics study (830.6320) may be carried out concurrently. It is recommended that observations be made at 0, 3, 6, 9, and 12 months.
- 3. Submit two copies of your final printed label before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitute acceptance of these conditions.

A stamped copy of the label is enclosed for your records. If you have any questions regarding this notice contact Dani Daniel at 703 305-5409.

### SOLERA IMIDACLOPRID 2F T&O INSECTICIDE

INSECTICIDE FOR FOLIAR AND SYSTEMIC INSECT CONTROL IN TURFGRASSES (INCLUDING SOD FARMS), LANDSCAPE ORNAMENTALS, FRUIT AND NUT TREES, AND INTERIOR PLANTSCAPES

ACTIVE INGREDIENT	
Imidacloprid:	
1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinime	22.6%
OTHER INGREDIENTS	77.4%
TOTAL	100.0%

#### STOP - Read the label before use

#### **KEEP OUT OF REACH OF CHILDREN**

#### **CAUTION**

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

For First Aid, Precautionary Statements and Directions for Use, See Inside Label Booklet

#### SHAKE WELL BEFORE EACH USE

EPA Reg. No. 82542-EU

**EPA Est. No.** 

Net Contents: \_\_ fl. oz.

Manufactured for:

Solera LLC

10039 E. Troon North Drive Scottsdale, AZ 85262 telephone 480-502-9289

> **ACCEPTED** With COMMENTS In EPA Letter Dated:

JUL 0 6 2009 Under the Federal Insecticide, Fungicide and Rodenticide Act, As amended, for the pesticide Registered under EPA Reg. No:

	FIRST AID
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably by mouth-to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If swallowed:	<ul> <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>
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 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>
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For **MEDICAL EMERGENCIES** call telephone no. 800-858-7378. For **PRODUCT USE INFORMATION** call telephone no. 480-502-9289.

NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.

#### **PRECAUTIONARY STATEMENTS**

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if inhaled. Harmful if swallowed. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or before using the toilet.

#### 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- · Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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**

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 in 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 product is toxic to wildlife and highly toxicity to aquatic invertebrates.

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

TAKE 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 FARM PONDS.

#### **Spray Drift Management**

The responsibility of avoiding spray drift is with the applicator. The applicator is responsible for considering the weather related factors and the interaction of application equipment when making application decisions. <u>Avoiding spray drift is the responsibility of the applicator.</u>

#### 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, make applications to deliver the largest droplets 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**

Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain closed 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.

#### Mixing and Loading Requirements

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 area and potential surface to groundwater conduits such as field sumps, uncased well heads, sink-holes, or filed drains.

#### No-Spray Zone Requirements for Soil Applications

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

#### **Runoff Management**

Do not cultivate within 10 feet of the aquatic to allow growth of a vegetative filter strip. When using Solera Imidacloprid 2F on erodible soils, employ the best management practices for minimizing runoff. Consult your local Natural Resources Conservation Service for recommendations in your use area.

#### **Endangered Species Notice**

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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 country 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.

This product contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species.

The active ingredient in this product belongs to the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to this product. To maintain susceptibility to this class of chemistry in insect species with high resistance development potential (1. make only a single, soil applications of this product; (2. foliar applications of products from this same class nor be made following a long residual, soil application of this product, or other neonicotinoid products.

Examples of other Group 4A, neonicotinoid products used as foliar treatments include: Actara, Assail, Calypso, Centric, Clutch, Couraze, Gallant, Impulse, Intruder, Leverage, Pasada, Provado and Trimax Pro and Venom.

Examples of other Group 4A, neonicotinoid products used as soil treatments include: Admire, Admire Pro, Advise, Alias, Couraze, Cruiser, Gaucho, Macho, Macho Max, Platinum, Venom and Widow.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management instructions. Also, for more information on Insect Resistance Management (IRM), visit the insecticide Resistance Committee (IRAC) on the web at <a href="http://www.irac-obline.org/">http://www.irac-obline.org/</a>.

#### **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 worker or other persons, either directly or through drift. Only protected handlers or protected supervisors may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This Standard contains requirements for the protection of agricultural worker 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 requirement in this box only applied 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 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 applied when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets off treated area until dry.

## APPLICATION INSTRUCTIONS -SHAKE WELL BEFORE USING-

Direct applications of Solera Imidacloprid 2F Insecticide to the seed or root-zone of the crop. Failure to place this product into root-zone may result in loss of control or delay in onset of activity. This product may be applied with ground or chemigation application. Do not apply with aerial application equipment. Broadcast, foliar applications are

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only recommended to seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying in foliage.

Optimum activity results from applications to the root-zone of plants to be protected. The earlier this product is available to a developing plant, the earlier the protection begins. This product is continuously taken into the roots over a long period of time and the systemic nature of this product allows movement from roots through the xylem tissue to all vegetative parts of the plant. This results in extended residual activity, the control of insects and the prevention and/or reduction of virus transmission or symptom expression, and plant health benefits. The rate applied affects the length of the plant protection period. Use higher rates when infestations occur later in crop development, or where pest pressure is continuous. This product will generally not control insects infesting flowers, blooms or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts and for insects not listed in the crop-specific, pests controlled sections of this label.

Suppression or less than complete control of certain diseases and insect pests including reduced feeding may also result from applications of this product. Complete control of these pests/diseases may require supplemental control measures.

Solera Imidacloprid 2F use on crops grown for production of true seed intended for private or commercial planting is generally not recommended but may be allowed under State specific, supplemental labeling. As with any insecticide, care should be taken to minimize exposure of the product to honey bees and other pollinators. Additional information on Solera Imidacloprid 2F uses for these crops and other questions. May be obtained from the Cooperative Extension Service, PCAs, consultants or local Solera, LLC representatives.

Pre-mix this product with water or other appropriate diluent prior to application. Keep this product and water suspension agitated to avoid setting.

Do not apply more than 0.5 lbs active ingredient per acre, per crop season, regardless of formulation or method of application, unless specified within a crop-specific, applications section for a given crop.

#### **Mixing Instructions**

To prepare the application mixture, add a portion of the required amount of water to the tank and with agitation add Solera

Imidacloprid 2F. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. This product may also be used with other pesticides and/or fertilizer solutions. Please see Compatibility Note below. When tank mixtures of Solera Imidacloprid 2F and other pesticides are involved, prepare the tank mixture as specified above and follow Mixing Order below.

#### Mixing Order

When pesticide mixtures are needed, add wettable powders first, then this product and other flowable (suspension concentrate) products second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, a fertilizer/pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

#### **Compatibility Note**

Test compatibility of the intended mixture before adding this product to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily redisperse indicates an incompatible mixture that should not be used. For further information, contact your local Solera, LLC representative.

#### **CHEMIGATION – DIRECTIONS FOR USE**

#### Types of Irrigation Systems

Chemigation applications of Solera Imidacloprid 2F may only be made to crops through chemigation systems as specified in crop-specific Application sections and only through low-pressure systems unless specifically instructed for a given crop. Do not apply Solera Imidacloprid 2F through any other type of irrigation system.

#### Uniform Water Distribution and System Calibration

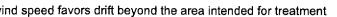
The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated eater. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should 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 wind speed favors drift beyond the area intended for treatment



#### Required System Safety Devices

The system must contain a function check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. 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 in the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdraw from the supply tank when the irrigation system id 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 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.

#### **Using Water from Public Water Systems**

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 and average of 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, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged onto 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 to top or overflow 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. 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 withdraw 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.

#### **TURF & ORNAMENTAL APPLICATIONS**

For Foliar and Systemic Insect Control in Turfgrass (Including Sod Farms), Landscape Ornamentals, Fruit and Nut Trees, Interior Plantscapes,

#### **Application Instructions**

#### APPLICATION TO TURFGRASS

Solera Imidacloprid 2F T & O can be used for the control of soil inhabiting pests of turfgrass, such as 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. This product can also be used for suppression of cutworms and chinch bugs. It can be used as directed on turfgrass in sites such as home lawns, business and office complexes. shopping 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. 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, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

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. Applications cannot exceed a total of 1.6 pints (0.4 lb of active ingredient) per acre per year.

#### **APPLICATION EQUIPMENT FOR USE ON TURFGRASS**

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.



#### APPLICATION TO ORNAMENTALS & VEGETABLE PLANTS

This product is for use on ornamentals in commercial landscapes and interior plantscapes. It is a systemic product and will be translocated upward into the plant system from root uptake. 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. 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, make applications 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.

Bark Media: Media with 30% or more bark content may confer a shorter period of protection when treated with product. RESISTANCE: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product must conform to resistance management strategies established for the use area. 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 details.

#### APPLICATION EQUIPMENT FOR ORNAMENTALS AND VEGETABLE PLANTS

Solera Imidacloprid 2F mixes readily with water and may be used in many types of application equipment. Mix product with the required amount of water and apply as desired 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 is recommended. If concentrate or mist type spray is used, then an equivalent amount of product should be used 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. Prepare any tank mixture which has not been previously tested on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

#### **RESTRICTIONS**

**DO NOT** graze treated areas or use clippings from treated areas for feed or forage. Avoid runoff or puddling of irrigation water following application. Keep children and pets off treated area until dry. Avoid application of IMIDACLOPRID 2F T & O to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant. **DO NOT** apply more than 1.6 pt (0.4 lb of active ingredient) per acre per year.

Treated areas may be replanted with any crop specified on an Imidacloprid label, or with 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, there is a 12-month plant-back interval required.

#### **APPLICATION THROUGH IRRIGATION SYSTEMS**

This product may be applied at rates specified on the label either alone or in tank mixtures with 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.

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

Only use this product through micro irrigation (individual spaghetti tubes), 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 non uniform sufficient irrigation or rainfall is needed to allow the movement of the active ingredient through the thatch.

If you have any questions about calibration, contact your State Extension Service specialist, equipment manufacturers or other experts in this area.

Do not connect an irrigation systems (including greenhouse systems) used for pesticide application to a public water

system unless the pesticide label-prescribed safety devices for public water systems are in place.

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

#### SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES

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 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 injection 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 the system interlock to prevent fluid from being withdraw 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.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO PUBLIC WATER SUPPLIES

- 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.
- 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 contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected the system interlock to prevent fluid from being withdraw 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 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

	APF	<b>PLICATION INSTRUCTIONS</b>	
CROP	PESTS	DOSAGE	REMARKS
Turf Grasses, Grassy areas of field & forest nurseries	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	19.2 to 25.6 oz. per acre  or  0.45 to 0.6 fl oz  (13 to 17 mL)  per 1,000 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 "APPLICATION EQUIPMENT" Section of this label.
	Chinchbugs (suppression)	25.6 oz. per acre	For suppression of chinch bugs, make application prior to the hatching of the

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Mole cricke	s or	first instar nymphs.
	0.6 fl oz (17 mL) per 1,000 sq ft	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, Solera Imdacloprid 2F application should be accompanied by a remedial insecticide. Follow label instructions for other insecticides when tank-mixing.

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

**NOTE**: For optimum control irrigation or rainfall within 24 hours after application is necessary 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. Avoid mowing turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.

	APP	LICATION INSTRUCTIONS	<b>3</b>
	stemic insect control in and arc	ound field-grown nursery and	d containers stock, indoor and outdoor
			amentals grown in flats, benches or beds
CROP	PESTS	DOSAGE	REMARKS
Trees (including non-bearing fruit & nut) Shrubs Evergreens Flowers Foliage plants Ground covers Interior Plantscapes Vegetable plants <sup>1</sup>	Adelgids, Aphids Japanese beetles Lace bugs, Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharp-shooter) Leafminers Mealybugs Psyllids Sawfly larvae Thrips (suppression) Whiteflies White grub larvae (such as Japanese beetle larvae, Chafers, Phyllophaga spp. Asiatic garden beetle, Oriental beetle)	1.7 oz (50 mL) per 100 gal of water  0.45 to 0.6 fl oz (13 to 17 mL) per 1,000 sq ft	Broadcast Applications: Start treatments prior to establishment of high pest populations and reapply on an as needed basis.  Broadcast Applications: 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 sq ft. For optimum control, irrigate thoroughly to incorporate this product into the upper soil profile.  Refer to use directions specific for FLOWERS and GROUND COVERS concerning additional use directions.  1 Only for use on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussel Sprouts, Cabbage, Chinese Cabbage, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

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

	PESTS	
Adelgids		Leafhoppers
Aphids		(including glassy-winged sharpshooter)
Armored scales (suppression)		Leafminers
Black vine weevil larvae		Mealybugs
Emerald ash borer		Pine Tip moth larvae
Eucalyptus longhorned borer		Psyllids
Flathead borers		Royal Palm bugs
(including bronze birch and alder borer)		Sawfly larvae
Japanese beetles		Soft scales
Lace bugs		Thrips (suppression)
Leaf beetles		White grub larvae
(including elm and viburnum leaf beetles	)	Whiteflies
CROP	DOSAGE	REMARKS
Trees	0.1 to 0.2 fl oz	Soil Injection: GRID SYSTEM: Space holes
	(3 to 6 mL) per	on 2.5 foot centers, in a grid pattern, extending
	inch of trunk	to the drip line of the tree. CIRCLE SYSTEM:
	diameter	Apply in holes evenly spaced in circles, (use
	(D.B.H.)	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. For optimum control, keep the treated area moist for 7 to 10 days. <b>DO NOT</b> use less than 4 holes per tree.
		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 1000 square feet as a drench around the base of the tree, directed to the root zone.

# APPLICATION INSTRUCTIONS - TREE, SHRUBS, FLOWERS, GROUNDCOVERS, AND INTERIORSCAPE PLANTS ( Cont'd )

CROP	DOSAGE	REMARKS
		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.
Shrubs	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.
		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.
Flowers & Ground Covers	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, optimum control will be attained if area is irrigated thoroughly after application.

EBB & FLOOD APPLICATION					
	PESTS				
Adelgids		Psyllids			
Armored scales			Root meaylbugs <sup>2</sup>		
Aphids			Root Weevil Complex		
Fungus Gnats <sup>1</sup> (larvae only)			(such as Apopka Weevil, Black vine Weevil,		
Japanese Beetles (adults)			Citrus Root Weevil <sup>3</sup> )		
Lace bugs			Soft Scale		
Leaf beetles			Thrips (suppression)4		
(including elm and viburnum leaf bee	eties)		Whiteflies		
Leafhoppers (including glassy-winged s		·)	White Grub larvae		
Leafminers	•	,	(such as Japanese Beetle, Masked Chafers,		
Mealybugs			European Chafer, Oriental Beetle, Asiatic		
			Garden Beetle)		
USE PATTERN	DOSA	AGE	REMARKS		
Herbaceous Species-including	Container	mL per	1101111110		
vegetable plants <sup>5</sup> (one or two plants	size	100	This product may be applied through Ebb and		
per pot)	(inches)	plants	Flood applications. To assure accurate uptake		
por poty	2	pianto	prior to treatment, bring a minimum of 10 plants		
	3	1.6	up to a known field capacity and allow to dry out		
	4	2.5	for one or two days. Re-wet these plants to		
	5	3.3	determine how much water on average each		
	6	4.2	plant will absorb to bring it back at field capacity.		
	7	5.0	Use the volume absorbed per plant (keeping pot		
	8	5.9	sizes uniform) multiplied by the number of pots		
	9	6.6	being treated. Add to this volume a required		
	10	7.4	minimum to flood your smallest treatment area.		
	11	8.3	This should minimize the return back to the		
	12	9.0	storage tank. Re-use the returned volume with		
	12	9.0 10.0	subsequent irrigation or nutrients on the same		
Herbaceous Species-including	2	2.5	plants.		
vegetable plants <sup>5</sup> (three or more		3.7	piants.		
	3				
plants per pot)	4	5.0			
	5	6.3			
	6	7.7			
	7	9.1			
	8	10.0			
	9	11.1			
	10	12.5			
	11	14.3			
	12	16.7			
EBB & FLOOD APPLICATION ( Cont'd )					

<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: 1.7 fluid ounces (50mL) in 150 gallons 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.

<sup>5</sup> Note: For use on 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.

#### **APPLICATION INSTRUCTIONS**

CROP	PEST	DOSAGE	REMARKS
	Aphids	1.5 fl oz	6.0 fl oz/A <sup>1</sup>
Pome Fruits	(except Wooly	(45 mL)	
Apple	apple aphid)	per 100 gal	
Crabapple	Leafhoppers		
Loquat	(including		
Mayhew	glassy-winged		
Pear	sharp-shooter		
Pear (oriental)	)		
Quince	Leafminer		
1	Mealybugs*		
	San Jose scale*		

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

For control of rosy apple aphid, apply prior to leaf rolling 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. Imidacloprid 2F won't 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 optimal control of mealybug, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybug.

#### APPLICATION INSTRUCTIONS (Cont'd)

**DO NOT** apply more than 6.0 fluid ounces per acre in a single application. **DO NOT** make more than 5 applications.

Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.

\* Not for use in California for control on pears.

Pecan*	Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan	1.5 fl oz (45 mL) per 100 gal of water	6.0 fl oz/A <sup>1</sup>
	Pecan spittlebug Pecan stem phylloxera		

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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 optimal control. Addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's specified use rate may improve coverage.

**DO NOT** apply more than a total of 18.0 fluid ounces of this product per acre per year. **DO NOT** make more than 3 applications.

Allow 10 or more days between applications.

- \* Use not permitted in California unless directed by specific supplemental labeling.
- 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.

	APPLICATION INSTRUCTIONS  For use in and around industrial and commercial building areas				
CROP	CROP PEST RATE PER APPLICATION				
Leafhoppers (including glassy-winge d sharpshoote r) Mealybugs	1.5 fl oz (45 mL) per 100 gal of water	3.0 fl oz/A (90 mL/A)	Leafhoppers (including glassy-winged sharpshooter) Mealybugs		

Apply 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 year. Allow at least 14 days between applications. Applications may be applied up to and including day of harvest.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticide below. In spill or leak incidents, keep unauthorized people away.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY STATEMENT: IMPORTANT NOTICE - Seller warrants that this product conforms to the chemical description and is reasonably fit for purposes stated on the label when used in accordance with the directions and instructions under normal conditions of use; but, to the extent allowed by applicable law, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.