228-588 (03-09-2011 1/41

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

MAR 09 2011

Nathan Ehresman
Nufarm Americas Inc.
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

Dear Mr. Ehresman:

Subject: Fast Track Amendment of label to re-format tables, drop commercial agricultural/crop uses, and revise rates for soil injections/drench to allow higher rate per tree but not per acre rate for larger trees to control EAB & ALB pests
Mallet 75 WP Insecticide
EPA Registration No. 228-588
Your Submission Dated September 30, 2010

The labeling referred to above submitted in connection with the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable provided you make the following change:

- On page 4, make the title "DIRECTIONS FOR USE" more prominent so that it is clear that every subsection following is part of this section.

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

Sincerely,

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

MALLET® 75 WP

INSECTICIDE

[ALTERNATE BRAND NAME: MALLET® 75 WSP INSECTICIDE]

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

ACTIVE INGREDIENT:	
Imidacloprid, 1 -[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine.....	75.0%
OTHER INGREDIENTS:.....	25.0%
TOTAL.....	100.0%

EPA REG. NO. 228-588
EPA EST. NO. _____

MANUFACTURED FOR
NUFARM AMERICAS INC.
150 HARVESTER DRIVE
BURR RIDGE, IL 60527

ACCEPTED
With COMMENTS
In EPA Letter Dated:
MAR 09 2011
Under the Federal Insecticide, Fungicide and Rodenticide Act, As amended for the pesticide Registered under EPA Reg. 228-588

000228-00588.20110302.Revised_label

MALLET® 75 WP

INSECTICIDE

FOR SYSTEMIC AND FOLIAR INSECT CONTROL IN TURFGRASS, LANDSCAPE ORNAMENTALS, ON FRUIT AND NUT TREES, ON ORNAMENTAL AND VEGETABLE PLANTS IN GREEHOUSES, NURSERIES AND INTERIOR PLANTSCAPES

ACTIVE INGREDIENT:	
Imidacloprid, 1 -[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine.....	75.0%
OTHER INGREDIENTS:.....	25.0%
TOTAL.....	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-588
EPA EST. NO. _____

MANUFACTURED FOR
NUFARM AMERICAS INC.
150 HARVESTER DRIVE
BURR RIDGE, IL 60527

NET WEIGHT _____LBS. (_____Kg)

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.

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.
- 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.

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.

FIRST AID	
If swallowed	• Call a poison control center or doctor immediately for treatment advice • Have person sip a glass of water if able to swallow • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor • **DO NOT** do anything by moth an unconscious person
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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.

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

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

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

Keep children and pets off treated area until dry.

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

RUNOFF MANAGEMENT

DO NOT cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, use 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

Certain insects may develop resistance to insecticides after repeated use. Use different resistance management practices such as rotating classes of insecticides to help delay or minimize insect resistance.

This product contains the active ingredient imidacloprid, which is a Group 4A insecticide. Repeated use of Group 4A insecticides may lead to insect pests that become resistant to imidacloprid or other neonicotinoids (Group 4A) insecticides.

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

To reduce the chances of development of resistance to Group 4A insecticides, do not make more than three (3) consecutive foliar applications of this product and/or other Group 4A insecticides with similar modes of action. In addition, Nufarm strongly recommends the use of other insecticides with a different mode of action prior to or after application of this product. This strategy of insecticide rotation in concert with other IPM practices is considered an effective way to delay or minimize an insect's ability to develop resistance to this class of chemistry.

Some Group 4A neonicotinoid products used as foliar treatments include the active ingredients thiamethoxam (found in Actara® and Centric®), acetamiprid (found in Assail® and Intruder™), thiacloprid (found in Calypso®), and imidacloprid (found in Leverage®, Provado®, and Trimax™). Some 4A Group neonicotinoid products used as soil treatment include thiamethoxam (found in Platinum®) and imidacloprid (found in Admire®).

Additional information on insect resistance management may be obtained from your local extension specialist, certified crop advisor and/or product manufacturer, or from the Insecticide Resistance Action Committee (IRAC) on the web at http://irac-online.org/.

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

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, make applications 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 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)

Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. Follow the specified 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.

No-Spray Zone Requirements for Foliar Applications

DO NOT apply by ground within 25 feet lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

USE INFORMATION

Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. This product may not knockdown established and heavy insect populations. Two applications may be required to achieve control; retreat if needed and as directed on this label. Tank mix this product with other insecticides as recommended for knockdown of pests or for improved control of other pests.

USE RESTRICTIONS (All Uses)

- **DO NOT** make a foliar application of any chloronicotinyl insecticide for resistance management purposes following a soil application of this product on the same crop.
- **DO NOT** use this product on commercial sod farms.
- **DO NOT** allow livestock to graze in treated areas or use clippings from treated areas for feed or forage unless specified otherwise on this label.
- **DO NOT** apply this product to soils that are waterlogged or saturated.
- **DO NOT** allow runoff or puddling of irrigation water following application.
- **DO NOT** allow leachate to run off for the first 10 days after application or reduced efficacy may result.
- **DO NOT** exceed the total 8.6 oz of this product (0.4 lbs AI) / Acre per year specified for the uses indicated on this label.

ROTATION CROPS RESTRICTIONS

Crops which are listed on imidacloprid labels or crops that have existing tolerances for imidacloprid may be planted in treated areas as soon as practical after the last imidacloprid application. Crop that are not found on an imidacloprid label, or crops that do not have existing tolerances for imidacloprid, may not be planted in treated areas for 12-months after the last application.

Refer to the table below for plantback intervals for different crops. Note that if cover crops are planted any time after an application of this product, those crops may not be grazed or harvested for food or feed.

Crops	Plantback Interval
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	No restrictions
Cereals, including buckwheat, millet, oats, rice, rye, and triticale, and soybeans and safflower	30 days
Onion and bulb vegetables	10 months
All other crops	12 months

PREPARATION OF TANK MIXES

This product is a wettable powder formulation that contains imidacloprid, a systemic insecticide and readily dissolves in water.

How to Prepare Spray Solutions

1. Fill the spray tank with 1/4 to 1/3 of the required amount of clear water and begin agitation.
2. Add the specified amount of this product. Allow this product to be mixed thoroughly to provide a uniform spray solution
3. Fill the tank with the remaining water needed. Maintain sufficient agitation during mixing and application.

If this product is to be tank-mixed with other pesticides and/or fertilizer solutions, check the compatibility (refer to the Tank Mix Compatibility section below) before adding to the spray tank. Use the following order of addition:

1. MALLET 75 WP INSECTICIDE
2. Other wettable powders or wettable granules
3. Flowables or suspension concentrates
4. Emulsifiable concentrates

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

Run agitator as each component is added. Add the next component only after the previous one is thoroughly mixed. Add the remaining quantity of water as the final step. To ensure a uniform spray mixture, maintain constant agitation during both mixing and application.

Tank Mix Compatibility

This product has been found to be compatible with commonly used liquid fertilizers, fungicides and insecticides. Before preparing tank mixtures with this product, especially if compatibility is not known, carry out the following small jar test using the desired tank mix partners.

1. Add proportionate amount of each component in the appropriate order to a pint or a quart jar;
2. Replace the cap, shake for 5 minutes, and allow the mixture to settle for 5 minutes.
3. Observe the jar for signs indicating an incompatible mixture. If the contents can be re-mixed by shaking and readily re-suspends, it is considered compatible. If the mixture separates out, foams, or forms a gel or lumps, then the mixture is not compatible.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

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

- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment. ***DO NOT apply this product through any other type of irrigation system.*** Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- A person knowledgeable of the chemigation system and responsible for its operation, or a person who is under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

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

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

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY:

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

APPLICATION TO TURFGRASS (Lawns)

Use this product for the control of listed soil inhabiting pests as directed on turfgrass.

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

TURFGRASS around airports, athletic fields, cemeteries, golf courses, homes and multi-family residential buildings, office buildings and office parks, public parks and playground areas, shopping centers, and sod farms	
Target Pests	**Rate**
For control of: Annual bluegrass weevil Annual bluegrass weevil Asiatic garden beetles (*Maladera* spp.) Billbugs Black turfgrass ataenius European chafer European Crane Fly Green June beetle Japanese beetle May or June beetles Northern masked chafer Oriental beetle (*Phyllophaga* spp.) Southern masked chafer	3.0 – 4.0 level TSP / 1000 ft^2 OR 6.4 – 8.6 oz / Acre
For control of: Mole Crickets[1]	4.0 level TSP / 1000 ft^2 OR 8.6 oz. / Acre
For suppression of: Chinchbugs[2] Cutworms	
Application Instructions	
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.	

Make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch. Apply this product in sufficient water to provide adequate distribution in the treated area.

Rainfall or irrigation must occur within 24 hours of application to move this product vertically through the thatch and into the soil.

Wait until after sufficient rainfall or irrigation has occurred to mow the grass.

1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE

3 level TSP = 1 Tablespoon (TBSP)

Remarks

Annual Bluegrass weevil, Billbugs, European Crane Fly, and Grubs: For best results, make applications before egg hatch.

[1]**Mole Crickets**: Make applications before or during the peak egg hatching period. this product may be applied with a curative insecticide when adults or large nymphs are present and actively tunneling,

[2]**Chinchbugs**: Make applications before hatching of first instar nymphs.

Restrictions

DO NOT apply more than 8.6 oz. (0.4 lb of active ingredient) per acre per year.

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.

APPLICATION TO LANDSCAPE ORNAMENTALS

Use this product as directed below on ornamentals in and around commercial and residential landscapes and interior plantscapes to control or suppress listed insects.

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

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

Bark Media: Treatments of this product to media with 30 - 50% or more bark content may confer a shorter period of protection.

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

ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES , NON-BEARING FRUIT & NUT TREES, VEGETABLE PLANTS (intended for Resale only) (in and around the perimeter of industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas for the insect pests listed below)

Foliar Applications

Target Pests	Rate
For control of:	
Adelgids	0.25 tsp. in 2.5 gal water
Aphids	0.50 tsp. in 5.0 gal water
Japanese beetle (adult)	1.0 tsp. in 10.0 gal water
Lacebugs	2.5 tsp. in 25.0 gal water
Leaf beetles (including elm and viburnum leaf beetles)	

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Whiteflies	5.0 tsp. in 50.0 gal water 3 Tbs. + 1 tsp. in 100 gal water
For suppression of: Thrips (suppression only)	

Foliar Application Instructions

Apply this product in a sufficient volume of water to uniformly cover the treatment area. Foliar applications will provide systemic activity against target pests.

If plants (such as holly, pine or ivy) have foliage that is difficult to wet, Nufarm recommends this product be applied with a spreader/sticker.

Time applications to occur before heavy pest populations arise; make repeat applications as necessary.

1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE

3 level TSP = 1 Tablespoon (TBSP)

Soil (Broadcast) Applications

Target Pests	Rate
White grub larvae (including Asiatic garden beetle, chafers, *Phyllophaga* spp., Japanese beetle larvae, and Oriental beetle)	3 – 4 level TSP / 1000 ft^2

Soil Application Instructions

Mix the specified amount of this product in a sufficient volume of water to uniformly cover the treatment area. Apply in a minimum of 2 gallons of water per 1,000 sq. ft. After application, irrigate the treated areas to incorporate this product into the soil.

1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE

3 level TSP = 1 Tablespoon (TBSP)

Restrictions

DO NOT apply by soil (broadcast) application more than 8.6 oz. (0.4 lb active ingredient) per acre per year.

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

For control of: Adelgids, Alder borer, Aphids, Black vine weevil larvae, Bronze birch borer, Emerald ash borer, Eucalyptus longhorned borer, Flatheaded borers (including Bronze birch and Alder), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Leafminers, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae*, Soft scales, White grub larvae, Whiteflies

For suppression of: Armored scales, Thrips

USE RATE	APPLICATION SITE
TREES	

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

Diameter at Breast Height (DBH) is measured at 4.5 feet from the ground. Use the following rates as a function of tree diameter at breast height (DBH): Apply 0.7 – 2.8 TSP (0.035 – 0.14 oz). per inch of trunk diameter (DBH) You may use the higher rate 2.1 – 2.8 TSP (0.10 – 0.14 oz) only for trees >15 inches (DBH) to control: Asian longhorned beetle, Emerald ash borer, Eucalyptus longhorned borer, Bronze birch borer, and Alder borer **RESTRICTION: DO NOT** apply more than 8.6 oz. (0.4 lb AI) per acre per year.	**Soil Injection:** GRID SYSTEM: Holes must be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.** **Soil Drench:** Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. **For Control of Specified Borers:** Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
SHRUBS	
0.5 – 1.5 level TSP per foot of shrub height or 1 – 2 ounces per 30 feet cumulative shrub height	**Soil Injection:** Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per shrub. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.** **Soil Drench:** Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
FLOWERS & GROUNDCOVERS	
3 – 4 level TSP / 1000 ft^2	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. Irrigate immediately following application to established plants.
Remarks	
1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE 3 level TSP = 1 Tablespoon (TBSP) *Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.	
Restrictions	
DO NOT apply more than 8.6 ounces (0.4 lbs AI) per acre per year. **DO NOT** harvest or consume fruits or nuts from trees that have been treated within 1 year.	

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

POME FRUITS: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince (around perimeter of industrial and commercial buildings and on residential areas)

PEST	USE RATE
Aphids (except Wooly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs* San Jose scale*	0.5 oz (10 TSP) per 100 Gallons of Water 2.0 oz / Acre[1]

Remarks

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

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

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

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

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

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

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

Restrictions

DO NOT apply more than 2.1 ounces per acre in a single application.

DO NOT make more than 5 applications per year.

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

* Not for use in California for control on pears.

PECANS* (around perimeter of industrial and commercial buildings and on residential areas)

PEST	USE RATE
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	0.5 oz (10 TSP) per 100 Gallons of Water 2.0 oz / Acre[1]

Remarks

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

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

Restrictions

DO NOT apply more than a total of 6.3 ounces of this product per acre per year.

DO NOT make more than 3 applications per year.

Allow 10 or more days between applications.

* Use on pecans not permitted in California unless otherwise directed by specific supplemental labeling.

GRAPES: (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**RATE**
Leafhoppers (including glassy-winged sharpshooter) Mealybugs*	0.5 oz (10 TSP) per 100 Gallons of Water 1.0 oz / Acre[1]
Remarks	
[1] Apply specified dosage as a foliar spray using 200 gallons of water per acre.	
Restrictions	
DO NOT apply more than a total of 2.0 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.	

CITRUS: Citrus and Citrus hybrids, Orange (sweet and sour), Calamondin, Grapefruit, Kumquat, Lemon, Lime, Pummelo, Tangerine, Tangelo (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**USE RATE**
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	0.5 oz (10 TSP) per 100 Gallons of Water 2.0 oz / Acre[1]
Remarks	
Apply specified dosage as foliar spray as needed after petal-fall is complete. For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late stage larvae. For late season (preharvest) control of leafhopper species, apply this product while most leafhoppers are in the nymphal stage. For control of mealybugs, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybugs. [1] The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.	
Restrictions	
DO NOT apply more than 2.0 ounces per acre in a single application. **DO NOT** make more than 5 applications per year. Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.	

AVOCADO: (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**RATE**
Aphids Avacado lacebug Leafhoppers Whiteflies	0.5 oz per 100 Gallons of Water 2.0 oz / Acre[1]
Remarks	

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

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

Restrictions

DO NOT apply more than a total of 2.0 ounces of this product per acre per year.

Allow at least 14 days between applications. Allow at least 7 days between application and harvest.

APPLICATION TO GRASSY AREAS IN NURSERIES, NURSERY, AND GREENHOUSE GROWN ORNAMENTALS

Use this product on grassy areas in nurseries, around and on nursery grown ornamentals, and in planting rows in nurseries to control listed pests. Make application prior to anticipated pest infestation to maximize control. Rainfall, irrigation and mechanical incorporation after application will aid in maximizing control.

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.

GRASSY AREAS (in Field & Forest Nurseries)	
PEST	**DOSAGE**
For control of: Annual bluegrass weevil Annual bluegrass weevil Asiatic garden beetles (*Maladera* spp.) Billbugs Black turfgrass ataenius European chafer European Crane Fly Green June beetle Japanese beetle May or June beetles Northern masked chafer Oriental beetle (*Phyllophaga* spp.) Southern masked chafer	3.0 – 4.0 level TSP / 1000 ft^2 OR 6.4 – 8.6 oz / Acre
For control of: Mole Crickets[1]	4.0 level TSP / 1000 ft^2 OR 8.6 oz. / Acre
For suppression of: Chinchbugs[2] Cutworms	

Application Instructions

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

Remarks

Annual Bluegrass weevil, Billbugs, European Crane Fly, and Grubs: For best results, make applications before egg hatch.

[1]**Mole Crickets**: Make applications before or during the peak egg hatching period. this product may be applied with a curative insecticide when adults or large nymphs are present and actively tunneling,

[2]**Chinchbugs**: Make applications before hatching of first instar nymphs.

Restrictions

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

DO NOT apply more than 8.6 oz. (0.4 lb of active ingredient) per acre per year.

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.

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

Foliar Applications

PEST	DOSAGE
For control of: Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Whiteflies	0.25 tsp. in 2.5 gal water 0.50 tsp. in 5.0 gal water 1.0 tsp. in 10.0 gal water 2.5 tsp. in 25.0 gal water 5.0 tsp. in 50.0 gal water 3 Tbs. + 1 tsp. in 100 gal water
For suppression of: Thrips	

Foliar Application Instructions

Apply this product in a sufficient volume of water to uniformly cover the treatment area. Foliar applications will provide systemic activity against target pests.

If plants (such as holly, pine or ivy) have foliage that is difficult to wet, Nufarm recommends this product be applied with a spreader/sticker.

Time applications to occur before heavy pest populations arise; make repeat applications as necessary.

1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE

3 level TSP = 1 Tablespoon (TBSP)

Soil (Broadcast) Applications

PEST	DOSAGE
For control of: White grub larvae (including Japanese beetle, Masked Chafers, European Chafer, Oriental beetle, Asiatic Garden beetle)	3 – 4 level TSP / 1000 ft^2

Soil (Broadcast) Application Methods

Mix the required amount of this product in sufficient water to uniformly and accurately cover the area being treated.

DO NOT use less than 2 gallons of water per 1000 sq. ft. of treatment area.

Irrigate thoroughly to incorporate the product into the upper soil profile. Incorporate application into the soil before planting or apply after plants are established. For applications made to established plants, irrigate thoroughly after application.

Remarks

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

Restrictions

DO NOT apply by soil (broadcast) application more than 8.6 oz. (0.4 lb active ingredient) per acre per year.

DO NOT allow runoff or puddling of irrigation water following application.

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

DO NOT apply this product to water-logged or saturated areas. Application of this product to water-logged or saturated areas will not allow penetration into the root zone of the plant.

DO NOT exceed an application frequency of more than once each 16 weeks on nursery ornamentals with a production cycle of less than one (1) year.

DO NOT exceed one (1) application per year on nursery ornamentals with a production cycle of greater than one year.

Only for use on vegetable plants intended for resale including: Broccoli, Chinese broccoli, Broccoli raab, Brussels sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground cherry, Kale, Kohlrabi, Lettuce, Mustard greens, Pepinos, Peppers, Potatoes, Rape greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

DO NOT make a foliar application of this product following a soil application in the same crop for resistance management purposes.

Rotational Crops:

Food Crops: 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 any 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.

SOIL INJECTION & BASAL DRENCH APPLICATIONS: NURSERY, GREENHOUSE AND INTERIORSCAPE PLANTS

For control of: Adelgids, Alder borer, Aphids, Black vine weevil larvae, Bronze birch borer, Emerald ash borer, Eucalyptus longhorned borer, Flatheaded borers (including Bronze birch and Alder), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Leafminers, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae*, Soft scales, White grub larvae, Whiteflies

For suppression of: Armored scales, Thrips

USE RATE	APPLICATION SITE
TREES	
Diameter at Breast Height (DBH) is measured at 4.5 feet from the ground. Use the following rates as a function of tree diameter at breast height (DBH): Apply 0.7 – 2.8 TSP (0.035 – 0.14 oz). per inch of trunk diameter (DBH) You may use the higher rate 2.1 – 2.8 TSP (0.10 – 0.14 oz) only for trees >15 inches (DBH) to control: Asian longhorned beetle, Emerald ash borer, Eucalyptus longhorned borer, Bronze birch borer, and Alder borer **RESTRICTION: DO NOT** apply more than 8.6 oz. (0.4 lb AI) per acre per year.	**Soil Injection:** GRID SYSTEM: Holes must be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.**
	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. **For Control of Specified Borers:** Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
SHRUBS	
0.5 – 1.5 level TSP per foot of shrub height or 1 – 2 ounces per 30 feet	**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.

cumulative shrub height	**NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.**
	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
FLOWERS & GROUNDCOVERS	
3 – 4 level TSP / 1000 ft^2	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. Irrigate immediately following application to established plants.
Remarks	
1 level teaspoon (TSP) = 1.4 grams (0.05 oz) MALLET 75 WP INSECTICIDE 3 level TSP = 1 Tablespoon (TBSP) *Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.	
Restrictions	
DO NOT apply more than 8.6 ounces (0.4 lbs AI) per acre per year. **DO NOT** harvest or consume fruits or nuts from trees that have been treated within 1 year of application.	

FIELD AND FOREST NURSERIES		
Pests	**Rate**	
For control of: White grub larvae[1] (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	4.5 TBSP (0.67 oz) per 1000 ft of row	4.5 TBSP (0.67 oz) per 3000 ft^2
Application methods		
Apply May through July. Time the treatment so that rainfall or irrigation occurs within 24 hours following the application. Apply as a uniform band on either side of the row using a band width six (6) inches wider than the actual root ball diameter to be dug. **DO NOT** allow bands in adjacent rows to overlap.		
Remarks		
Mowing of the vegetation in the area to be treated to a height of 3 inches or less prior to application will improve the consistency of control.		
Restrictions		
DO NOT use less than 2 gallons of spray volume per 1,000 ft^2 **DO NOT** apply more than 8.6 oz (0.4 lbs) per acre / year.		

IRRIGATION, DRENCH, EBB & FLOOD APPLICATIONS

Apply this product to ornamental and vegetable plants in greenhouses, nurseries and interior plantscapes using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment. See instructions above "**For Application Through Irrigation Systems**".

RESTRICTIONS:

- **DO NOT** graze treated areas or use clippings from treated areas for feed or forage.
- **DO NOT** apply to soils that are water logged or saturated, which will not allow the penetration of the insecticide into the root zone of the plants.

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

- **DO NOT** allow leachate runout for the first 10 days after application, in order to retain the product and facilitate full plant uptake of the active ingredient.
- For outdoor ornamentals grown in beds or turf, **DO NOT** apply more than 8.6 ounces (0.4 lbs AI) per acre per year.
- On plants with a production cycle of less than one year, **DO NOT** exceed a frequency of more than once each 16 weeks for a particular plant. On stock plants and woody crops with a production cycle of greater than one year, **DO NOT** exceed application once a year.

Food Crops:

Replant treated areas with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient.

A 12-month plant-back interval must be observed for crops not listed on an imidacloprid label or for crops for which no tolerances for the active ingredient have been established.

IRRIGATION & DRENCH APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN SMALL CONTAINERS

PEST	CONTAINERIZED PLANTS (small containers)		
	Container size (inches)	Herbaceous species including vegetable plants (1 or 2 plants/pot)	Woody perennials, Herbaceous species including vegetable plants (3 or more/pot)
		# of Containers treated with 4.5 TBSP (0.67 oz)	
For control of:	2	3000	2000
Adelgids	3	2000	1350
Aphids	4	1500	1000
Fungus gnats (larvae only)[1]	5	1200	800
Japanese beetles (adults)	6	1000	650
Lacebugs	7	850	550
Leaf Beetles	8	750	500
(including Elm and Viburnum)	9	675	450
Leafhoppers (including glassy-winged sharpshooter)	10	600	400
	11	550	350
Leafminers	12	500	300
Mealybugs	**Application methods**		
Psyllids	Use sufficient volume to wet most of the potting medium without loss of liquid from the bottom of the container. Apply according to label directions. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to prevent loss of active ingredient due to leaching.		
Root mealybugs[2]			
Root weevil complex:			
(such as Apopka, Black vine, Citrus root weevils)[3]	**PLANTS IN FLATS, ON BENCHES, OR IN BEDS**		
Soft scales	3 – 4 level TSP / 1000 ft^2		
Whiteflies	**Application methods**		
White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	Mix required amount in sufficient water to uniformly cover the area being treated. **DO NOT** use less than 2 gallons of mixture per 1,000 square feet. Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. Lightly water the treated areas if application is made to established plants. Allow no leaching or runout for 10 days after application.		
For suppression of:			
Thrips[4]			
Remarks			

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

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

[2] **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 0.67 oz (4.5 TBSP) in 150 gallons of water.

[3] **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

[4] **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

Restrictions

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

IRRIGATION & DRENCH APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN LARGE CONTAINERS

Application instructions: Use 1 packet (20 grams) of product in an appropriate amount of water to prevent leaching. One (1) packet will treat the number of containers specified below, based on container size.

Pests	Container Size (gallons)	# of Containers treated with 4.5 TBSP (0.67 oz)
For control of: Adelgids Aphids Fungus gnats (larvae only)[1] Japanese beetles (adults) Lacebugs Leaf Beetles (including Elm and Viburnum) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs[2] Root weevil complex⊗such as Apopka, Black vine, Citrus root)[3] Soft scales Whiteflies White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle) **For suppression of:** Thrips[4]	1	240 – 120
	2	120 – 60
	3	90 – 40
	5	65 – 30

Application methods

Apply in sufficient water to wet the potting medium. Make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.

Remarks

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

[2] **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 0.67 ounces (4.5 TBSP) in 150 gallons of water.

[3] **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

[4] **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

Restrictions

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

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

EBB & FLOOD APPLICATIONS

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

EBB & FLOOD APPLICATIONS: ORNAMENTAL AND VEGETABLE PLANTS GROWN IN CONTAINERS

PEST	Container size (inches)	Herbaceous species including vegetable plants (1 or 2 plants/pot)	Woody perennials, Herbaceous species including vegetable plants (3 or more/pot)
		Oz. (TSP) / 100 plants	
Adelgids Aphids Armored scales (suppression) Fungus gnats (larvae only)[1] Japanese beetles (adults) Lacebugs Leaf Beetles (including Elm and Viburnum) Leafhoppers/Sharpshooters Leafminers Mealybugs Psyllids Root mealybugs[2] Root weevil complex: (such as Apopka, Black vine, Citrus root)[3] Soft scales Thrips (suppression)[4] Whiteflies White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	2	0.02 (0.4)	0.03 (0.6)
	3	0.03 (0.6)	0.04 (0.8)
	4	0.04 (0.8)	0.06 (1.1)
	5	0.05 (1.0)	0.07 (1.4)
	6	0.06 (1.1)	0.09 (1.8)
	7	0.07 (1.3)	0.10 (2.1)
	8	0.075 (1.5)	0.11 (2.3)
	9	0.08 (1.7)	0.13 (2.5)
	10	0.09 (1.9)	0.14 (2.9)
	11	0.10 (2.1)	0.16 (3.3)
	12	0.11 (2.3)	0.19 (3.8)

Remarks

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

[2] **Root Mealybug** control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 4.5 TBSP (0.67 oz) in 150 gallons of water.

[3] **Citrus Root Weevil:** For use on non-bearing citrus nursery stock.

[4] **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

Restrictions

Use only on vegetable plants intended for resale including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE Store in a 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:

[Nonrefillable Containers 5 Gallons or Less:]
Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration. **DO NOT** burn unless allowed by state and local ordinance If burned stay out of smoke.

[Nonrefillable containers larger than 5 Gallons:]
Nonrefillable container. DO NOT reuse or refill this container. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration. **DO NOT** burn unless allowed by state and local ordinance If burned stay out of smoke.

[Nonrefillable bags]
Nonrefillable container. DO NOT reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. **DO NOT** burn unless allowed by state and local ordinance 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, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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.

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 RISING 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,

SUB-LABEL A: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Wettable Powder- WP)

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.

(RV030211)

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

MALLET® 75 WSP

INSECTICIDE

FOR SYSTEMIC AND FOLIAR INSECT CONTROL IN TURFGRASS, LANDSCAPE ORNAMENTALS, ON FRUIT AND NUT TREES, ON ORNAMENTAL AND VEGETABLE PLANTS IN GREEHOUSES, NURSERIES AND INTERIOR PLANTSCAPES

ACTIVE INGREDIENT:	
Imidacloprid, 1 -[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine.....	75.0%
OTHER INGREDIENTS:.....	25.0%
TOTAL.....	100.0%

This product contains 0.075 lbs (1.2 oz) (34.02 grams) imidacloprid per packet.

Keep water-soluble packets in this container and store in a cool dry place but not below freezing (32°F).
DO NOT remove packets from container except for immediate use.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-588
EPA EST. NO. _____

MANUFACTURED FOR
NUFARM AMERICAS INC.
150 HARVESTER DRIVE
BURR RIDGE, IL 60527

NET WEIGHT _____X 1.6 oz. (_____ X 45.4 gms)

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.

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.
- 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.

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.

FIRST AID	
If swallowed	• Call a poison control center or doctor immediately for treatment advice • Have person sip a glass of water if able to swallow • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor • **DO NOT** do anything by moth an unconscious person
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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.	

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

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

Keep children and pets off treated area until dry.

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

RUNOFF MANAGEMENT

DO NOT cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, use 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

Certain insects may develop resistance to insecticides after repeated use. Use different resistance management practices such as rotating classes of insecticides to help delay or minimize insect resistance.

This product contains the active ingredient imidacloprid, which is a Group 4A insecticide. Repeated use of Group 4A insecticides may lead to insect pests that become resistant to imidacloprid or other neonicotinoids (Group 4A) insecticides.

To reduce the chances of development of resistance to Group 4A insecticides, do not make more than three (3) consecutive foliar applications of this product and/or other Group 4A insecticides with similar modes of action. In addition, Nufarm strongly recommends the use of other insecticides with a different mode of action prior to or after application of this product. This strategy of insecticide rotation in concert with other IPM practices is considered an effective way to delay or minimize an insect's ability to develop resistance to this class of chemistry.

Some Group 4A neonicotinoid products used as foliar treatments include the active ingredients thiamethoxam (found in Actara® and Centric®), acetamiprid (found in Assail® and Intruder™), thiacloprid (found in Calypso®), and imidacloprid (found in Leverage®, Provado®, and Trimax™). Some 4A Group neonicotinoid products used as soil treatment include thiamethoxam (found in Platinum®) and imidacloprid (found in Admire®).

Additional information on insect resistance management may be obtained from your local extension specialist, certified crop advisor and/or product manufacturer, or from the Insecticide Resistance Action Committee (IRAC) on the web at http://irac-online.org/.

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

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, make applications 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 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)

Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. Follow the specified 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.

No-Spray Zone Requirements for Foliar Applications

DO NOT apply by ground within 25 feet lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

USE INFORMATION

Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. This product may not knockdown established and heavy insect populations. Two applications may be required to achieve control; retreat if needed and as directed on this label. Tank mix this product with other insecticides as recommended for knockdown of pests or for improved control of other pests.

USE RESTRICTIONS (All Uses)

- **DO NOT** make a foliar application of any chloronicotinyl insecticide for resistance management purposes following a soil application of this product on the same crop.
- **DO NOT** use product packets in a tank mix with products that contain boron or release free chlorine; the PVA packet reacts with boron or free chlorine to produce a plastic that is not soluble in water. NOTE: Normal chlorinated water is acceptable for mixing.
- **DO NOT** use this product on commercial sod farms.
- **DO NOT** allow livestock to graze in treated areas or use clippings from treated areas for feed or forage unless specified otherwise on this label.
- **DO NOT** apply this product to soils that are waterlogged or saturated.
- **DO NOT** allow runoff or puddling of irrigation water following application.
- **DO NOT** allow leachate to run off for the first 10 days after application or reduced efficacy may result.
- **DO NOT** exceed the total 5.375 packets (8.6 oz) of this product (0.4 lbs AI) / Acre per year specified for the uses indicated on this label.

ROTATION CROPS RESTRICTIONS

Crops which are listed on imidacloprid labels or crops that have existing tolerances for imidacloprid may be planted in treated areas as soon as practical after the last imidacloprid application. Crop that are not found on an imidacloprid label, or crops that do not have existing tolerances for imidacloprid, may not be planted in treated areas for 12-months after the last application.

Refer to the table below for plantback intervals for different crops. Note that if cover crops are planted any time after an application of this product, those crops may not be grazed or harvested for food or feed.

Crops	Plantback Interval
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	No restrictions
Cereals, including buckwheat, millet, oats, rice, rye, and triticale, and soybeans and safflower	30 days
Onion and bulb vegetables	10 months
All other crops	12 months

PREPARATION OF TANK MIXES

Handling PVA pouches: The enclosed packets containing this product are water-soluble and will completely dissolve in water. To prevent the packets from dissolving before they are added to the spray tank, do not get the packets wet from handling with wet hands or wet gloves. The packets can break open if handled roughly. Remove the packets from the outer bag but do not open the packets. Keep unused packets sealed in the outer bag. To prepare a tank mix of this product, follow the steps below. If tank-mixing this product with other components, read the section on **Compatibility**, below.

1. Fill the spray tank with 1/4 to1/2 of the required amount of water and begin agitation.
2. Add the specified amount of this product in PVA packets and allow packets to fully dissolve.
3. Fill the tank with the remaining water needed. Maintain sufficient agitation during mixing and application.

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

If this product is to be tank-mixed with other pesticides and/or fertilizer solutions, check the compatibility (refer to the Compatibility section below) before preparing tank mixes.

To prepare tank-mixes of this product with other pesticides, use the following order of mixing:

1. MALLET 75 WSP INSECTICIDE PVA packets;
2. Other wettable powders or wettable granules;
3. Flowables or suspension concentrates;
4. Emulsifiable concentrates.

Agitate the solution as each component is added. Add the next component only after the previous one is thoroughly mixed. If needed, add a compatibility agent when adding a fertilizer solution to the mix. Add the remaining quantity of water as the final step. To ensure a uniform spray mixture, maintain constant agitation during both mixing and application.

Compatibility PVA packets that are tank-mixed with products that contain boron or that release free chlorine will react to form a plastic that is insoluble in water or solvents such as alcohol, kerosene, diesel oils or gasoline. Further information is available from your local Nufarm representative. Conduct the following test for compatibility of the intended tank mix partner product(s) before adding this product to the spray or mix tank:

1. In a pint or quart jar, add proportionate amounts of each tank mix component in the order provided in the directions above.
2. Replace the cap, shake for 5 minutes, and allow the mixture to settle for 5 minutes.
3. Observe the jar for signs indicating an incompatible mixture. If the contents can be re-mixed by shaking and readily re-suspends, it is considered compatible. If the mixture separates out, foams, or forms a gel or lumps, then the mixture is not compatible.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

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

- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment. ***DO NOT apply this product through any other type of irrigation system.*** Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- A person knowledgeable of the chemigation system and responsible for its operation, or a person who is under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

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

8. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
9. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
10. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
11. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

12. 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.
13. 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.
14. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY:

8. 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.
9. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
10. The pesticide injection pipeline must also contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
11. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
12. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
13. 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.
14. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

APPLICATION TO TURFGRASS (Lawns)

Use this product for the control of listed soil inhabiting pests as directed on turfgrass.

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

TURFGRASS around airports, athletic fields, cemeteries, golf courses, homes and multi-family residential buildings, office buildings and office parks, public parks and playground areas, shopping centers, and sod farms	
Target Pests	**Rate**
For control of: Annual bluegrass weevil Annual bluegrass weevil Asiatic garden beetles (*Maladera* spp.) Billbugs Black turfgrass ataenius European chafer European Crane Fly Green June beetle Japanese beetle May or June beetles Northern masked chafer Oriental beetle (*Phyllophaga* spp.) Southern masked chafer	1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or 4 – 5.375 packets (6.4 – 8.6 oz) / Acre
For control of: Mole Crickets[1]	1 packet (1.6 oz) / 8,250 ft^2 or

For suppression of: Chinchbugs[2] Cutworms	5.375 packets (8.6 oz) / Acre

Application Instructions

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.

Make applications prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch. Apply this product in sufficient water to provide adequate distribution in the treated area.

Rainfall or irrigation must occur within 24 hours of application to move this product vertically through the thatch and into the soil.

Wait until after sufficient rainfall or irrigation has occurred to mow the grass.

Remarks

Annual Bluegrass weevil, Billbugs, European Crane Fly, and Grubs: For best results, make applications before egg hatch.

[1]**Mole Crickets**: Make applications before or during the peak egg hatching period. this product may be applied with a curative insecticide when adults or large nymphs are present and actively tunneling,

[2]**Chinchbugs**: Make applications before hatching of first instar nymphs.

Restrictions

DO NOT apply more than 5.375 packets (8.6 oz). (0.4 lb of active ingredient) per acre per year.

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.

APPLICATION TO LANDSCAPE ORNAMENTALS

Use this product as directed below on ornamentals in and around commercial and residential landscapes and interior plantscapes to control or suppress listed insects.

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

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

Bark Media: Treatments of this product to media with 30 - 50% or more bark content may confer a shorter period of protection.

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

ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES , NON-BEARING FRUIT & NUT TREES, VEGETABLE PLANTS (intended for Resale only) (in and around the perimeter of industrial and commercial buildings and residential areas, and state, national, and private wooded and forested areas for the insect pests listed below)

Foliar Applications

Target Pests	Rate

For control of: Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Whiteflies	1 packet (1.6 oz) in 300 gal. of water
For suppression of: Thrips (suppression only)	

Foliar Application Instructions

Apply this product in a sufficient volume of water to uniformly cover the treatment area. Foliar applications will provide systemic activity against target pests.

If plants (such as holly, pine or ivy) have foliage that is difficult to wet, Nufarm recommends this product be applied with a spreader/sticker.

Time applications to occur before heavy pest populations arise; make repeat applications as necessary.

Soil (Broadcast) Applications

Target Pests	Rate
White grub larvae (including Asiatic garden beetle, chafers, *Phyllophaga* spp., Japanese beetle larvae, and Oriental beetle)	1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or 4 – 5.375 packets (6.4 – 8.6 oz) / Acre

Soil Application Instructions

Mix the specified amount of this product in a sufficient volume of water to uniformly cover the treatment area. Apply in a minimum of 2 gallons of water per 1,000 sq. ft. After application, irrigate the treated areas to incorporate this product into the soil.

Restrictions

DO NOT apply by broadcast application more than 5.375 packets (8.6 oz). (0.4 lb active ingredient) per acre per year.

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

For control of: Adelgids, Alder borer, Aphids, Black vine weevil larvae, Bronze birch borer, Emerald ash borer, Eucalyptus longhorned borer, Flatheaded borers (including Bronze birch and Alder), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Leafminers, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae*, Soft scales, White grub larvae, Whiteflies

For suppression of: Armored scales, Thrips

USE RATE	APPLICATION SITE
TREES	
Diameter at Breast Height (DBH) is measured at 4.5 feet from the ground. Use the following rates as a function of tree diameter at breast height (DBH):	**Soil Injection:** GRID SYSTEM: Holes must be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

Apply 1 packet (1.6 oz) per 12 – 48 inches of trunk diameter (DBH). You may only use the higher rate on trees >15 inches (DBH) to control: Asian longhorned beetle, Emerald ash borer, Eucalyptus longhorned borer, Bronze birch borer, and Alder borer. To calculate the higher rates, divide trunk diameter by 12 – 23 inches. Refer to example calculations below. **RESTRICTION: DO NOT** apply more than 5,375 packets (8.6 oz) (0.4 lb AI) per acre per year.	trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.**
	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. **For Control of Specified Borers:** Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.

EXAMPLE CALCULATIONS:

Example 1 (to calculate the standard rate): If you have three trees having DBH of 8, 10 & 16 inches, the total cumulative inches of trunk diameter is 34 inches (8 + 10 + 16 = 34)

34/48 = .708 x 1.6 fl. oz (1 packet) = 1.13 oz -OR- 34/24 = 1.417 x 1.6 fl. oz. (1 packet) = 2.27 oz

If you have a single tree with a DBH of 12 inches, the lower rate range will be:

12/48 = 0.25 x 1.6 oz (1 packet) = 0.4 oz -OR- 12/24 = 0.5 x 1.6 oz (1 packet) = 0.8 oz

Example 2 (To calculate the higher rate): If you have three trees having DBH of 15, 20 & 25 inches, the total cumulative inches of trunk diameter is 60 inches (15 + 20 + 25 = 60)

60/23 = .2.6 x 1.6 fl. oz (1 packet) = 4.17 oz -OR- 60/12 = 5 x 1.6 fl. oz. (1 packet) = 8 oz

If you have a single tree with a DBH of 30 inches, the higher rate range will be:

30/23 = 1.3 x 1.6 oz (1 packet) = 2.08 oz -OR- 30/12 = 2.5 x 1.6 oz (1 packet) = 4.0 oz

SHRUBS

1 packet (1.6 oz) per 24 – 48 feet cumulative shrub height	**Soil Injection:** Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per shrub. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.**
	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

FLOWERS & GROUNDCOVERS

1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or (4 – 5.375 packets) 6.4 – 8.6 oz / Acre	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. Irrigate immediately following application to established plants.

Remarks

*Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.

**Diameter at Breast Height (D.B.H.) is measured at 4.5 feet from the ground.

Restrictions

DO NOT apply more than 5.375 packets (8.6 ounces) (0.4 lbs AI) per acre per year.

DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year of application.

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

POME FRUITS: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince (around perimeter of industrial and commercial buildings and on residential areas)

PEST	USE RATE
Aphids (except Wooly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs* San Jose scale*	1 packet (1.6 oz) in 300 Gallons of Water 1 .3125 packets (2.1 oz) / Acre[1]

Remarks

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

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

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

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

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

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

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

Restrictions

DO NOT apply more than 1.3125 packets (2.1 oz) per acre in a single application.

DO NOT make more than 5 applications per year.

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

* Not for use in California for control on pears.

PECANS* (around perimeter of industrial and commercial buildings and on residential areas)

PEST	USE RATE
Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1 packet (1.6 oz) in 300 Gallons of Water 1.3125 packets (2.1 oz) / Acre[1]

Remarks

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

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

Restrictions

DO NOT apply more than a total of 3.9375 packets (6.3 oz) of this product per acre per year.

DO NOT make more than 3 applications per year.

Allow 10 or more days between applications.

* Use on pecans not permitted in California unless otherwise directed by specific supplemental labeling.

GRAPES: (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**RATE**
Leafhoppers (including glassy-winged sharpshooter) Mealybugs*	1 packet (1.6 oz) in 300 Gallons of Water 1.0 oz / Acre[1]
Remarks	
[1] Apply specified dosage as a foliar spray using 200 gallons of water per acre.	
Restrictions	
DO NOT apply more than a total of 1.25 packets (2.0 oz) 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.	

CITRUS: Citrus and Citrus hybrids, Orange (sweet and sour), Calamondin, Grapefruit, Kumquat, Lemon, Lime, Pummelo, Tangerine, Tangelo (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**USE RATE**
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers/Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	1 packet (1.6 oz) in 300 Gallons of Water 1.3125 packets (2.1 oz) / Acre[1]
Remarks	
Apply specified dosage as foliar spray as needed after petal-fall is complete. For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late stage larvae. For late season (preharvest) control of leafhopper species, apply this product while most leafhoppers are in the nymphal stage. For control of mealybugs, insure good spray coverage of the trunk and scaffolding limbs or other resting sites of the mealybugs. [1] The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.	
Restrictions	
DO NOT apply more than 1.3125 packets (2.1 oz) per acre in a single application. **DO NOT** make more than 5 applications per year. Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.	

AVOCADO: (around perimeter of industrial and commercial buildings and on residential areas)	
PEST	**RATE**
Aphids Avacado lacebug Leafhoppers Whiteflies	1 packet (1.6 oz) in 300 Gallons of Water 1.3125 packets (2.1 oz) / Acre[1]
Remarks	
[1] The amount of this product required per acre will depend on tree size and volume of foliage present. The rate per acre	

is based on a standard of 400 gallons of dilute spray solution per acre for large trees.
Restrictions
DO NOT apply more than a total of 1.3125 packets (2.1 oz) of this product per acre per year. Allow at least 14 days between applications. Allow at least 7 days between application and harvest.

APPLICATION TO GRASSY AREAS IN NURSERIES, NURSERY, AND GREENHOUSE GROWN ORNAMENTALS

Use this product on grassy areas in nurseries, around and on nursery grown ornamentals, and in planting rows in nurseries to control listed pests. Make application prior to anticipated pest infestation to maximize control. Rainfall, irrigation and mechanical incorporation after application will aid in maximizing control.

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.

GRASSY AREAS (in Field & Forest Nurseries)	
PEST	**DOSAGE**
For control of: Annual bluegrass weevil Asiatic garden beetles (*Maladera* spp.) Billbugs Black turfgrass ataenius European chafer European Crane Fly Green June beetle Japanese beetle May or June beetles Northern masked chafer Oriental beetle (*Phyllophaga* spp.) Southern masked chafer	1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or 4 – 5.375 packets (6.4 – 8.6 oz) / Acre
For control of: Mole crickets	1 packet (1.6 oz) / 8,250 ft^2 or 5.375 packets (8.6 oz) / Acre
For suppression of: Chinchbugs Cutworms	
Application Instructions	
Apply this product in sufficient water to provide adequate distribution in the treated area. The use of accurately calibrated equipment normally used for soil application of insecticides is required. Use equipment 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.	
Remarks	
For control of grubs, billbugs, European crane fly and annual bluegrass weevil, make application prior to egg hatch of the target pest.. 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, this product should be accompanied by a curative insecticide. For suppression of chinchbugs, make application prior to the hatching of the first instar nymphs. Consult your local State Agricultural Experiment Station, or State Extension Turf Specialists for more specific information regarding timing of application.	

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

NOTE: Irrigation or rainfall is needed within 24 hours after application to move the active ingredient through the thatch.

Restrictions

DO NOT apply more than 5.375 packets (8.6 oz). (0.4 lb of active ingredient) per acre per year.

DO NOT mow grassy area until after irrigation or rainfall has occurred so that uniformity of application will not be affected.

DO NOT allow runoff or puddling of irrigation water following application.

DO NOT apply this product to water-logged or saturated areas. Application of this product to water-logged or saturated areas will not allow penetration into the root zone of the plant.

DO NOT graze treated areas or use clippings from treated areas for feed or forage.

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

Foliar Applications

PEST	DOSAGE
For control of: Adelgids Aphids Japanese beetle (adult) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Whiteflies	1 packet (1.6 oz) in 300 gal. of water
For suppression of: Thrips	

Foliar Application Instructions

Apply this product in a sufficient volume of water to uniformly cover the treatment area. Foliar applications will provide systemic activity against target pests.

If plants (such as holly, pine or ivy) have foliage that is difficult to wet, Nufarm recommends this product be applied with a spreader/sticker.

Time applications to occur before heavy pest populations arise; make repeat applications as necessary.

Soil (Broadcast) Applications

PEST	DOSAGE
For control of: White grub larvae (including Japanese beetle, Masked Chafers, European Chafer, Oriental beetle, Asiatic Garden beetle)	1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or 4 – 5.375 packets (6.4 – 8.6 oz) / Acre

Soil (Broadcast) Application Methods

Mix the required amount of this product in sufficient water to uniformly and accurately cover the area being treated.

DO NOT use less than 2 gallons of water per 1000 sq. ft. of treatment area.

Irrigate thoroughly to incorporate the product into the upper soil profile. Incorporate application into the soil before planting or apply after plants are established. For applications made to established plants, irrigate thoroughly after application.

SUB-LABEL B: NURSERY, GREENHOUSE, and LANDSCAPE ORNAMENTALS, TURF (Water Soluble Packaging- WSP)

Remarks
Mowing of the vegetation in the area to be treated to a height of 3 inches or less prior to application will improve the consistency of control.
Restrictions
DO NOT apply more than 5.375 packets (8.6 oz) (0.4 lb of active ingredient) per acre per year. **DO NOT** allow runoff or puddling of irrigation water following application. **DO NOT** apply this product to water-logged or saturated areas. Application of this product to water-logged or saturated areas will not allow penetration into the root zone of the plant. **DO NOT** exceed an application frequency of more than once each 16 weeks on nursery ornamentals with a production cycle of less than one (1) year. **DO NOT** exceed one (1) application per year on nursery ornamentals with a production cycle of greater than one year. Only for use on vegetable plants intended for resale including: Broccoli, Chinese broccoli, Broccoli raab, Brussels sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground cherry, Kale, Kohlrabi, Lettuce, Mustard greens, Pepinos, Peppers, Potatoes, Rape greens, Sorghum, Sugarbeets, Tomatillo, and Tomato. **DO NOT** make a foliar application of this product following a soil application in the same crop for resistance management purposes. **Rotational Crops:** **Food Crops:** 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 any 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.

SOIL INJECTION & BASAL DRENCH APPLICATIONS: NURSERY, GREENHOUSE AND INTERIORSCAPE PLANTS	
For control of: Adelgids, Alder borer, Aphids, Black vine weevil larvae, Bronze birch borer, Emerald ash borer, Eucalyptus longhorned borer, Flatheaded borers (including Bronze birch and Alder), Japanese beetles, Lace bugs, Leaf beetles (including elm and viburnum leaf beetles), Leafhoppers (including glassy-winged sharpshooter), Leafminers, Mealybugs, Pine tip moth larvae, Psyllids, Royal palm bugs, Sawfly larvae*, Soft scales, White grub larvae, Whiteflies	
For suppression of: Armored scales, Thrips	
USE RATE	**APPLICATION SITE**
TREES	
Diameter at Breast Height (DBH) is measured at 4.5 feet from the ground. Use the following rates as a function of tree diameter at breast height (DBH): Apply 1 packet (1.6 oz) per 12 – 48 inches of trunk diameter (DBH). You may only use the higher rate on trees >15 inches (DBH) to control: Asian longhorned beetle, Emerald ash borer, Eucalyptus longhorned borer, Bronze birch borer, and Alder borer. To calculate the higher rates, divide trunk diameter by 12 – 23 inches. Refer to example calculations below. **RESTRICTION: DO NOT** apply more than 5.375 packets (8.6 oz) (0.4 lb AI) per acre per year.	**Soil Injection:** GRID SYSTEM: Holes must be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.** **Soil Drench:** Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone. **For Control of Specified Borers:** Application to trees already heavily infested may not prevent the eventual

	loss of the trees due to existing pest damage and tree stress.

EXAMPLE CALCULATIONS:

Example 1 (to calculate the standard rate): If you have three trees having DBH of 8, 10 & 16 inches, the total cumulative inches of trunk diameter is 34 inches (8 + 10 + 16 = 34)

34/48 = .708 x 1.6 fl. oz (1 packet) = 1.13 oz -OR- 34/24 = 1.417 x 1.6 fl. oz. (1 packet) = 2.27 oz

If you have a single tree with a DBH of 12 inches, the lower rate range will be:

12/48 = 0.25 x 1.6 oz (1 packet) = 0.4 oz -OR- 12/24 = 0.5 x 1.6 oz (1 packet) = 0.8 oz

Example 2 (To calculate the higher rate): If you have three trees having DBH of 15, 20 & 25 inches, the total cumulative inches of trunk diameter is 60 inches (15 + 20 + 25 = 60)

60/23 = .2.6 x 1.6 fl. oz (1 packet) = 4.17 oz -OR- 60/12 = 5 x 1.6 fl. oz. (1 packet) = 8 oz

If you have a single tree with a DBH of 30 inches, the higher rate range will be:

30/23 = 1.3 x 1.6 oz (1 packet) = 2.08 oz -OR- 30/12 = 2.5 x 1.6 oz (1 packet) = 4.0 oz

SHRUBS

1 packet (1.6 oz) per 24 – 48 feet cumulative shrub height	**Soil Injection:** Apply to individual plants using dosage indicated. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per shrub. **NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.**
	Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

FLOWERS & GROUNDCOVERS

1 packet (1.6 oz) / 8,250 – 11,000 ft^2 or 4 – 5.375 packets (6.4 – 8.5 oz) / Acre	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. Irrigate immediately following application to established plants.

Remarks

*Pine sawfly larvae feed on mature foliage beginning in early spring. Make treatments in the fall before pine sawfly emergence in spring to allow adequate time for imidacloprid translocation into mature foliage.

**Diameter at Breast Height (D.B.H.) is measured at 4.5 feet from the ground.

Restrictions

DO NOT apply more than 5.375 packets (8.6 oz) (0.4 lbs AI) per acre per year.

DO NOT harvest or consume fruits or nuts from trees that have been treated within 1 year of application.

FIELD AND FOREST NURSERIES

Pests	Rate	
For control of: White grub larvae[1] (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	1 packet (1.6 oz) per 2500 ft of row	1 packet (1.6 oz) per 7000 ft^2

Application methods

Apply May through July. Time the treatment so that rainfall or irrigation occurs within 24 hours following the application. Apply as a uniform band on either side of the row using a band width six (6) inches wider than the actual root ball

diameter to be dug. **DO NOT** allow bands in adjacent rows to overlap.
Remarks
Mowing of the vegetation in the area to be treated to a height of 3 inches or less prior to application will improve the consistency of control.
Restrictions
DO NOT use less than 2 gallons of spray volume per 1,000 ft^2 **DO NOT** apply more than 5.375 packets (8.6 oz) (0.4 lbs AI) per acre per year.

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 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: Nonrefillable container. DO NOT reuse or refill this container. Outer packaging for this product is secondary packaging to contain Water soluble packaging. Thoroughly rinse any soluble powder residue from container into application equipment. Then offer for recycling if available or dispose of in a sanitary landfill.

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, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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.

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 RISING 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.

(RV030211)

41
41

LABEL HISTORY

File Name	Revision Mark	Comment
000228-00588.20090403.MASTER	RV040309	EPA Approval
000228-00588.20110302.Revised_label	RV030211	Removed the MUP sublabel, Revised Soil Injection / Drench use rates according to EPA requested verbiage.