

228-588

8/29/2008

1/29



U.S. ENVIRONMENTAL PROTECTION AGENCY  
 Office of Pesticide Programs  
 Registration Division (H7505P)  
 1200 Pennsylvania Avenue NW  
 Washington, D.C. 20460

EPA Reg. Number: 228-588  
 Date of Issuance: AUG 29 2008

Term of Issuance: Conditional

Name of Pesticide Product:  
 Imidacloprid 75 WSP  
 Insecticide

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ms. Lizbeth Rea  
 Nurfarm Americas, Inc.  
 150 Harvester Drive, Suite 200  
 Burr Ridge, IL 60527

**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 EPA 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. "228-588".

Signature of Approving Official:

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

Date:

AUG 29 2008

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. **(Pending acceptance of the parent studies will determine whether or not this product will require the above studies).**

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.

Enclosure

2/20

3/29

# Imidacloprid 75 WSP Insecticide

Systemic and foliar Insect control in turfgrass (including sod farms), and on fruit and nut trees, landscape ornamentals, and interior plantscapes and for control of certain insects infesting various crops.

**ACTIVE INGREDIENT:**

Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine..... 76.0%

**OTHER INGREDIENTS:**..... 25.0%

**TOTAL:**..... 100.0%

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<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 do anything by mouth an unconscious person.</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 15-20 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>
<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 15-20 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. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
No specific antidote is available. Treat the patient symptomatically.	

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or vapor. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets off treated area until spray is dry.

EPA Reg. No. 228-LII

EPA Est. No.

Manufactured for:  
Nufarm Americas Inc.  
150 Harvester Drive  
Burr Ridge, IL 60527

This product contains Imidacloprid, the active ingredient used in Merit® and Provado®.

**ACCEPTED**  
  
**AUG 29 2008**  
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide Registered under EPA Reg. No. 228-588

Net Weight:

4/29

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

**WPS USES:** Applicators and other handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR Part 170) – in general, agricultural plant uses e.g., crops, sod farms, 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.
- Protective eyewear
- 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.

**NON-WPS USES:** Applicators and other handlers who handle this product for any use NOT covered by the Worker Protection Standard (40 CFR part 170) – in general, only agricultural plant uses are covered by the WPS, must wear:

- Shirt and pants
- Gloves
- Protective eyewear
- Shoes plus socks

**ENGINEERING CONTROLS STATEMENTS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [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**

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

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops 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 toxic to aquatic invertebrates.

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.

5/29

### 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 pesticide. 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 the 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 applied by drenching, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- 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
- Protective eyewear
- 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 (40CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

- Keep children and pets off treated areas until dry.

### RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used 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

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.

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, Nufarm 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.

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

6/29

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

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/>.

**Restrictions:**

- Keep children and pets off treated areas until dry.
- Do NOT apply through any type of Irrigation system.
- Do NOT apply by air. *[Note to Reviewer: This statement will not appear on final sub-label for agricultural use grapes]*
- Do NOT graze treated areas or use clippings from treated areas for feed or forage.
- Do NOT apply this product to soils that are waterlogged or saturated and avoid runoff or puddling of irrigation water following application.
- Do NOT allow leachate to run out for the first 10 days after application or reduced efficacy may result.
- Do NOT exceed a total of 8.6 oz. / Acre per year (0.4 lb. A/A).

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE [For product packaged in plastic containers]:** 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 the reach of children, preferably in a locked storage area.

**PESTICIDE STORAGE [For product packaged in Water-soluble Packaging]:** 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 the reach of children, preferably in a locked storage area. Exposure to moisture or excessive handling of water-soluble packets may cause breakage.

**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 [For product packaged in plastic container]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container half 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.

**CONTAINER DISPOSAL [For product packaged in Water-soluble Packaging]:** Completely empty bag into application equipment. Then dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

7/29

**LIMITATION OF LIABILITY**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT. .

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(NEW)

Actara<sup>®</sup>, Centric<sup>®</sup>, and Platinum<sup>®</sup> are trademarks of a Syngenta Group Company.

Assail<sup>®</sup> is a trademark of Nippon Soda Co., Ltd.

Admire<sup>®</sup>, Merit<sup>®</sup>, Provado<sup>®</sup>, Calypso<sup>®</sup>, Leverage<sup>®</sup> and Trimax<sup>™</sup> are trademarks of Bayer.

Bidrin<sup>®</sup> is a trademark of Amvac Chemical Corporation.

Intruder<sup>™</sup> is a trademark of Nippon Soda Co., Ltd. and licensed for distribution by E.I. duPont de Nemours and Company.

This product is not manufactured or distributed by Bayer CropScience, seller of Provado<sup>®</sup>.

This product is not manufactured or distributed by Bayer Environmental Science, seller of Merit<sup>®</sup>.

8/29

## CROP USE LABEL PRODUCT PACKAGED IN WSP

**TAKE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES AND COMMERCIAL FISH FARM PONDS.**

### 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.

#### For Aerial Applications

Mount the sprayer boom on the aircraft so as to minimize the drift caused by wing tip vortices. Use the minimum practical boom length, but do not exceed 75% of the wing span or rotor diameter.

#### 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, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure.

Release the spray at the lowest possible height consistent with good pest control and flight safety. Do not make applications more than 10 feet above the crop canopy.

#### 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 aerial or 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.

#### Airblast (Air Assist) Specific Applications for Tree Crops and Vineyards

Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. Use the following specific drift management practices:

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



9/29

**No-Spray Zone Requirements for Follar Applications**

Do not apply by ground within 25 feet, or by air with 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

**RESTRICTIONS**

- DO NOT apply this product through any type of irrigation system.
- Unless specified within a crop specific application rate section for a given crop, DO NOT apply more than 0.5 lbs. active ingredient per acre per crop season regardless of formulation or method of application.

**APPLICATION INSTRUCTIONS**

Apply as a directed or broadcast foliar spray using adequate spray volumes, properly calibrated application equipment and spray adjuvant (if necessary) to obtain thorough coverage. For optimum insecticidal efficacy, thorough coverage of the foliage (without runoff) is necessary. Loss of insect control or delay in onset of activity may result if there is not adequate coverage and retention of this product on leaves and fruit. Except where otherwise specified, this product may be applied using properly calibrated ground and/or aerial application equipment using a minimum recommended spray volume of 10 gallons per acre by ground application and 5 gallons per acre through aerial equipment.

Unless allowed under State-specific supplemental labeling, do not use this product on crops grown for production of true seed intended for private or commercial planting. Care must be taken to minimize exposure of this product to honey bees and other pollinators. Do not use on crops requiring bee pollination for a minimum of 10 days prior to bloom through bloom. Your Cooperative Extension Service, PCAs, consultants or local Nufarm representatives can provide additional information on product uses with these crops.

**Mixing Instructions**

- Add a portion of the required amount of water to the spray tank and begin agitation.
- Add the specified amount of this product.
- Fill the tank with the remaining water needed, being sure to maintain sufficient agitation during both mixing and application.
- If tank mixing this product with other pesticides and/or fertilizer solutions, please refer to the Compatibility Note below. When tank mixing this product with other pesticides, prepare the tank mixture as stated above and follow the suggested Mixing Order below.

**Mixing Order**

Add this product first and allow the PVA packets to dissolve. Add any other wettable powders or wettable granules, flowables (suspension concentrates) second, and emulsifiable concentrates last. Maintain agitation as each component is added and do not add an additional component until the previous one is thoroughly mixed. A fertilizer pesticide compatibility agent may be needed if a fertilizer solution is added to the mix. To ensure uniformity of the spray mixture, be sure to maintain constant agitation during both mixing and application.

**Compatibility Note**

NOTE: Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents. For further information, contact your local Nufarm representative.

Conduct the following test for compatibility of the intended tank mixture before adding this product to the spray or mix tank:

1. In a pint or quart jar, add proportionate amounts of each ingredient in the appropriate order.
2. Cap and shake for 5 minutes.
3. Let set for 5 minutes.
4. Observe the jar for signs indicating an incompatible mixture that should not be used such as poor mixing or the formation of precipitates that do not readily redisperse.

**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 plant-back interval must be observed.

10/29

**NOTE:** Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

**Immediate Plant-back:**

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

**30-Day Plant-back:**

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

**10-Month Plant-back:**

Onion and bulb vegetables

**12-Month Plant-back:**

All other crops

11/29

**FIELD CROPS**

**Application Instructions**

Apply as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage using the rates specified below is necessary to achieve optimum control. To improve coverage, a spray adjuvant may be used. This product may not knockdown heavy or established insect infestations; scout fields and make two applications if necessary to achieve control. For knockdown of pests or for improved control of other pests, this product may be tank mixed with other insecticides as stated below.

**COTTON**

NOTE: Do NOT graze treated fields after any application of this product.

- Pre-Harvest Interval (PHI): 14 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 6.5 ounces/acre (0.31 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)
Banded-winged whitefly Bollworm/Budworm (ovicidal effect) Cotton aphid Cotton fleahopper Green stink bug Plant bugs (excludes <i>Lygus hesperus</i> ) Southern Green stink bug	0.7 to 1.3
Lygus bug ( <i>Lygus hesperus</i> ) <sup>†</sup> Whiteflies (other than bandedwinged whitefly) <sup>†</sup>	1.0 to 1.3
<sup>†</sup> Suppression only.	

**Tank Mix Rates**

For Early-Season Control of Thrips:

- Mix 0.7 to 1.0 oz. / acre of this product with 1.6 to 3.2 oz. / acre of Bidrin® 8.

For Mid- to Late-Season Control of Cotton Leafperforator, Grasshoppers, Plant Bugs, Saltmarsh Caterpillar and Stink Bugs (Including Brown Stink Bug):

- Mix 0.7 to 1.0 oz. of this product with 4.0 to 8.0 oz. of Bidrin® 8 per acre.

NOTE: Be sure to refer to the Bidrin® 8 label for specific use rates and to observe the most conservative use directions and precautions from both labels.

**POTATO**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 4.0 ounces/acre (0.19 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Colorado potato beetle Flea beetles Leafhoppers Psyllids	1.0

12/29

**TOBACCO**

- Pre-Harvest Interval (PHI): 14 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 6.0 ounces/Acre (0.28 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)
Aphids	0.5 to 1.1
Flea beetles Japanese beetle	1.1

**VEGETABLE and SMALL FRUIT CROPS**

NOTE: Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to EPA website ([www.epa.gov](http://www.epa.gov)) for latest Crop Groups.

**Application Instructions**

Apply as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage using the rates specified below is necessary to achieve optimum control. To improve coverage, a spray adjuvant may be used. This product may not knockdown heavy or established insect infestations; scout fields and make two applications if necessary to achieve control. For knockdown of pests or for improved control of other pests, this product may be tank mixed with other insecticides as stated below.

**FRUITING VEGETABLES**

Crop Group 8 plus Okra including: Eggplant, Ground Cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet), Tomato, Pepinos, Tomatillo

NOTE: NOT for use on crops grown for seed unless allowed by state-specific supplemental labeling.

- Pre-Harvest Interval (PHI): 0 days
- Minimum Interval Between Applications: 5 days
- Maximum Product Allowed per Crop Season: 5.0 ounces/Acre (0.23 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Aphids Colorado potato beetle Leafhoppers Whiteflies	1.0	For best results, good coverage of foliage and fruit is necessary. Incorporate applications of this product into a full-season program that uses effective products from multiple classes of chemistry and different modes of action in a blocked or windowed approach. For additional information, please contact your Nufarm representative, Extension Specialist or crop advisor.
Pepper weevil (Pepper only)	1.6	Apply the specified rate of this product using ground equipment only. Time applications prior to a damaging population becoming established.

**GLOBE ARTICHOKE**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 14 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Leafhoppers	1.1 to 2.7

13/29

**HEAD and STEM BRASSICA VEGETABLES**

Crop Group 5 including: Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (gai lan) broccoli, Chinese (bok choy) cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rage greens, Turnip (tops or leaves)

**LEAFY VEGETABLES**

Crop Group 4 including: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (roquette), Chervil, Chrysanthemum (edible leaved and garland), Cilantro, Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chickory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)), Watercress (commercial production only – Applications must not be made to native cress growing in streams or other bodies of water), Watercress (upland)

**NOTE: NOT FOR USE IN CALIFORNIA UNLESS OTHERWISE DIRECTED BY SUPPLEMENTAL LABELING.**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 5 days
- Maximum Product Allowed per Crop Season: 5.0 ounces/Acre (0.23 lb. a.i./A)
- Not for use on crops grown for seed unless allowed by state specific supplemental label.

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Aphids Flea beetles Leafhoppers Whiteflies	1.0	For applications made to watercress: Apply to fully leafed-up canopies only. Production fields must be drained of water at least 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application.

**LEGUME VEGETABLES**

Crops of Crop Group 6 (except soybean, dry) including:

**Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean**

**Bean (*Lupinus* spp. includes grain lupin, sweet lupin, white lupin, and white sweet lupin)**

**Bean (*Phaseolus* spp. includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)**

**Bean (*Vigna* spp. includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean)**

**Pea (*Pisum* spp. includes dwarf pea, edible pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)**

**Other Beans and Peas:** Broad bean (fava), chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, hyscinth bean, lentil, pigeon pea, soybean (immature seed), sword bean

**NOTE: NOT for use on crops grown for seed unless allowed by state-specific supplemental labeling.**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 2.8 ounces/Acre (0.13 lb. a.i./A)

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Leafhoppers Whiteflies	0.9

14/29

**ROOT, TUBEROUS and CORM VEGETABLES**

Crop Group 1 (except sugarbeet) including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Beet (garden)<sup>†</sup>, Burdock (edible)<sup>†</sup>, Canna (edible, Queensland arrowroot), carrot<sup>†</sup>, Cassava (bitter and sweet)<sup>†</sup>, Celeriac<sup>†</sup>, Chayote (root), Chervil (turnip-rooted)<sup>†</sup>, Chickory<sup>†</sup>, Chufa, Dasheen (taro)<sup>†</sup>, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip-rooted), Parsnip<sup>†</sup>, Radish<sup>†</sup>, Oriental radish (daikon)<sup>†</sup>, Rutabaga<sup>†</sup>, Salsify (black)<sup>†</sup>, Salsify (oyster plant), Salsify (Spanish), Skirret, Sweetpotato<sup>†</sup>, Tanler (cocoyam)<sup>†</sup>, Turmeric, Turnip<sup>†</sup>, Yam bean (Iicama, manioc pea), Yam (true)<sup>†</sup>

<sup>†</sup> Tops or green from these crops may be utilized for food or feed.

For recommend applications on Potato, refer to the Field Crops section.

NOTE: NOT for use on crops grown for seed unless allowed by state-specific supplemental labeling.

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 5 days
- Maximum Product Allowed per Crop Season: Radish: 0.9 ounces/Acre (0.044 lb. a.i./A)  
All other crops: 2.8 ounces/Acre (0.13 lb. a.i./A)
- Maximum Product Applications per Crop Season: Radish: 1  
All other crops: 3

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Flea beetles Leafhoppers Whiteflies	0.9

**STRAWBERRY**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 5 days
- Maximum Product Allowed per Crop Season: 3.0 ounces/Acre (0.14 lb. a.i./A)

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Spittlebugs Whiteflies	1.0

**TREE, BUSH and VINE CROPS**

NOTE: Crops contained within certain Crop Groups recognized by EPA are subject to change. Refer to EPA website ([www.epa.gov](http://www.epa.gov)) for latest Crop Groups

**Application Instructions**

Apply as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage using the rates specified below is necessary to achieve optimum control. To improve coverage, a spray adjuvant may be used. This product may not knockdown heavy or established insect infestations; scout fields and make two applications if necessary to achieve control. For knockdown of pests or for improved control of other pests, this product may be tank mixed with other insecticides as stated below.

Applying this product aerially may result in slower activity and reduced control relative to results from ground application. For tree and vine crops, application rates are based on full-size, mature trees or vines.

15/29

**BUSH BERRY**

Crop Subgroup 13 including: Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal

- Pre-Harvest Interval (PHI): 3 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).
- Maximum Number of Product Applications per Crop Season: 5
- Maximum Application Volume (water): 20.0 GPA – ground; 5.0 GPA – aerial

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Leafhoppers/Sharpshooters	0.8 to 1.1
Blueberry maggot Japanese beetles (adults) Thrips	1.8 to 2.1

**CITRUS**

Crop Group 10 including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Tangelo, Satsuma mandarin, White sapote (*Casimiroa* spp.), and other cultivars and/or hybrids of these crops

- Pre-Harvest Interval (PHI): 0 days
- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Aphids Asian citrus psyllid Black fly Leafhoppers/Sharpshooters Leafminers Mealybugs Scales Whiteflies	2.7 to 5.3 (depending on tree size, target pest and infestation pressure)	Scales: Time applications to the crawler stage and treat each generation.
Thrips <sup>†</sup>	2.7 to 5.3	
† Suppression only.		

**GRAPE**

Including American bunch grape, Muscadine grape and Vitis grape

- Pre-Harvest Interval (PHI): 0 days
- Minimum Interval Between Applications: 14 days
- Maximum Product Allowed per Crop Season: 2.0 ounces/Acre (0.1 lb. a.i./A).

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Leafhoppers/Sharpshooters Mealybugs	0.8 to 1.0	
Grapeleaf skeletonizer	1.0	Ground applications that provide thorough coverage of foliage should control grapeleaf skeletonizer. Aerial applications may provide suppression.

16/29

**HOP**

- Pre-Harvest Interval (PHI): 28 days
- Minimum Interval Between Applications: 21 days
- Maximum Product Allowed per Crop Season: 6.4 ounces/Acre (0.3 lb. a.i./A).

Pests Controlled	Application Rate (Oz. / Acre)
Aphids	2.1

**PECAN**

**NOT FOR USE IN CALIFORNIA UNLESS OTHERWISE DIRECTED BY SUPPLEMENTAL LABELING.**

- Do NOT apply after shuck split.
- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 7.5 ounces/Acre (0.35 lb. a.i./A).

Pests Controlled	Application Rate (Oz. / Acre)
Aphids (use higher rate for Black pecan aphid) Phylloxera Spittlebugs	0.9 to 1.9

**POME FRUIT**

Crop Group 11 Including: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).

**NOTE:** Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Leafhoppers	1.2 to 2.1	Apply low rate for low to moderate populations of white apple leafhoppers and high rate for high populations or for other leafhopper species. Apply this product while most leafhoppers are in the nymphal stage.
Aphids (except woolly apple aphid) Leafminers San Jose scale	2.1	Leafminer – To control first generation leafminer, apply as soon as pollination is complete and bees are removed from the orchard. Greatest 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 instar larvae.  Rosy apple aphid – Apply prior to leafrolling caused by rosy apple aphid.  San Jose scale – Time applications to the crawler stage. Treat each generation.
PEAR ONLY: Mealybugs Pear psylla	5.3	Mealybugs – Apply maximum gallonage for tree with ground equipment. Ensure good spray coverage of the trunk and scaffolding limbs or other resting sites of mealybugs.



17/29

**STONE FRUIT**

Crop Group 12 including: Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

**Apricot, Nectarine, Peach:**

- Pre-Harvest Interval (PHI): 0 days
- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 6.4 ounces/Acre (0.3 lb. a.i./A).
- Minimum Application Volume (water): 50 GPA – ground application; 25 GPA – aerial application

**Cherries, Plums, Plumcot, Prunes:**

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).
- Minimum Application Volume (water): 50 GPA – ground application; 25 GPA – aerial application

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Green June beetle Japanese beetle Leafhoppers/Sharpshooters Plant bugs Rose chafer San Jose scale	1.1 to 2.1
Cherry fruit fly (maggot of Eastern and Western)	1.6 to 2.1
Plum curculio† Stink bugs†	2.1
† Suppression only.	

**TROPICAL FRUIT**

Including: Acerola, Avocado, Black sapote, Canistel, Feijoa, Jaboticaba, Guava, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Spanish lime, Star apple, Starfruit, Wax jambu

- Pre-Harvest Interval (PHI): 7 days
- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Leafhoppers/Sharpshooters Thrips Whiteflies	2.1
Scales†	2.1
† Suppression only.	

**OTHER CROPS**

**Application Instructions**

Apply as a broadcast or directed foliar spray to infested area as pest populations begin to build. Thorough uniform coverage using the rates recommended below is necessary to achieve optimum control. To improve coverage, a spray adjuvant may be used. This product may not knockdown heavy or established insect infestations; scout fields and make

18/  
29

two applications if necessary to achieve control. For knockdown of pests or for improved control of other pests, this product may be tank mixed with other insecticides as recommended below.

**POPLAR/COTTONWOOD**

Includes members of the genus *Populus* grown for pulp or timber

**NOT FOR USE IN CALIFORNIA UNLESS OTHERWISE DIRECTED BY SUPPLEMENTAL LABELING.**

- Minimum Interval Between Applications: 10 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).

NOTE: Do not apply during bloom or within 10 days prior to bloom or when bees are actively foraging.

Pests Controlled	Application Rate (Oz. / Acre)
Aphids Leaf beetles	1.1 to 2.1

**CHRISTMAS TREE**

- Minimum Interval Between Applications: 7 days
- Maximum Product Allowed per Crop Season: 10.7 ounces/Acre (0.5 lb. a.i./A).

Pests Controlled	Application Rate (Oz. / Acre)	Application Instructions
Aphids Adelgids Sawflies	1.1 to 2.1	Gall-forming adelgids – Time applications to coincide with full bud-swell or first bud-break of earliest bud-breaking trees. Once galls form, spraying will be ineffective.

## TURF AND ORNAMENTALS FOR PRODUCT PACKAGED IN WSP

### MIXING AND APPLICATION INSTRUCTIONS

Inside each foil pouch is a clear, water-soluble inner packet containing this product. To prepare a solution, remove the outer foil pouch and drop the required number of unopened clear water-soluble packets into the spray tank while filling with water to the desired level. Be sure to agitate while mixing and depending on the amount of agitation and the water temperature, the packets should completely dissolve within a few minutes of being added to the water.

Note: Cooler water temperatures increase the time needed for the inner packet to completely dissolve.

#### Mixing Precautions:

- Do NOT allow packets to become wet prior to adding to the tank.
- Do NOT handle the clean inner packets with wet hands or wet gloves.
- Do NOT use this product in a tank-mix with products that contain Boron or release free chlorine. Combining these products will result in a plastic that is not soluble in water or solvents (such as diesel oils, kerosene, gasoline or alcohol). NOTE: Chlorinated water may be used.
- Because the water-soluble packets are not soluble in petroleum-based liquids, do NOT attempt to use this product's water-soluble packets directly in diesel oils or summer spray type oils such as those used in ULV or LV applications.
- Rough handling of the packets may cause breakage.
- Reseal outer carton to protect remaining packets.

**Tank Mixes:** This product has been found to be compatible with commonly used liquid fertilizers, fungicides and insecticides. Check compatibility using the correct proportion of products in the following small jar test if this product is not known to be compatible with your particular tank mix partners.

- 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.

Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local Nufarm representative.

**Mixing Instructions:** The enclosed packets containing this product are water-soluble and will completely dissolve in water. The proper mixing procedure for this product alone or in tank mix combinations with other pesticides is:

1. Fill the spray tank  $\frac{1}{4}$  to  $\frac{1}{3}$  full with clean water.
2. While recirculating and with the agitator running, add the required number of unopened product packets.
3. The packets should completely dissolve in 5 to 10 minutes; allow sufficient time for thorough mixing.
4. Continue to fill spray tank with water until  $\frac{1}{2}$  full.
5. If applicable, add remaining tank mix components in the following order: wettable powders, flowables, and emulsifiable concentrates. Ensure good agitation as each component is added. Do not add a tank mix component until the previous component is thoroughly mixed.
6. Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

---

### TURFGRASS

---

This product will control soil-inhabiting pests in grassy areas such as home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields and sod farms. 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. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made preceding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

20/29

**Use Restrictions:**

- Applications must NOT exceed a total of 8.6 oz. (0.4 lb. of active ingredient) per acre per year.
- Do not make applications when grassy areas are waterlogged or the soil is saturated with water because 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.
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.

**Application Instructions:**

Apply this product in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of 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.

Pest	Application Rate	Specific Instructions
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass alanellus Cutworms† European Chafer European Crane Fly Green June beetle Japanese beetle Northern masked chafer Oriental beetle Phyllophaga spp. Southern masked chafer	1.6 oz. (1 packet) per 8,250 to 11,000 sq. ft.	<p>Grubs, European Crane Fly, billbugs and annual bluegrass weevil: For best results make applications prior to egg hatch of the target pest.</p> <p>Chinchbugs: Make applications prior to the hatching of the first instar nymphs.</p> <p>Mole Crickets: Make applications prior to or during the peak egg hatching period. When adults or large nymphs are present and actively tunneling, this product should be accompanied by a curative insecticide.</p> <p>NOTE: For best results, the active ingredient must be moved through the thatch by irrigation or rainfall occurring within 24 hours after application.</p>
Chinchbugs† Mole Crickets	1.6 oz. (1 packet) per 8,250 sq. ft.	
† Suppression only.		

**TREES, ORNAMENTALS, GROUNDCOVERS AND INTERIOR PLANTSCAPES**

This product is a systemic insecticide that may be applied to trees, ornamentals, groundcovers and interior plantscapes in and around industrial, commercial buildings and residential areas and state, national, and private wooded and forested areas. The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of this product.

**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 plant-back interval must be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

**Ant Management Programs:**

This product may be used to limit the honeydew available as a food source for ant populations when controlling aphids, scale insects, mealy bugs and other sucking pests on ornamentals. Product applications may be supplemented with bait traps, residual sprays and other methods to further reduce the unwanted ant population.

21/29

**Insect Resistance:**

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 recommended pest management practices for your area.

**Woody Perennials:**

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

**Bark Media:**

Product treatments to media with 30 to 50% or more bark content may confer a shorter period of protection.

**FOLIAR AND BROADCAST APPLICATIONS**

This product may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

**Application Instructions:**

Apply this product in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of 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.

**NOTE:** When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended.

Pest	Application Method	Application Rate	Specific Instructions
Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips† Whiteflies	Foliar	1.6 oz. (1 packet) per 300 gal. of water	Make applications prior to establishment of large pest populations and retreat as necessary. NOTE: For resistance management purposes, do not apply this product foliarly after soil application in the same crop.
White grub larvae (such as Japanese beetle larvae, chafers, Phyllophaga spp., Asiatic garden beetle and Oriental beetle)	Broadcast	1.6 oz. (1 packet) per 8,250 to 11,000 sq. ft.	Mix the specified amount of this product in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate this product into the upper soil profile by irrigating after the application is made.
† Suppression only.			

22/29

**SOIL INJECTION AND DRENCH APPLICATIONS**

Application Site	Application Rate	Application Instructions	Pests Controlled
<p><b>Trees</b></p> <p>NOTE: 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>1.6 oz. (1 packet) per 24 to 48 inches of cumulative trunk diameter (DBH)</p>	<p><b>SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.</b></p> <p><b>GRID SYSTEM:</b> Space the holes on 2.5 ft 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. For optimum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree.</p> <hr/> <p><b>SOIL DRENCH:</b> Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.</p>	<p>Adelgids Aphids Armored Scale† Black vine weevil larvae Emerald Ash Borer Eucalyptus Longhorned Borers Flatheaded Borers (including bronze birch and alder borers) Japanese Beetles (adults) Lacebugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae Soft Scales Thrips† White grub larvae Whiteflies</p>
<p><b>Shrubs</b></p>	<p>1.6 oz. (1 packet) per 24 to 48 ft. of cumulative shrub height</p>	<p><b>SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.</b></p> <p>Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Using a minimum of 4 holes per shrub, apply to individual plants maintaining a low pressure and use sufficient solution for distribution of the liquid into the treatment zone.</p> <p>Keep the treated area moist for 7 to 10 days.</p> <hr/> <p><b>SOIL DRENCH:</b> Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.</p>	<p>Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae Soft Scales Thrips† White grub larvae Whiteflies</p>
<p><b>Flowers and Ground Cover</b></p>	<p>1.6 oz. (1 packet) per 8,280 to 11,000 sq. ft.</p>	<p>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.</p>	

† Suppression only of these species.

23/29

**POME FRUIT IN AND AROUND RESIDENTIAL AREAS**

Apple, Crabapple, Loquat, Mayhaw, Pear (Including Oriental pear) Quince

- Pre-Harvest Interval (PHI): 7 days
- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 5

Pest	Ounces per 300 gal. of Water	Ounces per Acre*	Specific Instructions
Aphids (except Woolly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs† San Jose Scale‡	1.6 (1 packet)	2.1	Apply as a foliar spray as needed after petal-fall is complete. Rosy Apple Aphid: Apply prior to leaf rolling caused by the pest. Leafhopper: For late season (preharvest) control, apply while most leafhoppers are in the nymphal stage. Leafminer: Make first application as soon as petal-fall is complete for control of first generation, with best results occurring when the application is made at the earliest possible time. For succeeding generations, best results occur when applications are made early in the adult flight against egg and early instar larvae. If generations are overlapping or severe pressure continues, a second application may be necessary after 10 days. A single application may result in suppression only. NOTE: This product will not control late stage larvae. Mealybug: For best results be sure to have good spray coverage of the trunk and scaffolding limbs or other nesting sites. San Jose Scale: Time applications to the crawler stage and treat each generation.
† Not permitted for control on pears in California. ‡ The amount of this product required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.			

**PECANS IN AND AROUND RESIDENTIAL AREAS**

**NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling**

- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 3
- Maximum Product Allowed per Year: 6.3 oz. / Acre

Pest	Ounces per 300 gal. of Water	Ounces per Acre*	Specific Instructions
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1.6 (1 packet)	2.1	Apply as a foliar spray as pest pressure builds but before infestation is extremely heavy. Two applications at a 10 to 14 day interval may be required to achieve control. For best results, thorough and uniform coverage is necessary. Coverage may be improved through the use of an organosilicone-based spray adjuvant.
* The amount of this product required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.			

24/29

**GRAPES  
ORNAMENTAL USE**

- Reapplication Interval: At least 14 days
- Maximum Product Allowed per Year: 2.0 oz. / Acre

<b>Ornamental Grapes In and Around Industrial and Commercial Buildings and Residential Areas</b>			
<b>Pest</b>	<b>Ounces per 300 gal. of Water</b>	<b>Ounces per Acre*</b>	<b>Specific Instructions</b>
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.6 (1 packet)	1.0	Apply as a foliar spray using 200 gallons of water per acre.



25/29

## TURF AND ORNAMENTALS FOR PRODUCT PACKAGED IN NON-WSP

### TURFGRASS

This product will control soil-inhabiting pests in grassy areas such as home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields and sod farms. 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. Applications may be made preceding the egg laying activity of the target pests and high levels of control may be achieved when applications are made preceding or during the egg laying period. For best results, make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

**Use Restrictions:**

- Applications must NOT exceed a total of 8.8 oz. (0.4 lb. of active ingredient) per acre per year.
- Do not make applications when grassy areas are waterlogged or the soil is saturated with water because 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.
- Avoid mowing treated areas until after sufficient rainfall or irrigation has occurred in order to maintain the uniformity of the application.

**Application Instructions:**

Apply this product in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of 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.

Pest	Level Teaspoons per 1000 sq. ft.	Ounces per Acre	Specific Instructions
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass steenius Cutworms† European Chafer Green June beetle Japanese beetle Northern masked chafer Oriental beetle <i>Phyllophaga</i> spp. Southern masked chafer	2.5 to 4.0	5.4 to 8.8	Grubs, European Crane Fly, billbugs and annual bluegrass weevil: For best results make applications prior to egg hatch of the target pest. Chinchbugs: Make applications prior to the hatching of the first instar nymphs. Mole Crickets: Make applications prior to or during the peak egg hatching period. When adults or large nymphs are present and actively tunneling, this product should be accompanied by a curative insecticide. NOTE: For best results, the active ingredient must be moved through the thatch by irrigation or rainfall occurring within 24 hours after application.
Chinchbugs† Mole Crickets	4.0	8.8	

† Suppression only.

1 level teaspoon = 1.4 grams of this product  
 3 level teaspoons = 1 level tablespoon

### TREES, ORNAMENTALS, GROUNDCOVERS AND INTERIOR PLANTSCAPES

This product is a systemic insecticide that may be applied to trees, ornamentals, groundcovers and interior plantscapes in and around industrial, commercial buildings and residential areas and state, national, and private wooded forested areas.

26/29

The insecticide is translocated upward into the plant system and for best results must be placed where the growing portions of the target plant can absorb the active ingredient. When applicable, adding a fertilizer containing nitrogen into the spray solution may enhance plant uptake of this product.

**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 plant-back interval should be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

**Ant Management Programs:**

This product may be used to limit the honeydew available as a food source for ant populations when controlling aphids, scale insects, mealy bugs and other sucking pests on ornamentals. Product applications may be supplemented with bait traps, residual sprays and other methods to further reduce the unwanted ant population.

**Insect Resistance:**

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 recommended pest management practices for your area.

**Woody Perennials:**

Protection in woody perennials is slower than in herbaceous species and a delay of 2 or more weeks should be expected, with longer delays for larger plants. Because of this, applications to woody perennials should be made well in advance of expected insect activity.

**Bark Media:**

Product treatments to media with 30 to 50% or more bark content may confer a shorter period of protection.

**FOLIAR AND BROADCAST APPLICATIONS**

This product may be applied as a broadcast or foliar application to trees (including non-bearing fruit and nut trees), shrubs, evergreens, flowers, foliage plants, ground covers, interior plantscapes and vegetable plants intended for resale.

**Application Instructions:**

Apply this product in sufficient water to provide adequate distribution in the treated area. Use of accurately calibrated equipment normally used for soil application of 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.

NOTE: When making foliar applications to plants with hard-to-wet foliage such as holly, pine or ivy, use of a spreader / sticker is recommended.

Pest	Application Method	Application Rate		Specific Instructions
		THIS PRODUCT	Water	
Adelgids	Foliar			Make applications prior to establishment of large pest populations and retreat as necessary. NOTE: For resistance management purposes, do not apply this product foliarly after soil application in the same crop.
Aphids				
Japanese beetle (adult)				
Lacebugs				
Leaf beetles (including elm and viburnum leaf beetles)		0.25 tsp.	2.5 gal.	
Leafhoppers (including glassy-winged sharpshooter)		0.50 tsp.	5.0 gal.	
Leafminers		1.0 tsp.	10.0 gal.	
Mealybugs		2.5 tsp.	25.0 gal.	
Sawfly larvae		5.0 tsp.	50.0 gal.	
Thrips*		3 Tbs. + 1 tsp.	100.0 gal.	
Whiteflies				

27/29

Pest	Application Method	Application Rate	Specific Instructions
White grub larvae (such as Japanese beetle larvae, chafers, <i>Phyllophaga</i> spp., Asiatic garden beetle and Oriental beetle)	Broadcast	3 to 4 level teaspoons per 1000 sq. ft.	Mix the specified amount of this product in sufficient water to uniformly cover the area being treated using at least 2 gallons of water per 1000 sq. ft. For best results, incorporate this product into the upper soil profile by irrigating after the application is made.
† Suppression only.			

1 level teaspoon = 1.4 grams of this product  
 3 level teaspoons = 1 level tablespoon

**SOIL INJECTION AND DRENCH APPLICATIONS**

Application Site	Application Rate	Application Instructions	Pests Controlled
<b>Trees</b> NOTE: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.	0.7 to 1.4 level teaspoons per inch of trunk diameter (DBH) or 1 to 2 oz. per 30 cumulative inches of trunk diameter (DBH)	<b>SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.</b> <b>GRID SYSTEM:</b> Space the holes on 2.5 ft 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. For optimum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree.	Adelgids Aphids Armored Scale† Black Vine Weevil larvae Emerald Ash Borer Eucalyptus Longhorned Borers Flatheaded Borers (including bronze birch and alder borers) Japanese Beetles (adults) Lacebugs Leaf Beetles (including elm and viburnum leaf beetles)
		<b>SOIL DRENCH:</b> Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	
<b>Shrubs</b>	0.7 to 1.4 level teaspoons per foot of shrub height or 1 to 2 oz. per 30 cumulative feet of shrub height	<b>SOIL INJECTION – No Soil Injection Application allowed in Nassau or Suffolk counties of New York.</b> Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Using a minimum of 4 holes per shrub, apply to individual plants maintaining 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.	Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae Soft Scales Thrips† White Grub larvae
		<b>SOIL DRENCH:</b> Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	
<b>Flowers and Ground Cover</b>	3 to 4 level teaspoons per 1000 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.	Whiteflies
† Suppression only of these species.			

1 level teaspoon = 1.4 grams of this product  
 3 level teaspoons = 1 level tablespoon

28/29

**POME FRUIT IN AND AROUND RESIDENTIAL AREAS**

Apple, Crabapple, Loquat, Mayhaw, Pear (Including Oriental pear) Quince

- Pre-Harvest Interval (PHI): 7 days
- Reapplication Interval: At least 10 days
- Maximum Single Application Rate (per acre): 2 oz.
- Maximum Applications per Year: 5

Pest	Ounces per 100 gal. of Water	Ounces per Acre <sup>‡</sup>	Specific Instructions
Aphids (except Woolly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs <sup>†</sup> San Jose Scale <sup>†</sup>	0.5 oz. (3 Tbsp. + 1 tsp.)	2.0	Apply as a foliar spray as needed after petal-fall is complete. <b>Rosy Apple Aphid:</b> Apply prior to leaf rolling caused by the pest. <b>Leafhopper:</b> For late season (preharvest) control, apply while most leafhoppers are in the nymphal stage. <b>Leafminer:</b> Make first application as soon as petal-fall is complete for control of first generation, with best results occurring when the application is made at the earliest possible time. For succeeding generations, best results occur when applications are made early in the adult flight against egg and early instar larvae. If generations are overlapping or severe pressure continues, a second application may be necessary after 10 days. A single application may result in suppression only. NOTE: This product will not control late stage larvae. <b>Mealybug:</b> For best results be sure to have good spray coverage of the trunk and scaffolding limbs or other nesting sites. <b>San Jose Scale:</b> Time applications to the crawler stage and treat each generation.
<sup>†</sup> Not permitted for control on pears in California. <sup>‡</sup> The amount of this product required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.			

1 level teaspoon = 1.4 grams of this product  
3 level teaspoons = 1 level tablespoon

**PECANS IN AND AROUND RESIDENTIAL AREAS**

**NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling**

- Reapplication Interval: At least 10 days
- Maximum Applications per Year: 3
- Maximum Product Allowed per Year: 6.3 oz. / Acre

Pest	Ounces per 100 gal. of Water	Ounces per Acre <sup>‡</sup>	Specific Instructions
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	0.5 oz. (3 Tbsp. + 1 tsp.)	2.0	Apply as a foliar spray as pest pressure builds but before infestation is extremely heavy. Two applications at a 10 to 14 day interval may be required to achieve control. For best results, thorough and uniform coverage is necessary. Coverage may be improved through the use of an organosilicone-based spray adjuvant. An addition of organosilicone-based spray adjuvant may not exceed the adjuvant manufacturer's recommended use rate. Do not apply more than 6.3 ounces of product per acre per year.
<sup>‡</sup> The amount of this product required per acre depends on tree size and volume of foliage. The listed rate per acre is based on a standard of 400 gallons of dilute spray per acre for large trees.			

1 level teaspoon = 1.4 grams of this product  
3 level teaspoons = 1 level tablespoon

29/29

**GRAPES  
ORNAMENTAL USE**

- Reapplication Interval: At least 14 days
- Maximum Product Allowed per Year: 2.0 oz. / Acre

<b>Ornamental Grapes In and Around Industrial and Commercial Buildings and Residential Areas</b>			
<b>Pest</b>	<b>Ounces per 100 gal. of Water</b>	<b>Ounces per Acre*</b>	<b>Specific Instructions</b>
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	0.5 oz. (3 Tbsp. + 1 tsp.)	1.0	Apply as a foliar spray using 200 gallons of water per acre. Applications may be applied up to and including the day of harvest. Do not apply more than 2.0 ounces of product per acre per year.

1 level teaspoon = 1.4 grams of this product  
3 level teaspoons = 1 level tablespoon