MEFENOXAM | GROUP 4 | FUNGICIDE

PULL HERE TO OPEN

Orondis® Gold B

syngenta®

Fungicide

For the control of certain diseases in listed crops caused by Oomycetes

Active Ingredient:	
Mefenoxam*	45.3%
Other Ingredients:	54.7%
Total:	100.0%

*CAS Nos. 70630-17-0 and 69516-34-3

Orondis® Gold B is formulated as a soluble concentrate and contains 4.0 lb active ingredient per gallon.

SCP 1202B-L1J 0623 4192629

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1202 EPA Est. 072344-MO-004

Product of Switzerland

2.5 quarts

(80 fluid ounces)

Net Contents

®

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1.0 FIRST AID

FIRST AID	
If in eyes	• 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	• 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	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by the poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.

FIRST AID *(continued)*	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call **1-800-888-8372**	

2.0 PRECAUTIONARY STATEMENTS

2.1 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.

2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

2.2.1 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.

2.2.2 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.

2.2.3 USER SAFETY RECOMMENDATIONS

User Safety Recommendations

Users should:

- 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.

2.3 Environmental Hazards

DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment wash-water or rinsate.

2.3.1 GROUNDWATER ADVISORY

Mefenoxam is known to leach through 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.

2.3.2 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.

2.4 Physical or Chemical Hazards

DO NOT use or store near heat or open flame.

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.

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

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), restricted-entry interval, and notification to workers (as applicable). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS). **DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours. Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area immediately if there will be no contact with anything that has been treated. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water is: • Coveralls • Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils • Shoes plus socks

3.0 PRODUCT INFORMATION

Orondis Gold B is a systemic fungicide for use on selected crops to control certain diseases caused by Oomycetes.

To ensure maximum activity on soilborne pathogens, Orondis Gold B must be moved into the seed or root zone of the plant. Placement in the seed or root zone includes in-furrow sprays, soil injections, and 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.

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.

EFFICACY

Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Orondis Gold B has been used. If resistant isolates to Group 4 fungicides are present, efficacy can be reduced. Under high disease pressure, use the highest specified rate and shortest specified interval when needed.

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.

3.1 Integrated Pest Management (IPM)

Integrate Orondis Gold B 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.

3.2 Resistance Management

For resistance management, Orondis Gold B contains a Group 4 fungicide. Any fungal population may contain individuals naturally resistant to Orondis Gold B 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. Appropriate resistance-management strategies must be followed. To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Orondis Gold B 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 guidance for specific crops and pathogens.
- For further information or to report suspected resistance, contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

Applications with Orondis Gold B are permitted by ground, by air, and via chemigation as specified in **Section 7.0** unless otherwise restricted in **Section 6.1**. Ground application includes broadcast sprays, soil incorporation, banded and in-furrow applications, as well as soil injections and crown dips. Incorporation includes preplant incorporated, soil drenches, and shank applications.

For band applications, refer to **Section 4.1.1** to calculate the amount of Orondis Gold B and water volume needed. For in-furrow applications, refer to **Section 4.1.2** for the amount of product to use with common row spacings. Refer to **Section 4.5** for details of application by chemigation.

4.1.1 BAND APPLICATION

Application rates in **Section 7.0** 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:

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

4.1.2 IN-FURROW APPLICATION

The following table provides common row spacing and the amount of Orondis Gold B to apply per acre for applications in Potato **ONLY**.

Use Rate fl oz/1000 row feet (oz ai/1000 row feet)	Orondis Gold B 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)	2.1	1.9	1.7	1.4	1.3	1.2	1.1	1.1	1.0
0.15 (0.078)	3.9	3.6	3.2	2.6	2.4	2.3	2.2	2.0	1.9
0.28 (0.14)	7.3	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									

4.2 Application Equipment

- Arrange spray equipment configuration to provide accurate application and minimize the potential for spray drift.
- To ensure accuracy, calibrate sprayer before each use.
- For information on spray equipment and calibration, consult spray equipment manufacturers and/or state guidance.
- All ground/aerial/chemigation application equipment must be properly maintained and calibrated using appropriate carriers.

4.2.1 NOZZLES

- Equip sprayers with nozzles that provide accurate and uniform application.
- Use same size nozzles and uniform spacing across the boom.
- Use screens 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.

4.2.2 PUMP

- Use a pump with capacity to:
  - Maintain 35-40 psi at nozzles.
  - 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 sparger tube for agitation.
- **DO NOT** air sparge.

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

4.3 Application Volume and Spray Coverage

- Apply by ground or air in sufficient water or liquid fertilizer to provide uniform coverage of the soil surface.
- For maximum effectiveness, Orondis Gold B must be moved into the seed or root zone of the plant.
- For in-furrow application, apply as an in-furrow spray in 3-7 gallons per acre of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed is covered.
- For ground broadcast application, apply in a minimum of 20 gallons of water per acre, unless specified otherwise. 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.
- For aerial application, apply in a minimum of 3 gallons of water per acre, unless specified otherwise. Avoid application when uniform coverage cannot be obtained or when excessive spray drift may occur.

4.4 Mixing Directions

1. Thoroughly clean spray equipment before using this product.
2. Prepare no more spray mixture than is needed for the immediate operation.
3. Keep product container tightly closed when not in use.
4. Agitate the spray solution before and during application.
5. **DO NOT** let the spray mixture stand overnight in the spray tank.
6. Rinse the spray equipment thoroughly after each day's use and dispose of pesticide rinsate by application to an already treated area.

4.4.1 ORONDIS GOLD B ALONE

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

4.4.2 TANK-MIX PRECAUTIONS

- It is the pesticide user's responsibility to ensure that all products are registered for their 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 for each product in the tank mixture.
- Tank mixes of Orondis Gold B with other pesticides, fertilizers, or any other additives not specifically labeled for use with Orondis Gold B may result in tank-mix incompatibility or unsatisfactory performance. In such cases, always check tank-mix compatibility by conducting a jar test according to guidance in **Section 4.4.3** before actual tank mixing.

4.4.3 TANK-MIX COMPATIBILITY TEST

- Conduct a jar test using a 1 pt to 1 qt container with lid by adding water or other intended carrier (e.g., a liquid fertilizer) to the jar.
- Next, add the appropriate amount of pesticide(s) or tank-mix partner(s) in their relative proportions based on specified label rates. Add tank-mix components separately in the order described in **Section 4.4.4**. After each addition, shake or stir gently to thoroughly mix.
- After all ingredients have been added, put the lid on the jar, tighten and invert the jar 10 times to mix.
- After mixing, let the mixture stand 15 – 30 minutes and then examine for signs of incompatibility including obvious separation, large flakes, precipitates, gels, or heavy oily film on the jar.
- If the mixture remains mixed or can be remixed readily, it is physically compatible and can be used.
- If the mixture is incompatible, repeat the test using a compatibility agent at the directed rate. Or, if applicable, slurry dry formulations in water before adding to the jar. If incompatibility is still observed after following these procedures, **DO NOT** use the mixture.
- After compatibility testing is complete, dispose of any pesticide wastes in accordance with **Section 8.0**.

4.4.4 ORONDIS GOLD B IN TANK MIXTURES

1. Add 1/4 - 1/2 of the required amount of water to the spray or mixing tank.
2. With the agitator running, add the tank-mix partner(s) into the tank in the following order:
   a. wettable powders
   b. water dispersible granular products
   c. liquid flowables
   d. emulsifiable concentrates
3. Allow the material to completely dissolve and disperse into the mix water.
4. Continue agitation while adding the remainder of the water and Orondis Gold B to the spray tank.
5. Allow Orondis Gold B to completely disperse.
6. Spray the mixture with the agitator running.
7. Follow the precautions and limitations of the most restricted product in the tank mixture.

4.5 Application through Irrigation Systems (Chemigation)

4.5.1 CHEMIGATION RESTRICTIONS

- Use only on crops for which chemigation is specified on this label.
- Apply Orondis Gold B only through center pivot, solid set, hand move, moving wheel, micro-sprinkler, micro-emitter, 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 your 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 if the need arises.
- Orondis Gold B must be applied on the schedule specified in the specific crop use directions, not according to the irrigation schedule.

Note: Orondis Gold B can affect many seal materials and must not be used at full strength. Leather seals are best; EPDM or silicone rubber seals can be used, but must be checked and replaced once a year if needed. **DO NOT** use Viton, Buna-N, Neoprene, or PVC seals.

4.5.2 OPERATING INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

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, including 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.

4.5.3 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 (RPZ) backflow preventer 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 must 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 device, including 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.

4.5.4 APPLICATION DIRECTIONS FOR IRRIGATION SYSTEMS

- Apply Orondis Gold B only through center pivot, solid set, hand move, moving wheel, micro-sprinkler, micro-emitter, or drip irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** inject Orondis Gold B at full strength or deterioration of seals may occur. Use a dilution ratio of at least 15 parts water to 1 part Orondis Gold B in the tank-mix.
- Thoroughly clean the chemical tank and injector system. Flush system with clean water.
- Maintain good agitation during the entire application period.
- Uniform coverage is required for good control.

5.0 REPLANT AND ROTATIONAL CROP RESTRICTIONS

5.1 Replanting

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

5.2 Rotational Crop Restrictions

The following crops may be planted at the specified interval following application of Orondis Gold B.

Crop, Crop Group, or Crop Subgroup	Replant/Plant-Back Interval
Alfalfa Apple Artichoke, globe Birdsfoot trefoil Brassica Head and Stem Vegetables, Crop Group 5-16 Brassica Leafy Greens, Crop Subgroup 4-16B Bulb Vegetables, Crop Group 3-07 Clover Corn Cotton, Crop Subgroup 20C Cucurbit Vegetables, Crop Group 9 Fruiting Vegetables, Crop Group 8-10 Grass Forage, Fodder, and Hay, Crop Group 17 Herbs (fresh and dried), Crop Subgroup 19A	0 days

continued...

5.2 Rotational Crop Restrictions *(continued)*

Crop, Crop Group, or Crop Subgroup	Replant/Plant-Back Interval
Hops Leafy Greens, Crop Subgroup 4-16A Legume Vegetables, Crop Group 6-22 Peanut Pineapple Root and Tuber Vegetables, Crop Group 1 Soybean Stalk, Stem, and Leaf Petiole Vegetables, Crop Subgroups 22A and 22B Strawberry Succulent Shelled Beans, Crop Subgroup 6-22C Succulent Shelled Peas, Crop Subgroup 6-22D Sunflower Tobacco Wasabi	0 days
Cereal grains (except corn)	14 days
Sugarcane	30 days
Crops **not intended** for food or feed	0 days
All other crops **intended** for food and feed	365 days

6.0 RESTRICTIONS AND PRECAUTIONS

See **Section 7.0** for crop-specific Restrictions and Precautions.

6.1 Use Restrictions

- **DO NOT** use in greenhouses or other structures including lath houses, float houses, and hydroponic facilities, unless specified on this label.
- **DO NOT** use for disease control in bedding plants, transplant trays, or nurseries except where specifically allowed in certain crop sections.
- **DO NOT** use 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 Orondis Gold B except where specifically allowed in certain crop sections.

- Maximum usage when applying both mefenoxam- and metalaxyl-containing products to the same crop within the same season: **DO NOT** apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.
- Maximum application rates included for all uses in **Section 7.0**.

6.2 Use Precautions

- Avoid spray overlap as crop injury may occur.

6.3 Spray Drift Management

- AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.
- To avoid spray drift, **DO NOT** apply when conditions favor drift beyond the target area.
- The interaction of many equipment and weather-related factors determine the potential for spray drift.

6.4 Spray Drift Advisory

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

6.4.1 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.

6.4.2 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.

6.4.3 CONTROLLING DROPLET SIZE – AIRCRAFT

- **Adjust Nozzles** - Follow nozzle manufacturer's specifications for setting up nozzles. To reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

6.4.4 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.

6.4.5 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.

6.4.6 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.

6.4.7 TEMPERATURE AND HUMIDITY

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

6.4.8 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.

6.4.9 WIND

- Drift potential 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.

7.0 CROP USE DIRECTIONS

7.1 Berry and Small Fruit

7.1.1 BUSHBERRY, CROP SUBGROUP 13-07B

Crops (including all cultivars, varieties, and/or hybrids of these)			
Aronia berry Blueberry, highbush Blueberry, lowbush Buffalo currant Chilean guava Currant, black Currant, red	Elderberry European barberry Gooseberry Highbush cranberry Honeysuckle, edible Huckleberry	Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native currant Salal Sea buckthorn	
Target Disease	**Rate pt/A (lb ai)**	**Application Timing**	**Use Directions**
Root rot (*Phytophthora* spp.)	3.6 (1.8)	**New Plantings:** Apply at time of planting.	**Soil Application (broadcast, band, or via drip/micro-sprinkler irrigation):** Make one application at planting and reapply once during a period favorable for root rot. For band applications, use an 18-inch band. To calculate the rate as a band application, see **Section 4.1.1**.

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7.1.1 BUSHBERRY, CROP SUBGROUP 13-07B *(continued)*

Target Disease	Rate pt/A (lb ai)	Application Timing	Use Directions
Root rot (*Phytophthora* spp.)	3.6 (1.8)	**Established Plantings:** Apply before the plants start to grow in the spring. One additional application may be made to coincide with the period most favorable for root rot development.	Make a soil-directed application towards the base of the plant in a 3-ft band over the row or via the drip irrigation. To calculate the rate as a band application, see **Section 4.1.1**. Use Orondis Gold B in conjunction with good cultural practices to minimize disease.
Resistance Management: • Refer to **Section 3.2**.			
Precaution: • Orondis Gold B will not revitalize plants showing moderate to severe root rot symptoms.			
USE RESTRICTIONS			
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam) 3) **Minimum Application Interval:** 90 days 4) **Maximum Annual Application Rate:** 7.2 pt/A/year (equivalent to 3.6 lb ai/A/year mefenoxam) a) **DO NOT** exceed 3.6 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products. 5) **DO NOT** make more than 2 applications at the maximum application rate per year. 6) **Pre-harvest Interval (PHI):** 0 days			

7.1.2 CANEBERRY, CROP SUBGROUP 13-07A

Crops (including all cultivars, varieties, and/or hybrids of these)			
Blackberry Loganberry		Raspberry, black Raspberry, red	Raspberry, wild
Target Disease	**Rate pt/A (lb ai)**	**Application Timing**	**Use Directions**
Root rot (*Phytophthora* spp.)	3.6 (1.8)	**New Plantings:** Apply at time of planting.	**Soil Application (broadcast, band, or via drip/micro-sprinkler irrigation):** Make one application at planting and reapply once during a period favorable for root rot. For band applications, use an 18-inch band. To calculate the rate as a band application, see **Section 4.1.1**.
		Established Plantings: Apply before the plants start to grow in the spring. One additional application may be made to coincide with the period most favorable for root rot development.	Make a soil-directed application towards the base of the plant in a 3-ft band over the row or via the drip irrigation. To calculate the rate as a band application, see **Section 4.1.1**. Use Orondis Gold B in conjunction with good cultural practices to minimize disease.

continued...

7.1.2 CANEBERRY, CROP SUBGROUP 13-07A

Resistance Management:
- Refer to **Section 3.2**.

Precaution:
- Orondis Gold B will not revitalize plants showing moderate to severe root rot symptoms.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate:** 3.6 pt/A (equivalent to 1.8 lb ai/A mefenoxam)
3) **Minimum Application Interval:** 90 days
4) **Maximum Annual Application Rate:** 7.2 pt/A/year (equivalent to 3.6 lb ai/A/year mefenoxam)
   a) **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.
5) **DO NOT** use an adjuvant.
6) **DO NOT** make more than 2 applications at the maximum application rate per year.
7) **Pre-harvest Interval (PHI):** 45 days

7.2 Cucurbit Vegetables, Crop Group 9

Crops (including all cultivars, varieties, and/or hybrids of these)		
Chayote (fruit)	**Muskmelon**	**Squash, summer**
Chinese waxgourd (Chinese preserving melon)	Cantaloupe	Crookneck squash
Citron melon	Casaba	Scallop squash
Cucumber	Crenshaw melon	Straightneck squash
Gherkin	Golden pershaw melon	Vegetable marrow
Gourd, edible	Honeydew melon	Zucchini
Hyotan	Honey balls	**Squash, winter**
Cucuzza	Mango melon	Acorn squash
Hechima	Persian melon	Butternut squash
Chinese okra	Pineapple melon	Calabaza
***Momordica* spp.**	Santa Claus melon	Hubbard squash
Balsam apple	Snake melon	Spaghetti squash
Balsam pear	True cantaloupe	Watermelon
Bitter melon	Pumpkin	
Chinese cucumber		

continued...

7.2 Cucurbit Vegetables, Crop Group 9 *(continued)*

Target Disease	Rate (lb ai)	Application Timing	Use Directions
Damping off/Root rot (*Pythium* spp.) **Suppression:** Phytophthora blight (*Phytophthora capsici*)	1.0 – 2.0 pt/A (0.5-1.0)	Preplant incorporated At planting	**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. For banded applications, use a 7-inch band. To calculate the rate as a band application, see **Section 4.1.1**. **Injection (drip irrigation):** Inject Orondis Gold B into the irrigation water at the labeled rates.
	0.25 – 0.4 pt/A (0.125-0.20)	**Subsequent applications:** If soil applications were made at planting, two additional applications may be made at 20- to 30-day intervals.	**Soil Spray (directed):** 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 Orondis Gold B into the root zone. **Injection (drip irrigation):** Inject Orondis Gold B into the irrigation water at the labeled rates.
Resistance Management: • Refer to **Section 3.2**.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) 3) **Minimum Application Interval:** 20 days ***unless*** following transplant water application: 14 days 4) **Maximum Annual Application Rate: Soil:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam) **Foliar:** 0.8 pt/A/year (equivalent to 0.4 lb ai/A/year mefenoxam) a) **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. 5) **DO NOT** make more than 1 soil-applied application and 2 soil-directed (foliar) applications at the maximum application rate per year ***OR*** 1 soil-applied application and 3 soil-directed (foliar) applications at the minimum application rate per year. 6) **Pre-harvest Interval (PHI):** 5 days

7.3 Fruiting Vegetables, Crop Group 8-10

Crops (including all cultivars, varieties, and/or hybrids of these)			
African eggplant Bush tomato Bell pepper Cocona Currant tomato Eggplant Garden huckleberry	Goji berry Groundcherry Martynia Naranjilla Okra Pea eggplant Pepino	Nonbell pepper Roselle Scarlet eggplant Sunberry Tomatillo Tomato Tree tomato	
Target Disease	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Damping off (*Pythium* spp.) **Suppression:** Crown rot (*Phytophthora capsici*)	1.0 pt/A (0.5)	Preplant or at planting For **direct seeded peppers**, apply preplant or prior to emergence	**Soil Spray (broadcast or band):** Apply in water or liquid fertilizer preplant or at planting. For banded applications, use a 12- to 16-inch band. To calculate the rate as a band application, see **Section 4.1.1.** **Injection (drip irrigation):** Inject Orondis Gold B into the irrigation water.

Target Disease	Rate (lb ai)	Application Timing	Use Directions
Damping off (*Pythium* spp.) **Suppression:** Crown rot (*Phytophthora capsici*)	1.0 pt/A (0.5)	**Post Planting:** Make 2 post-directed applications at 30-day intervals following planting. For **crown rot**, apply before the plants are infected to obtain satisfactory control.	**Soil Spray (band):** 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 Orondis Gold B into the root zone. **Shank Application:** Apply in liquid fertilizer, shanked in as a banded treatment to either side of the plant. **Injection (drip irrigation):** Inject Orondis Gold B into the irrigation water.
TOMATO ONLY Damping off (*Pythium* spp.) Fruit rot (*Phytophthora* spp.) Root rot (*Pythium* spp.)	1.0 – 2.0 pt/A (0.5-1.0)	At planting	**Soil Spray (broadcast or band):** Apply in water or liquid fertilizer. For banded applications, use a 7-inch band. To calculate the rate as a band application, see **Section 4.1.1**.

continued...

7.3 Fruiting Vegetables, Crop Group 8-10 *(continued)*

Target Disease	Rate (lb ai)	Application Timing	Use Directions
TOMATO ONLY Damping off (*Pythium* spp.) Fruit rot (*Phytophthora* spp.) Root rot (*Pythium* spp.)	1.0 pt/A (0.5)	**Subsequent applications:** Following soil application at planting, make up to two applications 4-6 weeks apart.	**Soil Spray (broadcast or band) or Injection (drip irrigation):** Apply as a directed soil surface spray under the vines or injected into the beds with water or liquid fertilizer. Make subsequent applications by drip irrigation according to the application timing schedule. For injected applications, base rate calculations on a 7-inch band. To calculate the rate as a band application, see **Section 4.1.1**.
Resistance Management: • Refer to Section 3.2.			
Precautions: • Plants already infected with *Phytophthora capsici* cannot be cured with Orondis Gold B. • The foliar blight phase of *Phytophthora* cannot be cured with Orondis Gold B. • Application of Orondis Gold B may cause some yellowing of pepper leaves.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) ***except for*** **Tomato:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) 3) **Minimum Application Interval:** 30 days ***unless*** following transplant water application, then 14 days; ***except for*** **Tomato:** 28 days 4) **Maximum Annual Application Rate:** 3.0 pt/A/year (equivalent to 1.5 lb ai/A/year mefenoxam) a) **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. 5) **DO NOT** make more than 3 applications at the maximum application rate per year ***except for*** **Tomato: DO NOT** make more than 2 applications at the maximum application rate per year ***OR*** 3 applications at the minimum application rate per year. 6) **Pre-harvest Interval (PHI):** 7 days

7.4 Leafy Greens, Crop Subgroup 4-16A

Crops (including all cultivars, varieties, and/or hybrids of these)		
See Section 7.5 for separate Spinach directions.		
Amaranth, Chinese	Dandelion, leaves	Lettuce, bitter
Amaranth, leafy	Dang-gwi, leaves	Lettuce, head
Aster, Indian	Dillweed	Lettuce, leaf
Blackjack	Dock	Orach
Cat's whiskers	Dol-nam-mul	Parsley, fresh leaves
Cham-chwi	Ebolo	Plantain, buckhorn
Cham-na-mul	Endive	Primrose, English
Chervil, fresh leaves	Escarole	Purslane, garden
Chipilin	Fameflower	Purslane, winter
Chrysanthemum, garland	Feather cockscomb	Radicchio
Cilantro, fresh leaves	Good King Henry	Swiss chard
Corn salad	Huauzontle	Violet, Chinese, leaves
Cosmos	Jute, leaves	

Target Disease	Rate (lb ai)	Application Timing	Use Directions
Damping off (*Pythium* spp.)	1.0 – 2.0 pt/A (0.5-1.0)	Preplant incorporated At planting	**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. To calculate the rate as a band application, see **Section 4.1.1**. Make no more than one soil application.
Resistance Management: • Refer to **Section 3.2**.			

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7.4 Leafy Greens, Crop Subgroup 4-16A *(continued)*

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) 3) **Minimum Application Interval:** a) **Soil:** NA b) **Foliar (Lettuce only):** 14 days 4) **Maximum Annual Application Rate: Soil:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam) **Foliar (Lettuce only):** 0.8 pt/A/year (equivalent to 0.4 lb ai/A/year mefenoxam) a) **DO NOT** exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products. b) **For lettuce only, DO NOT** exceed 1.0 lb ai/A/year of soil-applied and 0.4 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products. 5) **DO NOT** make more than 1 soil application per crop year. 6) **DO NOT** apply foliar sprays of Orondis Gold B without a labeled tank-mix partner. 7) **DO NOT** apply the Orondis Gold B mixture in fields where downy mildew is already established. 8) For lettuce only, **DO NOT** make more than 4 foliar applications per crop. 9) **Pre-harvest Interval (PHI):** 7 days

7.5 Spinach

Crops (including all cultivars, varieties, and/or hybrids of these)			
Spinach Spinach, Malabar		Spinach, New Zealand Spinach, Tanier	
Target Disease	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Damping off (*Pythium* spp.)	1.0 – 2.0 pt/A (0.5-1.0)	Preplant incorporated At planting	**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. To calculate the rate as a band application, see **Section 4.1.1**. Make no more than one soil application.

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7.5 Spinach *(continued)*

Resistance Management:
- Refer to **Section 3.2**.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
3) **Minimum Application Interval:** 21 days
4) **Maximum Annual Application Rate:** 2.8 pt/A/year (equivalent to 1.4 lb ai/A/year mefenoxam)
    a) **DO NOT** exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products at planting followed by ***either***:
        i. **No more than** 0.25 lb ai/A/year of post-planting shanked-in applications of mefenoxam- and metalaxyl-containing products ***or***
        ii. **No more than** 0.4 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products
5) **DO NOT** apply the Orondis Gold B mixture in fields where downy mildew is already established.
6) **DO NOT** make more than 1 soil application and 2 shank applications per crop year.
7) **Pre-harvest Interval (PHI):** 3 days ***only if*** soil application does not exceed 1.0 lb ai/A/year and foliar application does not exceed 0.25 lb ai/A/year of mefenoxam- and metalaxyl-containing products. ***Otherwise***, the PHI is 21 days.

7.6 Root and Tuber Vegetables

7.6.1 GINSENG

Crops (including all cultivars, varieties, and/or hybrids of these)			
Ginseng			
Target Disease	**Rate pt/A (lb ai)**	**Application Timing**	**Use Directions**
Phytophthora root rot (*Phytophthora cactorum*)	0.75 (0.375)	Apply in the spring before plants start growing.	For stand establishment, apply uniformly as a soil drench to the soil surface. Apply in 100-400 gallons of water per acre. Follow with additional applications of Ridomil Gold® GR (EPA Reg.#100-798, mefenoxam).
Resistance Management: • Refer to **Section 3.2**.			

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7.6.1 GINSENG *(continued)*

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 0.75 pt/A (equivalent to 0.375 lb ai/A mefenoxam) 3) **Minimum Application Interval:** NA 4) **Maximum Annual Application Rate:** 0.75 pt/A/year (equivalent to 0.375 lb ai/A/year mefenoxam) a) **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. 5) **DO NOT** make more than 1 application of Orondis Gold B per year. 6) **Pre-harvest Interval (PHI):** NA

7.6.2 POTATO

Crops (including all cultivars, varieties, and/or hybrids of these)			
Potato			
Target Disease	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Pink rot (*Phytophthora erythroseptica*) Pythium leak (*Pythium* spp.) Pythium seedling disease (*Pythium* spp.)	0.42 fl oz/ 1000 row ft Equivalent to 6.1 fl oz/A on 36-inch row spacing (0.19)	At planting	**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). To calculate the rate as an in-furrow application, see **Section 4.1.2**. If needed, follow this in-furrow application with an Orondis Gold B prepack or tank-mix foliar application at tuber initiation: • 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. Orondis Gold B may be impregnated on dry fertilizer or applied in combination with liquid fertilizers.

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7.6.2 POTATO *(continued)*

Target Disease	Rate (lb ai)	Application Timing	Use Directions
Pink rot (*Phytophthora erythroseptica*) Pythium leak (*Pythium* spp.) Pythium seedling disease (*Pythium* spp.)	3.2 fl oz/A (0.1)	**Foliar Application:** At tuber initiation when the largest tubers are the size in diameter of a nickel; this usually coincides with initiation of flowering. Make a second application 14 days later and, if the field has a history of storage rot problems, a third application 14 days after the second application.	**Broadcast or Soil-Directed (air, ground, or chemigation).** If the field has a history of storage rot problems, make a third application. If foliar diseases are expected, then a tank-mix with a labeled rate of mancozeb or chlorothalonil products is required. Use in conjunction with other management practices including crop rotation and resistant varieties.
Resistance Management: • Refer to **Section 3.2**.			

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate:**
   a) **Soil:** 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A mefenoxam)
   b) **Foliar:** 3.2 fl oz/A (equivalent to 0.1 lb ai/A mefenoxam)
3) **Minimum Application Interval:** 14 days
4) **Maximum Annual Application Rate: Soil:** 0.42 fl oz/1000 row ft (equivalent to 0.19 lb ai/A/year mefenoxam) **Foliar:** 9.6 fl oz/A/year (equivalent to 0.3 lb ai/A/year mefenoxam)
   a) **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.
5) **DO NOT** make more than 1 soil-applied application and 3 foliar-applied applications at the maximum application rate per year.
6) **DO NOT** use the “dribble” application method.
7) **Pre-harvest Interval (PHI):** 14 days

7.6.3 ROOT AND TUBER VEGETABLES, CROP GROUP 1 (EXCEPT CARROT, GINSENG, AND POTATO)

Crops (including all cultivars, varieties, and/or hybrids of these)		
Arracacha	Chervil, turnip-rooted	Rutabaga
Arrowroot	Chicory	Salsify (oyster plant)
Artichoke, Chinese	Chufa	Salsify, black
Artichoke, Jerusalem	Dasheen (taro)	Salsify, Spanish
Beet, garden	Ginger	Skirret
Burdock, edible	Horseradish	Sugar Beet
Canna, edible	Leren	Sweet potato
Cassava, bitter	Parsley, turnip-rooted	Tanier (cocoyam)
Cassava, sweet	Parsnip	Turmeric
Celeriac (celery root)	Radish	Turnip
Chayote (root)	Radish, oriental (daikon)	Yam bean (jicama, manoic pea)
		Yam, true

Target Disease	Rate pt/A (lb ai)	Application Timing	Use Directions
Pythium root rot (*Pythium* spp.) Phytophthora root rot (*Phytophthora* spp.)	1.0 – 2.0 (0.5-1.0)	Preplant incorporated At planting	**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. **Soil Spray (broadcast or band):** Apply in water or liquid fertilizer at planting. For banded applications, use a 7-inch band. To calculate the rate as a band application, see **Section 4.1.1**.

Resistance Management:

- Refer to **Section 3.2**.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam)
3) **Minimum Application Interval:** NA
4) **Maximum Annual Application Rate:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam)
   a) **DO NOT** exceed 1.0 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
5) **DO NOT** make more than 1 application at the maximum application rate per year.
6) **Pre-harvest Interval (PHI):** NA

7.7 Celtuce

Crops (including cultivars, varieties, and/or hybrids of these)			
Celtuce			
Target Diseases	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Damping off (*Pythium* spp.)	1.0 – 2.0 pt/A (0.50-1.0)	Preplant incorporated At planting	**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. To calculate the rate as a band application, see **Section 4.1.1**.
Resistance Management: • Refer to **Section 3.2**.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) 3) **Minimum Application Interval:** NA 4) **Maximum Annual Application Rate:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam) a) **DO NOT** exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products. 5) **DO NOT** make more than 1 application at the maximum application rate per year. 6) **Pre-harvest Interval (PHI):** 7 days

7.8 Fennel

Crops (including cultivars, varieties, and/or hybrids of these)			
Fennel, Florence, fresh leaves and stalk			
Target Diseases	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Damping off (*Pythium* spp.)	1.0 – 2.0 pt/A (0.50-1.0)	Preplant incorporated At planting	**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. To calculate the rate as a band application, see **Section 4.1.1**.
Resistance Management: • Refer to **Section 3.2**.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 2.0 pt/A (equivalent to 1.0 lb ai/A mefenoxam) 3) **Minimum Application Interval:** NA 4) **Maximum Annual Application Rate:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam) a) **DO NOT** exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products. 5) **DO NOT** make more than 1 application at the maximum application rate per year. 6) **Pre-harvest Interval (PHI):** 7 days

7.9 Stalk and Stem Vegetables

Crops (including cultivars, varieties, and/or hybrids of these)			
Asparagus			
Target Diseases	**Rate pt/A (lb ai)**	**Application Timing**	**Use Directions**
Crown rot Spear rot (*Phytophthora* spp.)	1.0 (0.50)	**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.	**Soil Spray (broadcast or band):** Apply as a soil spray (broadcast or band). To calculate the rate as a band application, see **Section 4.1.1**.
Resistance Management: • Refer to **Section 3.2**.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate:** 1.0 pt/A (equivalent to 0.5 lb ai/A mefenoxam) 3) **Minimum Application Interval:** 30 days 4) **Maximum Annual Application Rate:** 2.0 pt/A/year (equivalent to 1.0 lb ai/A/year mefenoxam) a) **DO NOT** exceed 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products. 5) **DO NOT** make more than 2 applications at the maximum application rate per year. 6) **Pre-harvest Interval (PHI):** 1 day

7.10 Tobacco

Crops (including all cultivars, varieties, and/or hybrids of these)			
Tobacco			
Target Disease	**Rate (lb ai)**	**Application Timing**	**Use Directions**
Black shank (*Phytophthora parasitica* var. *nicotianae*)	Transplant water: 4 - 8 fl oz (0.25-0.5 pt) / 200 gal water (0.125-0.25)	At transplant (followed by additional application at first cultivation or layby).	**Transplant water:** Apply in transplant furrow while planting tobacco seedlings. Apply 4-8 fl oz (0.125-0.25 lb ai) in at least 200 gallons of transplant water per acre. Use the highest specified rate if the disease epidemic is expected to be severe. Pre-mixing Orondis Gold B 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.

Target Disease	Rate (lb ai)	Application Timing	Use Directions
Black shank (*Phytophthora parasitica* var. *nicotianae*)	1.0 – 2.0 pt/A (0.5-1.0) For no-till tobacco: 0.50 – 1.0 pt/A (0.25-0.5)	First cultivation and/or layby	**Soil Spray (broadcast or band):** Position the nozzles so the spray is deposited under the plants and covered with soil by the cultivator. To calculate the rate as a band application, see **Section 4.1.1.** Apply preventatively for effective black shank control. If black shank is expected early in the season, apply as near as possible to transplanting followed by sequential application. Consult local extension bulletins for additional use directions. For best results against black shank, use tobacco varieties that have high resistance to black shank and practice crop rotation. In fields with a history of severe black shank, use the highest specified rate and plant variety resistant to the race of *Phytophthora* present (Burley L8 hybrids are resistant to only *Phytophthora* Race 0).

continued...

7.10 Tobacco *(continued)*

Resistance Management:
- Refer to **Section 3.2**.

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. Crop injury is more likely when applied in less than 100 gallons/acre. Injury is temporary and typically disappears within three weeks.
- Failure to adequately control nematodes in fields treated with Orondis Gold B may result in poor control of black shank.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate:** 3.0 pt/A (equivalent to 1.5 lb ai/A mefenoxam)
3) **Minimum Application Interval:** 14 days
4) **Maximum Annual Application Rate:** 3.0 pt/A/year (equivalent to 1.5 lb ai/A/year mefenoxam)
   a) **DO NOT** exceed 1.5 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
5) **DO NOT** make more than 1 application at the maximum application rate per year ***OR*** 3 applications at the minimum application rate.
6) **DO NOT** use in high black shank areas on highly susceptible flue-cured varieties.
7) **DO NOT** use Orondis Gold B for black shank control in PA.
8) **DO NOT** apply to stressed seedlings or during hot and dry conditions due to injury potential.
9) **Pre-harvest Interval (PHI):** NA

8.0 STORAGE AND DISPOSAL

Storage and Disposal

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

Pesticide Storage

DO NOT use or store near heat or open flame. 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.

continued...

Storage and Disposal *(continued)*

Container Handling (less than or equal to 5 gallons)

Non-refillable container. 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 other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Non-refillable container. 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 other procedures approved by state and local authorities.

Container Handling (greater than 5 gallons)

Refillable container. 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 other procedures approved by state and local authorities.

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

9.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability 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 inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA 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 referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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Viton™ is a trademark of The Chemours Company FC, LLC

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-866-796-4368.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1202B-L1J 0623
419262

MEFENOXAM	GROUP 4	FUNGICIDE

Orondis® Gold B

Fungicide

For the control of certain diseases in listed crops caused by Oomycetes

Active Ingredient:	
Mefenoxam*	45.3%
Other Ingredients:	54.7%
Total:	100.0%

*CAS Nos. 70630-17-0 and 69516-34-3

Orondis® Gold B is formulated as a soluble concentrate and contains 4.0 lb active ingredient per gallon.

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1202 EPA Est. 072344-MO-004

2.5 quarts

(80 fluid ounces) Net Contents

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

FIRST AID **If in eyes:** 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:** 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:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. **DO NOT** induce vomiting unless told to do so by the poison control center or doctor. **DO NOT** give anything by mouth to an unconscious person. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

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

HOTLINE NUMBER: For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call **1-800-888-8372**.

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SCP 1202B-L1J 0623 4192629

syngenta®

KEEP OUT OF REACH OF CHILDREN.

CAUTION

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.

Environmental Hazards: DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory: Mefenoxam is known to leach through 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.

STORAGE AND DISPOSAL

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

Pesticide Storage: DO NOT use or store near heat or open flame. 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.

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

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