

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 19, 2022

Krystal Maldonado Regulatory Specialist Albaugh, LLC 2906 N Patterson Street, Suite D Valdosta, GA 31602

Subject: Registration Review Label Mitigation for Metalaxyl

Product Name: Metalaxyl 4L T&O EPA Registration Number: 42750-250

Application Date: 6/20/2018 Decision Number: 583408

## Dear Krystal Maldonado:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metalaxyl Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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If you have any questions about this letter, please contact Darius Stanton by phone at 202-566-2332, or via email at <a href="mailto:stanton.darius@epa.gov">stanton.darius@epa.gov</a>.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure

## **METALAXYL 4L T&O**

FOR CONTROL OF CERTAIN DISEASES IN CONIFERS, NONBEARING CITRUS, NONBEARING DECIDUOUS FRUITS AND NUTS, ORNAMENTALS, AND TURF.

## ACTIVE INGREDIENT:

Metalaxyl; N-(2.6-dimethylphenyl)-N-(methoxyacetyl) alanine methyl ester	44.08%
OTHER INGREDIENTS:	55.92%
TOTAL:	100.00%

Contains 4.0 pounds Metalaxyl per gallon (480 grams per liter).

## KEEP OUT OF REACH OF CHILDREN

## **CAUTION**

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

FIRST AID				
IF	Call a poison control center or doctor immediately for treatment advice.			
SWALLOWED	ALLOWED • 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 IN EYES	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.			
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>			
	Call a poison control center or doctor for treatment advice.			
IF ON SKIN	Take off contaminated clothing.			
OR CLOTHING  • Rinse skin immediately with plenty of water for 15 to 20 minutes.  • Call a poison control center or doctor for treatment advice.				
			IF INHALED	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.			
	HOTLINE NUMBER: Have the product container or label with you when calling a poison control center			
or doctor, or going (or treatment.				

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

EPA Reg. No. 42750-250 EPA Est. No. \_\_\_\_\_

**NET CONTENTS:** 

MANUFACTURED BY: Albaugh, LLC 1525 NE 36<sup>th</sup> Street Ankeny, IA 50021

# ACCEPTED

Apr 19, 2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 42750-250

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Shoes and socks
- 3. Chemical-resistant gloves: made of Barrier Laminate, Nitrile Rubber ≥14 mils, Neoprene Rubber ≥14 mils, or Viton ≥14 mils.

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 CONTROL STATEMENT**

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

## **USER SAFETY RECOMMENDATIONS**

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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**

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 apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory Statement: This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 requirement 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 Pan 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 intervals. 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 24 hours.

Exception: If the product is soil-incorporated, or applied by soil 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.
- Shoes plus socks,
- Chemical-resistant gloves such as barrier laminate or nitrile rubber or neoprene rubber or Viton.

## **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. Do not allow people (other than applicator) or pets on treatment area during application,

Do not enter or allow others to enter the treated area until sprays have dried.

## **USE INSTRUCTIONS**

This product is a systemic fungicide for use on ornamentals; turf, nonbearing citrus grown in nurseries and as landscape plantings; conifers grown in nurseries and plantation, including Christmas trees; and nonbearing deciduous fruit and nut trees grown in nurseries,

Failure to follow the directions for use and precautions on this label may result in poor disease control or crop injury.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

METALAXYL 2E AG is a systemic fungicide that contains metalaxyl, a Group 4 mode of action fungicide that belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis.

Any fungal population may contain individuals naturally resistant to Group 4 mode of action fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields.

Because resistance development cannot be predicted, the use of this product should follow appropriate resistance-management strategies. To delay fungicide resistance, use should be based on an IPM program that includes the following steps:

- Rotate the use of METALAXYL 2E AG or other Group 4 fungicides within a growing season sequence with different groups that control the same pathogens. Avoid application of more than 3 and consecutive sprays of METALAXYL 2E AG or other fungicides in the same group in a season.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses
  historical information related to pesticide use, and crop rotation, and which considers host plant
  resistance, impact of environmental conditions on disease development, disease thresholds, as well
  as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistancemanagement and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Albaugh, LLC at 1-800-xxx-xxxx. You can also contact your pesticide distributor or university extension specialist to report resistance.

## **MIXING PROCEDURES**

This product is usually compatible with Propiconazole, s-Metachlor, Chlorothalonil, Mancozeb and Azoxystrobin.

To determine the compatibility of this product with these and other products, pour the products into a small container of water in the correct proportions. After thorough mixing, let stand for 5 minutes, if the combination remains mixed, or can be remixed readily, the mixture should be considered compatible.

Prepare no more spray mixture than is required for the immediate operation. Agitate the spray solution continuously during the mixing and during application. Rinse the spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

## Metalaxyl Fungicide Alone:

Add 1/4 to 1/2 of the required amount of water to the spray tank. With the agitator running, add this product to the tank. Continue agitation while adding the remainder of the water. Begin application of the spray solution after this product has completely dispersed into the mix water. Maintain agitation until all of the mixture has been sprayed.

## Metalaxyl Fungicide + Tank Mixtures:

Add 1/4 to 1/2 of the required amount of water to the spray lank. Start the agitator before adding any tankmix partners. In general, tank-mix partners should be added in this order:

- Wettable powders,
- Dry flowable formulations,
- Liquid flowable formulations,
- Microencapsulated formulations and
- Emulsifiable concentrates.

Always allow each tank-mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water and this product to the spray tank. Allow this product to completely disperse info the mix water. Maintain agitation until all of the mixture has been sprayed.

NOTE: When using this product in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank-mix partner, including this product. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank-mix partner to the tank.

If using this product in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix partner label. No label dosage may be exceeded and the most restrictive label directions and restrictions must be followed. This product must not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the products are registered.

### BANDED TREATMENT

Calculate the amount of this product needed for band treatment by the following formula:

<u>Bandwidth in inches</u> X Broadcast rate = Amount needed Row spacing in inches Per Acre Per Acre

#### APPLICATION THROUGH IRRIGATION SYSTEM

This product alone or in tank mixture with other pesticides registered for application through irrigation systems may be applied in irrigation water at rates specified on this label. This product may be applied through micro sprinkler or drip irrigation systems. Do not apply this product through any other type of irrigation system. Plant injury or lack of effectiveness may result from non-uniform distribution of treated water. If you have questions about calibration, you should 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 label-prescribed safety devices for public water supplies are in place. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Dilute this product with water in the solution tank at a ratio of at least 1 part of this product to 15 parts water. Liquid fertilizer may replace all or part of the water. If diluted in liquid fertilizer, the pH level must be less than 7.5. Inject this product solution at a ratio 50:1 or greater. Injecting a larger volume of a more dilute mixture will usually allow a more accurate calibration of the metering equipment. Meter the fungicide into the irrigation water during the first part of the irrigation cycle.

Chemigation Systems Connected To Public Water Systems:

NOTE: Manufacturer does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection.

Public water system means a system for the provision of public piped water for human consumption, it such a 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. 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, the water from the public supply 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. 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.

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 pressure decreases to the point where pesticide distribution is adversely affected. 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. Do not apply when wind speed favors drift beyond the area intended for treatment,

## Sprinkler chemigation:

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. The pesticide infection 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 injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. 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. Do not apply when wind speed favors drift beyond the area intended for treatment. Mix in a clean supply tank, the recommended amount of this product for the acreage to be covered, and the needed quantity of water.

This product must not be tank-mixed with other pesticides surfactants or fertilizers for chemigation application unless chemigation is permitted by the other product's label, and unless prior use has shown the combination non-injurious under your conditions of use. Follow precautionary statements and directions for all tank-mix products.

Meter this product into the irrigation water uniformly during the period of application. {The period of crop irrigation may be different than the period of this product application in some cases.) Do not overlap application. Continuous agitation is needed.

## **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

CONTROLLING DROPLET SIZE - Ground Boom

### VOLUME -

Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

## PRESSURE-

Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

## SPRAY NOZZLE -

Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

## CONTROLLING DROPLET SIZE - Aircraft

#### ADJUST NOZZLES -

Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

Drift potential generally increases with wind speed. A VOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **ORNAMENTALS**

Use this product on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, and for use on ornamentals grown for Indoor and outdoor landscaping, for control of damping-off. and root and

stem rot diseases caused by Pythlum and Phyiophthora. This product may be applied through irrigation systems, as a soil drench or as a soil surface spray, or incorporated into a pre-potting growing media for subsequent seeding or transplanting of ornamentals.

Within a rate range given for a specific group of ornamentals, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and the shortest interval. The maximum annual rate must not exceed 12.3 lbs a.i./A.

For drench applications, use enough of the specified product water solution to wet the root zone of plants. In general, 1 pint per square foot of this solution is sufficient for ornamentals growing in containers with 4 inches of growth media. Containers with growth media depth greater than 4 inches generally require 1.5 to 2 pints per square foot of the solution. For test efficacy with soil surface applications, irrigate In with at least 1/2 inch of water within 24 hours.

NOTE: Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for tolerance to this product. Neither the manufacturer nor the seller has determined whether or not this product can be used safely on ornamental and nursery plants not specified on this label. The professional user should determine if this product can be used safely prior to commercial use. In a small area, test the specified rates for a particular group of unlabeled plants, e.g. bedding plants, foliage, etc. for phytotoxicity prior to widespread use.

PLANT	RATE (Fluid Ounces)	USE INSTRUCTIONS
FOLIAGE PLANTS Aglaonema	0.30 to 0.60 (0.009 – 0.018	Drench: Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface. For growth media depth greater than 4 inches, apply 1.5 to 2 pints of solution
Aphelandra Dieffenbachla Peperomia	lbs active)	per square foot to the soil surface. Repeat applications at 2 to 3 month Intervals, if necessary.
Philodendron* Pothos Schetflera		*On Philodendron, use 0.5 to 1 fluid ounces (0.016 – 0.031 lbs active) per 100 gallons.
Sedum Sempervlvum Zygocactus		RESTRICTIONS: To minimize the potential for injury to Pothos, do not use more than 0.38 fluid ounces (0.012 lbs active) per 100 gallons and do not apply more frequently than once every three months.
	0.13 to 0.25 (0.004 – 0.008	Pre-Potting Growing Media Mix: Apply to growing media mix just before planting. Mix only enough for current use. Do not store. Thoroughly mix with each cubic yard of pre-potting
	lbs active)	growing media.
	1.00 per 1,000 square feet	Soil Surface Spray: Apply to the soil surface In a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. For best efficacy irrigate with at least 1/2 inch of water within 24 hours.
BEDDING PLANTS Ageratum	0.13 to 0.25	Drench at Seeding (soil 2 to 3 inches deep): Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface.
Algerian ivy Artemisia Aster	0.25 – 1.00	Drench at Transplanting (Soil 2 to 3 inches deep): Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface. For growth media depth greater than 4
Begonia Caladium Carnation	(0.008 – 0.03 lbs active)	inches, apply 1.5 to 2 pints of solution per square foot to the soil surface. Repeat applications at 1 to 2 month intervals If necessary.

PLANT	RATE (Fluid Ounces)	USE INSTRUCTIONS
Chrysanthemum	0.13	Pre-Potting Growing Media Mix at Seeding and at
Coleus		Transplanting:
Daisy	(0.004 lbs	Apply to growing media mix just before planting. Mix only
English ivy*	of active)	enough for current use. Do not store. Thoroughly mix with
Foxglove		each cubic yard of pre-potting growing media.
Gailtardia	1.0 per 1,000	Soil Surface Spray: Apply to soil surface In a broadcast or
Geranium	square feet	banded spray In sufficient water to obtain thorough coverage
Impatiens		of the plant root zone. For best efficacy, irrigate with at least
Marigold	(0.03 lbs	1/2 inch of water within 24 hours.
Pansy	of active)	
Petunia		
Phlox		
Pinks		
Primrose		
Prostrate Rosemary		
Salvia		
Snapdragon		
Verbena		
Vinca		
Zinnia		

### PRECAUTION:

## RESTRICTIONS:

- Do not apply rates of 1.5 2.0 fl oz (0.047 0.063 lbs active) of product per 100 gals. more often than once
  every six weeks.
- Do not apply more than 1.0 fl. oz. (0.0315 lbs active) of product per 1,000 square feet in a single application.
- Do not make more than 6 applications per year for soil surface treatments.
- Do not apply more than 6.0 fl. oz (0.189 lbs active) of product per year.
- If applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not
  apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing
  the lowest yearly total on that crop.

<sup>\*</sup>Do not apply to English ivy more than once every 6 months or injury may occur.

	RATE	<u> </u>
PLANT	(Fluid Ounces)	USE INSTRUCTIONS
FLOWERS  African violet Anthurium Baby's breath	0.25 – 1.00 (0.008 – 0.03 lbs active)	Drench: Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface. For growth media depth greater than 4 inches, apply 1.5 to 2 pints of solution per square foot to the soil surface. Repeat applications at 1 to 2 month intervals, if necessary.
Carnation Chrysanthemum Columbine Delphinium Easter lily*		*RESTRICTION: Do not apply more than 0.5 fluid ounce per 100 gallons of water to Easter Lily and only make one at-planting application. Do not apply rates of 0.75 to 1 fluid ounce (0.02 – 0.03 lbs active) per 100 gallons more often than once every 6 weeks.
Geranium Gloxinia Poinsettia Rose	1.00 per 1,000 square feet (0.03 lbs of active)	Soil Surface Spray: Apply to soil surface in a broadcast or banded spray In sufficient water to obtain thorough coverage of the plant root zone. For best efficacy, irrigate with at least 1/2 inch of water within 24 hours.
Rhododendrons and Azaleas	0.5 – 1.25 (0.016 – 0.04 lbs active)	Drench: Phylophthora root and crown rot. Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface. For growth media depth greater than 4 inches, apply 1.5 to 2 pints of solution per square foot to the soil surface. Repeat applications at 2 to 4 month intervals, if necessary.
	1.25 to 2.50 per 1,000 square feet	Soil Surface Spray: Apply to soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. For best efficacy, Irrigate with at least 1/2 inch of water within 24 hours.
	(0.04 – 0.08 lbs active)	RESTRICTIONS: (1) To minimize the potential for injury to azaleas, do not apply repeat soil applications of 1.25 fluid ounces (0.04 lbs active) per 100 gallons closer than every 3 months, and do not exceed a total of 2 fluid ounces (0.06 lbs active) in 6 months. (2) Use the lower rate for "Coral Bell" variety.
WOODY ORNAMENTALS (Other Than Azaleas):	0.50 - 2.00 (0.016 - 0.063 lbs active)	Drench: Mix with 100 gallons of water and apply 1 pint of solution per square foot to the soil surface. For growth media depth greater than 4 inches, apply 1.5 to 2 pints of solution per square foot to the soil surface. Repeat applications at 2 to 3 month intervals, if necessary.
Aucuba japonica Arborvitae Boxwood Ceanothus Cotoneaster Dogwood	1.25 to 2.50 per 1,000 square feet (0.03 – 0.078	Soil Surface Spray: Apply to soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. For best efficacy, irrigate with at least 1/2 inch of water within 24 hours.
Ficus "Halls" Honeysuckle Ilex Juniperus spp. Photinia	lbs active)	
Pieris japonica Pinus spp, Pittosporum Rhododendron White cedar White pine		
Yew RESTRICTIONS:		

## RESTRICTIONS:

- Do not apply rates higher than 2.0 fluid ounces (0.063 lbs. active) per 100 gallons more often than once every 10 weeks
- Do not make more than 4 soil surface treatments per year.
- Do not apply more than 8 fluid ounces (0.252 lbs. active) of product per year.

	PLANT	RATE (Fluid Ounces)	USE INSTRUCTIONS		
ĺ	• If when applying both metalaxyl and mefenoxam containing products to the same crop within the same season:				
	Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product				
	containing the lowest yearly total on that crop.				

## INTERIORSCAPE AND INDIVIDUAL PLANT USE

In situations where water volumes used are much less than 100 gallons and the area treated is small, the following table provides the rates to make small quantities of solution. Refer to the plant type for the correct fluid ounces of product to use when utilizing this table.

RATE (Fluid Ounces) of METALAXYL 4L T&O per 100	Amount of METALAXYL 4L T&O to Add to Water to Make the Following Quantities			
Gallons	1 Gallon	5 Gallons	10 Gallons	25 Gallons
0.25 (0.008 lbs active)	4 drops	18 drops	37 drops or 0.75 ml	1.9 ml or 3/8 tsp.
0.50 (0.016 lbs active)	7 drops	37 drops or 0.75 ml	75 drops or 1.5 ml	3.8 ml or 3/4 tsp.
1.00 (0.031 lbs active)	15 drops	75 drops or 1.5 ml	3.0 ml or 1/2 tsp.	7.5 ml or 1-1/2 tsp. or 1/2 Tbsp.
1.50 (0.047 lbs active)	22 drops	2.25 ml or 1/2 tsp.	4.5 ml or 1 tsp.	11.3 ml or 2-1/4 tsp. or 3/4 Tbsp.
2.00 (0.063 lbs active)	30 drops	3.0 ml or 1 tsp.	6.0 ml or 1.2 tsp.	15.0 ml or 3 tsp. or 1 Tbsp.

Soil Drench: Apply enough solution to the soil surface to wet the root area of the plants.

### RESTRICTION:

If applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

## CITRUS IN NURSERIES AND LANDSCAPE PLANTINGS (NONBEARING)

Use this product on nonbearing citrus for control of citrus foot rot, root rot, and trunk canker caused by Phytophthora spp. Apply to the soil as a drench or as a spray in a banded application.

Make the first application of this product at the time of planting. Make repeat applications at 3 month intervals during the period when trees are actively growing.

## Soil Drench:

Mix 2 to 3 fluid ounces (0.063 - 0.094 lbs active) per 100 gallons of water and apply as a drench to the soil at the rate of 100 to 250 gallons per 1.000 feet of row. The width of the drench treatment should be wide enough to cover the root systems of the plants. Avoid application to the foliage.

## Soil Surface Spray:

Apply 1 gallon per acre (4.0 lbs active) of treated soil in a broadcast or banded surface spray to seedbeds, liners, or bedded stock in sufficient water to obtain uniform coverage. If applications are banded, the treated area should be wide enough to cover the root systems of the plants. Avoid application to the foliage. For best efficacy, 1/2 inch irrigation or rainfall is required within 24 hours after application.

Calculate the amount of this product needed for a banded treatment by using the formula in the section BANDED TREATMENT.

## **RESTRICTIONS:**

- Do not use in greenhouse citrus nursery stock intended for commercial fruit production.
- If applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

# CONIFERS IN NURSERIES AND PLANTATIONS (Including Christmas Trees)

This product provides control of Phytophthora root rot of conifers. For best efficacy, 1/2 inch irrigation or rainfall is required within 24 hours after application.

#### Conifers in Nurseries

	RATE	USE INSTRUCTIONS
	(Pints)	
	1.25	
Seedbeds and Plug-Plantings		Soil Surface Spray: Apply in at least 50 gallons of water
	(0.63	per acre in the spring and again in the fall.
	lbs active)	
	2.50	
2-0 Transplants		Soil Surface Spray: Apply in at least 50 gallons of water
	(1.25	per acre in the spring and again In the fall.
	lbs active)	

## Conifers in Plantations

Use of this product will aid in the control of Phytophthora root rot when used in conjunction with good cultural practices. The use of this product will not overcome poor management practices, such as planting on sites that are prone to flooding or are poorly drained. This product will not revitalize trees showing moderate to severe disease symptoms,

Soil Surface Applications: Apply 0.63 to 1.25 gallons (2.5 - 5.0 lbs active) of this product per acre in a minimum of 50 gallons of water as a directed soil spray. Do not apply as a foliar spray. Applications should be made in early spring before growth starts and in the fall before the ground freezes. Calculate the amount of this product needed for a banded treatment by using the formula in the section BANDED TREATMENT.

#### **RESTRICTIONS:**

• If applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

## DECIDUOUS FRUITS AND NUTS IN NURSERIES (NONBEARING)

This product provides control of Pythium root rot and Phytophthora root, crown, and collar rot of nonbearing deciduous fruits and nuts.

## Soil Surface Applications:

Apply 3 fluid ounces (0.094 lbs active) per 1,000 square feet in sufficient water to obtain thorough coverage of the soil under the canopy of the trees. Avoid application to the foliage. Treat sufficient surface area in nurseries to cover the root zone of the plants. Additional applications may be made as necessary at 3 month intervals during the growing season. For best efficacy, 1/2 inch irrigation or rainfall is required within 24 hours after application.

### RESTRICTIONS:

- Do not apply to trees that will bear harvestable fruit within 12 months of the last application, or possible illegal residues may result.
- Do not apply more than 9 fluid ounces (0.28 lbs active) per 1,000 square feet (3 gallons per acre; 12.0 lbs active) of this product per year.
- Not for residential use.
- If applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

## **TURF**

(GOLF COURSES, LAWNS, LANDSCAPE AREAS AROUND RESIDENTIAL, INSTRUCTIONAL, PUBLIC, COMMERCIAL AND INDUSTRIAL BUILDINGS, PARKS, RECREATIONAL AREA AND ATHLETIC FIELDS, SOD FARMS)

This product controls Pythium blight and Pythium damping-off in turf, yellow tuft (downy mildew) in bluegrass, and downy mildew in St. Augustine grass. Within the rate range given for turf, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and shortest interval.

Established Turf Pythium Blight Yellow Tuft Downy Mildew	Foliar Application: Apply as a preventative treatment at 0.5 to 1 fluid ounce (0.016 – 0.031 lbs active) in 1 to 5 gallons of water per 1.000 square feet. Re-treat at 10 to 21 day intervals. During periods of prolonged conditions favorable for disease development, use 1 to 2 fluid ounces on a 14-day schedule
Newly Seeded Areas Pythium Damping-Off Pythium Blight Yellow Tuft Downy Mildew	Soil Surface Spray: Apply 0.5 to 1 fluid ounce (0.016 – 0.031 lbs active) in 1 to 5 gallons of water per 1,000 square feet Immediately after seeding. Re-treat at 7 to 14 day intervals if conditions remain favorable for disease. For best efficacy, 1/2 inch irrigation of rainfall is required within 24 hours after application.
	Note: For long-term control of <i>Pythium</i> in areas when using seed treated with the active ingredient contained in this product, make an application of this product 7 to 10 days after seeding.

For control of other diseases of turf, use propiconazole alone or in a tank-mix combination with this product. Refer to the propiconazole label for rates, precautions, restrictions, etc.

To minimize the potential for insensitivity (1) Make no more than 3 applications per season of any product in which this product's active ingredient is applied alone, and (2) Apply an alternate EPA-registered fungicide for Pythium control at least once during the season.

## **RESTRICTIONS:**

- For foliar or soil surface broadcast applications do not apply more than 1.0 fl. oz per 1,000 square feet in a single application.
- For foliar or soil surface broadcast applications do not make more than 6 applications per year
- Maximum usage when applying both metalaxyl and mefenoxam containing products to the same crop within the same season: Do not apply more than the maximum yearly total for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.
- Rotational Crops (Turf Uses Only): Do not plant any crop which is not registered for use with mefenoxam or metalaxyl in soil treated with this active ingredient for a period of 12 months.

## STORAGE AND DISPOSAL

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

#### STORAGE:

Store in cool dry location. Do not store in direct hot sunlight. Do not store above 90°F for prolonged periods of time. After prolonged storage in intense cold, allow product to return to approximately 75°F before using.

## PESTICIDE DISPOSAL:

Wastes resulting from the use of this product are acutely hazardous. Improper disposal of unused pesticide spray mixture, or rinsate is a violation of Federal law. Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal, State or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional office.

#### CONTAINER HANDLING:

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

### 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 OFTRADE, 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.

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# **LABEL HISTORY**

## Not Part of Final printed Label

File Name	Version Mark	Comment
042750-00250.20210521.DRAFT	052121	Registration Review EPA Comments
042750-00250.20211129.DRAFT	112921	Additional Comments as per ID from EPA
042750-00250.20220103.DRAFT	010322	Response to EPA – updated gloves PPE