

NEATLAND[®] 480 SL

FUNGICIDE

ACTIVE INGREDIENT:	% BY WT.
Mefenoxam*	44.9%
OTHER INGREDIENTS:	55.1%
TOTAL:	100%

*D-Alanine, N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-, methyl ester; CAS No. 70630-17-0

NEATLAND 480 SL is formulated as a soluble concentrate and contains 4 lb active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

See inside panel for First Aid Instructions and Booklet for complete
Precautionary Statements and Directions for Use.

FIRST AID

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.

EPA Reg. No.: 103087-7
 Manufactured for:
 Longwind Cropsience USA LLC
 8 THE GREEN, STE A, DOVER, Kent,
 DE, 19901

EPA Est. No.: 95055-CHN-001

NET CONTENTS: 1 Qt 1 Gallon
 2.5 Gallon 5 Gallon
 10 Gallon 20 Gallon

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton® \geq 14 mils.
- Shoes and socks

USER SAFETY REQUIREMENTS

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

ENGINEERING CONTROLS

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 DIRECTIONS

Users must:

- Wash hands thoroughly with soap and water after handling and 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, or 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

Mefenoxam is known to leach through the soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

SURFACE WATER ADVISORY

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.



PHYSICAL OR CHEMICAL HAZARDS

- **DO NOT** use or store near heat or open flame.
- **DO NOT** mix or allow coming in contact with oxidizing and reducing agent. Hazardous Chemical reaction may occur.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours. For crop uses that fall under this REI, see Part 2, *Soil-Directed and Other Foliar Applications* under *Directions for Use* of this label.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area immediately if there will be no contact with anything that has been treated. For crop uses that fall under this Exception, see Part 1, *Soil-Injected or Soil-Incorporated Applications* under *Directions for Use* of this label.

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, including plants, soil, or water is:

- Coveralls;
- Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or viton \geq 14 mils;
- Shoes plus socks.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND RESTRICTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.

PRODUCT INFORMATION

NEATLAND 480 SL is a systemic fungicide for use on selected crops to control certain diseases caused by members of the Oomycete class of fungi.

PRODUCT USE RESTRICTIONS

DO NOT use NEATLAND 480 SL in greenhouses or other structures including lath houses, float houses, and hydroponic facilities unless specified on this label.

DO NOT use NEATLAND 480 SL for disease control in bedding plants, transplant trays, or nurseries except where specifically allowed in certain crop sections.

DO NOT USE NEATLAND 480 SL AS A FOLIAR APPLICATION UNLESS SPECIFIED ON THIS LABEL.



DO NOT dip plants or roots, spray bare roots, or use a transplant water treatment with solutions containing NEATLAND 480 SL except where specifically allowed in certain crop sections.

Under conditions conducive to severe disease pressure, additional fungicide applications may be applied using an alternate fungicide registered for the crop/disease appearing on this label.

Where rate ranges are specified on this label, use the higher specified rate when heavy disease pressure is expected and the lower specified rate when disease pressure is expected to be light, unless otherwise noted.

Where mefenoxam/metalaxyl products used allow the same maximum poundage of active ingredient per acre per calendar year:

If more than one product containing mefenoxam/metalaxyl active ingredient is used on an acre during the same calendar year and the mefenoxam/metalaxyl products used allow the same maximum poundage of active ingredient per acre per calendar year, then the total poundage of all such mefenoxam/metalaxyl products used must not exceed any of the specified individual mefenoxam/metalaxyl product maximum poundage of active ingredient allowed per acre per calendar year.

Where mefenoxam/metalaxyl products used allow different maximum poundage of active ingredient per acre per calendar year:

If more than one product containing an mefenoxam/metalaxyl active ingredient is used on an acre during the same calendar year and the mefenoxam/metalaxyl products used allow different maximum poundage of active ingredient per acre per calendar year, then the total poundage of all such mefenoxam/metalaxyl products used must not exceed the lowest specified individual mefenoxam/metalaxyl product maximum poundage of active ingredient allowed per acre per calendar year.

Soil-applied maximum application rates include all uses in Part 1 and all uses in Part 2 except foliar applications.

REPLANTING

If replanting is necessary, additional applications of **NEATLAND 480 SL** may be made, provided that the total amount of active ingredient in **NEATLAND 480 SL** applied does not exceed the maximum allowed for the specific crop.

PRODUCT USE INSTRUCTIONS

Application: Apply **NEATLAND 480 SL** by ground or air in sufficient water or liquid fertilizer to provide uniform coverage of the soil surface. Apply in a minimum of 20 gal per acre for ground applications and 3 gal per acre by air. Refer to the *Directions for Use* for specific crop application directions. Refer to *Application Instructions* for band and in-furrow calculations.

Moving NEATLAND 480 SL into the Root or Seed Zone:

To ensure maximum activity on soilborne pathogens, **NEATLAND 480 SL** must be moved into the seed or root zone of the plant. Follow the specific crop directions. Placement in the seed or root zone includes in-furrow sprays, soil injections, crown dips.

Incorporation includes preplant incorporated applications, soil drenches, or shank applications. For soil surface sprays, rainfall will move the fungicide into the seed or root zone, but if rain is not expected within 24 hours after application, mechanically incorporate (before planting) or sprinkler irrigate (after planting) with 1/2 to 1 inch of water.

Efficacy: Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of **NEATLAND 480 SL** has been used. If resistant isolates to Group 4 fungicides are present, efficacy can be reduced. Under high disease pressure, use of the highest specified rate and shortest specified interval will provide the most control.



Crop Tolerance: Plant tolerance has been found acceptable for all crops on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

MANDATORY SPRAY DRIFT

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- The boom length must not exceed 65% of the wingspan for airplane or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators must select nozzles and pressure that deliver medium to coarse droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE §572).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions

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 specified 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 manufacturer's directions for setting up nozzles. Orient nozzles parallel with the airflow in flight to reduce fine droplets.

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 must remain level with the crop and have minimal bounce.



BOOM LENGTH - Aircraft

Reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may reduce drift without reducing swath width.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** 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. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

BOOM-LESS GROUND APPLICATIONS

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

HANDHELD TECHNOLOGY APPLICATIONS

Take precautions to minimize spray drift.

SENSITIVE AREAS

Application when drift potential is minimal (e.g., when wind is blowing away from the sensitive areas) will reduce the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops).

IPM

Integrate NEATLAND 480 SL into an overall disease and pest management strategy (IPM) whenever the use of a fungicide is required. Follow cultural practices known to reduce disease development. Consult your local agricultural authorities for additional IPM strategies established for your area.



Rotation Crop	Planting Time From Last NEATLAND 480 SL Application
<p>Alfalfa (birdsfoot trefoil) Apple Artichoke, Globe Asparagus Avocados Brassica (Cole) Leafy Vegetables (e.g., broccoli, cabbage, cauliflower) Bushberry Subgroup 13-07B (e.g., blueberries, cranberries) Cacao Caneberry Subgroup 13-07A (e.g. blackberry and raspberry) Carrots Citrus Clover Corn Cotton Cucurbit Vegetables (e.g., cucumber, melons, squash) Fruiting Vegetables (e.g., tomatoes, peppers, eggplant) Ginseng Grapes Grass, Forage, Fodder and Hay Herbs (fresh and dried) Hops Leafy Vegetables, except Brassica (e.g., lettuce, spinach, celery) Legume Vegetables (e.g., beans and peas, succulent and dried) Onions (dry bulb, garlic, and green) Peanuts Pineapples Root and Tuber Vegetables (e.g. potatoes, carrots, sugar beets) Soybeans Stone fruits Strawberries Sunflower Tobacco Tomato Tree nuts Tropical fruits (e.g. papaya, mango, kiwifruit) Wasabi</p>	0 days
Cereal Grains (except Corn)	14 days
Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	365 days



RESISTANCE MANAGEMENT

MEFENOXAM	GROUP	4	FUNGICIDE
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For resistance management, **NEATLAND 480 SL** contains a Group 4 fungicide. Any fungal population may contain individuals naturally resistant to **NEATLAND 480 SL** and other Group 4 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Follow appropriate resistance-management strategies.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of **NEATLAND 480 SL** or other Group 4 fungicides within a growing season sequence with different groups that control the same pathogens.
- 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 resistance- management and/or IPM strategies for specific crop and pathogens.

For further information or to report suspected resistance contact your pesticide distributor or university extension specialist to report resistance.

SPRAY EQUIPMENT

Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Use nozzles of the same size and uniformly space them across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump must be 16-mesh or coarser.
- **DO NOT** place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's specifications.

Pump

- Use a pump with capacity to:
 1. Maintain 35-40 psi at nozzles
 2. Provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- **DO NOT** air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturers and state guidelines. For specific local directions and spray schedules, consult the current state agricultural guidelines.

MIXING INSTRUCTIONS

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



NEATLAND 480 SL Alone (no tank-mix)

- Add 1/4 - 1/2 of the required amount of water to the spray or mixing tank.
- With the agitator running, add **NEATLAND 480 SL** to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after **NEATLAND 480 SL** has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

NEATLAND 480 SL + Tank-Mixtures

NEATLAND 480 SL is usually compatible with all tank-mix partners listed on this label. To determine the physical compatibility of **NEATLAND 480 SL** with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 qt of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 20 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

DO NOT combine **NEATLAND 480 SL** in the spray tank with pesticides, surfactants or fertilizers, unless compatibility charts or your own prior use has shown that the combination is physically compatible, effective and non-injurious under your conditions of use.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Mixing in the Spray Tank

- Add 1/4 - 1/2 of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and **NEATLAND 480 SL** to the spray tank.
- Allow **NEATLAND 480 SL** to completely disperse.
- Spray the mixture with the agitator running.
- Observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix product label.
- **DO NOT** exceed maximum label dosage rates, and the most restrictive label precautions and limitations must be followed.
- **DO NOT** tank-mix this product with any product which prohibits such mixing.

APPLICATION PROCEDURES

Ground Application (Broadcast)

- Apply in a minimum of 20 gal of water per acre, unless specified otherwise.

Ground Application (Banded)

- Application rates in the Directions for Use are expressed as an amount per acre which refers to the total crop area to be treated. If using a banded application, use proportionally less product using the formula below:

$$\frac{\text{band width in inches}}{\text{row spacings in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Ground Applications (In-Furrow)

- Apply **NEATLAND 480 SL** as an in-furrow spray in 3 to 7 gal per acre of water at planting.
- Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered.
- The following table provides common row spacings and the amount of **NEATLAND 480 SL** to apply per acre.



Use Rate fl oz/1,000 row feet (oz ai/1,000 row feet)	NEATLAND 480 SL fl oz/A								
	20- inch rows	22- inch rows	24- inch rows	30- inch rows	32- inch rows	34- inch rows	36- inch rows	38- inch rows	40- inch rows
0.08 (0.038)	2.0	1.8	1.6	1.4	1.2	1.1	1.1	1.0	0.9
0.15 (0.078)	4.0	3.6	3.2	2.8	2.4	2.3	2.2	2.0	1.9
0.28 (0.14)	7.0	6.7	6.1	4.8	4.6	4.3	4.0	3.8	3.7
0.42 (0.21)	11.0	10.0	9.1	7.3	6.8	6.5	6.1	5.8	5.4
20" = 26,136 row ft/A 22" = 23,760 row ft/A 24" = 21,780 row ft/A 30" = 17,424 row ft/A 32" = 16,315 row ft/A					34" = 15,374 row ft/A 36" = 14,520 row ft/A 38" = 13,754 row ft/A 40" = 13,068 row ft/A				

Aerial Application

- Apply in a minimum of 3 gal of water per acre, unless specified otherwise.
- **DO NOT** apply under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.

Application through Irrigation Systems (Chemigation)

- Use only on crops for which chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, moving wheel, micro-sprinkler, or drip irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have 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 under the supervision of the responsible person, shall shut the system down and make necessary adjustments as the need arises.
- **NEATLAND 480 SL** must be applied on the schedule specified in the specific crop use directions, not according to the irrigation schedule.

Note: DO NOT inject **NEATLAND 480 SL** at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 15 parts water to 1 part **NEATLAND 480 SL** in the mix-tank. **NEATLAND 480 SL** can affect many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used but need to be replaced once a year. **DO NOT** use Viton, Buna-N, Neoprene, or PVC seals.

Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water- source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick- closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, like for example, 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.

Specific Instructions for Public Water Systems

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, back-flow 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 water system can be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, like for example, 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 USE -PART 1

SOIL-INJECTED OR SOIL-INCORPORATED APPLICATIONS

The restricted-entry interval (REI) for soil-injected or soil-incorporated applications is 0 hours.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Alfalfa (birdsfoot trefoil)	Damping-Off (<i>Pythium</i> spp.) Root Rot (<i>Phytophthora</i> spp.)	0.25-0.50 pt/A (0.12-0.25)	Soil spray (broadcast): Apply as a broadcast soil surface spray at planting. If alfalfa seed was previously treated with mefenoxam or metalaxyl as a seed dressing, use the 0.25 pt/A rate.

For additional applications, see Alfalfa in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.50 pt/A (equivalent to 0.25 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.50 pt/A (equivalent to 0.25 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.25 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA, **DO NOT** apply the product more than once to this crop
- **DO NOT** feed green forage or cut hay for 60 days following application (60-day PHI).

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Artichoke, Globe	Damping-Off (<i>Pythium</i> spp.) Root Rot (<i>Phytophthora</i> spp.)	1.0-2.0 pt/A (0.50-1.0)	Soil spray (broadcast): Apply at planting.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA, **DO NOT** apply the product more than once to this crop
- **DO NOT** apply within 200 days of harvest (200-day PHI).

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Avocados	Root Rot (<i>Phytophthora cinnamomi</i>)	Diluted Mixture: 0.25 fl oz in 18 gal water	Sleeve drench: At transplanting, drench the roots inside the sleeve with 1 qt of the diluted mixture per tree. Sleeve drench does not replace other soil applications for long-term control of root rot.
		2.0-4.0 pt/A (1.0-2.0) or 0.50-1.0 fl oz/ 1,000 gal water (3.9-7.8 ppm)	Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water at the start of the growing season or at transplanting and as soon as soil tests indicate the presence of <i>Phytophthora</i> . Two additional applications may be made at 3-month intervals. Applications are not needed during the winter months of November through February. For new plantings, use <i>Phytophthora</i> -resistant rootstocks. Mature trees in moderate to advanced stages of decline cannot be cured with NEATLAND 480 SL .
For additional applications, see Avocados in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.			
Use Restrictions: <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam) • Maximum Annual Application Rate: 12.0 pt/A (equivalent to 6.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 6.0 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 3 per year • Minimum Retreatment Interval: 90 days • DO NOT apply within 28 days of harvest (28-day PHI). 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Bushberry Subgroup: 13-07B Blueberries (High and Low Bush) Currants Elderberry Gooseberry Highbush Cranberry Hybrids, cultivars, and varieties of these</p> <p>*See below for additional berries subgroup.</p>	<p>Root Rot (<i>Phytophthora</i> spp.)</p>	<p>3.6 pt/A (1.8) or 0.25 pt/1,000 row ft</p>	<p>Soil Spray (broadcast, band or drip) New Plantings: Make one application at the time of planting. Reapply once during a period favorable for root rot. For band applications use an 18-inch band. (See direction for <i>Established Plantings</i> in Part 2 for subsequent applications.) Use NEATLAND 480 SL in conjunction with good cultural practices to minimize disease.</p>
<p>*Aronia Berry, Highbush Blueberry, Lowbush Blueberry, Buffalo Currant, Chilean Guava, Black Currant, Red Currant, Elderberry, European Barberry, Gooseberry, Highbush Cranberry, Edible Honeysuckle, Huckleberry, Jostaberry, Juneberry, Lingonberry, Native Currant, Salal, and Sea Buckthorn.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam) • Maximum Annual Application Rate: 7.2 pt/A (equivalent to 3.6 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 3.6 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 per year • Minimum Retreatment Interval: 90 days • Pre-harvest Interval (PHI): 0 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Caneberry (Blackberry and Raspberry) Subgroup: 13-07A Blackberry Raspberry (Red and Black) Wild Raspberry Cultivars Hybrids, cultivars, and varieties of these.</p> <p>*See below for additional types of caneberries.</p>	<p>Root Rot (<i>Phytophthora</i> spp.)</p>	<p>1.8-3.6 pt/A (0.9-1.8) or 0.25 pt/1,000 row ft</p>	<p>Soil Spray (broadcast, band or drip) New Plantings: Make one application at the time of planting. Reapply once during a period favorable for root rot. For band applications use an 18-inch band. (See directions for <i>Established Plantings</i> in Part 2 for subsequent applications.)</p> <p>Use NEATLAND 480 SL in conjunction with good cultural practices to minimize disease.</p>
<p>*Andean Blackberry, Arctic Blackberry, Bingleberry, Black Satin Berry, Boysenberry, Brombeere, California Blackberry, Cherokee Blackberry, Chesterberry, Cheyenne Blackberry, Common Blackberry, Coryberry, Darrowberry, Dewberry, Dirksen Thornless Berry, Evergreen Blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth Blackberry, Marionberry, Mora, Mures Deronce, Nectarberry, Northern Dewberry, Olallieberry, Oregon Evergreen Berry, Phenomenal-berry, Rangeberry, Ravenberry, Rosssberry, Shawnee Blackberry, Southern Dewberry, Tayberry, Youngberry, and Zarzamora.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam) • Maximum Annual Application Rate: 7.2 pt/A (equivalent to 3.6 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 3.6 lb ai/A/year of soil applied and 0.2 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 per year • Minimum Retreatment Interval: 90 days • Pre-harvest Interval (PHI): 45 days • DO NOT use an adjuvant 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Carrots	Damping-Off Cavity Spot Root Dieback (<i>Pythium</i> spp.)	0.5-1.3 pt/A (0.25-0.65)	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting or prior to emergence.</p> <p>For banded applications, use a 7-inch band.</p> <p>NOTE: If post planting applications are planned, see notes below for guidance on maximum rates for soil and foliar applications.</p> <p>For best control of cavity spot, use a preventive disease control program that incorporates an at-planting or seed treatment use of NEATLAND 480 SL or mefenoxam seed treatment product followed by one or more additional applications.</p>
<p>For additional applications (Post Planting), see Carrots in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: Preplant: 1.3 pt/A (equivalent to 0.65 lb ai/A mefenoxam); Post planting 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) • Maximum Annual Application Rate: Pre and Post Planting: 2.8 pt/A (equivalent to 1.4 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed a total of 1.4 lb ai/A/year of mefenoxam and metalaxyl containing products ○ DO NOT exceed 0.65 lb ai/A/year of soil applied and 0.75 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 5 per year (1 Pre-plant and 4 Post Planting) • Minimum Retreatment Interval: 14 days • Pre-harvest Interval (PHI): 7 days • DO NOT use a soil application if a seed treatment containing mefenoxam or metalaxyl is used. 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Clover	Damping-Off (<i>Pythium</i> spp.) Root Rot (<i>Phytophthora</i> spp.)	0.25-0.50 pt/A (0.125-0.25)	Soil spray (broadcast): Apply as a broadcast soil surface spray at planting. If the clover seed was previously treated with mefenoxam or metalaxyl as a seed dressing, use the 0.25 pt/A rate.
<p>Use Restrictions:</p> <ul style="list-style-type: none"> Refer to Directions for Use for additional product use restrictions Maximum Single Application Rate: 0.5 pt/A (equivalent to 0.25 lb ai/A mefenoxam) Maximum Annual Application Rate: 0.5 pt/A (equivalent to 0.25 lb ai/A mefenoxam) <ul style="list-style-type: none"> DO NOT exceed 0.25 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products Maximum Number of Applications: 1 Minimum Retreatment Interval: NA, DO NOT apply the product more than once to this crop Pre-harvest Interval (PHI): 90 days DO NOT feed green forage or cut hay for 90 days following application. 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Brassica (Cole), Leafy Vegetables, Crop Group 5, and Turnip Greens: Broccoli Brussels Sprouts Cabbage Cauliflower Collards Mustard Greens Hybrids, cultivars, and varieties of these. *See additional cole crops below.	Basal Stem Rot (<i>Phytophthora</i> spp.)	1.0-2.0 pt/A (0.50-1.0)	Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and incorporate in the top 2 inches of soil. Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting. Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water at the labeled rates. For banded applications, use a 7-inch band.
	Damping-Off (<i>Pythium</i> spp.)	0.25-0.50 pt/A (0.125-0.250)	Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and incorporate in the top 2 inches of soil. For banded applications, use a 7-inch band.

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*Broccoli Raab (rapini), Cavalo Broccolo, Chinese Broccoli (gai lan), Chinese Cabbage (bok choy and napa), Chinese Mustard Cabbage (gai choy), Kale, Kohlrabi, Mizuna, Mustard Spinach, and Rape Greens.

For Downy Mildew control, see Cole Crops in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar 0.25 pt/A (equivalent to 0.12 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.5 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA, **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA, **ONLY** apply product pre-plant or at planting

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Cotton	Seed and Root Rot (<i>Pythium ultimum</i>) Seedling Blight (<i>Pythium aphanidermatum</i>)	0.075-0.15 fl oz/1,000 row ft (0.002-0.004)	In-furrow spray: Apply in water or liquid fertilizer at planting. Direct the spray into the furrow over the seed just before the seeds are covered.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.15 fl oz/1000 row ft (equivalent to 0.0625 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.15 fl oz/1000 row ft (equivalent to 0.0625 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.125 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products (assumes 30" row spacing)
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA, **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA, **ONLY** apply product at planting

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Cucurbit Vegetables, Crop Group 9: Cantaloupe Cucumber Honeydew Pumpkin Squash Summer Squash Winter Watermelon Hybrids, cultivars, and varieties of these.</p> <p>*See additional cucurbit crops below.</p>	<p>Damping-Off (<i>Pythium</i> spp.)</p> <p>Suppression: Phytophthora blight (<i>Phytophthora capsici</i>)</p>	<p>1.0-2.0 pt/A (0.50-1.0)</p>	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and incorporate in the top 2 inches of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting.</p> <p>Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water at the labeled rates.</p> <p>For banded applications, use a 7-inch band.</p>
	<p>Suppression: Phytophthora blight (<i>P. capsici</i>)</p>	<p>Transplant water 4-8 fl oz/ 100 to 200 gal water/A</p>	<p>Transplant Water (see PRODUCT USE RESTRICTIONS): Apply in transplant water or immediately following planting via soil drench. Apply 4-8 fl oz/A (0.25 - 0.5 pt/A) in at least 100 gallons of transplant water per acre.</p> <p>Precautions: There is a risk of plant injury with transplant water application:</p> <ul style="list-style-type: none"> • Crop injury is more likely when applied in less than 100 gallons/acre. Injury is temporary and will usually disappear within three weeks. • Pre -mixing NEATLAND 480 SL in a tank separate from the transplant water source tank will help to prevent incompatibility with fertilizers or other pesticides in the transplant water solution. <p>In fields with a history of <i>P. capsici</i> blight, make a follow up drip application of NEATLAND 480 SL (4 - 8 fl oz/A) 14 to 21 days after transplanting.</p>
<p>*Chayote, Chinese Waxgourd, Citron Melon, Gherkin, Gourd (edible), <i>Momordica</i> spp. (balsam apple, balsam pear, bitter melon, Chinese cucumber), and Muskmelons (casaba, crenshaw, golden pershaw, honey balls, mango, Persian, pineapple, Santa Claus, snake melons).</p>			

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For additional applications, see Cucurbits in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar :0.4 pt/A (equivalent to 0.2 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar 0.8 pt/A (equivalent to 0.4 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.5 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: Soil 1; Foliar 2
- Minimum Retreatment Interval: NA, **DO NOT** apply the product to the soil more than once to this crop
- Pre-harvest Interval (PHI): 5 days

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Fruiting Vegetables (Except Cucurbits) Crop Group 8, except Tomato: Eggplant Groundcherry Pepino Pepper (bell, chili, cooking pepper, pimento, sweet) Tomatillo Tomato (see <i>Tomato</i> section for specific use directions)	Damping-Off (<i>Pythium</i> spp.) Suppression: Crown Rot (<i>Phytophthora capsici</i>)	1.0 pt/A (0.50)	To control Crown Rot, apply before the plants are infected to obtain satisfactory control. Plants already infected with <i>Phytophthora capsici</i> cannot be cured with NEATLAND 480 SL . Soil spray (broadcast or band): Apply in water or liquid fertilizer preplant or at planting. For direct seeded peppers, apply preplant or prior to emergence. For banded applications, use a 12- to 16-inch band. Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water. Make up to two additional applications on a 30-day schedule following initial application at planting.

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Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Fruiting Vegetables (Except Cucurbits) Crop Group 8, except Tomato: Eggplant Groundcherry Pepino Pepper (bell, chili, cooking pepper, pimento, sweet) Tomatillo Tomato (see Tomato section for specific use directions)</p>	<p>Suppression: Crown Rot (<i>P. capsici</i>)</p>	<p>Transplant water 4-8 fl oz/ 100 to 200 gal water/A</p>	<p>Transplant Water (see PRODUCT USE RESTRICTIONS): Apply in transplant water or immediately following planting via soil drench. Apply 4-8 fl oz/A (0.25 - 0.5 pt/A) in at least 100 gallons of transplant water per acre.</p> <p>Precautions: There is a risk of plant injury with transplant water application:</p> <ul style="list-style-type: none"> • Crop injury is more likely when applied in less than 100 gallons/acre. Injury is temporary and will usually disappear within three weeks. • Pre-mixing NEATLAND 480 SL in a tank separate from the transplant water source tank will help to prevent incompatibility with fertilizers or other pesticides in the transplant water solution. <p>In fields with a history of <i>P. capsici</i> blight, make a follow up drip application of NEATLAND 480 SL (4 - 8 fl oz/A) 14 to 21 days after transplanting.</p>
<p>For additional applications, see Fruiting Vegetables in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) • Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 1.5 lb ai/A/year of soil applied and 0.5 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 3 per year • Minimum Retreatment Interval: 30 days • Pre-harvest Interval (PHI): 7 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Ginseng	Phytophthora Root Rot (<i>Phytophthora cactorum</i>)	0.75 pt/A (0.375)	Soil drench: For stand establishment, apply uniformly to the soil surface in the spring before the plants start growing. Apply in 100 to 400 gal of water per acre. Follow with additional applications of Granular formulated mefenoxam or metalaxyl containing products as needed.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.75 pt/A (equivalent to 0.375 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.75 pt/A (equivalent to 0.375 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.375 lb ai/A/year of soil applied and 1.125 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA; **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA; Apply in the spring before the plants start growing

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Grapes	Root and Crown Rot (<i>Phytophthora</i> spp.)	3.6 pt/A (1.8) or 0.25 pt/1000 row ft Drip irrigation: 0.5 - 1.0 fl oz/1000 gals of water or 4 fl oz (0.25 pt)/1000 linear feet of row.	Soil spray (broadcast, band or drip): Apply in the spring before the plants start growing in sufficient water to provide uniform coverage. Two additional applications may be made to coincide with periods most favorable for root rot development. Soil spray (broadcast or band): For banded applications, use a 3-ft band at the base of the plants. Calculate the correct amount based on 3.6 pt/A using the instructions in the Application Procedures section. Drip irrigation: Apply 0.5 - 1.0 fl oz/1000 gals of water or 4 fl oz (0.25 pt)/100 linear feet of row. Inject NEATLAND 480 SL into the irrigation water at the beginning of the growing season (bud break) or at transplanting. Two additional applications may be made at 3-month intervals. Applications are not needed during the winter dormancy period.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 10.8 pt/A (equivalent to 5.4 lb ai/A mefenoxam)
 - **DO NOT** exceed 5.4 lb ai/A/year of soil applied and 0.4 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3
- Minimum Retreatment Interval: 90 days
- Pre-harvest Interval (PHI): 60 days

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Grass Forage Fodder and Hay*, Crop Group 17	Seedling Diseases (<i>Pythium</i> spp.)	0.25-1.0 pt/A (0.125-0.50)	Soil spray (broadcast): Apply as a broadcast soil surface spray at planting. If the grass seed was previously treated with mefenoxam or metalaxyl as a seed dressing, use the 0.25-0.50 pt/A rate.
*Enclosed pasture grasses or grasses grown for hay or silage including Bermuda grass, bluegrass, brome grass, or fescue.			
Use Restrictions: <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) • Maximum Annual Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 0.50 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 1 • Minimum Retreatment Interval: NA; DO NOT apply the product more than once to this crop • Pre-harvest Interval (PHI): 60 days • DO NOT apply to range grasses. • DO NOT graze, feed green forage, or cut hay for 60 days following application 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Herbs (Fresh and Dried), Herb Subgroup 19A: Basil Chervil (dried) Chive Coriander (leaf) Cilantro (leaf) Dillweed Lemongrass Rosemary Sage Savory, Summer and Winter Sweet Bay Tarragon Thyme*See additional herbs below.	Damping-Off (<i>Pythium</i> spp.)	1.0-2.0 pt/A (0.50-1.0)	Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil. Soil spray (broadcast or band): Apply in sufficient water to provide uniform coverage. For banded applications, use a 7-inch band.
*Angelica, Balm, Borage, Burnet, Catnip, Chamomile, Chinese Chive, Clary, Costmary, Curry (leaf), Horehound, Hyssop, Lavender, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rue, Tansy, Wintergreen, Woodruff, and Wormwood.			
For additional applications, see Herbs in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.			
Use Restrictions: <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) • Maximum Annual Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 2.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 • Minimum Retreatment Interval: 28 days • Pre-harvest Interval (PHI): 21 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Leafy Vegetables (Except Brassica), Crop Group 4: Celery Endive (Escarole) Lettuce (Head and Leaf) Parsley Rhubarb Spinach Swiss Chard</p> <p>*See additional leafy vegetables below.</p>	<p>Damping-Off (<i>Pythium</i> spp.)</p>	<p>1.0-2.0 pt/A (0.50-1.0)</p>	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting.</p> <p>For banded applications, use a 7-inch band. Make no more than one soil application.</p>
	<p>Damping-Off (<i>Pythium</i> spp.)</p>	<p>Transplant water 4-8 fl oz equivalent to (0.25-0.5 pt/A)/ 100 to 200 gal water/A (0.125-0.25)</p>	<p>Transplant Water (see PRODUCT USE RESTRICTIONS): Apply in transplant water or immediately following planting via soil drench. Apply 4-8 fl oz/A (0.25 - 0.5 pt/A) in at least 100 gallons of transplant water per acre.</p> <p>Precautions: There is a risk of plant injury with transplant water application:</p> <ul style="list-style-type: none"> • Crop injury is more likely when applied in less than 100 gallons/acre. Injury is temporary and will usually disappear within three weeks. • Pre-mixing NEATLAND 480 SL in a tank separate from the transplant water source tank will help to prevent incompatibility with fertilizers or other pesticides in the transplant water solution.
<p>*Amaranth, Arugula, Cardoon, Celtuce, Chervil, Chinese Celery, Chrysanthemum (edible-leaved), Chrysanthemum (garland), Corn Salad, Cress (garden), Cress (Upland), Dandelion, Dock (Sorrel), Florence Fennel (finocchio), Orach, Purslane (garden), Purslane (winter), Radicchio (red chicory), Spinach (New Zealand), and Spinach (vine).</p>			
<p>Spinach Only</p>	<p>White Rust (<i>Albugo occidentalis</i>)</p> <p>Downy Mildew (<i>Peronospora effusa</i>)</p>	<p>0.25 pt/A (0.125)</p>	<p>Shank application: Shank in NEATLAND 480 SL 21 days after planting or after the first cutting. Another application may be shanked in after the next cutting. A total of 2 shanked applications may be made on a 21-day interval.</p>
<p>For additional applications to Lettuce (Head and Leaf), see Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar 0.25 pt/A (equivalent to 0.12 lb ai/A mefenoxam) 			

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- Maximum Annual Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar: 0.8 pt/A (equivalent to 0.4 lb ai/A mefenoxam)
 - **For lettuce DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.4 lb/A/year of foliar applied mefenoxam and metalaxyl containing products
 - **For spinach EITHER, DO NOT exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products at planting and 0.25 lb ai/A/year of soil-applied products. OR, DO NOT exceed the equivalent of 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products at planting and 0.4 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.**
- Maximum Number of Applications: 2- spinach only; leafy vegetables apply only once pre-plant or at planting; See Lettuce in Part 2 of Directions for Use for Maximum number of foliar applications.
- Minimum Retreatment Interval: 21 days – spinach only; leafy vegetables **DO NOT** apply more than once; See Lettuce in Part 2 of Directions for Use for foliar retreatment interval
- Pre-harvest Interval (PHI):
 - **For leafy vegetables: DO NOT** apply within 7 days of harvest (7-day PHI). Make no more than one soil application per crop.
 - **For spinach:** Spinach can be harvested with a 3-day PHI only if soil application does not exceed 1.0 lb ai/A/season and foliar application of a mefenoxam containing formulation does not exceed 0.25 lb ai mefenoxam/A/season. Otherwise, the PHI is 21 days for spinach.
- **For spinach:** A total of 2 shank applications may be made per crop.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Legume Vegetables (Succulent or Dried), Crop Group 6, except Soybeans: Bean (<i>Lupinus</i> spp.) Bean (<i>Phaseolus</i> spp.) Bean (<i>Vigna</i> spp.) Broad Bean (fava bean) Chickpea (garbanzo bean) Lentil Pea (<i>Pisum</i> spp.) Pigeon Pea Soybean (immature seed) (See also <i>Soybean</i> section for specific use directions.) Hybrids, cultivars, and varieties of these. *See additional legume vegetables below.	Damping-Off Root Rot (<i>Pythium</i> spp.)	0.50-1.0 pt/A (0.25-0.50)	Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil. Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting. For banded applications, use a 7-inch band.

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*Bean (*Lupinus* spp.) - grain lupin, sweet lupin, white lupin, white sweet lupin; Bean (*Phaseolus* spp.) - field, kidney, lima, navy, pinto, runner, snap, tepary, wax; Bean (*Vigna* spp.) - adzuki, asparagus, blackeyed pea, catjang, Chinese longbean cowpea, crowder pea, moth, mung, rice, southern pea, urd, yardlong; Guar; Jackbean; Lablab bean (hyacinth bean); Pea (*Pisum* spp.) - dwarf, edible-pod, English, field, garden, green, snow, sugar snap; and Sword bean.

For additional applications to Legume Vegetables Succulent (Shelled) , see Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Soil: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam); Foliar: 0.2 pt/A (equivalent to 0.1 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Soil: 1.0 pt/A/year (equivalent to 0.5 lb ai/A mefenoxam); Foliar: 0.8 pt/A/year (equivalent to 0.4 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.5 lb ai/A/year of soil applied and 0.4 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: Soil:1; Foliar 5
- Minimum Retreatment Interval: NA; **DO NOT** apply the product to the soil more than once to this crop
- Pre-harvest Interval (PHI): NA; Apply pre-plant or at planting only

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Bulb Vegetables Crop Group 3-07:</p> <p>Dry Bulb Garlic Onions (dry bulb) Shallots (dry bulb)</p> <p>Green Green Eschalots Green Onions Green Shallots Japanese Bunching Onions Leeks Spring Onions Scallions</p> <p>*Hybrids, cultivars, and varieties of these.</p>	<p>Damping-Off (<i>Pythium</i> spp.)</p>	<p>0.50-1.0 pt/A (0.25-0.50)</p>	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting.</p> <p>For banded applications, use a 7-inch band.</p>

(continued)

***Dry Bulb Crops:** Great-headed Garlic, Serpent Garlic, Lily Bulb, Chinese Onion Bulb, Pearl Onion, Potato Onion Bulb.

***Green Bulb Crops:** Chive (fresh leaves), Chinese Chive (fresh leaves), Hosta Elegans, Fritillaria (leaves), Kurrat, Lady's Leek, Beltsville Bunching Onions, Onion (fresh), Macrostem Onion, Tree Tops Onion, Welsh Onion (tops), and Shallot (fresh leaves).

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
 - For onions (dry bulb) **DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
 - For onions (green) **DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.3 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA; **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA; Apply pre-plant or at planting only

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Peanuts	Pythium Root Rot (<i>Pythium</i> spp.)	0.25 pt/A (0.125)	In-furrow spray: For seedling disease control, position the spray so the fungicide is mixed with the soil covering the seed. Avoid spraying the seed directly or crop injury may occur. Soil spray (banded): For banded applications, apply over the row. Use a 7- inch band.

For additional applications, see Peanuts in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Soil: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam); Foliar 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam); Foliar 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.125 lb ai/A/year of soil applied and 0.50 lb ai/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA; **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA; Apply pre-plant or at planting only

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Pineapple	Heart Rot Disease (<i>Phytophthora</i> spp.)	0.50-1.0 pt in 100 gal water (0.25-0.50)	Crown dip: Apply as a crown dip before planting. Amount of dip solution per acre will depend on crown size, plant density, and dipping techniques. Use 75 to 100 gallons of the mixture per acre for dipping.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/100 gallons water (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 1.0 pt/100 gallons water (equivalent to 0.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.5 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA; **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): NA; Apply **ONLY** as crown dip before planting
- If there is crop failure within one year of planting treated crowns, **DO NOT** harvest plant material for animal feed.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Potatoes	Pythium Leak (<i>Pythium</i> spp.) Pink Rot (<i>Phytophthora erythroseptica</i>) Pythium Seedling Disease (<i>Pythium</i> spp.)	0.42 fl oz/ 1,000 row ft (0.013) Equivalent to 6.1 fl oz/A on 36 inch row spacing (0.19)	In-furrow spray: Apply directly over the seed pieces in furrow as a 6- to 8-inch band prior to row closure or use markout application method (incorporated). For best control follow this in-furrow application with a NEATLAND 480 SL prepack or tank-mix (Part 2) foliar application at tuber initiation: <ul style="list-style-type: none"> • When conditions are conducive for disease development. • When the variety is susceptible or moderately susceptible to Pink Rot/Pythium leak. • In areas with a long growing season. NEATLAND 480 SL may be impregnated on dry fertilizer or applied in combination with liquid fertilizers.

For additional applications, see Potatoes in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

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Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: In Furrow: 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A mefenoxam); Foliar 3.2 fl oz/A (equivalent to 0.1 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A mefenoxam); Foliar: 9.6 fl oz/A (equivalent to 0.3 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.34 lb ai/A/year of soil applied and 0.40 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1 In-furrow with a max of 3 additional foliar applications
- Minimum Retreatment Interval: NA: **ONLY** apply at planting and tuber initiation
- Pre-harvest Interval (PHI): NA: **ONLY** apply at planting and tuber initiation
- **DO NOT** use the "dribble" application method.
- **DO NOT** apply **NEATLAND 480 SL to the soil** beyond the at-planting stage

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Root and Tuber Vegetables, Crop Group 1, except Carrot, Ginseng, Potato and Sugar Beet: Artichoke (Chinese and Jerusalem) Beet, Garden Beet, Sugar (See <i>Sugar Beet</i> section for specific use directions.) Carrots (See <i>Carrots</i> section for specific use directions.) Ginseng (See <i>Ginseng</i> section for specific use directions.) Horseradish Parsley, Turnip-rooted</p>	<p>Pythium Root Rot (<i>Pythium</i> spp.) Phytophthora Root Rot (<i>Phytophthora</i> spp.)</p>	<p>1.0-2.0 pt/A (0.50-1.0)</p>	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil. Use sufficient water to provide uniform coverage of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting. For banded applications, use a 7-inch band.</p>

(continued)

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Parsnip Potato (See <i>Potato</i> section for specific use directions.) Radish Radish, Oriental (daikon) Rutabaga Sweet Potato Turnip Yam Bean (jicama, manioc pea) Yam, True</p> <p>*See additional root and tuber vegetables below.</p>	<p>Pythium Root Rot (<i>Pythium</i> spp.) Phytophthora Root Rot (<i>Phytophthora</i> spp.)</p>	<p>1.0-2.0 pt/A (0.50-1.0)</p>	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil. Use sufficient water to provide uniform coverage of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting. For banded applications, use a 7-inch band.</p>
<p>*Arracacha, Arrowroot, Burdock (edible), Canna (edible), Cassava (bitter and sweet), Celeriac (celery root), Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Ginger, Leren, Salsify (oyster plant, black, Spanish), Skirret, Tanier (cocoyam), Turmeric.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) • Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 1.0 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 1 • Minimum Retreatment Interval: NA; DO NOT apply the product more than once to this crop • Pre-harvest Interval (PHI): NA; Apply pre-plant or at planting only 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Soybeans	Phytophthora Root and Stem Rot (<i>Phytophthora megasprema</i>) Pythium Damping-Off (<i>Pythium</i> spp.)	0.08-0.28 fl oz/1,000 row ft (0.0025-0.0087)	In-furrow spray: Apply in-furrow with water or liquid fertilizer. Position the spray so the fungicide is mixed with the soil covering the seed. Avoid spraying the seed directly or crop injury may occur. Use the higher specified rate for full-season control. Use 0.08-0.15 fl oz for early- to mid-season control.
		0.37-1.25 pt/A (0.18-0.63)	Soil spray (broadcast or band): Apply in water or liquid fertilizer. Use the higher specified rate for full-season control. Use 0.37-0.75 pt for early- to mid-season control. For banded applications, use a 7-inch band. For best results, use soybean varieties that have some degree of resistance to the races of <i>Phytophthora</i> present in the field. Use the higher specified rate in areas with a history of heavy <i>Phytophthora</i> damage. Under heavy late-season <i>Phytophthora</i> pressure, NEATLAND 480 SL may not provide complete control.
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 1.25 pt/A (equivalent to 0.625 lb ai/A mefenoxam) • Maximum Annual Application Rate: 1.25 pt/A (equivalent to 0.625 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 0.625 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 1 • Minimum Retreatment Interval: NA; DO NOT apply the product more than once to this crop • Pre-harvest Interval (PHI): NA; ONLY apply at seeding 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Strawberries: Annual and Established Plantings only	Red Stele (<i>Phytophthora fragariae</i>) Vascular Collapse (<i>P. cactorum</i>) Leather Rot (<i>P. cactorum</i>)	1.0 pt/A (0.50)	<p>Drip irrigation application only (see Part 2 for other application methods).</p> <p>Annual plantings: Apply up to 3 times per crop. Make the first application after transplanting. Make the second application 30 days before the beginning of harvest or at fruit set. Apply the third application during harvest, depending on disease pressure and environmental conditions.</p> <p>Established plantings: Apply up to 3 times per crop. Make the first application in the spring after the ground thaws and before first bloom. Make a second application after harvest in the fall. For control of leather rot, make an additional application during the growing season at fruit set.</p> <p>When applying through drip irrigation, calculate the rate as a band application with a band width equal to the root zone width. Inject NEATLAND 480 SL into the irrigation water.</p> <p>NEATLAND 480 SL may be applied the day of harvest.</p>
For additional applications, see Strawberries in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) • Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 1.5 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 3 • Minimum Retreatment Interval: 30 days • Pre-harvest Interval (PHI): 0 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Sugar Beets	Pythium Root Rot (<i>Pythium</i> spp.)	1.0-2.0 pt/A (0.50-1.0)	<p>Preplant incorporated (broadcast or band): Apply in water or liquid fertilizer and mechanically incorporate in the top 2 inches of soil.</p> <p>Soil spray (broadcast or band): Apply in water or liquid fertilizer at planting.</p> <p>For banded applications, use a 7-inch band.</p>
<p>Use Restrictions:</p> <ul style="list-style-type: none"> Refer to Directions for Use for additional product use restrictions Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> DO NOT exceed 1.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products Maximum Number of Applications: 1 Minimum Retreatment Interval: NA; DO NOT apply the product more than once to this crop Pre-harvest Interval (PHI): NA; ONLY apply pre-plant or at planting 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tobacco	Damping-Off (<i>Pythium</i> spp.)	0.50-1.0 pt/A (0.25-0.50) or 0.25-0.50 fl oz/150 sq yd	Soil spray (broadcast): Apply as a preplant soil application before or at time of planting. Use higher specified application rate on broadleaf tobacco. Use 50 gal/A of water (2 gal water/150 sq yd).
	Blue Mold (<i>Peronospora tabacina</i>)	0.50-1.0 pt/A (0.25-0.50) For no-till tobacco: 0.50-1.0 pt/A (0.25-0.50)	Soil spray (broadcast): Apply as a broadcast soil application prior to transplanting and incorporate in the top 2 to 4 inches of soil before forming beds. Use the low specified rate for low disease pressure or early-season control. Use the higher specified rate for high disease pressure, extended control, and burley and other tobacco types other than flue-cured.

(continued)



Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tobacco	Black Shank (<i>Phytophthora parasitica</i> var. <i>nicotianae</i>)	<p>Broadcast 1.0-3.0 pt/A (0.50-1.5)</p> <p>For no-till tobacco: 0.50-1.0 pt/A (0.25-0.50)</p> <p>Transplant Water 4-8 fl oz/ 200 gal water</p>	<p>Soil spray (broadcast): Apply to the soil within one week of planting. Incorporate in the top 2 to 4 inches of soil. Use the higher specified rate if the disease epidemic is expected to be severe. In FL and GA, use 3 pt/A where black shank is severe.</p> <p>Apply preventively for effective black shank control. If black shank is expected early in the season, apply as near as possible to transplanting followed by sequential applications.</p> <p>Transplant Water (PRODUCT USE RESTRICTIONS): Apply in transplant furrow while planting tobacco seedlings for control of black shank. Apply 4-8 oz/A (0.25 - 0.5 pt/A) in at least 200 gallons of transplant water per acre. Use the highest specified rate if the disease epidemic is expected to be severe. Make at least one subsequent application of NEATLAND 480 SL at first cultivation and/or layby if necessary. Precautions: There is a risk of plant injury with transplant water application, especially when applied in less than 200 gallons of carrier volume per acre.</p> <p>Crop injury is more likely when applied in less than 100 gallons/acre. Injury is temporary and will usually disappear within three weeks.</p> <p>Pre-mixing NEATLAND 480 SL in a tank separate from the transplant water source tank will help to prevent incompatibility with fertilizers or other pesticides in the transplant water solution.</p> <p>Consult local extension bulletins for additional use directions.</p>

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tobacco	Black Shank <i>Phytophthora parasitica</i> var. <i>nicotianae</i>)	Broadcast 1.0-3.0 pt/A (0.50-1.5) For no-till tobacco: 0.50-1.0 pt/A (0.25-0.50) Transplant Water 4-8 fl oz/ 200 gal water	For best results against black shank, use tobacco varieties that have high resistance to black shank and use crop rotation. In fields with a history of severe black shank, use the highest specified rate and plant a variety resistant to the race of <i>Phytophthora</i> present (Burley L8 hybrids are resistant to only <i>Phytophthora</i> Race 0). Failure to adequately control nematodes in fields treated with NEATLAND 480 SL may result in poor control of black shank.

For additional applications, see Tobacco in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3
- Minimum Retreatment Interval: 14 days
- Pre-harvest Interval (PHI): NA
- **DO NOT** use in high black shank areas on highly susceptible flue-cured varieties.
- **DO NOT** use **NEATLAND 480 SL** for black shank control in PA.
- **DO NOT** apply to stressed seedlings or during hot and dry conditions due to injury potential.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tomato	Damping-Off (<i>Pythium</i> spp.)	1.0-2.0 pt/A (0.50-1.0)	Soil spray (broadcast or band): Apply at planting in water or liquid fertilizer. For banded applications, use a 7-inch band.
	Root and Fruit Rot (<i>Phytophthora</i> spp.) (<i>Pythium</i> spp.)	1.0 pt/A (0.50)	Injection (drip irrigation): Initiate control of Root and Fruit Rot with a soil application as described above. Make subsequent applications through drip irrigation. Make the first drip application 4 to 6 weeks after planting. Apply the second drip application as needed up to 4 weeks before harvest, but before the last irrigation.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tomato	Root and Fruit Rot (<i>Phytophthora</i> spp.) (<i>Pythium</i> spp.)	1.0 pt/A (0.50)	For injected applications, base rate calculations on a 7-inch band.

For additional applications, see Tomato in Part 2 of Directions for Use: Soil Directed and Other Foliar Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of soil applied and 0.5 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2 per year
- Minimum Retreatment Interval: 28 days
- Pre-harvest Interval (PHI): 7 days

DIRECTIONS FOR USE -PART 2

SOIL-DIRECTED AND OTHER FOLIAR APPLICATIONS

The restricted-entry interval (REI) for soil-directed or foliar applications is 48 hours.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Alfalfa (birdsfoot trefoil)	Damping-Off (<i>Pythium</i> spp.) Root Rot (<i>Phytophthora</i> spp.)	0.25 pt/A (0.12)	Soil spray (broadcast): Apply as a broadcast soil surface spray at planting when inter-seeding into existing stands for renovation.

For additional applications, see Alfalfa in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 0.50 pt/A (equivalent to 0.25 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.25 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 1
- Minimum Retreatment Interval: NA; **DO NOT** apply the product more than once to this crop
- Pre-harvest Interval (PHI): 60 days
- **DO NOT** feed green forage or cut hay for 60 days following application

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions	
Apple Bearing and Nonbearing Trees	Crown Rot Collar Rot Root Rot (<i>Phytophthora</i> spp.)	2 qt/A (2.0) or 1.5 fl oz/ 1,000 sq ft	Soil spray (broadcast, band or irrigation): Apply to soil beneath the tree canopy or apply through irrigation water (micro-sprinkler or drip) in the spring before growth begins (established plantings). Apply to the soil in the early spring before growth starts and in the fall after harvest, but before the ground freezes. The treated area is based on the area under the tree canopy or the area of the sprayed row. Use sufficient water volume to obtain thorough coverage of the soil.	
		Diluted Mixture: 0.50 pt in 100 gal water (0.25)	Soil drench: Apply the diluted mixture around the trunk of each tree in the early spring before growth starts and in the fall after harvest, but before the ground freezes. On new plantings, delay the first application until 2 weeks after planting.	
		Trunk diameter at 12 inches above the soil line	Quantity of Diluted Mixture	
		<1 inch	1 qt	
		1-3 inches	3 qt	
		>5 inches	4 qt	
NOTE: Apply before symptoms appear. NEATLAND 480 SL will not revitalize trees showing moderate to severe disease symptoms. Use NEATLAND 480 SL in conjunction with good cultural practices and rootstocks that are most tolerant to disease.				

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 8.0 pt/A (equivalent to 4.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 4.0 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2
- Minimum Retreatment Interval: 90 days

- Pre-harvest Interval (PHI): NA
 - **ONLY** apply before grow starts in early spring or after harvest in the fall
- **DO NOT** graze or feed cover crops in treated orchards.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Asparagus	Crown Rot Spear Rot (<i>Phytophthora</i> spp.)	1.0 pt/A (0.50)	Soil spray (broadcast or band) Cutting beds: Apply 30 to 60 days before the first cutting. Apply again just before the beginning of harvest. New plantings: Apply after planting seedlings or after covering one-year old crowns.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2
- Minimum Retreatment Interval: 30 days
- Pre-harvest Interval (PHI): 1 day
- **DO NOT** apply within one day of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Avocados	Root Rot (<i>Phytophthora cinnamomi</i>)	1.0-4.0 pt/A (0.50-2.0)	Sprinkler irrigation: Apply as a soil surface spray to the soil surface under the tree canopy or via the irrigation system (drip, microemitter, sprinkle). Begin applications at the start of the growing season or at transplanting. Two additional applications may be made at 3-month intervals. Applications are not needed during the winter months of November through February. Use 1.0 pt/A if the trees have a canopy diameter of 2 ft. Increase the rate as the canopy diameter increases. For canopy diameters of 15 ft or more, use the 4.0 pt/A rate.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Avocados	Root Rot (<i>Phytophthora cinnamomi</i>)	1.0-4.0 pt/A (0.50-2.0)	<p>Soil spray: Apply to the soil directly under the drip emitter. Use irrigation to incorporate the material into the soil. If there is more than one emitter, distribute the amount of NEATLAND 480 SL among the emitters. Use the same rate and application regime described above under sprinkler irrigation.</p> <p>Begin applications as soon as soil tests indicate the presence of <i>Phytophthora</i>.</p> <p>For new plantings, use <i>Phytophthora</i>-resistant rootstocks.</p> <p>Mature trees in moderate to advanced stages of decline cannot be cured with NEATLAND 480 SL.</p>

For additional applications, see Avocados in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 12.0 pt/A (equivalent to 6.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 6.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3
- Minimum Retreatment Interval: 90 days
- Pre-harvest Interval (PHI): 28 days
- **DO NOT** apply within 28 days of harvest.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Berry and Small Fruit, Subgroup 13-07A - Caneberry:</p> <p>Blackberry Loganberry Raspberry (Red and Black) Wild Raspberry Cultivars</p> <p>Hybrids, cultivars, and varieties of these.</p> <p>*See below for additional types of caneberries.</p>	<p>Root Rot (<i>Phytophthora</i> spp.)</p>	<p>1.8-3.6 pt/A (0.9-1.8)</p>	<p>Soil Application (band or via drip/micro- sprinkler irrigation)</p> <p>New Plantings: After initial at-planting application (Part 1), reapply once during a period favorable for root rot.</p> <p>Established Plantings: Before the plants start to grow in the spring, make a soil- directed application towards the base of the plant in a 3-ft band over the row or via the drip irrigation One additional application may be made to coincide with the period most favorable for root rot development.</p> <p>NEATLAND 480 SL will not revitalize plants showing moderate to severe root rot symptoms.</p> <p>Use NEATLAND 480 SL in conjunction with good cultural practices to minimize disease.</p>
<p>*Andean Blackberry, Arctic Blackberry, Bingleberry, Black Satin Berry, Boysenberry, Brombeere, California Blackberry, Cherokee Blackberry, Chesterberry, Cheyenne Blackberry, Common Blackberry, Coryberry, Darrowberry, Dewberry, Dirksen Thornless Berry, Evergreen Blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth Blackberry, Marionberry, Mora, Mures Deronce, Nectarberry, Northern Dewberry, Olallieberry, Oregon Evergreen Berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee Blackberry, Southern Dewberry, Tayberry, Youngberry, and Zazamora.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam) • Maximum Annual Application Rate: 7.2 pt/A (equivalent to 3.6 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 3.6 lb ai/A/year of soil applied and 0.2 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 • Minimum Retreatment Interval: 90 days • Pre-harvest Interval (PHI): 45 days • DO NOT use an adjuvant. • DO NOT apply NEATLAND 480 SL within 45 days of harvest 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Berry and Small Fruit, Subgroup 13-07B - Bushberry:</p> <p>Blueberries (High and Low Bush) Currants Elderberry Gooseberry Highbush Cranberry Lingonberry</p> <p>Hybrids, cultivars, and varieties of these.</p> <p>*See below for additional berries subgroup.</p>	<p>Root Rot (<i>Phytophthora</i> spp.)</p>	<p>3.6 pt/A (1.8)</p>	<p>Soil Application (band or via drip/micro-sprinkler irrigation) New Plantings: After initial at-planting application (Part 1), reapply once during a period favorable for root rot.</p> <p>Established Plantings: Before the plants start to grow in the spring, make a soil-directed application towards the base of the plant in a 3-ft band over the row or via the drip irrigation. One additional application may be made to coincide with the period most favorable for root rot development.</p> <p>NEATLAND 480 SL will not revitalize plants showing moderate to severe root rot symptoms.</p> <p>Use NEATLAND 480 SL in conjunction with good cultural practices to minimize disease.</p>
<p>*Aronia Berry, Highbush Blueberry, Lowbush Blueberry, Buffalo Currant, Chilean Guava, Black Currant, Red Currant, Elderberry, European Barberry, Gooseberry, Highbush Cranberry, Honeysuckle (Edible), Huckleberry, Jostaberry, Juneberry, Lingonberry, Native Currant, Salal, Sea Buckthorn.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam) • Maximum Annual Application Rate: 7.2 pt/A (equivalent to 3.6 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 3.6 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 • Minimum Retreatment Interval: 90 days • Pre-harvest Interval (PHI): 0 days • NEATLAND 480 SL may be applied the day of harvest 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Berry and Small Fruit, Subgroup 13-07E - Small fruit vine climbing, except grape:</p> <p>Amur river grape Gooseberry Kiwifruit (Fuzzy and Hardy) Maypop Schisandra berry</p> <p>Including cultivars, varieties, and/or hybrids of these.</p>	<p>Root and Crown Rot <i>(Pythium and Phytophthora spp.)</i></p>	<p>5.6-11.2 fl oz/40 gal of water (0.175-0.35)</p>	<p>Soil Drench: Apply 1.0 qt of NEATLAND 480 SL solution as a soil drench in a one square foot area around the base of each vine. At the labeled rate of 5.6-11.2 fl oz, this will apply 0.175-0.350 lb ai/A if the planting density is 160 vines per acre.</p> <p>Make the first application in the fall after harvest or in February or early March. Make a second application in spring or approximately 60 days after the February or March application.</p>
		<p>11.2 fl oz (0.35)</p>	<p>Banded Soil Application: Make up to five applications as a spray toward the soil in a 2- to 3-ft band on each side of the row. Begin applications in April and follow with two additional applications on a 30-day interval. Make the fourth application in September and the final application approximately 30 days later, which must be at least 7 days before harvest.</p>

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 11.2 fl oz/A (equivalent to 0.35 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.5 pt/A (equivalent to 1.75 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.75 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 5
- Minimum Retreatment Interval: 30 days
- Pre-harvest Interval (PHI): 7 days
- **DO NOT** apply within 7 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Cacao	Black pod rot (<i>Phytophthora spp.</i>)	0.32 fl oz/A (0.01)	Foliar/pod spray: Apply in mixture with a copper fungicide, with first application prior to disease development. Continue on a 21- day interval, with a maximum of 4 applications. Make no more than two consecutive applications of NEATLAND 480 SL or other Group 4 fungicide before alternating with a fungicide that is not in Group 4. Apply in sufficient volume to ensure complete coverage of the canopy and developing pods.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.32 fl oz/A (equivalent to 0.01 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 1.28 fl oz/A (equivalent to 0.04 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.4 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 4
- Minimum Retreatment Interval: 21 days
- Pre-harvest Interval (PHI): 30 days
- **DO NOT** apply within 30 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Carrots	Cavity Spot Root Dieback (<i>Pythium spp.</i>)	0.25-1.0 pt/A (0.125-0.5)	<p>For post planting applications: Begin 28 to 50 days after planting. Apply on a 14- to 21-day interval by chemigation, by ground equipment with a spray directed to the base of the plant or shanked in with liquid fertilizer. All ground applications must be followed by irrigation by one inch of water to promote movement of material into the root zone.</p> <p>NOTE: If a pre planting application is planned, see notes below for guidance on maximum rates for soil application</p> <p>Directed spray (broadcast or band): Make up to 4 applications beginning 40 to 60 days after planting on a 14- to 21-day interval. Apply as a spray directed to base of plant. Use sufficient water to provide uniform coverage of soil.</p>

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Carrots	Cavity Spot Root Dieback (<i>Pythium</i> spp.)	0.25-1.0 pt/A (0.125-0.5)	For banded applications, use a 7-inch band. Irrigation: Inject NEATLAND 480 SL into the irrigation water. For best control of cavity spot, use a preventive disease control program that incorporates an at-planting or seed treatment use of NEATLAND 480 SL or mefenoxam seed treatment product followed by one or more additional applications.

For additional applications (Preplant), see Carrots in Part 1 of Directions for Use: Soil-Injected or Soil- Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Post Planting: 1.0 pt/A (equivalent to 0.5 lb ai/A mfenoxam); Preplant 1.3 pt/A (equivalent to 0.65 lb ai/A mfenoxam)
- Maximum Annual Application Rate: 2.8 pt/A (equivalent to 1.4 lb ai/A mfenoxam)
 - **DO NOT** exceed 1.4 lb ai/A/year of mfenoxam and metalaxyl containing products
 - **DO NOT** exceed 0.65 lb ai/A/year of soil applied and 0.75 lb/ai/A/year foliar applied mfenoxam and metalaxyl containing products
- Maximum Number of Applications: 4 Post Planting plus 1 Preplant application
- Minimum Retreatment Interval: 14 days
- Pre-harvest Interval (PHI): 7 days
- If a seed treatment containing mfenoxam or metalaxyl is used, **DO NOT** use a soil application.
- **DO NOT** exceed a total of 1.5 pt/A (0.75 lb ai/A) on post planting applications.
- **DO NOT** exceed a total of 1 pt/A (0.5 lb ai/A) per single post planting application

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Citrus Fruit, Crop Group 10: (New Plantings, Resets and Established Plantings Only; DO NOT use in field or greenhouse Nurseries)</p> <p>Calamondin Citrus Citron Citrus Hybrids (chironja, tangelo, tangor) Grapefruit Kumquat Lemon Lime Mandarin (tangerine) Orange (sour and sweet) Pummelo Satsuma Mandarin</p>	<p>Citrus Foot Rot Root Rot Trunk Canker Brown Rot Gummosis <i>(Phytophthora spp.)</i></p> <p>NOTE: for best Phytophthora control, use a combination of cultural practices, fungicides with differing modes of action, and resistant varieties.</p>	<p>Broadcast 1 qt/A (1 lb ai)</p> <p>Irrigation 0.5 pt/ grove acre</p> <p>California only Broadcast 1.0-2.0 qt/A (1.0-2.0)</p> <p>Irrigation 0.5-1 pt/ grove acre</p>	<p>Citrus Resets or New Plantings: Timing: Make the first application at the time of planting. Make two or three applications per year (spring + summer, summer + fall, or spring + summer + fall).</p> <p>Application Method: Spray boom: Apply to soil beneath the tree canopy if rain is not expected within 24 hours after application, sprinkler irrigate with 1/2 to 1 inch of water to move product into root zone.</p> <p>Irrigation: NEATLAND 480 SL can be applied through irrigation water (micro-sprinkler or drip).</p>
		<p>1.0-1.5 fl oz/ 100 gal water</p>	<p>Water ring drench: Apply 5 gal of the mix around the base of each tree within the watering ring of resets or new plantings.</p>
		<p>Newly planted to 6 months 0.5 fl oz/ 20 trees</p> <p>Trees > 6 months 1.0-1.5 fl oz/ 20 trees</p>	<p>Individual Tree Treatment for Resets/New Plantings: Mix desired amount of NEATLAND 480 SL in a water solution. Apply as a directed spray to individual trees (8-12 fl oz solution/tree) around the base of the tree and outwards to cover the fibrous root system. Follow with sprinkler irrigation to move product into the root zone. May be tank-mixed with other approved pesticides.</p>

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Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Citrus Fruit, Crop Group 10: (New Plantings, Resets and Established Plantings Only; DO NOT use in field or greenhouse Nurseries)</p> <p>Calamondin Citrus Citron Citrus Hybrids (chironja, tangelo, tangor)</p> <p>Grapefruit Kumquat Lemon Lime Mandarin (tangerine) Orange (sour and sweet) Pummelo Satsuma Mandarin</p>	<p>Citrus Foot Rot Root Rot Trunk Canker Brown Rot Gummosis <i>(Phytophthora spp.)</i></p> <p>NOTE: for best Phytophthora control, use a combination of cultural practices, fungicides with differing modes of action, and resistant varieties.</p>	<p>Broadcast 1 pt/A - 1qt</p> <p>Irrigation 0.5-1.0 pt/ grove acre</p> <p>California only Broadcast 1.0 pt-3.0 qt/A (0.5-3.0)</p>	<p>Established Plantings: Timing: Begin NEATLAND 480 SL applications during the spring root flush period. One or two additional applications may be made to coincide with flushes of root growth. Time applications as in the <i>Citrus Resets or New Plantings</i> sections above.</p> <p>Application Method: Spray Boom: Apply to soil beneath the tree canopy. If rain is not expected within 24 hours after application, sprinkler irrigate with 1/2 to 1 inch of water to move product into root zone.</p> <p>Irrigation: NEATLAND 480 SL can be applied through irrigation water (micro-sprinkler or drip).</p> <p>Consult local extension bulletins for additional use directions.</p>
		<p>1 qt in 3 gal water (1.0)</p> <p>Florida only: 1 qt in 10 gal water (1.0)</p>	<p>Trunk Spray for Gummosis: Spray the trunks to thoroughly wet the cankers. Apply up to 3 times per year.</p>

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 6.0 pt/A (equivalent to 3.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 12 pt/A (equivalent to 6.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 6.0 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3 per year
- Minimum Retreatment Interval: 90 days
- Pre-harvest Interval (PHI): 0 days

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- **DO NOT** apply to citrus in field or greenhouse nurseries.
- **DO NOT** apply to bare roots.
- **DO NOT** apply rates higher than 2 pt/A to citrus resets or new plantings (less than 5 years old) in FL, PR and TX to prevent potential phytotoxicity.
- **DO NOT** use on the highly Phytophthora susceptible sweet orange rootstock in FL.
- **DO NOT** make trunk gummosis sprays and soil applications to the same tree in the same cropping season.
- **DO NOT** apply tank-mixes of **NEATLAND 480 SL** and residual herbicides to trees less than 3 years old. Apply the herbicide first; then wait 3-4 weeks to apply **NEATLAND 480 SL**.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Brassica (Cole) Leafy Vegetables, Crop Group 5, and Turnip Greens:</p> <p>Broccoli Brussels Sprouts Cabbage Cauliflower Collards Mustard Greens Turnip Greens (greens only)</p> <p>Hybrids, cultivars, and varieties of these.</p> <p>*See additional cole crops below.</p>	<p>Downy Mildew (<i>Peronospora parasitica</i>)</p>	<p>0.125-0.25 pt/A (0.063-0.125)</p>	<p>Foliar spray (ground or air): NEATLAND 480 SL must be used in a tank-mix with other fungicides registered for control of downy mildew. Apply with the full label rate of the tank-mix partner fungicide.</p> <p>Apply when conditions are favorable for disease, but before infection on a 14-day schedule.</p> <p>NOTE: Foliar applications to turnip plants may not be made to dual purpose turnip cultivars or varieties which produce a harvestable root.</p>
<p>*Broccoli Raab (rapini), Cavalo Broccolo, Chinese Broccoli (gai lon), Chinese Cabbage, (bok choy and napa), Chinese Mustard Cabbage (gai choy), Kale, Kohlrabi, Mizuna, Mustard Spinach, and Rape Greens.</p>			
<p>For additional applications, see Cole Crops in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.</p>			

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Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Foliar: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Foliar: 1.0 pt/A/year (equivalent to 0.5 lb ai/A/year mefenoxam) Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam);
 - **DO NOT** exceed 1.0 lb ai/A/year of soil applied and 0.5 lb ai/A/year of foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: Foliar: 4 per year, Soil: 1 per year
- Minimum Retreatment Interval: Foliar: 14 days, Soil: N/A only 1 treatment per year
- Pre-harvest Interval (PHI): Foliar: 7 days, Soil: N/A
- **DO NOT** apply foliar sprays of **NEATLAND 480 SL** without a labeled tank-mix partner.
- **DO NOT** apply the **NEATLAND 480 SL** mixture in fields where downy mildew is already established.
- **DO NOT** apply **NEATLAND 480 SL** as a Foliar spray within 7 days of harvest (7-day PHI). However, refer to the label of the tank-mix partner and follow the more restrictive PHI.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Cranberries	Phytophthora Root Rot (<i>Phytophthora</i> spp.)	1.0-1.75 pt/A (0.50-0.90)	Soil spray (broadcast): Apply 3 times by ground or chemigation equipment. Make the first application in the fall after harvest. Make the second application in the spring, and the final application up to, but no later than, 45 days before harvest.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.75 pt/A (equivalent to 0.875 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 5.25 pt/A (equivalent to 2.625 lb ai/A mefenoxam)
 - **DO NOT** exceed 2.625 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3
- Minimum Retreatment Interval: 90 days
- Pre-harvest Interval (PHI): 45 days
- **DO NOT** apply by air.
- **DO NOT** apply within 45 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Cucurbit Vegetables Crop Group 9:</p> <p>Cantaloupe Cucumber Honeydew Pumpkin Squash, Summer Squash, Winter Watermelon</p> <p>Hybrids, cultivars, and varieties of these.</p> <p>*See additional cucurbit crops below.</p>	<p>Root Rot (<i>Pythium</i> spp.)</p> <p>Suppression: Phytophthora blight (<i>Phytophthora capsici</i>)</p>	<p>0.25-0.4 pt/A (0.125-0.20)</p>	<p>Soil spray (directed): If soil applications of NEATLAND 480 SL were made at planting, two additional applications at 20- to 30-day intervals may be made during the season. Direct the spray to the base of the plants and cover 6-8 inches of the soil on either side of the plants. Incorporate mechanically or sprinkler-irrigate to move the NEATLAND 480 SL into the root zone.</p> <p>Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water at the labeled rates.</p>
<p>*Chayote, Chinese Waxgourd, Citron Melon, Gherkin, Gourd (edible), <i>Momordica</i> spp. (balsam apple, balsam pear, bitter melon, Chinese cucumber), and Muskmelons (casaba, crenshaw, golden pershaw, honey balls, mango, Persian, pineapple, Santa Claus, snake melons).</p>			
<p>For additional applications, see Cucurbits in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: Foliar :0.4 pt/A (equivalent to 0.2 lb ai/A mefenoxam); Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) • Maximum Annual Application Rate: Foliar: 0.8 pt/A/year (equivalent to 0.4 lb ai/A/year mefenoxam) Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); <ul style="list-style-type: none"> ○ DO NOT exceed 1.0 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: Foliar: 3; Soil: 1 • Minimum Retreatment Interval: 20 days • Pre-harvest Interval (PHI):5 days • DO NOT apply within 5 days of harvest 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Fruiting Vegetables (Except Cucurbits) Crop Group 8, except Tomato:</p> <p>Eggplant Groundcherry Pepino Pepper (bell, chili, cooking pepper, pimento, sweet) Tomatillo Tomato (see <i>Tomato</i> section for use directions)</p>	<p>Crown Rot (<i>Phytophthora capsici</i>)</p>	<p>1.0 pt/A (0.50)</p>	<p>Banded spray: Make 2 post-directed applications at 30-day intervals following transplanting. Direct the spray to the base of the plants and cover 6-8 inches of the soil on either side of the plants. Incorporate mechanically or sprinkler-irrigate to move the NEATLAND 480 SL into the root zone.</p> <p>Shank application: Apply in liquid fertilizer, shanked in as a banded treatment to either side of the plant.</p> <p>Injection (drip irrigation): Inject NEATLAND 480 SL into the irrigation water at the labeled rates.</p> <p>May cause some yellowing of pepper leaves.</p> <p>Apply before the plants are infected to obtain satisfactory control. Plants already infected with <i>Phytophthora</i> cannot be cured with NEATLAND 480 SL.</p> <p>The foliar blight phase of <i>Phytophthora</i> cannot be controlled with foliar applications of NEATLAND 480 SL.</p>

For additional applications, see Fruiting Vegetables in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2
- Minimum Retreatment Interval: 30 days
- Pre-harvest Interval (PHI): 7 days
- **DO NOT** apply within 7 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Herbs (Fresh and Dried), Herb Subgroup 19A:</p> <p>Basil Chervil (dried) Chive Coriander (leaf) Cilantro (leaf) Dillweed Lemongrass Rosemary Sage Savory, Summer and Winter Sweet Bay Tarragon Thyme</p> <p>*See additional herbs below.</p>	<p>Damping-Off (<i>Pythium</i> spp.)</p>	<p>1.0-2.0 pt/A (0.50-1.0)</p>	<p>Banded spray: Apply as a basally directed spray at 28 days after planting or after the first cutting. Direct the spray toward the base of the plants and cover 6 to 8 inches on each side of the plants (12- to 16-inch band width/row).</p>
<p>*Angelica, Balm, Borage, Burnet, Catnip, Chamomile, Chinese Chive, Clary, Costmary, Curry (leaf), Horehound, Hyssop, Lavender, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rue, Tansy, Wintergreen, Woodruff, and Wormwood.</p>			
<p>For additional applications, see Herbs in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.</p>			
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) • Maximum Annual Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 2.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 • Minimum Retreatment Interval: 28 days • Pre-harvest Interval (PHI): 21 days • DO NOT apply within 21 days of harvest 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Hops	Downy Mildew (<i>Pseudoperonospora humuli</i>)	0.50 pt/A (0.25)	<p>Soil Application (drench or via drip/micro-sprinkler irrigation): Apply as a drench in water or liquid fertilizer to the soil over the crowns after pruning but before training when shoots are 6 inches or less. May also be applied via drip/micro-sprinkler irrigation.</p> <p>Foliar spray: At the first sign of a secondary infection (primary infection persists after the soil drench and/or there is evidence of foliar infection), apply in combination with copper fungicides. Apply by ground with a minimum of 50 gal of water per acre.</p>

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Soil and Foliar: 0.5 pt/A (equivalent to 0.25 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Soil: 0.5 pt/A (equivalent to 0.25 lb ai/A mefenoxam); Foliar: 1.0 pt/A/year (equivalent to 0.5 lb ai/A/year mefenoxam)
 - **DO NOT** exceed 0.25 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: Foliar: 2; Soil 1
- Minimum Retreatment Interval: Foliar: 14 days; Soil: N/A, **DO NOT** make more than one soil application for this crop
- Pre-harvest Interval (PHI): 45 days
- **DO NOT** apply foliar sprays of **NEATLAND 480 SL** without a copper fungicide registered for hops.
- **DO NOT** apply within 45 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Legume Vegetables, Succulent (Shelled) Bean, Broad Bean, Lima Cowpea Pea, Blackeyed Pea, English Pea, Garden Pea, Pigeon Pea, Southern	Downy Mildew (<i>Phytophthora parasitica</i>)	0.125-0.2 pt/A (0.063 - 0.1)	Foliar spray (ground or air): NEATLAND 480 SL must be used in a tank-mix with other fungicides registered for control of downy mildew. Apply with the full label rate of the tank-mix partner fungicide. Apply on a 14-day schedule when conditions are favorable for disease, but before infection.

For additional applications, see Legume Vegetables (Succulent or Dried) in Part 1 of Directions for Use: Soil-Injected or Soil- Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Foliar: 0.2 pt/A (equivalent to 0.1 lb ai/A mefenoxam); Soil 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Foliar: 0.8 pt/A/year (equivalent to 0.4 lb ai/A/year mefenoxam) Soil: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam);
 - **DO NOT** exceed 0.5 lb ai/A/year of soil applied and 0.4 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: Foliar; 5; Soil: 1
- Minimum Retreatment Interval: Foliar: 14 days; Soil: N/A, **DO NOT** apply the product to the soil more than once to this crop
- Pre-harvest Interval (PHI): 3 days
- For use only on succulent beans east of the Mississippi River.
- **DO NOT** apply within 3 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Lettuce Head and Leaf	Downy Mildew (<i>Bremia lactucae</i>)	0.125-0.25 pt/A (0.063-0.125)	<p>Foliar spray (ground or air): NEATLAND 480 SL must be used in a tank-mix with other fungicides registered for control of downy mildew. Apply with the full label rate of the tank-mix partner fungicide.</p> <p>Apply when conditions are favorable for disease, but before infection on a 14-day schedule.</p>

For additional applications to Lettuce (Head and Leaf), see Leafy Vegetables (Except Brassica) in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Soil: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam); Foliar: 0.8 pt/A/year (equivalent to 0.4 lb ai/A/year mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of soil applied (pre-plant or at-planting) and 0.4 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 4 foliar
- Minimum Retreatment Interval: 14 days
- Pre-harvest Interval (PHI): 7 days
- **DO NOT** apply foliar sprays of **NEATLAND 480 SL** without a labeled tank-mix partner.
- **DO NOT** apply the **NEATLAND 480 SL** mixture in fields where downy mildew is already established.
- **DO NOT** apply within 7 days of harvest. However, refer to the label of the tank-mix partner and follow the more restrictive PHI
- **DO NOT** apply more than 4 foliar applications per crop

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Peanuts	Pod Rot (<i>Pythium</i> spp.)	0.5-1.0 pt/A (0.25-0.50)	Apply at early pod set as a soil spray or at pegging as a foliar spray (overhead irrigation).
For additional applications, see Peanuts in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.			
Use Restrictions:			
<ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: Foliar: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam); Soil: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam) • Maximum Annual Application Rate: Foliar 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam); Soil: 0.25 pt/A (equivalent to 0.125 lb ai/A mefenoxam) <ul style="list-style-type: none"> ○ DO NOT exceed 0.125 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products • Maximum Number of Applications: 1 • Minimum Retreatment Interval: NA; DO NOT apply the product more than once to this crop • Pre-harvest Interval (PHI): 42 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Potatoes	Storage Rot Pythium leak (<i>Pythium</i> spp.) Pink rot (<i>Phytophthora erythroseptica</i>)	3.2 fl oz/A (0.1)	<p>Make the first application after tuber initiation, when the largest tubers are the size in diameter of a nickel. This period coincides with the initiation of flowering.</p> <p>Make a second application 14 days later. If the field has a history of storage rot problems, make a third application 14 days after the second application. If foliar diseases are expected, then a tank-mix with a labeled rate of mancozeb or chlorothalonil products is required.</p> <p>An In-furrow application (See part 1) can also be applied at planting</p> <p>Use in conjunction with other management practices including crop rotation and resistant varieties.</p>

(continued)

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: Foliar: 3.2 fl oz/A (equivalent to 0.1 lb ai/A mefenoxam); In-furrow at planting 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A mefenoxam)
- Maximum Annual Application Rate: Foliar: 9.6 fl oz/A (equivalent to 0.3 lb ai/A mefenoxam); In-furrow at planting 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A mefenoxam)
 - **DO NOT** exceed 0.34 lb ai/A/year of soil applied and 0.4 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3 Foliar and 1 In-furrow application at planting
- Minimum Retreatment Interval: 14 days
- Pre-harvest Interval (PHI): 14 days
- **DO NOT** apply within 14 days of harvest

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Stone Fruits, Crop Group 12: Apricot Cherry (sweet and tart) Nectarine Peach Plum (Chickasaw, Damson, Japanese) Plumcot Prune (fresh) Hybrids, cultivars, and varieties of these.	Crown Rot Collar Rot Root Rot <i>(Phytophthora spp.)</i>	2.0 qt/A (2.0) or 1.5 fl oz/ 1,000 sq ft	Soil spray (broadcast, band or irrigation): Apply to soil beneath the tree canopy or apply through irrigation water (micro-sprinkler or drip) to cover the root zone two weeks after planting (new plantings) or in the spring before growth begins (established plantings). Additional applications may be made at 2- to 3-month intervals, depending on disease pressure. Make up to 3 applications per year. Apply before symptoms appear. NEATLAND 480 SL will not revitalize trees showing moderate to severe disease symptoms. For intense plantings (2 to 3 times the normal planting rate), apply on a per area basis (1,000 sq ft).

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 12.0 pt/A (equivalent to 6.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 6.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3
- Minimum Retreatment Interval: 60 days
- Pre-harvest Interval (PHI): 0 days



(continued)

- **DO NOT** concentrate spray around tree trunks.
- **DO NOT** apply to trees under stress.
- In California, **DO NOT** apply to newly planted trees within 45 days of planting. On some varieties, chlorosis may occur on leaf margins.
- **DO NOT** graze livestock in treated areas.
- **DO NOT** graze or feed cover crops grown in treated orchards.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Strawberries: Annual and Established Plantings Only	Red Stele (<i>Phytophthora fragariae</i>) Vascular Collapse (<i>P. cactorum</i>) Leather Rot (<i>P. cactorum</i>)	1.0 pt/A (0.50)	<p>Annual Plantings: Apply up to 3 times per crop by ground (banded), drip, or overhead chemigation. Make first application after transplanting. Make the second application 30 days before the beginning of harvest or at fruit set. Apply the third application during harvest, depending on disease pressure and environmental conditions.</p> <p>Established Plantings: Apply up to 3 times per crop by ground (banded), drip, or overhead chemigation. Make first application in the spring after the ground thaws and before first bloom. Make a second application after harvest in the fall. For control of leather rot, make an additional application during the growing season at fruit set.</p> <p>If applying through drip irrigation, calculate the rate as a band application with a band width equal to the root zone width. Inject NEATLAND 480 SL into the irrigation water.</p> <p>NEATLAND 480 SL may be applied the day of harvest.</p>

For additional applications, see Strawberries in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3 per year
- Minimum Retreatment Interval: 30 days
- Pre-harvest Interval (PHI): 0 days.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Strawberry plant production in field nurseries	Red Stele (<i>Phytophthora fragariae</i>)	1.0 pt/A (0.50)	<p>Field Nurseries: Apply to young plants in field nurseries by ground, drip, or overhead chemigation.</p> <p>If applying through drip irrigation, calculate the rate as a band application with a band width equal to the root zone width. Inject NEATLAND 480 SL into the irrigation water.</p>
	Vascular Collapse (<i>P. cactorum</i>) Leather Rot (<i>P. cactorum</i>)		

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.0 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2 per year
- Minimum Retreatment Interval: 30 days
- Pre-harvest Interval (PHI): NA; Only apply to young plants

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tobacco	Blue Mold (<i>Peronospora tabacina</i>)	0.50 pt/A (0.25) For no-till tobacco 0.50-1.0 pt/A (0.25-0.50)	<p>Soil spray (band): If NEATLAND 480 SL was applied prior to transplanting, make an additional application at lay-by or the last cultivation. Position the nozzles so the spray is deposited under the plants and is covered by the soil in cultivation.</p> <p>Soil Spray (broadcast or band): Position the nozzles so the spray is deposited under the plants and covered with soil by the cultivator. Use the higher specified rate if the disease epidemic is expected to be severe. Make one application at lay-by or make one application at the first cultivation and a second application at lay-by.</p> <p>Apply preventively for effective black shank control. If black shank is expected early in the season, apply as near as possible to transplanting followed by sequential applications.</p>
	Black Shank (<i>Phytophthora parasitica</i> var. <i>nicotianae</i>)	1.0-2.0 pt/A (0.50-1.0) For no-till tobacco 0.50-1.0 pt/A (0.25-0.50)	

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tobacco	Black Shank (<i>Phytophthora parasitica</i> var. <i>nicotianae</i>)	1.0-2.0 pt/A (0.50-1.0) For no-till tobacco 0.50-1.0 pt/A (0.25-0.50)	Consult local extension bulletins for additional use guidelines. For best results against black shank, use tobacco varieties that have high resistance to black shank and use crop rotation. In fields with a history of severe black shank, use the highest rate and plant a variety resistant to the race of <i>Phytophthora</i> present (Burley L8 hybrids are resistant to only <i>Phytophthora</i> Race 0). Failure to adequately control nematodes in fields treated with NEATLAND 480 SL may result in poor control of black shank.

For additional applications, see Tobacco in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2
- Minimum Retreatment Interval: 14 days
- Pre-harvest Interval (PHI): NA
- **DO NOT** use in high black shank areas on highly susceptible flue-cured varieties.
- **DO NOT** use **NEATLAND 480 SL** for black shank control in PA

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tomato	Root and Fruit Rot (<i>Phytophthora</i> spp.) (<i>Pythium</i> spp.)	1.0 pt/A (0.50)	Soil spray (broadcast or band) or soil injection: Apply as a directed soil surface spray under the vines or injected into the beds with water or liquid fertilizer. Make application 4 to 6 weeks after planting. Make a second application if needed up to 1 week before harvest. If a second application is made it must be applied before the last irrigation.

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For additional applications, see Tomato in Part 1 of Directions for Use: Soil-Injected or Soil-Incorporated Applications.

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam)
- Maximum Annual Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
 - **DO NOT** exceed 1.5 lb ai/A/year of soil applied and 0.5 lb ai/A/year foliar applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 2
- Minimum Retreatment Interval: 28 days
- Pre-harvest Interval (PHI): 7 days

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
<p>Tree Nuts: Almond Brazil Nut Cashew Chestnut Hazelnut (Filbert) Macadamia nut Pecan Pine nut Pistachio Walnut, black Walnut, English</p> <p>*See additional nuts below</p>	<p>Crown Rot Collar Rot Root Rot (<i>Phytophthora</i> spp.)</p>	<p>2.0 qt/A (2.0) or 1.5 fl oz/ 1,000 sq ft</p>	<p>Soil spray (broadcast, band or irrigation): Apply to soil beneath the tree canopy or apply through irrigation water (micro-sprinkler or drip) to cover the root zone two weeks after planting (new plantings) or in the spring before growth begins (established plantings).</p> <p>Additional applications may be made at 2- to 3-month intervals, depending on disease pressure. Make up to 3 applications per year.</p> <p>Apply before symptoms appear.</p> <p>NEATLAND 480 SL will not revitalize trees showing moderate to severe disease symptoms.</p> <p>For intense plantings (2 to 3 times the normal planting rate), apply on a per area basis (1,000 sq ft).</p>

African nut-tree, Beechnut, Brazilian pine, Buna, Bur oak, Butternut, Cajou nut, Candlenut, Chinquapin, Coconut, Coquito nut, Dika nut, Ginkgo, Guiana chestnut, Heartnut, Hickory nut, Japanese horsechestnut, Mongongo nut, Monkey-pot, Monkey puzzle nut, Okari nut, Pachira nut, Peach palm nut, Pequi nut, Pili nut, Sapucaia nut, Tropical almond, Yellowhorn

Use Restrictions:

- Refer to Directions for Use for additional product use restrictions
- Maximum Single Application Rate: 4.0 pt/A (equivalent to 2.0 lb ai/A mefenoxam)

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- Maximum Annual Application Rate: 12.0 pt/A (equivalent to 6.0 lb ai/A mefenoxam)
 - **DO NOT** exceed 6.0 lb ai/A/year of soil applied mefenoxam and metalaxyl containing products
- Maximum Number of Applications: 3 per year
- Minimum Retreatment Interval: 60 days
- Pre-harvest Interval (PHI): 30 days
- **DO NOT** concentrate spray around tree trunks.
- **DO NOT** apply to trees under stress.
- In California, **DO NOT** apply to newly planted trees within 45 days of planting. On some varieties, chlorosis may occur on leaf margins.
- **DO NOT** graze livestock in treated areas.
- **DO NOT** graze or feed cover crops grown in treated orchards.

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tropical Fruit (Inedible Peel): Papaya Black Sapote Star Apple Canistel Mamey Sapote Mango Sapodilla	Damping-Off (<i>Pythium</i> spp.) Root Rot (<i>Phytophthora</i> spp.)	1.5-3.0 pt/A (0.75-1.5)	Soil Drench: Add NEATLAND 480 SL to water or a liquid fertilizer solution at the rate of 1.5-3.0 pt/A. Apply this solution to the base of the plants to deliver approximately 5 gallons per plant. Two applications may be made per growing season. Make the first application at transplanting or in the spring at root growth flush. Make a second application at least 1 day before harvest.
Use Restrictions: <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam) • Maximum Annual Application Rate: 6.0 pt/A (equivalent to 3.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> ◦ DO NOT exceed 3.0 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 2 per year • Minimum Retreatment Interval: 90 days • Pre-harvest Interval (PHI): 1 day 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tropical Fruit (Rough or Hairy Peel): Sugar Apple Atemoya Custard Apple Cherimoya Ilama Soursop Birida	Pythium Root and Crown Rot Damping-Off (<i>Pythium</i> spp.) Phytophthora Root and Crown Rot (<i>Phytophthora</i> spp.)	1.5-3.0 pt/A (0.75-1.5)	Soil Drench: Apply in sufficient water or liquid fertilizer to provide an adequate soil drench. Make one application in the spring when root growth begins and a second application in the fall. Direct applications to the soil surface under the canopy of the trees.
Use Restrictions: <ul style="list-style-type: none"> Refer to Directions for Use for additional product use restrictions Maximum Single Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam) Maximum Annual Application Rate: 6.0 pt/A (equivalent to 3.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> DO NOT exceed 3.0 lb ai/A/year of mefenoxam and metalaxyl containing products Maximum Number of Applications: 2 per year Minimum Retreatment Interval: 90 days Pre-harvest Interval (PHI): 30 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Tropical Fruit: Starfruit	Phytophthora Root and Crown Rot (<i>Phytophthora</i> spp.) Pythium Root and Crown Rot (<i>Pythium</i> spp.)	1.5-3.0 pt/A (0.75-1.5)	Soil Drench: Apply in sufficient water or liquid fertilizer to provide an adequate soil drench. Make one application in the spring when root growth begins and a second application in the fall. Make applications to the soil surface under the canopy of the trees delivering approximately 5 gallons per plant.
Use Restrictions: <ul style="list-style-type: none"> Refer to Directions for Use for additional product use restrictions Maximum Single Application Rate: 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam) Maximum Annual Application Rate: 6.0 pt/A (equivalent to 3.0 lb ai/A mefenoxam) <ul style="list-style-type: none"> DO NOT exceed 3.0 lb ai/A/year of mefenoxam and metalaxyl containing products Maximum Number of Applications: 2 per year Minimum Retreatment Interval: 90 days Pre-harvest Interval (PHI): 30 days 			

Crop	Target Diseases (Pathogen)	Product Use Rate (lb ai)	Application Directions
Wasabi (greenhouse)	Root Rot (<i>Pythium</i> spp.)	0.5-1.5 pt/A (0.25-0.75) Equivalent to 0.0012 - 0.014 lb ai/ft ³	Greenhouse foliar mist application only Apply only via automatic foliar misting system in 400 to 1500 gal/A. Make the first application prior to disease onset and subsequent applications on a 7-day interval, up to a maximum of 6 applications. DO NOT apply more than 2 sequential applications of NEATLAND 480 SL or other Group 4 fungicides before alternating with a fungicide that is not in Group 4.
<p>Use Restrictions:</p> <ul style="list-style-type: none"> • Refer to Directions for Use for additional product use restrictions • Maximum Single Application Rate: 1.5 pt/A (equivalent to 075 lb ai/A mefenoxam) • Maximum Annual Application Rate: 9.0 pt/A (equivalent to 4.5 lb ai/A mefenoxam) <ul style="list-style-type: none"> ◦ DO NOT exceed 4.5 lb ai/A/year of mefenoxam and metalaxyl containing products • Maximum Number of Applications: 6 per year • Minimum Retreatment Interval: 7 days • Pre-harvest Interval (PHI): 7 days • NEATLAND 480 SLThe restricted-entry interval (REI) is 48 hours. • Applications may only be made via automatic foliar misting system. No workers or handlers may be present in the greenhouse during application 			

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE

Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.

PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

CONTAINER HANDLING

Non-refillable container (less than or equal to 5 gallons). DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Non-refillable container (greater than 5 gallons). DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Refillable container (greater than 5 gallons). Refill this container with pesticide only. DO NOT reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix-tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

Warranty and Disclaimer Statement

Read the entire DIRECTIONS FOR USE and Warranty and Disclaimer Statement before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The DIRECTIONS FOR USE of this product must be followed carefully. It is impossible to eliminate all risks associated with the use of this product including risks that may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors. Such risks are all beyond the control of Longwind Cropscience USA LLC ("LONGWIND") and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer and to the extent permitted by applicable law, the user or buyer agree to hold LONGWIND harmless for any claims relating to such risks.

LONGWIND warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the DIRECTIONS FOR USE, subject to the inherent risks described above, when used in accordance with the DIRECTIONS FOR USE under normal conditions. To the extent permitted by applicable law, this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of LONGWIND, and the user or buyer assume the risk of any such use.

To the extent permitted by applicable law, LONGWIND disclaims all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, LONGWIND, manufacturer, and seller disclaim and shall not be liable for any special, incidental, indirect, or consequential damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use, handling, application, storage, or disposal of this product or for damages in the nature of penalties, and the user and buyer waive any right that they may have to such damages. No agent, representative or employee of LONGWIND is authorized to make any warranty, guarantee or representation beyond those contained herein or to modify the warranties contained herein.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF LONGWIND, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT LONGWIND'S ELECTION, THE REPLACEMENT OF THE PRODUCT.

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