# **MARATHON® II** FOR FOLIAR AND SYSTEMIC INSECT CONTROL

### SPECIMEN LABEL

## FOR USE IN GREENHOUSES, NURSERIES, INTERIOR PLANTSCAPES, AND SIMILAR TYPE AREAS ON ORNAMENTALS, FRUIT AND NUT TREES AND VEGETABLE PLANTS

#### **ACTIVE INGREDIENT:**

Imidacloprid: 1-1(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.

#### Shake well before using.

### EPA Reg. No. 53883-232-59807

### STOP - READ THE LABEL BEFORE USE Keep Out of Reach of Children

### CAUTION

#### FIRST AID

If Swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>			
If Inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>			
If on Skin or Clothing:	<ul> <li>Take off contaminated clothing</li> <li>Rinse skin immediately with plenty of soap and water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If in Eyes:	<ul> <li>Hold eyelids open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
HOT LINE NUMBER				

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison central center or doctor, or going for treatment. You may also contact OHP, Inc. at 1-800-356-4647 for emergency medical treatment information.

#### NOTE TO PHYSICIAN

No specific antidote is available. Treat the patient symptomatically.

## EPA Est. No. 53883-TX-002

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Keep children or pets away from treated area until 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, nitrite rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or viton.
- Shoes plus socks

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washable, 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(4)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for 'Applicators and Other Handlers' and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### USER SAFETY RECOMMENDATIONS

#### User should:

• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.



#### **ENVIRONMENTAL HAZARDS**

### USER SAFETY RECOMMENDATIONS continued

#### User should:

- Remove clothing immediately it pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, 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/plants or weeds. Do not apply this product or allow it to drift to blooming crops/plants or weeds if bees are foraging in 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

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. See individual crops for specific pollinator application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for food/feed crops & commercially grown ornamentals that are attractive to pollinators, and for non-agricultural uses.



FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.



Do not apply **MARATHON II** while bees are foraging. Do not apply **MARATHON II** 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.

#### 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 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, polyvinyl chloride (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 ORNAMENTALS AND VEGETABLE PLANTS

**MARATHON II** may be used to control insect pests on ornamental and vegetable plants in nurseries and greenhouses and interior plantscapes. Insect protection is achieved because **MARATHON II** is a systemic product and the active ingredient moves upward into the plant system. For best results **MARA-THON II** should be applied to the growing part of the plant for more absorption of the active ingredient. Nitrogen containing fertilizer may be added to the solution to aid in the uptake of the active ingredient where applicable. **MARATHON II** may be applied as a foliar spray or by soil applications such as soil injection, drenches, chemigation and broadcast sprays. Soil applications to plants with woody stems will require applications of **MARATHON II** before expected pests infestations due to the delay in the uptake of the active ingredient and the time until the product is taken up throughout the plant..

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

**Bark Media:** The length of protection after treatment with **MARATHON II** may be shortened if the media has 30% or more bark content.

**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.

### Application Equipment For Ornamentals And Vegetable Plants

**MARATHON II** mixes with water and may be applied with different types of application equipment. After mixing with the correct amount of water, follow the application directions for the selected use pattern.

For applications on hard to wet foliage such as holly, pine, or ivy, the use of a spreader/sticker is recommended. For application by concentrate or mist type spray equipment, the same amount of product should be used on the area sprayed, as would be used in a dilute application.

**MARATHON II** is compatible with frequently used fungicides, miticides, liquid fertilizers. Compatibility may be tested in a small jar by using the correct proportion of products if compatibility information is not available.

#### APPLICATION THROUGH IRRIGATION SYSTEMS

**MARATHON II** may be applied alone or as a tank mixture with other chemicals or pesticides registered for application through irrigation systems. The normal dilution ratio is 1:100 to 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

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

Apply **MARATHON II** only through micro irrigation (individual spaghetti tubes), drip irrigation, overhead irrigation, ebb and flood, or hand-held or motorized calibrated irrigation equipment.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from nonuniform distribution of treated water.

If you have any questions about calibration, contact your State Extension Service specialist, equipment manufacturers or other experts in this area. Do not connect an irrigation 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.

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.

### 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 outset 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 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.
- 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 sys-

tem 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 material that is 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.

#### RESTRICTIONS

- Do not graze treated areas or use clippings for treated areas for feed or forage. Avoid runoff or puddling of irrigation water following application.
- Do not apply **MARATHON II** to soils which are water logged or saturated, which will not allow penetration into the root zone of the plants.
- Do not allow leachate run out 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, applications of **MARATHON II** cannot exceed a total of 1.6 pt (0.4 lb of active ingredient) per acre per year.
- 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 an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12 month plant-back interval should be observed.
- Do not apply this product, by any application method to linden, basswood, or other *Tilia* species.

#### APPLICATION TO GRASSY AREAS IN NURSERIES

**MARATHON II** may be used on nursery grass in areas such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries. **MARATHON II** is not for use on commercial sod farms.

**MARATHON II** controls soil inhabiting pests of grassy areas of nurseries, such as Northern and Southern masked chafers, *Cyclocephala borealis, C. immaculata, and/or C. lurida*; Asiatic garden beetle, *Maladera castanea*; European chafer, *Rhizotroqus majalis*; Green June beetle, *Cotinis nitida*; May or June beetle, *Phyllophaga spp.*; Japanese beetle, *Popillia japonica*; Oriental beetle, *Anomala orientalis*; Billbugs, *Spherophorus spp.*; Annual bluegrass weevil, *Hyperodes spp.*; Black turfgrass ataenius, *Ataenius spretulus and Aphodius spp.* and mole crickets, *Scapteriscus spp.* **MARATHON II** can also be used for suppression of cutworms and chinchbugs.

For optimum control, make applications preceding or during the egg laying period of the target pest. The active ingredient in **MARATHON II** has enough residual activity so that applications can be made preceding the egg laying activity. Application timing can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. Most favorable control will be achieved when applications are made prior to egg hatch of the target pests, followed by sufficient irrigation or rainfall to move the active ingredient through the thatch.

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

#### Application Equipment for Use on Grassy Areas in Nurseries

Apply **MARATHON II** in enough water to provide sufficient distribution in the treated area. Use accurately calibrated equipment typically used for the application of soil insecticides which will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

#### **APPLICATION INSTRUCTIONS**

#### **GRASSY AREAS OF FIELD AND FOREST NURSERIES**

PEST	RATES	APPLICATION INSTRUCTIONS
Larvae of: Annual bluegrass weevil Asiatic garden beetle Billbugs Black turfgrass ataenius Phyllophaga spp. Cutworms (suppression) European chafer Green June Beetle Japanese beetle Northern masked chafer Oriental beetle Southern masked chafer	19.2 to 25.6 fl. oz. per acre or 0.45 to 0.6 fl. oz. (13 to 17 mL) per 1,000 sq. ft.	For best control of grubs, billbugs and annual bluegrass weevil, make appli- cation prior to egg hatch of the target pest. Make sure to read <b>APPLICATION EQUIPMENT</b> section of this label. For suppression of chinchbugs, make application prior to the hatching of the first instar nymphs. For control of mole crickets make application before or during the peak egg hatch period. When adults or large nymphs are present and actively tun- neling, <b>MARATHON II</b> application should be accompanied by a curative insecticide. Follow label instructions for other insecticides when tank mixing. Consult your local turf, state Agricultural Experiment Station, or State Ex- tension Service Specialist for more specific information regarding timing of application. NOTE: For best results, irrigation or rainfall should occur within 24 hours
Chinch bugs (suppression) Mole crickets	25.6 oz/A or (17 mL) per 1,000 sq. ft.	after application to move the active ingredient through the thatch. Do not apply more than 1.6 pt (0.4 lb of active ingredient) per acre per year. Do not mow grass area until after adequate irrigation or rainfall has occurred so that evenness of application will not be affected.

#### ORNAMENTALS

# FOLIAR AND SYSTEMIC APPLICATION IN AND AROUND FIELD-GROWN NURSERY AND CONTAINER STOCK, INDOOR AND OUTDOOR ORNAMENTALS (including both greenhouse and interior plantscapes), AND ORNAMENTALS GROWN IN FLAT BENCHES OR BEDS

PEST	CROP	RATES	APPLICATION INSTRUCTIONS
Adelgids Aphids Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers (including glassy-winged sharpshooter) Leafminers Leafminers Mealybugs Meal Sawfly larvae Thrips (suppression) Whiteflies	Trees (including non-bearing fruit and nut) Shrubs Evergreens Flowers Ground covers Interior Plantscapes Vegetable plants*	1.7 fl. oz. (50 mL) per 100 gal of water	<ul> <li>Foliar Applications: Start treatments before high pest pressure is observed and reapply as needed.</li> <li>For resistance management purposes, a MARA-THON II foliar application following a soil application in the same crop is not recommended.</li> <li>* Note: For use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.</li> </ul>

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#### **ORNAMENTALS** continued

FOLIAR AND SYSTEMIC APPLICATION IN AND AROUND FIELD-GROWN NURSERY AND CONTAINER STOCK, INDOOR AND OUTDOOR ORNAMENTALS (including both greenhouse and interior plantscapes), AND ORNAMENTALS GROWN IN FLAT BENCHES OR BEDS

PEST	CROP	RATES	APPLICATION INSTRUCTIONS
White grub larvae (such as Japanese beetle larvae, Chafers, <i>Phyllo- phaga</i> spp. Asiatic garden beetle, Oriental beetle)	Trees (including non-bearing fruit and nut) Shrubs Evergreens Flowers Ground covers Interior Plantscapes Vegetable plants*	0.45 to 0.6 fl. oz. (13 to 17 mL) per 1,000 sq. ft.	<b>Broadcast Applications:</b> Mix required amount of product in enough water to uniformly and ex- actly cover the treatment area. Do not use less than 2 gallons of water per 1000 sq. ft. For best control, irrigate carefully to inte- grate <b>MARATHON II</b> into the upper soil level. Refer to <b>REMARKS</b> section for use directions specific for <b>FLOWERS AND GROUND COVERS</b> concerning additional use directions.

## SOIL INJECTION, SOIL DRENCH AND BROADCAST APPLICATIONS IN NURSERY, GREENHOUSE AND INTERIORSCAPE PLANTS

PEST	CROP/RATES	APPLICATION INSTRUCTIONS
Adelgids		Soil Injections:
Aphids Armored scales Black vine weevil larvae	TREES	<b>Grid System:</b> Holes should be spaced on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree.
Eucalyptus longhorned borers Flatheaded borers		<b>Circle System:</b> Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line.
(including bronze birch and alder borers)		<b>Basal System:</b> Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base.
Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles) Leafhoppers	0.1 to 0.2 fl. oz. (3 to 6 mL) per inch of trunk diameter (D.B.H.)	Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. For op- timum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree.
(including glassy-winged sharpshooter)		No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.
Leafminers Mealybugs Pine Tip moth larvae Psyllids Royal palm bugs		<b>Soil Drench:</b> Uniformly apply the dosage in no less than 10 gallons of water per 1000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.
Sawfly larvae Soft scales Thrips (suppression)		<b>For Control of Specified Borers:</b> Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
White grub larvae		Soil Injection: Apply to individual plants using dosage indicated.
Whiteflies	SHRUBS 0.1 to 0.2 fl. oz. (13 to 17 mL) per foot of shrub height	Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per shrub.
		No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.
		<b>Soil Drench:</b> 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.
	<b>FLOWERS AND</b> <b>GROUND COVERS</b> 0.45 to 0.6 fl. oz. (13 to 17 mL) per 1,000 sq. ft.	Apply as a broadcast treatment and incorporate into the soil before planting or apply prior to bloom or after all flower petals have fall- en off for established plants. If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application.

#### **EBB & FLOOD APPLICATION**

Prior to treatment, to ensure accurate uptake by the plants, at least 10 plants should be brought up to a known field capacity and allowed to dry out for one or two days. Once dry, 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 should minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

PEST	POT SIZE (inches)	Herbaceous species including vegetable plants* (1 or 2 plants per pot)	Woody perennials, Herbaceous species including vegetable plants* (3 or more plants per pot)	APPLICATION INTRUCTIONS
		ML per	100 Plants	
Adelgids Aphids Armored scales	2 3	1.6 mL 2.5 mL	2.5 mL 3.7 mL	<ul> <li><sup>1</sup> Fungus gnat larvae: Control in the soil by drench or incorporation MARATHON II will not control adult Fungus Gnats.</li> </ul>
Fungus Gnats (larvae only) <sup>1</sup> Japanese beetles	4	3.3 mL	5 mL	<sup>2</sup> <b>Root Mealybug:</b> To obtain control, thor- oughly drench the containerized media
(adults) Lacebugs	5	4.2 mL	6.3 mL	but do not allow leaching from the bot- tom of the container. Use the following rate of 1.7 fl oz (50 mL) in 150 gallons of
Leaf beetles (including elm and vibur-	6	5 mL	7.7 mL	<sup>3</sup> Citrus Root Weevil: For use on non
num leaf beetles) Leafhoppers (including glassy-winged	7	5.9 mL 6.6 mL	9.1 mL 10 mL	bearing citrus nursery stock.
sharpshooter)	9	7.4 mL	11.1 mL	<sup>4</sup> Thrips: For suppression on foliage only. Thrips in buds and flowers will not be suppressed.
Mealybugs Psyllids	10	8.3 mL	12.5 mL	Foliar insect control is accomplished by the uptake of <b>MARATHON II</b> from a
Root mealybugs <sup>2</sup> Root Weevil Complex (such as Apopka Weevil,	11	9 mL	14.3 mL	healthy root system. This allows the ac- tive ingredient to move up into the plant.
Black Vine Weevil, Citrus Weevil <sup>3</sup> ) Soft scales Thrips (suppression) <sup>4</sup> Whiteflies White grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	12	10 mL	16.7 mL	* Note: For use on vegetable plants in- tended for resale only including: Broc- coli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Egg- plant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Pep- pers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.

#### DRENCH AND IRRIGATION APPLICATIONS

For use only on greenhouse and nursery ornamentals, vegetable plants<sup>\*</sup>, and interiorscape plants using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held or motorized calibrated irrigation equipment.

PEST	POT SIZE (inches)	Herbaceous species including vegetable plants* (1 or 2 plants per pot)	Woody perennials, Herbaceous species including vegetable plants* (3 or more plants per pot)	APPLICATION INTRUCTIONS
		No. pots treated with 1.7 fl. oz. (50 mL)	No. pots treated with 1.7 fl. oz. (50 mL)	
Adelgids	2	3,000	2,000	Thoroughly wet most of the potting medium
Aphids Fungus Gnats (larvae only) <sup>1</sup>	3	2,000	1,350	but do not allow runout or leaching from the bottom of the container. Follow the application with moderate irrigation.
Japanese beetles (adults)	4	1,500	1,000	During the next 10 days, carefully irrigate to avoid the loss of the active ingredient due to
Lacebugs Leaf beetles	5	1,200	800	leaching. <sup>1</sup> Fungus gnat larvae: Control in the soil by
(including elm and viburnum leaf beetles)	6	1,000	650	drench or incorporation. <b>MARATHON II</b> will not control adult Fungus Gnats.
Leafhoppers (including glassy-	7	850	550	<sup>2</sup> Root Mealybug: To obtain control, thor- oughly drench the containerized media but
winged sharp-shoot- er)	8	750	500	do not allow leaching from the bottom of the container. Use the following rate of 1.7 fl oz
Leafminers Mealybugs	9	675	450	(50 mL) in 150 gallons of water. <sup>3</sup> Citrus Root Weevil: For use on non-bear-
Psyllids Root mealybugs <sup>2</sup>	10	600	400	ing citrus nursery stock. 4 <b>Thrips:</b> For suppression on foliage only.
Root Weevi Complex (such as Apopka	11	550	350	Thrips in buds and flowers will not be sup- pressed.
Weevil, Black Vine Weevil, Citrus Weevil <sup>3</sup> ) Soft scales Thrips (suppression) <sup>4</sup>	12	500	300	Foliar insect control is accomplished by the uptake of <b>MARATHON II</b> from a healthy root system. This allows the active ingredient to move up into the plant.
Whiteflies White grub larvae				
(such as Japanese Beetle, Masked Chafers, European	Ornamenta plants* gro benches, o		1.7 fl. oz. (50 mL) per 3,000 sq. ft.	Mix the appropriate amount of <b>MARATHON</b> II in sufficient water to evenly cover the treatment area.
Chafer, Oriental Beetle, Asiatic				Do not use less than 2 gallons of mixture per 1000 sq. ft.
Garden Beetle)				Apply as a broadcast treatment. Before plant- ing, mix into the potting medium or apply after to established plants. Lightly irrigate after ap- plication to established plants for best control.
				Do not allow leaching or runout for 10 days after application.
* Note: For use on vegetable plants intended for resale only including: Broccoli, Chinese Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground Cherry, Kale, Kohlrabi, Lettuce, Mustard Greens, Pepinos, Peppers, Potatoes, Rape Greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.				

continued next page

#### DRENCH AND IRRIGATION APPLICATIONS continued

	Containerized Plants		
PEST	Container Size	No. pots treated with 1.7 fl. oz. (50 mL)	APPLICATION INTRUCTIONS
Adelgids	1 gallon	340 to 244	Apply in sufficient water to wet the potting medium. For
Aphids Fungus Gnats (larvae only) <sup>1</sup>	2 gallon	280 to 210	best control, make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.
Japanese beetles (adults)	3 gallon	220 to 165	To avoid leaching, use 1.7 fl. oz. (50 mL) of <b>MARATHON</b> II in the appropriate amount of water to treat the number
Lacebugs Leaf beetles	5 gallon	160 to 110	of pots based on the pot size as stated in the table.
(including elm and viburnum leaf beetles)	7 gallon	100 to 75	Foliar insect control is accomplished by the uptake of <b>MARATHON II</b> from a healthy root system. This allows
Leafhoppers	10 gallon	60 to 45	the active ingredient to move up into the plant.
(including glassy-winged sharpshooter) Leafminers	15 gallon	40 to 30	<sup>1</sup> <b>Fungus gnat larvae:</b> Control in the soil by drench or incorporation. <b>MARATHON II</b> will not control adult Fungus Gnats.
Mealybugs Psyllids Root mealybugs <sup>2</sup> Root Weevil Complex (such as Apopka Weevil, Black Vine Weevil, Citrus Weevil) <sup>3</sup> Soft scales Thrips (suppression) <sup>4</sup> Whiteflies White grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asiatic Garden Beetle)	20 gallon	20 to 15	<ul> <li><sup>2</sup> Root Mealybug: To obtain control, thoroughly drench the containerized media but do not allow leaching from the bottom of the container. Use the following rate of 1.7 fl oz (50 mL) in 150 gallons of water.</li> <li><sup>3</sup> Citrus Root Weevil: For use on non-bearing citrus nursery stock.</li> <li><sup>4</sup> Thrips: For suppression on foliage only. Thrips in buds and flowers will not be suppressed.</li> </ul>
Field and	Forest Nurseries		
White grub larvae (such as Japanese Beetle, Masked Chafers, European Chafer, Oriental Beetle, Asi- atic Garden Beetle)	(50 per 1,00	fl. oz. ) mL) 0 ft. of row or ) sq. ft.	Before application, mow the vegetation in the treatment area to a height of 3 inches or less. For best control, mow to the lowest height possible. Applications should be made May through July. To
alle Garden Beelle)	3,000	) sq. п.	achieve the best control, treatment should be followed by rainfall or irrigation.
			Do not use less than 2 gallons of spray volume per 1000 square feet.
			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 overlap bands in adjacent rows.
			For grub control in areas of turf, apply as a broadcast application using 1.35 to 1.7 fl oz (40 to 50 mL) per 3000 sq. ft.

#### 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 water soluble packets in original container and out of reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If 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 pesticide below. In spill or leak incidents, keep unauthorized people away.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site (in the treatment area) or at an approved waste disposal facility.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Clean container 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 ¼ 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. Offer for recycling if available. If recycling is not available: then dispose of container in a sanitary landfill or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

#### **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of liability before using this product.

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