# MARATHON<sup>®</sup> 60 WP <sup>4</sup>A INSECTICIDE

GREENHOUSE AND NURSERY INSECTICIDE IN WATER SOLUBLE PACKAGING

# FOR FOLIAR AND SYSTEMIC INSECT CONTROL ON ORNAMENTAL AND VEGETABLE TRANSPLANTS IN GREENHOUSES AND NURSERIES

## **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 (32°F). Do Not Remove Packets From Container Except For Immediate Use.

## EPA Reg. No. 432-1361-59807

# STOP - READ THE LABEL BEFORE USE KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto 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.)

# For TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-424-9300

# For MEDICAL and PRODUCT USE Information Call 1-800-356-4647

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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>	
lf on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of 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 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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
In case of emergency call toll free the OHP, Inc. emergency telephone number 1-800- 356-4647. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.		

**NOTE TO PHYSICIAN:** No specific antidote is available. Treat the patient symptomatically.

EPA Est. indicated by second and third digits of the batch number on this package. (98) = 33967-NJ-1 (85) = 065387-AR-002

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

#### 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, 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**

#### 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.

# **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.



# 5, 20 g (0.7 oz) packets/pouch (100 g or 3.5 oz/pouch)

This product is highly toxic to bees exposed to direct treatment or residues on the foliage of 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 POLLI-NATORS. 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.

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.

SEE INDIVIDUAL CROPS FOR SPECIFIC POLLINATOR PROTEC-TION APPLICATION RESTRICTIONS. IF NONE EXIST UNDER THE SPECIFIC CROP, FOR OUTDOOR FOLIAR APPLICATIONS, FOLLOW THESE APPLICATION DIRECTIONS FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS THAT ARE ATTRACTIVE TO POLLINATORS.



#### FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRAC-TIVE 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-ad-

ministered 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.

#### 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

# **PRODUCT INFORMATION**

**MARATHON 60 WP Greenhouse and Nursery Insecticide** is for insect control on ornamental and vegetable plants intended for resale (transplants) in nurseries and greenhouses. **MARATHON 60 WP** may be applied either as a spray or as a drench. Thorough coverage is required when applied as a spray. **MARATHON 60 WP** is a systemic product and will be translocated upward within the plant when applied as a drench. To assure optimum effectiveness, the product must be placed where the roots of the plant can absorb the active ingredient. Irrigate moderately but thoroughly after application, allowing no leaching and runout from container for at least three irrigations or 10 days which ever is longer.

**Resistance:** Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, conform the use of this product to resistance management strategies established for the use area.

**MARATHON 60 WP** contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species.

The active ingredient in **MARATHON 60 WP** is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown crossresistance to **MARATHON 60 WP**.

Contact your Cooperative extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org/.

For resistance management purposes, do not make a foliar application with any chloronicotinyl insecticide following a **MARATHON 60 WP** soil application in the same crop.

**Incorporation:** Incorporation of **MARATHON 60 WP** can be achieved by cultivation, irrigation, rainfall, mechanical placement, soil injection, drenching, and broadcast sprays.

**Woody Perennials:** Onset of protection is slower than in herbaceous species. A delay of 2 or more weeks will be expected. Longer delays may be expected with larger plants. Therefore, make application well in advance of expected insect activity.

**Bark Media:** Media with 30% to 50% or more bark content may confer a shorter period of protection when treated with **MARATHON 60 WP**.

**Tank Mixes: MARATHON 60 WP** has been found to be compatible with commonly used liquid fertilizers, fungicides and insecticides. Check physical compatibility using the correct proportion of products in a small jar test if local experience is unavailable.

**RESTRICTION:** Do not use **MARATHON 60 WP** packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic which is not soluble in water. However, normal chlorinated water is acceptable for mixing.

**MIXING:** Within each foil pouch is a clear inner packet containing **MARATHON 60 WP**. The clear inner packet is water soluble. Do not allow packets to become wet prior to adding to the tank. Do not handle the clear inner packets with wet hands or wet gloves. Rough handling may cause breakage. Reseal outer carton to protect remaining packets.

To prepare the mixture, remove the outer foil pouch and drop the required number of unopened clear water soluble packets into the spray tank while filling the tank with the desired amount of water. The required number of packets is specified under 'Dose' in the tables below. Operate the agitator while mixing. Depending on the water temperature and the degree of agitation, the packets will completely dissolve within a few minutes from the time they are added to the water.

#### **APPLICATION TO GRASSY AREAS IN NURSERIES**

MARATHON 60 WP can be used for the control of 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;* sugarcane beetle, *Euetheola rugiceps humulis;* billbugs, *Spherophorus* spp.; annual bluegrass weevil, *Listronotus maculicolis;* black turfgrass ataenius, *Ataenius spretulus, Aphodius* spp.; crane flies, *Tipula* spp.; and mole crickets, *Scapteriscus* spp. MARATHON 60 WP can also be used for suppression of cutworms and chinchbugs. MARATHON 60 WP can be used as directed on nursery grass in sites such as under or around field or container grown plants, on roadways or other grassy areas in or around nurseries. MARATHON 60 WP cannot be used on commercial sod farms.

The active ingredient in **MARATHON 60 WP** has sufficient residual activity so that applications can be made preceding the egg laying activity of the target pests.

High levels of control can be achieved when applications are made preceding or during the egg laying period. The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods. 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.

Do not apply to grassy areas if the soil is waterlogged or saturated with water. 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. Application cannot exceed a total of 10.7 oz. (0.4 lb. of active ingredient) per acre per year.

**Application Equipment for Use on Grassy Areas in Nurseries:** Apply **MARATHON 60 WP** 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 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 THROUGH IRRIGATION SYSTEMS

Apply **MARATHON 60 WP** at rates indicated 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. 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 60 WP** only through microirrigation (individual spaghetti tube), drip irrigation, overhead irrigation, ebb and flood, or handheld 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 State Extension Service specialists, equipment manufacturers or other experts.

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 when the need arises.

#### SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECT-ED TO PUBLIC WATER SUPPLIES:

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

- 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.
- 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 CON-NECTED TO A PUBLIC WATER SUPPLY:

 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.

- 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.
- 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.

DIRECTIONS FOR FOLIAR APPLICATION TO GRASSY AREAS OF NURSERIES				
SITE		PEST		DOSE
Grassy areas of	Larvae of:	Cutworms (suppression)	Northern masked chafer	One packet per
Field & Forest Nurseries	Annual bluegrass weevil	European chafer	Oriental beetle	2,900-3,850 sq. ft.
Nulsenes	Asiatic garden beetle	Green June beetle	Phyllophaga spp.	
	Billbugs	Japanese beetle	Southern masked chafer	
	Black turfgrass ataenius			
	Chinch bugs (suppression)	Mole crickets		One packet per 2,900 sq. ft.

For optimum control of grubs, billbugs and annual bluegrass-weevil, make application prior to egg hatch of the target pest.

Be sure to read "APPLICATION EQUIPMENT" Section of this label.

For suppression of chinch bugs, make application prior to the hatching of the first instar nymphs.

For optimum control of mole crickets, make application prior to or during the period of peak egg hatch. If application is not made prior to egg hatch and adults or large nymphs are present and actively tunneling, then apply **MARATHON 60 WP** in combination with a remedial insecticide to minimize damage to turf. Follow label instructions for other insecticides when tank-mixing.

Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialist for more specific information regarding timing of application. For optimal control, if rainfall does not occur within 24 hours after application, irrigate to move the active ingredient through the thatch. Mow grass area only after sufficient irrigation or rainfall has occurred so that uniformity of application will not be affected.

#### **RESTRICTIONS:**

- Do not apply more than 10.7 oz. (0.4 lb. of active ingredient) per acre per year.
- 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 for treated areas for feed or forage.
- Avoid runoff or puddling of irrigation water following application.

Do not apply MARATHON 60 WP to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants.

## DIRECTIONS FOR APPLICATIONS TO ORNAMENTALS AND VEGETABLE TRANSPLANTS

For foliar and systemic insect control in and around field grown nurseries, outdoor containerized ornamentals, ornamentals grown in greenhouses and ornamentals grown in flats, benches or beds, for vegetable transplants and resale.

CROP		PEST		DOSE
Trees (Non-bearing fruit and nut trees*) Shrubs	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	One packet per 100 gal. water
Evergreens Flowers	Foliar Applications:	Start treatments prior to establishment of high pe	st populations and reapply on an as neede	ed basis.
Foliage plants Ground covers	For resistance management purposes, do not make a foliar application with <b>MARATHON 60 WP</b> following a <b>MARATHON 60 WP</b> soil appli- cation in the same crop.			
Vegetable transplants**	White grub larvae (such as Japanese beetle larvae, chafers, <i>Phyllophaga</i> spp., Asiatic garden beetle, Oriental beetle, Oriental 3,850 sq. ft.       One packet per 2,900-3,850 sq. ft.			1 1 7
	<b>Broadcast Applications:</b> 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 sq. ft. Apply specified dosage in enough water to ensure <b>MARATHON 60 WP</b> reaches the root zone but does not leach out of the container. Apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. If application is made to established plants, optimum control will be attained if area is irrigated thoroughly after application.			
	* Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application.			
	** Only for use on the following vegetable plants intended for resale including: Broccoli, Chinese broccoli, Broccoli raab, Brussels sprouts, Cab- bage, Chinese Cabbage, Cauliflower, Collards, Eggplant, Ground cherry, Kale, Kohlrabi, Lettuce, Mustard greens, Pepinos, Peppers, Potatoes Rape greens, Sorghum, Sugarbeets, Tomatillo, and Tomato.			
<ul> <li>Follow application ARE ATTRACTIVE T</li> <li>Do not apply more that</li> </ul>	ARE ATTRACTIVE TO POLLINATORS indicated on page 6 to protect bees and other insect pollinators.			

	DIREC	TIONS FOR DRENCH A	ND IRRIGATION APPLI	CATIONS	
For use only in greenhou motorized calibrated irrig		and vegetable transplants usin	g soil drenches, micro-irrigati	on, drip irrigation, overhead irrigation, or hand-held or	
		Р	EST		
Adelgids Aphids Armored scale (suppression) Fungus Gnat (larvae only) <sup>1</sup> Japanese Beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles)		Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Psyllids Root mealybugs <sup>2</sup> Root weevil complex (such as Black vine weevil, Apopka weevil, Citrus root weevil <sup>3</sup> ) Soft scale		Thrips (suppression) <sup>4</sup> White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle) Whiteflies	
USE	PATTERN	DOSE - MAR	ATHON 60 WP	APPLICATION INSTRUCTIONS	
Plants in containers	Herbaceous Species - including Vegetable transplants <sup>5</sup> (one or two plants per pot)	Container size (Inches) 2 3 4 5 6 7 8 9 10 11 11 12	No. pots treated with one (1) Packet 3,000 2,000 1,500 1,200 1,000 850 750 675 600 550 500	Evenly distribute one (1) packet of <b>MARATHON 60 WF</b> in the stated number of pots, using sufficient water vol ume to wet potting medium without loss of liquid through leaching. Apply according to label directions. Follow ap plication with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredien due to leaching.	
Plants in containers	Woody Perennial Species	Container size (Inches) 2 3 4 5 6 7 8 9 10 11 11 12	No. pots treated with one (1) Packet 2,000 1,350 1,000 800 650 550 550 500 450 400 350 300	Evenly distribute one (1) packet of <b>MARATHON 60 WF</b> in the stated number of pots, using sufficient water vol ume to wet potting medium without loss of liquid through leaching. Apply according to label directions. Follow ap plication with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching.	
	Herbaceous Species - including Vegetable transplants <sup>5</sup> (three or more plants per pot)	Use the above Woody	Perennial Species rates		
Ornamental and vegetable benches, or beds	e <sup>5</sup> plants grown in flats,	One packet per 3,000 sq. feet		Mix required amount of product in sufficient water to uni formly and accurately cover the area being treated.	
				Do not use less than 2 gallons of mixture per 1,000 sq ft. Apply as a broadcast treatment and incorporate into the medium before planting or apply after plants are es tablished. If application is made to established plants, optimum	
				control will be attained if area is lightly irrigated after ap plication. Allow no leaching or runout for 10 days afte application.	
Containerized Plants		Container size 1 gallon 2 gallon 3 gallon 5 gallon	No. pots treated with one (1) Packet 240 to 120 120 to 60 90 to 40 65 to 30	Apply in sufficient water to wet the potting medium. Fo optimum control, make applications prior to egg hatch of the target pest. Irrigate moderately after application to move the active ingredient into the root zone.	

#### **DIRECTIONS FOR DRENCH AND IRRIGATION APPLICATIONS** continued

#### **RESTRICTIONS FOR OUTDOOR USES:**

- Follow application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE AT-TRACTIVE TO POLLINATORS indicated on page 6 to protect bees and other insect pollinators.
- Do not apply to soils which are waterlogged or saturated, which will not allow the penetration of the insecticide into the root zone of the plants.
- Do not apply more than 10.7 oz. (0.4 lb. of active ingredient) per acre per year.
- Do not apply this product, by any application method, to linden, basswood, or other Tilia species.
- Fungus gnat larvae in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of MARATHON 60 WP from a healthy root system translocating the active ingredient up into the plant.
- <sup>2</sup> Root mealybug control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: one (1) packet in 150 gallons of water.
- <sup>3</sup> Citrus root weevil: For use on non-bearing citrus nursery stock.
- <sup>4</sup> Thrips suppression on foliage only. Thrips in buds and flowers will not be suppressed.
- <sup>5</sup> For use only on the following vegetable plants (intended for transplant resale): 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.

DIRECTIONS FOR SOIL APPLICATIONS TO FIELD GROWN NURSERY STOCK				
PEST	USE PATTERN	DOSAGE	INSTRUCTION	
White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	Field and forest nursery stock	Apply as a uniform band to the ground 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. Use one (1) packet per 1,000 ft. of row or 3,000 sq. ft.	control, treatment must be followed by rainfall or irrigation. Do not use less than 2 gallons of spray volume per 1,000	

#### **RESTRICTIONS:**

• Do not apply more than 10.7 oz. (0.4 lb. of active ingredient) per acre per year.

• Do not allow this product to contact plants in bloom while bees are foraging the treatment area.

Do not apply MARATHON 60 WP to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants.

DIRECTIONS FOR SOIL DRENCH AND SOIL INJECTION FOR TREES AND SHRUBS FOR NURSERIES AND GREENHOUSES				
Adelgids Aphids Armored scales (suppression) Black vine weevil larvae Eucalyptus longhorned borers	Flatheaded borers (including bronze birch, emerald ash, and alder borers) Japanese beetles (adults) Lacebugs Leaf beetles (including elm and viburnum leaf beetles)	Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine Tip moth larvae Psyllids	Royal palm bugs Sawfly larvae Soft scales Thrips (suppression) White grub larvae Whiteflies	
Trees	1 packet (20 grams) per 8 to 16 inches of cur	nulative trunk diameter		

**Soil Injection:** GRID SYSTEM: Space holes on 2.5 foot centers, in a grid pattern, extending to the drip line of the tree. CIRCLE SYSTEM: Apply in holes evenly spaced in circles, (use more than one circle dependent upon the size of the tree) beneath the drip line of the tree extending in from that line. BASAL SYSTEM: Space injection holes evenly around the base of the tree trunk no more than 6 to 12 inches out from the base.

Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. For optimum control, keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per tree.

#### No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: Uniformly apply the dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree, directed to the root zone. Remove plastic or any other barrier that will stop solution from reaching the root zone.

For Control of Specified Borers:	Application to trees already heavily infested may not prevent the eventual loss of the trees due to existing pest damage and tree stress.
Shrubs	1 packet (20 grams) per 8 to 16 feet of cumulative shrub height

Soil Injection: Apply to individual plants using dosage indicated.

Mix required dosage in sufficient water to inject an equal amount of solution in each hole. Maintain a low pressure and use sufficient solution for distribution of the liquid into the treatment zone. Keep the treated area moist for 7 to 10 days. Do not use less than 4 holes per shrub.

#### No Soil Injection Application Allowed in Nassau or Suffolk Counties of New York.

Soil Drench: 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.

DIRECTIONS FOR SOIL DRE	NCH AND SOIL INJECTION FOR TREES AND SHRUBS FOR NURSERIES AND GREENHOUSES continued
GROUND TREATMENT PRE-PLANTING FOR FLOWERS AND GROUNDCOVERS	1 packet (20 grams) per 3,000 sq. ft.
Apply as a broadcast treatment and incorpo	rate into the soil before planting.
RESTRICTIONS FOR OUTDOOR USES:	
• Do not apply more than 10.7 oz. (0.4 lb.	of active ingredient) per acre per year.
<ul> <li>Do not apply to solle which are waterload</li> </ul>	and or saturated, which will not allow the penetration of the insecticide into the root zone of the plants

- Do not apply to soils which are waterlogged or saturated, which will not allow the penetration of the insecticide into the root zone of the plants.
- For use only on non-bearing fruit and nut trees. Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application.
- Do not apply this product, by any application method, to linden, basswood, or other Tilia species.

# MARATHON 60 WP Ebb & Flood Application

**MARATHON 60 WP** may be applied 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 plant 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. Do not allow leachate run out for first 10 days after application, in order to retain the product and facilitate full plant uptake of the active ingredient. This will minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

# DIRECTIONS FOR EBB AND FLOOD APPLICATIONS IN GREENHOUSES AND NURSERIES

		Number of pots treated with one pac	ket
Adelgids	Leaf beetles (including elm and	Psyllids	Thrips (suppression) <sup>4</sup>
Aphids	viburnum leaf beetles)	Root mealybugs <sup>2</sup>	Whiteflies
Armored scales (suppression)	Leafhoppers (including	Root weevil complex:	White grub larvae (such as
Fungus Gnats (larvae only) <sup>1</sup>	glassy-winged sharpshooter)	(such as Apopka weevil, Black vine	Japanese beetle, Masked chafers,
Japanese beetles (adults)	Leafminers	weevil, Citrus root weevil <sup>3</sup> )	European chafer, Oriental beetle,
Lacebugs	Mealybugs	Soft Scales	Asiatic garden beetle)

	Number of pots treated with one packet		
Pot sizes (inches)	Herbaceous species including vegetable transplants <sup>5</sup> (one or two plants per pot)	Woody perennials, Herbaceous species including vegetable transplants <sup>5</sup> (3 or more per pot)	
2	3,000	2,000	
3	2,000	1,350	
4	1,500	1,000	
5	1,200	800	
6	1,000	650	
7	850	550	
8	750	500	
9	675	450	
10	600	400	
11	550	350	
12	500	300	

<sup>1</sup> Fungus gnat larvae in the soil will be controlled by drench or incorporation. No adult Fungus Gnat control. Other foliar insect control is achieved by the uptake of MARATHON 60 WP from a healthy root system translocating the active ingredient up into the plant.

Root mealybug control will require a thorough drenching of containerized media. Coverage is essential for control while minimizing the amount of leachate. Rate: 1.7 fl. oz. (50 mL) in 150 gallons of water.

<sup>3</sup> **Citrus root weevil:** For use on non-bearing citrus nursery stock.

<sup>4</sup> **Thrips** suppression on foliage only. Thrips in buds and flowers will not be suppressed.

<sup>5</sup> For use only on the following vegetable transplants (intended for transplant resale): 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.

# **RESTRICTIONS FOR OUTDOOR USE:**

 Follow application restrictions FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRAC-TIVE TO POLLINATORS indicated on page 6 to protect bees and other insect pollinators.

• Do not apply more than 10.7 oz. (0.4 lb. of active ingredient) per acre per year.

# STORAGE AND DISPOSAL

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

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

**Container Handling: Non-refillable container.** Do not reuse or refill this container. Offer for recycling, if available. After removal of all PVA packets, dispose of empty container in a sanitary landfill, by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**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 above. In spill or leak incidents, keep unauthorized people away. You may contact OHP, Inc. for decontamination procedures or any other assistance that may be necessary. The OHP, Inc. emergency telephone number is 1-800-356-4647, or contact Chemtrec at 1-800-424-9300.

# **IMPORTANT: READ BEFORE USE**

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

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Llimitations of Liability.

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