

228-485

5/5/2014

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



OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

MAY - 5 2014

Carrie M. Tackema
Nufarm Americas Inc.
4020 Aerial Center Parkway, Suite 101
Morrisville, NC 27560

Subject: Notification to include two optional marketing claims "Nufarm Grow a better tomorrow"; "Grow a better tomorrow" per PRN 98-10

Dear Ms. Tackema:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10, dated April 23, 2014, for "Mallet 2F Insecticide," EPA Reg. No. 228-485.

The Registration Division (RD) has conducted a review of your request for applicability under PRN 98-10, and finds that the action requested falls within the scope of PRN 98-10. The label submitted with your application has been stamped "Notification" and added to the product record.

If you have any questions, please contact me directly at 703-347-0559 or email me at marchese.jacquelyn@epa.gov.


Sincerely,

A handwritten signature in cursive script that reads "Jacquelyn Marchese".

Jacquelyn Marchese
Entomologist
Insecticide-Rodenticide Branch
Registration Division (7505P)
Office of Pesticide Programs

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EXPEDITE

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other:	OPP Identifier Number
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Application for Pesticide - Section I

1. Company/Product Number 228-485	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Mallet 2F Insecticide/GrubEx Pro	PM# 1	
5. Name and Address of Applicant (Include ZIP Code) Nufarm Americas, Inc. 11901 S. Austin Avenue Alsip, IL 60803 <i>Please send all correspondence to "contact point" listed below</i>		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

NOTIFICATION
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Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

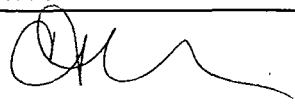
NOTIFICATION PER PRN 98-10

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

CONTACT: Carrie M. Tackema (919) 379-2528 or carrie.tackema@us.nufarm.com
Nufarm Americas, Inc.
4020 Aerial Center Parkway, Suite 101
Morrisville, NC 27560

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other	*Certification must be submitted	
	If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 16, 32, 64 fl. oz.; 1, 2.5, 220, 250 gal.		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name Carrie M. Tackema	Title Regulatory Manager	Telephone No. (include Area Code) (919) 379-2528
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Carrie M. Tackema	4. Date April 23, 2014	



+1 919.379.251
+1 919.467.592
4020 Aerial Center Parkway, Suite 10
Morrisville, NC 27566
www.nufarm.com

Via Courier Delivery

April 23, 2014

Ms. Venus Eagle, PM#1
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202-4501

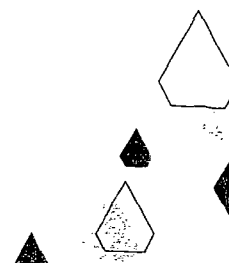
RE: NOTIFICATION(s) per PRN 98-10

Nuprid 2 F Insecticide	EPA Reg. No. 228-484
Mallet 2F Insecticide/Grub Ex Pro	EPA Reg. No. 228-485
Mantra 2F Insecticide	EPA Reg. No. 228-486
Nuprid 1.6F Insecticide	EPA Reg. No. 228-488
Mallet 0.2% on Fertilizer	EPA Reg. No. 228-500
Mallet 0.5 G Insecticide	EPA Reg. No. 228-501
Mallet 2.5 G Insecticide	EPA Reg. No. 228-502
Mallet 0.2 Granular Insecticide	EPA Reg. No. 228-510
Mantra 1G Greenhouse and Nursery Insecticide	EPA Reg. No. 228-523
Mallet 1.47% Concentrate	EPA Reg. No. 228-525
Nuprid 4.6F Insecticide	EPA Reg. No. 228-527
Nuprid 4F Insecticide	EPA Reg. No. 228-528
Nuprid-S WG	EPA Reg. No. 228-529
Atera GC 2+1 SC Insecticide	EPA Reg. No. 228-557
Mallet 7.1% PF Insecticide	EPA Reg. No. 228-562
Nuprid 2SC Soil/Foliar Insecticide	EPA Reg. No. 228-572
Mallet 0.2 G	EPA Reg. No. 228-587
Mallet 75 WP	EPA Reg. No. 228-588
Mantra 60 WSP	EPA Reg. No. 228-681
Mallet 2F T&O Insecticide	EPA Reg. No. 228-695
Kilter Insecticide	EPA Reg. No. 228-717
Bounty Turf and Ornamental Insecticide	EPA Reg. No. 1001-82

Dear Ms. Eagle:

Enclosed please find twenty-two (22) application(s) for pesticide registration – NOTIFICATION for the above-referenced product(s). The purpose of these NOTIFICATION(s) is to include two (2) optional marketing claims:

Nufarm Grow a better tomorrow
Grow a better tomorrow



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These NOTIFICATION(s) are consistent with PRN 98-10; specifically, II N. In support of these NOTIFICATION(s) enclosed are the following:

- EPA form 8570-1 Application for Pesticide Registration – NOTIFICATION; and
- Proposed product labeling in PDF format on CD-rom.

Please contact me at directly at (919) 379-2528 or by email at carrie.tackema@us.nufarm.com if you have any questions regarding this action.

Sincerely,



Carrie M. Tackema
Regulatory Manager

Enclosure(s)

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GROUP 4A INSECTICIDE

MALLET[®] 2F INSECTICIDE

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

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS:..... 78.6%

TOTAL..... 100.0%

Contains 2 pounds of imidacloprid per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION – PRECAUCION**

PRECAUCION AL USUARIO: Si usted no puede leer o entender ingles, no use este product hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

SEE 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. 228-485
EPA EST. NO. _____

MANUFACTURED FOR
NUFARM AMERICAS INC.
11901 SOUTH AUSTIN AVENUE
ALSIP, IL 60803



NET CONTENTS _____ GALS. (_____ Liters)

[Designation as "NONREFILLABLE" or "REFILLABLE" for containers > 5 GAL]

[Nufarm: Grow a better tomorrow]

[Grow a better tomorrow]

NOTIFICATION

MAY - 5 2014

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

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

Engineering controls statement:

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

USER SAFETY RECOMMENDATIONS

User 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	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • DO NOT induce vomiting unless told to do so by the poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> • Move the person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

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 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN

No specific antidote is available. Treat the patient symptomatically.

Environmental Hazards

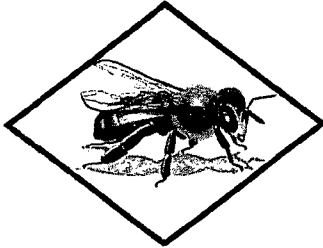
This product is highly toxic to aquatic invertebrates. **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters.

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This product is highly toxic to bees exposed to direct treatment or residues on blooming crops/plants or weeds. **DO NOT** apply this product or allow it to drift to blooming crops/plants or weeds if bees are foraging the treatment area.

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

PROTECTION OF POLLINATORS



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



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

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

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

When Using This Product Take Steps To:

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

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

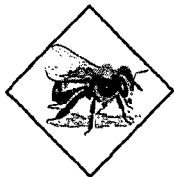
Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly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

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DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT use in commercial greenhouses, nurseries, or on grasses grown for seed, or on commercial fruit and nut trees.



NON-AGRICULTURAL USE SITES:

See individual sites for specific pollinator protection application restrictions. If none exist under the specific site, for outdoor foliar applications, follow these application directions for non-agricultural use sites:

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Note to Reviewer: the two statements in brackets below may be used as they relate to *Tilia* species:

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

[**DO NOT** apply this product, by any application method, to linden, basswood or other *Tilia* species.]

Shake well before using.

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of **12 hours**.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep children and pets off treated area until dry.

APPLICATION TO TURFGRASS

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

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

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

Application Methods

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

TURFGRASS		
PEST	USE RATE	REMARKS
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms (suppression) European chafer European crane fly Green June beetle Japanese beetle Northern masked chafer Oriental beetle <i>Phyllophaga</i> spp. Southern masked chafer	1.25 to 1.6 pt per acre or 0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq ft	For control of grubs, billbugs, annual bluegrass weevil, and European crane fly make application prior to egg hatch of the target pest. Read " Application Methods " Section for Application to Turfgrass.
Chinchbugs (suppression) Mole crickets	1.6 pt per acre or 0.6 fl oz (17 ml) per 1,000 sq ft	For suppression of chinchbugs, make application prior to or during the hatching of the first instar nymphs. For control of mole crickets make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, accompany the application of this product with a remedial insecticide. Follow the most restrictive label instructions when tank-mixing.
Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more specific information regarding timing of application. Irrigation or rainfall must occur within 24 hours after application to move the active ingredient through the thatch.		
RESTRICTIONS: <ul style="list-style-type: none"> • DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lb of active ingredient) per acre per year. • DO NOT mow turf or lawn area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected. • DO NOT allow this product to contact plants in bloom while bees are foraging the treatment area. • DO NOT graze treated areas or use clippings from treated areas for feed or forage. 		

- **DO NOT** allow runoff or puddling of irrigation water following application.
- Keep children and pets off treated area until dry.
- **DO NOT** apply to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.
- **DO NOT** use for seed production.

APPLICATION TO ORNAMENTALS

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

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

For outdoor ornamentals, do not exceed a total of 25.6 fluid ounces (1.6 pints) (0.4 lb of active ingredient) per acre per year.

Ant Management Programs

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

Application Methods

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

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

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

DO NOT apply through any irrigation system.

ORNAMENTAL TREES, SHRUBS, EVERGREENS, FLOWERS, FOLIAGE PLANTS, GROUNDCOVERS, INTERIOR PLANTSCAPES (in and around the perimeter of industrial and commercial buildings and residential areas)		
FOLIAR APPLICATIONS		
PEST	USE RATE	REMARKS
Adelgids Aphids Japanese beetles (adults) Lace bugs Leaf beetles (including Elm and Viburnum leaf beetles) Leafhoppers (including Glassy-winged sharpshooter) Leafminers Mealy bugs Sawfly larvae Thrips (suppression) Whiteflies	1.5 fl oz (45 ml) per 100 gallons of water	Start treatments prior to establishment of high pest populations and reapply on an as needed basis not to exceed 25.6 fluid ounces (1.6 pints) (0.4 lbs AI) per acre per year.. For resistance management purposes, an imidacloprid foliar application following a soil application in the same crop is not recommended.
BROADCAST APPLICATIONS		
PEST	USE RATE	REMARKS

<p>White grub larvae (such as Japanese beetle larvae, chafers, <i>Phyllophaga</i> spp., Asiatic garden beetle, Oriental beetle)</p>	<p>0.46 to 0.6 fl oz (14 to 17 ml) per 1,000 sq ft</p>	<p>Mix required amount of product in sufficient water to uniformly and accurately cover the area being treated. DO NOT use less than 2 gallons of water per 1,000 square feet. Irrigate thoroughly to incorporate this insecticide into the upper soil profile. Refer to use directions (found below) specific for Flowers and Ground Covers.</p>
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RESTRICTIONS:

- **DO NOT** apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs AI) per acre per year.
- **Follow application restrictions for Non-Agricultural Use Sites on page [x] to protect bees and other insect pollinators.**
- Keep children and pets off treated area until dry.

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

PEST	USE RATE	APPLICATION SITE
<p>Adelgids Alder borer Aphids Armored scales (suppression) Asian longhorned beetle Black vine weevil larvae Bronze birch borer Emerald ash borer Eucalyptus longhorned borer Flatheaded borers (including Bronze birch and Alder) Japanese beetles Lace bugs Leaf beetles (including elm and viburnum leaf beetles)</p>	<p>Use the following rates as a function of tree Diameter at Breast Height (D.B.H.)</p> <p>Apply (0.1 to 0.4 fl oz) (3 to 12 ml) per inch of trunk diameter (D.B.H.)</p> <p>You may use the higher rate (0.3 to 0.4 fl oz) (9 to 12 ml) only for trees greater than 15" (inches) (D.B.H.) to control the following pests:</p> <ul style="list-style-type: none"> • Asian longhorned beetle • Emerald ash borer • Eucalyptus longhorned borer • Bronze birch borer • Alder borer <p>RESTRICTION: DO NOT apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs AI) per acre per year.</p> <p>D.B.H (Diameter at Breast Height) is measured at 4.5' (feet) from the ground.</p>	<p>TREES</p> <p>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.</p> <p>Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. DO NOT use less than 4 holes per tree.</p> <p>NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.</p> <p>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.</p> <p>For Control of Specified Borers: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.</p> <p>Basal Drench using Slow Release Irrigation Bags (such as Treegator®* 15, 20, or 50 Gallon capacity): Follow manufacturer's instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this product for the tree diameter to which the bag is attached. Add remaining volume of water needed to fill bag.</p>
<p>Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae Psyllids</p>	<p>0.1 to 0.2 fl oz (3 to 6 ml) per foot of shrub height</p>	<p>SHRUBS</p> <p>Soil Injection: Apply to individual plants using dosage indicated.</p> <p>Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. DO NOT use less than 4 holes per shrub.</p> <p>NEW YORK SPECIFIC RESTRICTION: No Soil Injection Applications Allowed in Nassau or Suffolk Counties of New York.</p> <p>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.</p>

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Royal palm bugs		Basal Drench using Slow Release Irrigation Bags (such as Treegator® 15, 20, or 50 Gallon capacity): Follow manufacturer's instructions for installation and setup of drip irrigation water bag. Fill bag to ¼ capacity with irrigation water. Add the specified rate of this product for the shrub height to which the bag is attached. Add remaining volume of water needed to fill bag.
Sawfly larvae		
Soft scales		
Thrips (suppression)		
White grub larvae	0.46 to 0.6 fl oz (14 to 17 ml) per 1000 sq ft	FLOWERS & GROUNDCOVERS Apply as a broadcast treatment and incorporate into the soil before planting or apply prior to bloom or after all flower petals have fallen off for established plants. If application is made to established plants, irrigate thoroughly after application.
Whiteflies		

RESTRICTION:

- **DO NOT** apply more than 25.6 fluid ounces (1.6 pints) (0.4 lbs AI) per acre per year.
- Keep children and pets off treated area until dry.
- Do not apply to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.

* Not for use in California

POME FRUITS: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental), Quince (residential areas)

PEST	USE RATE	
Aphids (except Woolly apple aphid) Leafhoppers (including glassy-winged sharpshooter) Leafminer Mealybugs* San Jose scale*	1.5 fl oz (45 ml) per 100 gal of water	6.0 fl oz/A ¹

Application Instructions

Apply specified dosage as foliar spray as needed after petal-fall is complete.
 For control of Rosy apple aphid, apply prior to leafrolling caused by the pest.
 For first generation leafminer control, make first application as soon as petal-fall is complete. Greatest leafminer control will result from the earliest possible application. For second and succeeding generations of leafminer, optimal control is obtained from applications made early in the adult flight against egg and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. 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.

RESTRICTIONS:

- **DO NOT** apply more than 6.0 fluid ounces per acre in a single application.
- **DO NOT** make more than 4 applications per year.
- **DO NOT** apply more than 25.6 fluid ounces per acre per year.
- Allow 10 or more days between applications. Allow at least 7 days between last application and harvest.
- **DO NOT** consume or harvest fruits or nuts from trees that have been treated within one year (365 days).
- **Follow application restrictions for Non-Agricultural Use Sites on page [x] to protect bees and other insect pollinators.**
- Keep children and pets off treated area until dry.

* Not for use in California for control on pears.

PECANS* (residential areas)

PEST	USE RATE
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Yellow pecan aphid Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera	1.5 fl oz (45 ml) per 100 gal of water	6.0 fl oz/A ¹
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Application Instructions

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

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

RESTRICTIONS:

- **DO NOT** apply more than a total of 18.0 fluid ounces of this product per acre per year.
- **DO NOT** make more than 3 applications per year.
- Allow 10 or more days between applications.
- **DO NOT** consume or harvest fruits or nuts from trees that have been treated within one year (365 days).
- **Follow application restrictions for Non-Agricultural Use Sights on page [x] to protect bees and other insect pollinators.**
- Allow at least 7 days between last application and harvest.
- Keep children and pets off treated area until dry.

* Use on pecans not permitted in California unless otherwise directed by state specific 24(c) labeling.

GRAPES: (around perimeter of industrial and commercial buildings and on residential areas)

PEST	RATE	
Leafhoppers (including glassy-winged sharpshooter) Mealybugs	1.5 fl oz (45 ml) per 100 gal of water	3.0 fl oz/A ¹

Application Instructions

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

RESTRICTIONS:

- **DO NOT** apply more than a total of 6.0 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.
- **Follow application restrictions for Non-Agricultural Use Sights on page [x] to protect bees and other insect pollinators.**
- Keep children and pets off treated area until dry.

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. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact CHEMTREC at 800-424-9300 for decontamination procedures or any other assistance that may be necessary.

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 [HANDLING]:

[**Note to Reviewer:** The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] **NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container disposal [handling] instructions below that apply to your container type / size."

[**Note to Reviewer:** The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[Nonrefillable Containers 5 Gallons or Less:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling 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, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable containers larger than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, 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, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable containers larger than 5 gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Refillable Container: Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

WARRANTY DISCLAIMER

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

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