

228-681

10-28-2009

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



OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

OCT 28 2009

Liz Rea
Nufarm Americas, Inc.
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

Dear Ms. Rea:

Subject: Amendment to revise company information per company transfer and update definitive language
Mantra 60 WSP Insecticide
EPA Registration No. 228-681
Your Submissions Dated 6/17/08.

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

- On page 8, in the table for "Nursery, Greenhouse and Interiorscape Plants," under "Shrubs" make the restriction "No soil injection Application allowed in Nassau or Suffolk counties of New York" its own paragraph titled "Restriction:" as it is above for "Trees."
- On page 9, at the top of the table for "Nursery, Greenhouse and Interiorscape Plants," delete the "Restriction: No soil injection Application allowed in Nassau or Suffolk counties of New York" under "Soil Drench" as the verbiage was mistakenly added here.
- On page 10, in the Storage and Disposal box, revise the container disposal sentence that reads: "Outer packaging for this product is secondary packaging to contain water soluble packaging" to read: "Outer packaging for this product is secondary packaging to contain Water soluble packets".

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.

Sincerely,

Venus Eagle
Product Manager (1)
Insecticide-Rodenticide Branch

Mantra 60 WSP Insecticide

Greenhouse and Nursery Insecticide

For foliar and systemic insect control on ornamental and vegetable plants in greenhouses, nurseries and interior plantscapes

ACTIVE INGREDIENT:

Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine 60.0%

OTHER INGREDIENTS: 40.0%

TOTAL: 100.0%

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

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

See inside label booklet for additional FIRST AID and PRECAUTIONARY STATEMENTS.

EPA Reg. No. 228-681

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

EPA Est. No.

Mantra 60 WSP Insecticide contains imidacloprid, the active ingredient used in Marathon®.

Net Weight: oz.

000228-000681.200901020.EXFR.Notification.AdditionalChanges

ACCEPTED
With COMMENTS
In EPA Letter Dated:

OCT 28 2009

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

228-681

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

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or vapor.

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 PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

When handlers use closed systems, 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:	<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 inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • 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.
If in eyes:	<ul style="list-style-type: none"> • 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.

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 the foliage of blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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

APPLICATION INFORMATION

This product will control insects on ornamental and vegetable plants grown in nurseries, greenhouses and interior landscapes. This product is a systemic insecticide applied as a soil treatment **only** and is translocated upward within the plant. For best results, this product must be applied where the roots of the target plants can absorb the active ingredient. After application, irrigate moderately but thoroughly being sure to avoid leaching and runoff from the container for at least three irrigations or 10 days whichever is longer.

Precautions:

- 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.

Insect Resistance: Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. Consult your Cooperative Extension Service for resistance management strategies and recommended pest management practices for your area.

Incorporation: Incorporate applications of this product by cultivation, irrigation, rainfall, mechanical placement, soil injection, drenching and broadcast sprays.

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

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

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 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, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

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.

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.

MIXING INSTRUCTIONS

Within each foil pouch is a clear, water-soluble inner packet containing this product. To prepare the mixture, remove the outer foil pouch and drop the required number of unopened clear water soluble packets, as determined under "Drench and Irrigation Applications", into the spray tank while filling with water to the desired level. Operate the agitator while mixing. Depending on the amount of agitation and the water temperature, the packets should be completely dissolved within a few minutes of being added to the water, with cooler water temperatures increasing the time needed for the inner packet to dissolve completely.

Mixing Precautions:

- Do NOT allow packets to become wet prior to adding to the tank.
- Do NOT handle the clean inner packets with wet hands or wet gloves.
- Rough handling of the packets may cause breakage.
- Reseal outer carton to protect remaining packets.

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

APPLICATION TO GRASSY AREAS IN NURSERIES

RESTRICTION: Do NOT use this product on commercial sod farms.

This product will control soil-inhabiting pests in grassy areas in or around nurseries such as under or around field or container grown plants, on roadways or other grassy areas. 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. Make applications prior to or during the egg laying activity of the target pests to achieve high levels of control. Optimum control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

Pests Controlled:

- | | | |
|--|--|---|
| Annual bluegrass weevil (<i>Hyperodes</i> spp.) | Asiatic garden beetle (<i>Maladera castanea</i>) | Billbugs (<i>Spherophorus</i> spp.) |
| European chafer (<i>Rhizotrogus majalis</i>) | Green June beetle (<i>Cotinis nitida</i>) | Japanese beetle (<i>Popillia japonica</i>) |
| May or June beetle (<i>Phyllophaga</i> spp.) | Mole Crickets (<i>Scapteriscus</i> spp.) | Oriental beetle (<i>Anomala orientalis</i>) |
| Black turfgrass ataenius (<i>Ataenius spretulus</i> and <i>Aphodius</i> spp.) | | |
| Northern and Southern masked chafers (<i>Cyclocephala borealis</i> , <i>C. immaculata</i> , and/or <i>C. lurida</i>) | | |

Pests Suppressed:

- | | |
|----------|------------------|
| Cutworms | Hairy Chinchbugs |
|----------|------------------|

Use Precautions:

- Do NOT make applications when grassy areas are waterlogged or the soil is saturated with water because adequate distribution of the active ingredient cannot be achieved when these conditions exist.
- The treated grassy area must be in such a condition that the rainfall or irrigation will penetrate vertically in the soil profile.

RESTRICTION: Applications must NOT exceed a total of 10.7 oz (0.4 lb of active ingredient) per acre per year.

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.

PRODUCT APPLICATIONS			
Application Site	Rate	Pests Controlled	Application Instructions
Grassy areas of Field & Forest Nurseries	1 Packet per 2900-3850 sq. ft.	Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Cutworms (suppression only) European chafer Green June beetle Japanese beetle Northern masked chafer Oriental beetle <i>Phyllophaga</i> spp. Southern masked chafer	Make application prior to egg hatch of grubs, billbugs, and annual bluegrass-weevil for optimum control. Apply prior to the hatching of the first instar nymphs for chinchbug suppression. Apply prior to or during the peak egg hatch for mole cricket control. When adults or large nymphs are present and actively tunneling, accompany this product by a remedial insecticide. Follow label instructions for other insecticides when tank mixing.
	1 Packet per 2900 sq. ft.	Chinch bugs (suppression only) Mole crickets.	Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialist for more specific information regarding timing of application. Follow with irrigation or rainfall within 24 hours after application to move the active ingredient through the thatch. Do not apply more than 10.7 oz. (0.4 lb. active ingredient) per acre per year. Do not mow grass area until after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.

APPLICATIONS FOR USE ON ORNAMENTALS			
For foliar and systemic insect control on field-grown nursery and containers stock, indoor and outdoor ornamentals (including both greenhouse and interior plantscapes) and ornamentals grown in flats, benches or beds.			
Application Site	Rate	Pests Controlled	Application Instructions
Trees (including non-bearing fruit and nut) Shrubs Evergreens Flowers Foliage plants Ground covers Interior plantscapes Vegetable plants*	1 Packet per 100 gallons water	Adelgids Aphids Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Sawfly larvae Thrips (suppression) Whiteflies	For foliar application, begin treatments prior to the establishment of high pest populations and reapply on an as needed basis. Do not make a foliar application of this product following a soil application in the same crop for resistance management purposes.
	1 Packet per 2900 - 3850 sq. ft.	White grub larvae (such as Japanese beetle, chafers, <i>Phyllophaga</i> spp., Asiatic garden beetle, Oriental beetle)	Broadcast Applications: 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, optimum control is attained if area is irrigated thoroughly after application.
*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.			

IRRIGATION AND DRENCH APPLICATIONS

Apply this product to ornamental and vegetable plants in greenhouses, nurseries and interior landscapes using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

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.
- Do not allow leachate runoff 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 exceed a total of 10.7 oz (0.4lb of active ingredient) per application 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.

RATES AND INSTRUCTIONS FOR IRRIGATION AND DRENCH APPLICATIONS					
Application Site		Rate		Application Instructions	Pests Controlled
Plants in Containers	Herbaceous Species including Vegetables ⁵ (one or two plants per pot)	Container Size (inches)	# of pots treated with one (1) packet	Evenly distribute one (1) packet of this product in the stated number of pots, using sufficient water volume to wet potting medium without loss of liquid through leaching. Irrigate moderately after application. To avoid loss of active ingredient due to leaching, do NOT allow leaching or runoff to occur for 10 days after application.	Adelgids Aphids Armored Scale (suppression) Fungus gnat (larvae only) Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Root mealybugs ² Root weevil complex (such as Black Vine Weevil, Apopka Weevil, Citrus Root Weevil) Soft scale Thrips (suppression) ⁴ White Grub Larvae (Such as Japanese beetle,
		2	3000		
		3	2000		
		4	1500		
		5	1200		
		6	1000		
		7	850		
		8	750		
		9	675		
		10	600		
		11	550		
		12	500		
Ornamental and Vegetable ⁵ plants grown in flats, benches, or beds	Woody Perennial Species or Herbaceous Species including Vegetables ⁵ (three or more plants per pot)	2	2000	Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is lightly irrigated after application. Do NOT allow leaching or runoff to occur for 10 days after application.	
		3	1350		
		4	1000		
		5	800		
		6	650		
		7	550		
		8	500		
		9	450		
		10	400		
		11	350		
		12	300		

RATES AND INSTRUCTIONS FOR IRRIGATION AND DRENCH APPLICATIONS				
Application Site	Rate		Application Instructions	Pests Controlled
Containerized Plants	Container Size (gallons)	# of pots treated with one (1) packet	For optimum control, make applications prior to egg hatch of the target pest. Apply in sufficient water to wet the potting medium. Irrigate moderately after application to move the active ingredient into the root zone.	Masked Chafer, European Chafer, Oriental Beetle, Asiatic Garden Beetle) Whiteflies
	1	240 to 120		
	2	120 to 60		
	3	90 to 40		
Field and Forest Nurseries	One (1) packet per 1000 ft of row or 3000 sq. ft. in a minimum spray volume of 2 gallons per 1000 square feet. In areas of turf, apply as a broadcast application using one (1) packet per 3000 sq. ft. in a minimum spray volume of 2 gallons per 1000 square feet.		Mow vegetation in the area to be treated to a height of 3 inches or less prior to application. Mowing to the lowest possible height will ensure greater consistency of control. Apply May through July as a uniform band on either side of row using a band six (6) inches wider than the actual root ball diameter to be dug. Do not allow bands in adjacent rows to overlap. For optimum control, follow treatment with rainfall or irrigation.	White grub larvae (such as Japanese beetle, Masked chafer, European chafer, Oriental beetle, Asiatic garden beetle)

¹ Fungus Gnat larvae in the soil will be controlled by drench or incorporation; this product does not control adult Fungus Gnats. Other foliar insect control is achieved translocating the active ingredient up into the plant via the root system.

² To control root mealybug, a thorough drenching of the containerized media is necessary. Use a rate of one (1) packet in 150 gallons of water and be sure to obtain complete coverage while minimizing the amount of leachate.

³ For control of citrus root weevil on non-bearing citrus nursery stock ONLY.

⁴ Thrips on foliage only are suppressed, not in buds and flowers.

⁵ For use on vegetables 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.

RATES AND INSTRUCTIONS FOR SOIL INJECTION AND DRENCH APPLICATIONS FOR NURSERY, GREENHOUSE AND INTERIORESCAPE PLANTS			
Application Site	Rate	Application Instructions	Pests Controlled
Trees NOTE: Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.	1 Packet (20 grams) per 8 to 16 inches of cumulative trunk diameter	SOIL INJECTION -- RESTRICTION: No Soil Injection Application allowed in Nassau or Suffolk counties of New York. GRID SYSTEM: Space holes on 2.5 ft 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.	Adelgids Aphids Armored Scale† Black vine weevil larvae Eucalyptus Longhorned Borers Flatheaded Borers (including bronze birch and alder borers, excluding Asian longhorn beetle) Japanese Beetles (adults) Lacebugs Leaf Beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter)
		SOIL DRENCH: Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	
Shrubs	1 packet (20 grams) per 8 to 16 feet of cumulative shrub height	SOIL INJECTION -- No Soil Injection Application allowed in Nassau or Suffolk counties of New York. Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Using a minimum of 4 holes per shrub, apply to individual plants maintaining a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days.	Leafminers Mealybugs Pine Tip Moth larvae Psyllids Royal Palm Bugs Sawfly larvae

RATES AND INSTRUCTIONS FOR SOIL INJECTION AND DRENCH APPLICATIONS FOR NURSERY, GREENHOUSE AND INTERIORESCAPE PLANTS			
Application Site	Rate	Application Instructions	Pests Controlled
		SOIL DRENCH: RESTRICTION: No Soil Injection Application allowed in Nassau or Suffolk counties of New York. Remove plastic or any other barrier that will stop solution from reaching the root zone. Uniformly apply around the base of the tree, direct to the root zone as a drench in no less than 10 gallons of water per 1000 square feet.	Soft Scales Thrips† White grub larvae Whiteflies
Flowers and Ground Cover	1 packet (20 grams) per 3000 sq. ft.	Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, irrigate thoroughly after application.	

† Suppression of these species only.

EBB AND FLOOD APPLICATIONS

Apply this product through Ebb and Flood applications. To assure accurate uptake prior to treatment, bring a minimum of 10 plants up to a known field capacity and allowed to dry out for one or two days. Re-wet these plants to determine how much water on average each plant will absorb to return it to field capacity.

RATES AND INSTRUCTIONS FOR EBB AND FLOOD APPLICATIONS					
Application Site	Recommended Rate		Application Instructions	Pests Controlled	
Plants in Containers	Herbaceous species including vegetable plants ⁵ (one or two plants per pot)	Container Size (inches) 2 3 4 5 6 7 8 9 10	# of pots treated with one (1) packet 3000 2000 1500 1200 1000 850 750 675 600	To minimize the return back to the storage tank, keeping pot sizes uniform use the volume absorbed per plant (see test above) multiplied by the number of pots being treated. Add to this volume a required minimum to flood your smallest treatment area. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.	Adelgids Aphids Armored scales (suppression) Fungus Gnats (larvae only) ¹ Japanese Beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs ² Root Weevil Complex: (such as Apopka Weevil, Black Vine Weevil, Citrus Root Weevil ³) Soft Scales Thrips (suppression) ⁴ Whiteflies White Grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)
	Woody perennials, herbaceous species including vegetable plants ⁵ (3 or more per pot)	Container Size (inches) 2 3 4 5 6 7 8 9 10	# of pots treated with one (1) packet 2000 1350 1000 800 650 550 500 450 400		

¹ Fungus Gnat larvae in the soil will be controlled by drench or incorporation; this product does not control adult Fungus Gnats. Other foliar insect control is achieved translocating the active ingredient up into the plant via the root system.

² To control root mealybug, a thorough drenching of the containerized media is necessary. Use a rate of one (1) packet in 150 gallons of water and be sure to obtain complete coverage while minimizing the amount of leachate.

³ For control of citrus root weevil on non-bearing citrus nursery stock ONLY.

⁴ Thrips on foliage only are suppressed, not in buds and flowers.

⁵ For use on vegetables 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.

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.

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 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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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.

(RV100920)

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**NOT TO BE PART OF THE PRINTED LABEL
FOR INTERNAL REGULATORY USE ONLY**

- 07/15/2009 Submission of primary brand name and minor label (replaced product name throughout the label with "this product", replaced "recommend" and "may" with more definitive language, updated Warranty statements) changes.
- 10/20/2009 Additional changes made at EPA's 10/6/09 and 10/8/09 request. (lr)