

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505T)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

100-1737

EPA Reg. Number:

Date of Issuance:

)-1737

12/4/23

NOTICE OF PESTICIDE:

X Registration

\_\_ Reregistration

(under FIFRA, as amended)

Term of Issuance:
Unconditional

Name of Pesticide Product:

Orondis® Gold DC

Name and Address of Registrant (include ZIP Code):

Syngenta Crop Protection, LLC P. O. Box 18300

Greensboro, NC 27419

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Continues page 2

Signature of	Approving	Official
		The second second

Stephanie Suarez, Ph.D., Acting Product Manager 21 Fungicide Branch, Registration Division (7505T)

12/4/23

Date:

EPA Form 8570-6

Page 2 of 2 EPA Reg. No. 100-1737 Case No. 480008

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 100-1737."
  - Add an appropriate EPA Establishment Number and Net Contents information.
- 3. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 3/24/2023
- Alternate CSF 1 dated 3/24/2023

If you have any questions, please contact Carmen Swinger at swinger.carmen@epa.gov.

Enclosure

### [Master Label]

[Start of Front Panel]

OXATHIAPIPROLIN	GROUP	49	FUNGICIDE
MEFENOXAM	GROUP	4	FUNGICIDE

### Orondis® Gold DC

### **Fungicide**

**Active Ingredient:** 

Oxathiapiprolin <sup>1</sup> :	3.37%
Mefenoxam <sup>2</sup> :	<u>10.1%</u>
Other Ingredients:	86.53%
Total:	100.00%

<sup>&</sup>lt;sup>1</sup>CAS No. 1003318-67-9

Orondis® Gold DC is formulated as a dispersible concentrate (DC) and contains 0.29 lb of oxathiapiprolin and 0.88 lb of mefenoxam 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 additional precautionary statements and directions for use [on label] [inside booklet].

EPA Reg. No. 100-XXXX EPA Est.

**Net Contents** [End of Front Panel] ACCEPTED

12/04/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1737

<sup>&</sup>lt;sup>2</sup>CAS Nos. 70630-17-0 and 69516-34-3

### **TABLE OF CONTENTS**

#### 1.0 FIRST AID

### PRECAUTIONARY STATEMENTS

#### 2.0 PRECAUTIONARY STATEMENTS

- 2.1 Hazards to Humans and Domestic Animals
- 2.2 Personal Protective Equipment (PPE)
- 2.3 User Safety Requirements
- 2.4 Engineering Controls
- 2.5 User Safety Recommendations
- 2.6 Environmental Hazards
  - 2.6.1 GROUNDWATER ADVISORY
  - 2.6.2 SURFACE WATER ADVISORY
- 2.7 Physical or Chemical Hazards

### **DIRECTIONS FOR USE**

#### 3.0 PRODUCT INFORMATION

- 3.1 Resistance Management
- 3.2 Integrated Pest Management (IPM)

#### **4.0 APPLICATION DIRECTIONS**

- 4.1 Methods of Application
  - 4.1.1 SOIL APPLICATIONS (IN-FURROW OR BANDED)
- 4.2 Application Equipment
  - 4.2.1 SHIELDED SPRAYERS
- 4.3 Application Volume and Spray Coverage
- 4.4 Mixing Directions
  - 4.4.1 ORONDIS GOLD DC ALONE
  - 4.4.2 TANK-MIX PRECAUTIONS
  - 4.4.3 TANK-MIX COMPATIBILITY
  - 4.4.4 ORONDIS GOLD DC IN TANK MIXTURES
- 4.5 Application through Irrigation Systems (Chemigation)
  - 4.5.1 APPLICATION INSTRUCTIONS FOR IRRIGATION SYSTEMS
  - 4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION
  - 4.5.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS
- 4.6 Sprayer Cleanout

#### **5.0 ROTATIONAL CROP RESTRICTIONS**

- **6.0 RESTRICTIONS AND PRECAUTIONS** 
  - 6.1 Use Restrictions
  - 6.2 Spray Drift Management
    - 6.2.1 GROUND BOOM APPLICATIONS
  - 6.3 Spray Drift Advisories
    - 6.3.1 IMPORTANCE OF DROPLET SIZE

- 6.3.2 CONTROLLING DROPLET SIZE GROUND BOOM
- 6.3.3 BOOM HEIGHT GROUND BOOM
- 6.3.4 SHIELDED SPRAYERS
- 6.3.5 TEMPERATURE AND HUMIDITY
- **6.3.6 TEMPERATURE INVERSIONS**
- 6.3.7 WIND

### 7.0 CROP USE DIRECTIONS

- 7.1 Berries
  - 7.1.1 BUSHBERRY, CROP SUBGROUP 13-07B (EXCEPT LOWBUSH BLUEBERRY)
  - 7.1.2 CANEBERRY, CROP SUBGROUP 13-07A
  - 7.1.3 STRAWBERRY
- 7.2 Cucurbit Vegetables, Crop Group 9
- 7.3 Fruiting Vegetables, Crop Group 8-10
- 7.4 Ginseng
- 7.5 **Hops**
- 7.6 Leafy Greens, Crop Subgroup 4-16A
- 7.7 Potato and Other Tuberous and Corm Vegetables, Crop Subgroup 1C
- 7.8 Specific Tropical and Subtropical Fruits
- 7.9 Stalk and Stem Vegetables, Crop Subgroup 22A (except Celtuce, Fennel, and Kohlrabi)
- 7.10 **Tobacco**
- **7.11 Tree Nuts, Crop Group 14-12**
- **8.0 STORAGE AND DISPOSAL**
- 9.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY
- 10.0 APPENDIX [Optional Text]
  - **10.1 Orondis Gold DC Rate Conversion Chart**
  - **10.2 Orondis Gold DC Use Summary Table**

### 1.0 FIRST AID

FIRST AID					
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>				
If swallowed	<ul> <li>Call a poison control center or doctor for treatment advice.</li> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>				
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
NOTE TO PHYSICIAN:  Probable mucosal damage may contraindicate the use of gastric lavage.  Have the product container or label with you when calling a poison control center or doctor, or going for treatment.					
For	HOTLINE NUMBER 24-Hour Medical Emergency Assistance (Human or Animal) hemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372				

### PRECAUTIONARY STATEMENTS

### 2.0 PRECAUTIONARY STATEMENTS

### 2.1 Hazards to Humans and Domestic Animals

### **CAUTION / PRECAUCIÓN**

Causes moderate eye irritation. Harmful if swallowed. Harmful if 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. Remove and wash contaminated clothing before reuse.

### 2.2 Personal Protective Equipment (PPE)

### Mixers, loaders, applicators, and other handlers must wear:

- Protective eyewear (goggles, face shield, or safety glasses)
- Long-sleeved shirt and long pants
- Shoes and socks
- 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

### 2.3 User Safety Requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow the 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.

### 2.4 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.

### 2.5 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.

### 2.6 Environmental Hazards

This product is toxic to aquatic invertebrates. For terrestrial uses: **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean highwater mark. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

### 2.6.1 GROUNDWATER ADVISORY

Mefenoxam has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### 2.6.2 SURFACE WATER ADVISORY

This product may contaminate water through spray drift due to 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.

### 2.7 Physical or Chemical Hazards

**DO NOT** mix or allow to come in contact with oxidizing agent and water. 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.

Orondis Gold DC must be used only in accordance with instructions on this label, in separately issued labeling or exemptions under FIFRA (Supplemental Labels, Special Local Need Registrations, FIFRA Section 18 Exemptions), or as otherwise permitted by FIFRA. Always read the entire label, including the Conditions of Sale and Limitation of Warranty and Liability.

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 the 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.

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:

- Protective eyewear (goggles, face shield, or safety glasses)
- Coveralls
- Shoes and socks
- 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

### 3.0 PRODUCT INFORMATION

Read all label directions before use. All applications must be made according to the use directions that follow.

- Orondis Gold DC contains oxathiapiprolin and mefenoxam and is for the control or suppression of the diseases listed on this label.
- Orondis Gold DC is active against Oomycete diseases listed on this label and has preventive, residual, eradicative, and anti-sporulant activity.
- Orondis Gold DC is locally systemic, translaminar, and moves systemically in the xylem.
- See **Section 7.0** for specific crop/disease directions.

#### MODE OF ACTION

Orondis Gold DC contains two active ingredients: oxathiapiprolin, which inhibits an oxysterol-binding protein (OSBP) homologue, and mefenoxam, which inhibits RNA polymerase I.

#### **CROP TOLERANCE**

Not all crops within a crop group, and not all varieties, cultivars, or hybrids of crops, have been individually tested for crop safety. It is not possible to evaluate for crop safety all applications of Orondis Gold DC on all crops within a crop group, on all varieties, cultivars, or hybrids of those crops, or under all environmental conditions and growing circumstances. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where

the application is a new use of the product by the applicator.

### 3.1 Resistance Management

For resistance management, please note that Orondis Gold DC contains both a Group 49 [(oxathiapiprolin)] and Group 4 [(mefenoxam)] fungicide. Any fungal population may contain individuals naturally resistant to Orondis Gold DC and other Group 49 or 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 both general and product-specific must be followed.

### Strategies to delay resistance:

- Rotate the use of Orondis Gold DC or other Group 49 and 4 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide(s) from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate 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 Integrated Pest Management (IPM) directions for specific crops and pathogens.
- For further information or to report suspected resistance, contact Syngenta Crop Protection at 1-866-796-4368. You can also contact your pesticide distributor or university extension specialist to report resistance.

### Product-specific strategies to delay resistance:

- Orondis Gold DC applications are to be made preventively.
- **DO NOT** tank-mix Orondis Gold DC with any fungicide for which resistance to the target disease has developed.
- **DO NOT** make more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Where 3 or more fungicide applications are made, **DO NOT** use Orondis Gold DC (or any other FRAC 49-containing product) in more than 33% of the total fungicide applications, or a maximum of 4 applications, whichever is fewer. Where less than 3 fungicide applications are made, **DO NOT** make more than 1 application of Orondis Gold DC (or any other FRAC 49-containing product).
- DO NOT follow soil applications of Orondis Gold DC (or any other FRAC 49-containing

product) with foliar applications of Orondis Opti (EPA Reg. No. 100-1591) or Orondis Ultra (EPA Reg. No. 100-1612) (or any other FRAC 49-containing product).

- **DO NOT** combine different application methods (foliar and soil) when protecting a crop during a growing season.
- **DO NOT** apply more than 4 sprays during one crop cycle.
- **DO NOT** apply more than 6 applications of Orondis Gold DC (or any other FRAC 49-containing product) per year on the same acreage.
- **DO NOT** use Orondis Gold DC (or any other FRAC-49 containing product) in nursery production of transplanted crops.
- For guidance on a particular crop or disease control situation, consult your state extension specialist for official state directions.

### 3.2 Integrated Pest Management (IPM)

Syngenta advises the use of Integrated Pest Management (IPM) programs to control pests. Orondis Gold DC may be used as part of an IPM program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product must be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when disease forecasting models reach locally determined action levels. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine the appropriate management, cultural practice, and treatment threshold levels for the specific crop, geography, and diseases.

### 4.0 APPLICATION DIRECTIONS

### 4.1 Methods of Application

- For suppression or control of soil-borne diseases as specified in this label, Orondis Gold DC must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone.
- When applied to the root/crown zone before, during, or soon after sowing or transplanting the crop, Orondis Gold DC will suppress or control certain seedling root rot and crown diseases that limit crop stand establishment.
- For soil application, apply Orondis Gold DC using chemigation, transplant water application (water wheel or continuous stream transplanters), surface band or directed application, or in-furrow application using the rates in **Table 1**. See table and **Section 4.5** for chemigation instructions.
- If the application method does not move the product to the target root/crown disease zone, the application must be followed with irrigation or cultivation to correctly place the product for disease control.
- Use Orondis Gold DC as a foliar application only where specified in this label.

### 4.1.1 SOIL APPLICATIONS (IN-FURROW OR BANDED)

### In-furrow application:

- Apply Orondis Gold DC as an in-furrow spray in 5-15 gallons of water per acre at planting.
- Mount the spray nozzle so the spray is directed into the furrow just before the seeds are covered.

Table 1: Soil application rates for Orondis Gold DC/1,000 feet of row, based on plant row spacing

Orondis Gold DC Conversion Chart for Drip (Trickle) Chemigation, Continuous Transplant Water, and Direct/Banded/In-Furrow Application							
Corresponding field rate					,000 row ft; ng (in inche		
fl oz/A (lb ai)	30"	34"	36"	48"	60"	72"	84"
7.0	0.4	0.45	0.48	0.6	0.8	0.96	1.1

(0.02 lb ai oxathiapiprolin; 0.05 lb ai mefenoxam)							
14.0 (0.03 lb ai oxathiapiprolin; 0.10 lb ai mefenoxam)	0.8	0.9	0.96	1.28	1.6	1.9	2.2
20.0 (0.05 lb ai oxathiapiprolin; 0.14 lb ai mefenoxam)	1.14	1.3	1.37	1.83	2.3	2.7	3.2
28.0 (0.06 lb ai oxathiapiprolin; 0.19 lb ai mefenoxam)	1.6	1.8	1.9	2.57	3.2	3.85	4.5

### **Transplant Water Application**

- Transplants must be adequately watered before transplanting. Ensure transplant water volume is sufficient to thoroughly wet the root zone.
- See **Table 1** for continuous-stream transplanters. Ensure 4-8 fl oz transplant water/ transplant depending on sandy (4 fl oz) vs silty soil (6-8 fl oz).
- For water-wheel transplanters, use the plant population to determine the rate of product per plant.

#### Example:

$$\frac{28.0 \text{ fl oz product}}{\text{acre}} \times \frac{\text{acre}}{4,356 \text{ plants}} = \frac{0.0064 \text{ fl oz product}}{\text{plant}}$$

### **Surface Band or Directed Application**

- Apply in a 6- to 12-inch band. See **Table 1** for rates.
- Follow application with cultivation or irrigation (0.25 0.5 inch) to move Orondis Gold DC to the target disease zone.

### 4.2 Application Equipment

Orondis Gold DC can be applied using ground equipment, pressurized and hand-held sprayers, and chemigation equipment, except as otherwise directed. Maintain agitation during mixing and application to ensure uniform product suspension.

### 4.2.1 SHIELDED SPRAYERS

- Shielding the boom or individual nozzles can reduce the effects of wind.
- It is the responsibility of the applicator to verify that the shields are minimizing drift potential and not interfering with uniform deposition of the product.

### 4.3 Application Volume and Spray Coverage

See **Section 4.1** for information and **Section 7.0** for directions on specific crops.

### 4.4 Mixing Directions

### 4.4.1 ORONDIS GOLD DC ALONE

- 1. Fill clean spray tank 1/2 2/3 full of water.
- 2. While agitating, add the required amount of Orondis Gold DC, continuing agitation until the product is completely dispersed.
- 3. Continue agitation while adding the remainder of the water. Spray immediately after preparation, continuing agitation during spraying.

### 4.4.2 TANK-MIX PRECAUTIONS

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. User must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Tank mixes of Orondis Gold DC with other pesticides, fertilizers, or any other additives not specifically labelled for use with Orondis Gold DC 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

- Conduct a jar test using a 1 pt to 1 qt container with lid by adding water or other intended carrier including 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 the tank-mixing section, **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, then 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 specified label 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 the storage and disposal section, **Section 8.0**, of this label.

### 4.4.4 ORONDIS GOLD DC IN TANK MIXTURES

- Always follow the tank-mix instructions of the most restrictive product label.
- Apply at least the minimum labeled rate of each pesticide in the tank-mix.
- Consult a Syngenta representative or local agricultural authorities for more information concerning tank mixtures.
- When using a tank-mix, add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.
  - 1. Water-soluble bag (WSB)
  - 2. Water-soluble granules (SG)
  - 3. Water-dispersible granules (WG)
  - 4. Wettable powders (WP)
  - 5. Water-based suspension concentrates (SC)
  - 6. Capsule suspensions (CS)
  - 7. Dispersible concentrates (DC) (Orondis Gold DC)
  - 8. Suspo-emulsions (SE)
  - 9. Oil dispersions (OD)
  - 10. Emulsion in water (EW)
  - 11. Emulsifiable concentrates (EC)
  - 12. Water-soluble concentrates (SL)
  - 13. Adjuvants, surfactants, oils
  - 14. Soluble fertilizers
  - 15. Drift retardants

### 4.5 Application through Irrigation Systems (Chemigation)

### 4.5.1 APPLICATION INSTRUCTIONS FOR IRRIGATION SYSTEMS

- Use only on crops where chemigation is specified on this label.
- Apply this product only through center-pivot, solid-set, hand-move, moving-wheel, drip (trickle), or strip tubing irrigation systems. DO NOT apply this product through any other type of irrigation system.
- [DO NOT inject Orondis Gold DC at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 15 parts water to 1 part Orondis Gold DC in the mix tank. Orondis Gold DC can affect many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used but must be replaced once a year. DO NOT use Viton, nitrile (Buna-N), polyurethane, Neoprene, or PVC seals.]
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply Orondis Gold DC use rates in 0.25-0.5 inches of water per acre. Excessive water may reduce efficacy.
- 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 if the need arises.

### **Center-Pivot Irrigation Equipment**

**Restrictions:** (1) Use only with drive systems which provide uniform water distribution. (2) **DO NOT** use end guns when chemigating Orondis Gold DC through center-pivot systems because of non-uniform application.

### **Irrigation Instructions:**

- Determine the size of the area to be treated.
- Determine the time required to apply 0.25-0.5 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. When applying Orondis Gold DC through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Orondis Gold DC required to treat the area covered by the irrigation system.
- Add the required amount of Orondis Gold DC and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the Orondis Gold DC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the Orondis Gold DC solution has cleared the sprinkler head.

### Solid-Set, Hand-Move, and Moving-Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20- to 30-minute interval. When applying Orondis Gold DC through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Orondis Gold DC required to treat the area covered by the irrigation system.
- Add the required amount of Orondis Gold DC into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Orondis Gold DC solution has cleared the last sprinkler head.

### **Drip (Trickle) Irrigation Instructions**

- Orondis Gold DC must be applied in a manner that ensures the product is in the root zone.
- Orondis Gold DC must be in the root zone to provide effective control of target pests.

- Orondis Gold DC is most effective when it is applied so that the roots are at or near the site of application; manage irrigation so that significant quantities of Orondis Gold DC remain in the root zone.
- A pesticide tank is advised for the application of Orondis Gold DC in drip chemigation systems.
- Ensure the drip chemigation system is operating properly to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local university extension agent, or other experts if you have questions about achieving uniform distribution of the application. This product must be applied uniformly in the root zone or poor performance may result. Drip tape or emitters must be located within or directly adjacent to the root zone.
- In most situations, this product must be applied during the middle 1/3 of the irrigation cycle.
- The minimum injection period is the time that it takes water to move from the injection point to the farthest emitter in the irrigation zone (propagation time). If this time is not known, it can be calculated by measuring the time required for a soluble dye to move from the injection point to the farthest emitter. A longer injection period improves uniformity throughout the zone but requires at least an equal period for water to flush the system and move the product through the soil.

### 4.5.2 OPERATING INSTRUCTIONS FOR CHEMICATION

- 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 backflow preventer, discharge the water from the public water system 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.

### 4.6 Sprayer Cleanout

- Prior to application, start with clean, well-maintained application equipment.
- Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.
- Drain application equipment. Thoroughly rinse and flush all application equipment with clean water.
- Take all necessary safety precautions when cleaning equipment. DO NOT clean near wells, water sources, or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

### 5.0 ROTATIONAL CROP RESTRICTIONS

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

Crop, Crop Group, or Crop Subgroup	Plant-back Interval
Avocados Bushberry (Crop Subgroup 13-07B, except lowbush blueberry) Brassica, Head and Stem (Crop Subgroup 5A) Bulb Vegetables (Crop Group 3-07) Caneberry (Crop Subgroup 13-07A) Cucurbit Vegetables (Crop Group 9) Fruiting Vegetables (Crop Group 8-10) Ginseng Hops Herbs and Spices (Crop Group 19) Leafy Greens (Crop Subgroup 4-16A) Peas, Edible-Podded Peas, Succulent Shelled Stalk and Stem Vegetables (Crop Subgroup 22A) Strawberries Sunflower Tree Nuts (Crop Group 14-12) Tobacco Tuberous and Corm Vegetables (Crop Subgroup 1C)	0 days
Cereals (Crop Groups 15 and 16) Grass Animal Feeds (Crop Group 17)	30 days
Legume Vegetables, except succulent shelled and edible-podded peas Peanuts	180 days
Nongrass Animal Feeds (Crop Group 18) All other crops not listed	365 days

## **6.0** RESTRICTIONS AND PRECAUTIONS

See **Section 7.0** for crop-specific restrictions and precautions.

### 6.1 Use Restrictions

- **DO NOT** use Orondis Gold DC in greenhouse production.
- Maximum usage when applying both metalaxyl- and mefenoxam-containing products to the same crop within the same season: **DO NOT** apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

### 6.2 Spray Drift Management

- The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.
- To avoid spray drift, **DO NOT** apply when conditions favor drift beyond the target area.
- Avoid spray overlap, as injury may occur.

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

### 6.2.1 GROUND BOOM APPLICATIONS

- Apply with the nozzle height directed by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### 6.3 Spray Drift Advisories

### 6.3.1 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.

### 6.3.2 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.

### 6.3.3 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.

### 6.3.4 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.

### 6.3.5 TEMPERATURE AND HUMIDITY

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

### 6.3.6 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.

### 6.3.7 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 Berries

### 7.1.1 BUSHBERRY, CROP SUBGROUP 13-07B (EXCEPT LOWBUSH **BLUEBERRY**)

Crops (including all cultivars, varieties, and/or hybrids of these)					
Aronia berry[*] Blueberry, highbush[*] Buffalo currant[*] Chilean Guava[*] Cranberry, highbush[*] Currant, Black[*] Currant, Red[*] Elderberry[*] European barberry[*]		Gooseberry[*] Honeysuckle, edible[*] Huckleberry[*] Jostaberry[*] Juneberry (Saskatoon berry)[*] Lingonberry[*] Native currant[*] Salal[*] Sea buckthorn[*]			
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions		
Phytophthora root rot (Phytophthora spp.)  **20.0 fl oz is equivaler	20.0 – 55.0**	Soil Application:  New Plantings: Make the first application at planting.  Make a second application at least 30 days later, coinciding with a period favorable for root rot development.  Established Plantings: Make the first application before plants start to grow in the spring.  Make a second application at least 30 days later, coinciding with a period favorable for root rot development.	[(*Not for use in California)]  Apply as a drench, soil-directed spray, or through irrigation water (micro-sprinkler, drip, or flood).  For effective disease control, ensure that the product solution thoroughly wets the target root zone. If the application method does not move the product to the root zone, and rain is not imminent, then follow with irrigation.  See Section 4.1.1 for at-planting or transplant water instructions.  See Section 4.5 for drip irrigation instructions.  [Use a higher rate in fields with a history of <i>Phytophthora</i> disease.]  [Orondis Gold DC will not revitalize plants showing moderate to severe root rot symptoms.]  Use Orondis Gold DC in conjunction with good cultural practices to minimize disease.		

### \*\*55.0 fl oz is equivalent to 0.12 lb oxathiapiprolin; 0.38 lb mefenoxam

**Resistance Management:** 

#### • Refer to Section 3.1.

**Integrated Pest Management:** • Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications: DO NOT** make more than 2 applications at the maximum rate per year.
- 4) Minimum Application Interval: 30 days
- 5) **Maximum Annual Rate:** 110.0 fl oz/A/year (equivalent to 0.25 lb ai/A/year oxathiapiprolin and 0.76 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of soil-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 3.6 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products.
- 6) **DO NOT** use in nursery production of transplanted crops.
- 7) Pre-harvest Interval (PHI): 1 day

### 7.1.2 CANEBERRY, CROP SUBGROUP 13-07A

Crops (including all cultivars, varieties, and/or hybrids of these)					
Blackberry[*]	Loganberry[*	Raspberry, red a black[*]	and Wild raspberry[*]		
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions		
Root Rot ( <i>Phytophthora</i> spp.)	13.7 - 110.0**	New Plantings: Make the first application at planting.  Make a second application during a period favorable for root growth and at least 7 days after the first application.  Established Plantings: Make the first application before plants start to grow in the spring.  Make a second application during a period favorable for root growth and at least 7 days after the first application.	[(*Not for use in California)]  Apply as a banded, soil-directed spray in a minimum of 20 gal/A of water, or via drip or micro-sprinkler irrigation. For banded application, direct the spray along each side of the crop row and direct the application to the soil, near and under the lower leaves. See Section 4.1.1.  [For enhanced control of Phytophthora, add a mefenoxam-containing product to the spray mixture. DO NOT exceed a total of 1.8 lb ai soil-applied mefenoxam per application or per year.]  Orondis Gold DC will not revitalize plants showing moderate to severe root rot symptoms.  Use Orondis Gold DC in conjunction with good cultural practices to minimize disease.		

<sup>\*\*13.7</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.09 lb mefenoxam

#### **Resistance Management:**

• Refer to Section 3.1.

### **Integrated Pest Management:**

Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications: DO NOT** make more than 2 applications at the maximum rate per year.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Rate:** 220.0 fl oz/A/year (equivalent to 0.5 lb ai/A/year oxathiapiprolin and 1.51 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.8 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products.
- 6) Pre-harvest Interval (PHI): 45 days

<sup>\*\*110.0</sup> fl oz is equivalent to 0.25 lb oxathiapiprolin; 0.76 lb mefenoxam

### 7.1.3 STRAWBERRY

Crops (including all o	cultivars, vari	eties, and/or hybrids of these)	
Strawberry			
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Crown rot (Phytophthora cactorum)  Red stele root rot (Phytophthora fragariae)	20.0 – 62.0**	Soil Application: Make up to two applications by drip irrigation.  New Plantings: Make the first application soon after planting when overhead watering for plant establishment has been completed.  Make a second application 30 days before the beginning of harvest or at fruit set.  Established Plantings: Make the first application in the	See <b>Section 4.5</b> for drip irrigation instructions.  [Use a higher rate in fields with a history of <i>Phytophthora</i> disease.]
Leather rot (Phytophthora cactorum)	7.0 – 13.9**	spring before first bloom.  Make a second application after harvest.  Foliar Application:  Provided that Orondis Gold DC was NOT used via soil	Apply by ground application or overhead chemigation.  [Use a higher rate in fields with a
		application, make up to two foliar/soildirected applications: the first at fruit set and, if required, a second during harvest.  athiapiprolin; 0.05 lb mefenoxam xathiapiprolin; 0.10 lb mefenoxam	history of <i>Phytophthora</i> disease.]

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam

#### **Resistance Management:**

- Refer to **Section 3.1**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action
- **DO NOT** follow soil applications of Orondis Gold DC (or any other FRAC 49-containing product) with foliar applications of another oxathiapiprolin-containing product (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.

### **Integrated Pest Management:**

• Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) Maximum Number of Applications per Year:
  - a) Soil Application: DO NOT make more than 2 applications at the maximum rate per year.

<sup>\*\*62.0</sup> fl oz is equivalent to 0.14 lb oxathiapiprolin; 0.43 lb mefenoxam

- b) **Foliar/Fruit Application: DO NOT** make more than 2 applications at the maximum rate per year.
- 4) Minimum Application Interval: 30 days
- 5) **Maximum Annual Rate:** 124.0 fl oz/A/year (equivalent to 0.28 lb ai/A/year oxathiapiprolin and 0.85 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.29 lb ai/A/year of soil-applied or 0.06 lb ai/A/year of foliar/soil-directed oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.5 lb ai/A/year of soil-applied or 0.19 lb ai/A/year of foliar/soil-directed mefenoxam- and metalaxyl-containing products.
- 6) **DO NOT** use in nursery production.
- 7) Pre-harvest Interval (PHI):
   a) Soil Application: 14 days
   b) Foliar Application: 0 days

### 7.2 Cucurbit Vegetables, Crop Group 9

hayote (fruit)	Muskmelon	Squash, summer
ninese waxgourd (Chinese	Cantaloupe	Crookneck Squash
reserving melon)	Casaba	Scallop Squash
on melon	Crenshaw melon	Straightneck Squash
cumber	Golden Pershaw melon	Vegetable Marrow
erkin	Honeydew melon	Zucchini
urd, edible	Honey balls	Squash, winter
mordica spp.	Mango melon	Acorn Squash
alsam apple	Persian melon	Butternut Squash
alsam pear	Pineapple melon	Calabaza
itter melon	Santa Claus melon	Hubbard Squash
hinese cucumber	Snake melon	Spaghetti squash
	True Cantaloupe	Watermelon
	Pumpkin	

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Damping off (Pythium spp.)  Phytophthora blight and crown rot (Phytophthora capsici)	20.0- 55.0**	At-Planting Soil Application by any of the following methods:  In-furrow Banded surface spray – Apply following transplanting or during seeding in a 6- to 12- inch band. Drip irrigation – If using drip irrigation on direct-seeded crops, delay application until after emergence.	See Section 4.1.1 for directions for at-planting applications in-furrow or as a banded soil surface spray.  See Section 4.5 for drip irrigation instructions.  [For enhanced control of <i>Pythium</i> spp., add a mefenoxam-containing product to the spray mixture. DO NOT exceed 1.0 lb ai soil-applied mefenoxam per application or per year.]  [If disease pressure is high, use the highest specified rate.]  [If disease pressure is high, use the shortest interval.]
		inch band.  Drip irrigation – If using drip irrigation on direct-seeded crops, delay application until	spp., add a mefenoxam-containing product to the spray mixture. <b>DO NOT</b> exceed 1.0 lb ai soil-applied mefenoxam per application or per year.]  [If disease pressure is high, use the highest specified rate.]

			[If disease pressure is high, use the shortest interval and highest specified rate.]
Downy mildew (Peronospora cubensis)  Phytophthora blight and crown rot (Phytophthora capsici)	7.0-12.0**	Foliar Application: Provided that Orondis Gold DC was NOT used at planting, make up to two foliar applications at 20- to 30-day intervals. During the period between applications of Orondis Gold DC, maintain disease management with sprays of effective fungicide products containing FRAC codes other than 49 and 4.	Broadcast or Banded Foliar Spray: For ground application, apply in at least 15 gal/A to ensure thorough coverage of the foliage and developing fruit.  [If disease pressure is high, use the highest specified rate.]  [If disease pressure is high, use the shortest interval.]  [If disease pressure is high, use the shortest interval and highest specified rate.]

<sup>\*\*7.0</sup> fl oz is equivalent to 0.02 lb oxathiapiprolin; 0.05 lb mefenoxam

### **Resistance Management:**

- Refer to Section 3.1.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action
- Where 3 or more applications are made, use Orondis Gold DC (or other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

#### **Integrated Pest Management:**

• Refer to Section 3.2.

#### **Precautions:**

- At-planting and post-planting applications may cause some yellowing of cucurbit leaves.
- Avoid application to cucurbits in transplant water since there is a risk of plant injury.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) Maximum Number of Applications per Year:
  - a) Soil Application: DO NOT make more than 1 application at the maximum rate per year.
  - b) Foliar/Fruit Application: DO NOT make more than 4 applications at the maximum rate per year.
- 4) Minimum Application Interval: 20 days
- 5) **Maximum Annual Rate:** 55.0 fl oz/A/year (equivalent to 0.12 lb ai/A/year oxathiapiprolin and 0.38 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of soil-applied or 0.12 lb ai/A/year of foliar-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.0 lb ai/A/year of soil-applied and 0.5 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
- 6) **DO NOT** follow soil applications of Orondis Gold DC with foliar applications of Orondis Gold DC (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.
- 7) On multiple plantings in the same year, **DO NOT** exceed 6 applications per acre per year, ensuring that the annual maximum rates are not exceeded.
- 8) **DO NOT** use Orondis Gold DC in nursery production of transplants.
- 9) Pre-harvest Interval (PHI): 5 days

<sup>\*\*12.0</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.08 lb mefenoxam

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam

<sup>\*\*55.0</sup> fl oz is equivalent to 0.12 lb oxathiapiprolin; 0.38 lb mefenoxam

## $7.3 \; \text{Fruiting Vegetables, Crop Group 8-10}$

Crops (including all cultivars, varieties, and/or hybrids of these)			
African eggplant Bush tomato Cocona Currant tomato Eggplant Garden huckleberry Goji berry		Groundcherry Martynia Naranjilla Okra Pea eggplant Pepino Pepper, bell Pepper, non-bell	Roselle Scarlet eggplant Sunberry Tomatillo Tomato Tree tomato
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Damping off (Pythium spp.) Phytophthora blight and crown rot (Phytophthora capsici)	20.0- 55.0**	At-Planting Soil Application by any of the following methods:  In-furrow Transplant water Banded surface spray – Apply following transplanting or during seeding in a 6- to 12-inch band. Drip irrigation – If using drip on direct-seeded crops, delay application until after emergence.	See Section 4.1.1 for directions for at-planting applications in-furrow, as a banded soil surface spray, or in transplant water.  See Section 4.5 for drip irrigation instructions.  [For enhanced control of <i>Pythium</i> spp., add a mefenoxam-containing product to the spray mixture. DO NOT exceed 0.5 lb ai soil-applied mefenoxam per application and 1.5 lb ai soil-applied mefenoxam per year.]  [If disease pressure is high, use the highest specified rate.]  [If disease pressure is high, use the shortest interval.]
Damping off (Pythium spp.)  Late blight (Phytophthora infestans)  Phytophthora blight and crown rot (Phytophthora capsici)	7.0-12.0**	Post-Planting Soil-Directed Application (provided that Orondis Gold DC was NOT used at planting):  • All fruiting vegetables listed except tomato: Make up to two post-directed applications at a 30-day interval after transplanting.  • Tomato: Make the first application 4-6 weeks after planting and, if needed, a second application up to 4 weeks before harvest, but before the last irrigation.	Banded Spray: 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 product into the root zone.  Shank Application: Apply in liquid fertilizer, shanked in to either side of the plant. Position injector just below the root system to allow developing roots to expand and come in contact with Orondis Gold DC.

During the period between applications of Orondis Gold DC, maintain disease management with sprays of effective fungicide products containing FRAC codes other than 49 and 4.

[If disease pressure is high, use the highest specified rate.]

[If disease pressure is high, use the shortest interval.]

[If disease pressure is high, use the shortest interval and highest specified rate.]

#### **Resistance Management:**

- Refer to Section 3.1.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Where 3 or more applications are made, use Orondis Gold DC (or other FRAC 49-containing product) in no more than 33% of the applications or a maximum of 4 applications, whichever is fewer.

### **Integrated Pest Management:**

• Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) Maximum Number of Applications per Year:
  - a) Soil Application: DO NOT make more than 1 application at the maximum rate per year.
  - b) Foliar/Fruit Application: DO NOT make more than 4 applications at the maximum rate per year.
- 4) Minimum Application Interval:
  - a) All fruiting vegetables listed except tomato: 30 days
  - b) Tomato: 28 days
- 5) **Maximum Annual Rate:** 55.0 fl oz/A/year (equivalent to 0.12 lb ai/A/year oxathiapiprolin and 0.38 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of soil-applied or 0.12 lb ai/A/year of foliar-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.5 lb ai/A/year of soil-applied and 0.5 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
- 6) **DO NOT** follow soil applications of Orondis Gold DC with foliar applications of Orondis Gold DC (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.
- 7) On multiple plantings in the same year, **DO NOT** exceed 6 applications per acre per year, ensuring that the annual maximum rates are not exceeded.
- 8) **DO NOT** use Orondis Gold DC in nursery production of transplants.
- 9) Pre-harvest Interval (PHI): 7 days

<sup>\*\*7.0</sup> fl oz is equivalent to 0.02 lb oxathiapiprolin; 0.05 lb mefenoxam

<sup>\*\*12.0</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.08 lb mefenoxam

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam

<sup>\*\*55.0</sup> fl oz is equivalent to 0.12 lb oxathiapiprolin; 0.38 lb mefenoxam

### 7.4 Ginseng

Ginseng	Crops (including all cultivars, varieties, and/or hybrids of these)			
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions	
Phytophthora root rot (Phytophthora cactorum)	28.0-48.0**	Make a soil drench application as soon as plants begin growing in the spring.  Ideally, time the application prior to a forecast precipitation.	Apply uniformly to the soil surface. Drench in a sufficient volume (at least 100-200 gal/A) to move the product into the root zone. Use a higher drench volume when making applications to beds with straw mulch.  In the absence of precipitation within 24 hours of application, and if overhead irrigation is available, provide 0.25-0.5 inch of water.  [Use a higher rate in areas with a history of <i>Phytophthora</i> .]  Follow the soil application of Orondis Gold DC with a foliar program of other products effective against Phytophthora root rot.	

<sup>\*\*28.0</sup> fl oz is equivalent to 0.06 lb oxathiapiprolin; 0.19 lb mefenoxam

#### **Resistance Management:**

• Refer to Section 3.1.

### **Integrated Pest Management:**

• Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications per Year: DO NOT** make more than 1 application at the maximum rate per year.
- 4) **Maximum Annual Rate:** 48.0 fl oz/A/year (equivalent to 0.11 lb ai/A/year oxathiapiprolin and 0.33 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 0.38 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
- 5) **DO NOT** follow soil applications of Orondis Gold DC with foliar applications of Orondis Gold DC (or any other FRAC 49-containing product).
- 6) Pre-harvest Interval (PHI): 14 days

<sup>\*\*48.0</sup> fl oz is equivalent to 0.11 lb oxathiapiprolin; 0.33 lb mefenoxam

### **7.5 Hops**

Crops (including all cultivars, varieties, and/or hybrids of these)					
Hops [(Not for use in Ca	Hops [(Not for use in California)]				
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions		
Downy mildew (soil/crown phase) (Pseudoperonospora humuli)  Phytophthora root rot (Phytophthora spp.)	20.0- 36.0**	New Plantings  Make a single soil application at plantings  Established Plantings  Make a single soil application as soon as plants begin growing in the spring.	Apply as a drench, soil-directed spray, or through irrigation water (micro-sprinkler or drip).  For effective disease control, ensure that the product solution thoroughly wets the target root zone. If the application method does not move the product to the root zone, and rain is not imminent, then follow with irrigation.  See Section 4.1.1 for at-planting instructions. See Section 4.5 for drip irrigation instructions.  Use a higher rate in fields with a history of disease.  Use Orondis Gold DC in conjunction with good cultural practices to minimize disease.		
Downy mildew (Pseudoperonospora humuli)	7.0 – 12**	Foliar Application:  Provided that Orondis Gold DC was NOT used via soil application, make up to three foliar applications on 7- to 10- day interval, beginning prior to disease development.	Apply by ground, air assisted, or air blast application. Use sufficient volume to provide thorough coverage of the foliage and increase the volume as plants develop.  The addition of a spreading/penetrating type of adjuvant (including a non-ionic surfactant, organosilicone, or blend) at labeled agricultural use rates may enhance disease control.  Use a higher rate when conditions are favorable for disease development, for longer application intervals, or for susceptible varieties.		

<sup>\*\*7.0</sup> fl oz is equivalent to 0.02 lb oxathiapiprolin; 0.05 lb mefenoxam

### **Resistance Management:**

- Refer to Section 3.1.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- **DO NOT** follow soil applications of Orondis Gold DC (or any other FRAC 49-containing product) with foliar applications of another oxathiapiprolin-containing product (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.
- Where 3 or more applications are made, use Orondis Gold DC (or other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 3 applications, whichever is fewer.

<sup>\*\*12.0</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.08 lb mefenoxam

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam

<sup>\*\*36.0</sup> fl oz is equivalent to 0.08 lb oxathiapiprolin; 0.25 lb mefenoxam

### **Integrated Pest Management:**

Refer to Section 3.2.

#### **USE RESTRICTIONS**

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) Maximum Number of Applications per Year:
  - a) Soil Application: DO NOT make more than 1 application at the maximum rate per year.
  - b) Foliar/Fruit Application: DO NOT make more than 3 applications at the maximum rate per year.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Rate:** 36.0 fl oz/A/year (equivalent to 0.08 lb ai/A/year oxathiapiprolin and 0.25 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.25 lb ai/A/year of soil-applied or 0.09 lb ai/A/year of foliar-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 0.25 lb ai/A/year of soil-applied and 0.5 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
- 6) Pre-harvest Interval (PHI): 45 days

### 7.6 Leafy Greens, Crop Subgroup 4-16A

Crops (including all cultivars, varieties, and/or hybrids of these)

Amaranth, Chinese Amaranth, leafy Aster, Indian Blackjack Cat's whiskers Cham-chwi Cham-na-mul Chervil, fresh leaves Chipilin Chrysanthemum, garla Cilantro, fresh leaves Corn salad Cosmos	nd	Dang-gwi, leaves Dillweed Dock Dol-nam-mul Ebolo Endive Escarole Fameflower Feather cockscomb Good King Henry Huauzontle Jute, leaves	Lettuce, head Lettuce, leaf Orach Parsley, fresh leaves Plantain, buckhorn Primrose, English Purslane, garden Purslane, winter Radicchio Spinach Spinach, Malabar Spinach, New Zealand Spinach, tanier Swiss Chard Violet, Chinese leaves
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Damping off ( <i>Pythium</i> spp.)	13.9-27.8**	At-Planting Soil Application by any of the following methods:  In-furrow Transplant water Banded surface spray – Apply following transplanting or during seeding in a 6- to 12-inch band.  Drip irrigation – If using drip on direct-seeded crops, delay application until after emergence.	See Section 4.1.1 for directions for at-planting applications infurrow, as a banded surface soil spray, or in transplant water. Follow applications with overhead sprinkler irrigation within 24 hours to move the product into the soil profile.  See Section 4.5 for drip irrigation instructions.  [For enhanced control of <i>Pythium</i> spp., add a mefenoxamcontaining product to the spray mixture. DO NOT exceed 1.0 lb

	ai soil applied mefenoxam per application or per year.]
	[If disease pressure is high, use the highest specified rate.]

<sup>\*\*13.9</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.10 lb mefenoxam \*\*27.8 fl oz is equivalent to 0.06 lb oxathiapiprolin; 0.19 lb mefenoxam

### **Resistance Management:**

Refer to Section 3.1.

#### **Integrated Pest Management:**

• Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications: DO NOT** make more than 2 applications at the maximum rate per year, 1 application per crop.
- 4) **Maximum Annual Rate:** 27.8 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.19 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl-containing products.
- 5) **DO NOT** use Orondis Gold DC in nursery production of transplants.
- 6) **DO NOT** follow soil applications of Orondis Gold DC with foliar applications of Orondis Gold DC (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.
- 7) Pre-harvest Interval (PHI):
  - a) 7 days (except spinach);
  - b) Spinach 21 days **or** 3 days **only if** soil application does not exceed the equivalent of 1.0 lb ai/A/year and foliar application does not exceed 0.25 lb ai/A/year of mefenoxam- and metalaxyl-containing products

# 7.7 Potato and Other Tuberous and Corm Vegetables, Crop Subgroup 1C

Crops (including all cultivars, varieties, and/or hybrids of these)				
Arracacha Arrowroot Artichoke, Chinese Artichoke, Jerusaler Canna, edible Cassava, bitter and	C D n Lo G	hayote (root) hufa asheen (taro) eren iinger otato	Sweet potato Tanier Turmeric Yam bean Yam, true	
,	Rate			
Target Disease	(fl oz/A)	Application Timing	Use Directions	
Pink rot (Phytophthora erythroseptica)  Pythium leak	13.9-48.0**	At-Planting Soil Application: Apply infurrow at planting.	Apply as a 6- to 8-inch band directly over the seed pieces in the furrow and then close the furrows. Make application in 3-15 gal/A. Refer to <b>Section 4.1.1</b> for additional	
( <i>Pythium</i> spp.)			instructions on in-furrow application.	
Pythium seedling disease ( <i>Pythium</i> spp.)			Use a higher rate in fields with a history of pink rot or Pythium leak.	
			You may need to follow this in-furrow application of Orondis Gold DC with a foliar application of a different product, including a mefenoxamcontaining product (e.g., Ridomil Gold® Bravo® SC (EPA Reg. No. 100-1221)). Refer to the label for specific use instructions at tuber initiation:  • when conditions are conducive for disease development;  • when the variety is susceptible or moderately susceptible to pink rot or Pythium leak; or  • in areas with a long growing season.	
Late blight (Phytophthora infestans)  Pink rot (Phytophthora erythroseptica)  Pythium leak (Pythium spp.)	7.0-12.0**	Foliar Application: Provided that Orondis Gold DC was NOT used at planting, make up to two post-planting foliar applications.  Make the first foliar application at tuber initiation (Growth Stage III) and prior to tubers being larger in size than the diameter of a nickel. Make a second application 14 days later. Apply the labeled rate of a protectant	Use a higher rate when environmental conditions favor disease development and in fields with a history of pink rot or Pythium leak.  Apply by ground or chemigation. For ground application, apply at least 15 gal/A. For information on chemigation, see Section 4.5.	

	fungicide between the Orondis Gold DC	
	applications.	

<sup>\*\*7.0</sup> fl oz is equivalent to 0.02 lb oxathiapiprolin; 0.05 lb mefenoxam

#### **Resistance Management:**

- Refer to Section 3.1.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- **DO NOT** follow soil applications of Orondis Gold DC (or any other FRAC 49-containing product) with foliar applications of another oxathiapiprolin-containing product (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.
- Where 3 or more applications are made, use Orondis Gold DC (or other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

#### **Integrated Pest Management:**

Refer to Section 3.2.

#### **USE RESTRICTIONS**

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) Maximum Number of Applications per Year:
  - a) Soil Application: DO NOT make more than 1 application at the maximum rate per year.
  - b) Foliar/Fruit Application: DO NOT make more than 4 applications at the maximum rate per year.
- 4) Minimum Application Interval: 14 days
- 5) **Maximum Annual Rate:** 48.0 fl oz/A/year (equivalent to 0.11 lb ai/A/year oxathiapiprolin and 0.33 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.25 lb ai/A/year of soil-applied or 0.12 lb ai/A/year of foliar-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 0.34 lb ai/A/year of soil-applied and 0.4 lb ai/A/year of foliar-applied mefenoxam- and metalaxyl-containing products.
- 6) Pre-harvest Interval (PHI): 14 days

### 7.8 Specific Tropical and Subtropical Fruits

Crops (including all cultivars, varieties, and/or hybrids of these)				
Avocado Black Sapote Canistel	Mango Papaya Star Apple			
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions	
Phytophthora root and crown rot ( <i>Phytophthora</i> spp.)	20.0 – 55.0**	Resets or New Plantings: Make the first soil application at planting and up to one additional application 3 months later, coinciding with a root growth flush.  Established Plantings: Make up to two soil	Apply as a drench or soil spray under the canopy around the base of the tree to the zone of maximum root density, or through irrigation water (micro-sprinkler, drip, or flood).  For effective disease control, ensure that the product solution thoroughly	

applications on a 3-month

wets the target root zone. If the

<sup>\*\*12.0</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.08 lb mefenoxam

<sup>\*\*13.9</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.10 lb mefenoxam

<sup>\*\*48.0</sup> fl oz is equivalent to 0.11 lb oxathiapiprolin; 0.33 lb mefenoxam

interval, coinciding with root growth flush.	application method does not move the product to the root zone, and rain is not imminent, then follow with irrigation.
--	--

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam \*\*55.0 fl oz is equivalent to 0.12 lb oxathiapiprolin; 0.38 lb mefenoxam

### **Resistance Management:**

- Refer to Section 3.1.
- **DO NOT** follow soil applications of Orondis Gold DC (or any other FRAC 49-containing product) with foliar applications of another oxathiapiprolin-containing product (or any other FRAC 49-containing product). Use either soil applications or foliar applications but not both for disease control.

#### **Integrated Pest Management:**

Refer to Section 3.2.

- Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications Per Year: DO NOT** make more than 2 applications at the maximum rate per year.
- 4) Minimum Application Interval: 90 days
- 5) **Maximum Annual Rate:** 110.0 fl oz/A/year (equivalent to 0.25 lb ai/A/year of soil-applied oxathiapiprolin and 0.76 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.25 lb ai/A/year of soil-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 6.0 lb ai/A/year of mefenoxam- and metalaxyl-containing products for avocado, or 3.0 lb ai/A/year of mefenoxam for other crops listed.
- 6) **DO NOT** use in nursery production of transplanted crops.
- 7) **Pre-harvest Interval (PHI):** 30 days

# 7.9 Stalk and Stem Vegetables, Crop Subgroup 22A (except Celtuce, Fennel, and Kohlrabi)

Crops (including all cultivars, varieties, and/or hybrids of these)				
Agave[*] Aloe vera[*] Asparagus[*]	Bamboo shoots[*] Fern, edible, fiddlehead[*] Kale, sea[*]		Palm hearts[*] Prickly pear, pads[*] Prickly pear, Texas, pads[*]	
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions	
Phytophthora root rot (Phytophthora spp.)	13.7-73.0**	New Plantings: Use as a crown soak prior to planting.	[(*Not for use in California)]  Use 10 gallons of solution, or the volume required to fully submerge 100 crowns.  To determine the amount of product needed to treat 100 crowns, first determine the number of plants per acre using typical plant spacing.  Then use the following formula: (100 ÷ number plants per acre) x use rate = product needed to treat 100 crowns in 10 gallons of solution.  Make a crown soak solution in a large enough container to ensure that the crowns are fully submerged.  Place the crowns in this fungicide solution and soak for a minimum of 10 minutes.	
		Established Plantings: Make the first application to established asparagus beds at least 14 days prior to harvest (first cutting).  Make a second application on the day before the first cutting.	Apply as a soil-directed banded spray in a minimum of 20 gal/A of water.  The application is to be made at the per acre rate concentrated in a band.  Apply ½ - ½ inch of water after application, either by overhead sprinkler irrigation or garden hose drench on the row.	

Orondis Gold DC may be applied by drip irrigation using the following directions:  • Apply 1/2 acre-inch of water alone.  • Then apply the first 1/4 - 1/3 of the irrigation water with Orondis Gold DC.  • Finally, apply the final 2/3 – 3/4 of the irrigation water without Orondis Gold DC.
Refer to <b>Section 4.5</b> for additional drip irrigation instructions.

<sup>\*\*13.7</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.09 lb mefenoxam \*\*73.0 fl oz is equivalent to 0.17 lb oxathiapiprolin; 0.5 lb mefenoxam

#### **Resistance Management:**

• Refer to Section 3.1.

#### **Integrated Pest Management:**

• Refer to Section 3.2.

#### **USE RESTRICTIONS**

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications: DO NOT** make more than 2 Orondis Gold DC applications per year.
- 4) Minimum Application Interval: 14 days
- 5) **Maximum Annual Rate:** 146.0 fl oz/A/year (equivalent to 0.33 lb ai/A/year oxathiapiprolin and 1.0 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.0 lb ai/A/year of soil-applied mefenoxam- and metalaxyl- containing products.
- 6) Pre-harvest Interval (PHI): 1 day

### 7.10 Tobacco

Crops (including all cultivars, varieties, and/or hybrids of these)					
Tobacco					
Target Disease	Rate (fl oz/A)	Application Timing	Use Directions		
Black shank (Phytophthora parasitica var. nicotianae)  Pythium seedling disease (Pythium spp.)	13.9-27.8**	At-Planting Soil Application: In-furrow Pre-Plant Incorporated Transplant water	For control of black shank, apply in transplant water while planting tobacco seedlings. Apply in at least 200 gallons of transplant water per acre.  Apply as a broadcast application to the soil and incorporate into the top 2-4 inches of soil prior to planting.  Use a higher rate if the disease epidemic is expected to be severe. Follow with an additional application of a fungicide outside of FRAC 49 (e.g., Ridomil Gold SL (EPA Reg.		

			No. 100-1202)) at first cultivation and/or layby if necessary.  For effective disease control, apply in a sufficient volume to move the product to the root zone.
Black shank (Phytophthora parasitica var. nicotianae)  Blue mold (Peronospora tabacina)	7.0-36.0**	Post-Planting Soil- Directed or Banded Application: Provided that Orondis Gold DC was NOT used at planting, make one application at first cultivation or at layby.	Use a higher rate in fields with a history of disease, on heavier soils, and on susceptible varieties.  Position the nozzles so the spray is directed to the soil under the lower leaves and covered with soil by the cultivator.  For ground application, apply in at least 20 gallons per acre.

<sup>\*\*7.0</sup> fl oz is equivalent to 0.02 lb oxathiapiprolin; 0.05 lb mefenoxam

#### **Resistance Management:**

• Refer to Section 3.1.

#### **Integrated Pest 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.
- Pre-mixing Orondis Gold DC in a tank separate from the transplant water source tank will help to prevent negative interactions with fertilizers or other pesticides in the transplant water solution.
- Avoid application to stressed seedlings or during hot and dry conditions due to injury potential.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications per Year: DO NOT** make more than 1 application at the maximum rate per year.
- 4) **Maximum Annual Rate:** 36.0 fl oz/A/year (equivalent to 0.08 lb ai/A/year oxathiapiprolin and 0.25 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.5 lb ai/A/year of soil-applied or 0.12 lb ai/A/year of foliar-applied oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 1.5 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
- 5) **DO NOT** use Orondis Gold DC for black shank control in PA.
- 6) **DO NOT** follow soil applications of Orondis Gold DC with foliar applications of Orondis Gold DC (or any other FRAC 49-containing product).

<sup>\*\*13.9</sup> fl oz is equivalent to 0.03 lb oxathiapiprolin; 0.10 lb mefenoxam

<sup>\*\*27.8</sup> fl oz is equivalent to 0.06 lb oxathiapiprolin: 0.19 lb mefenoxam

<sup>\*\*36.0</sup> fl oz is equivalent to 0.08 lb oxathiapiprolin; 0.25 lb mefenoxam

### 7.11 Tree Nuts, Crop Group 14-12

Crops (including all cultivars, varieties, and/or hybrids of these)					
African nut-tree[*]	Coconut[*]	Monkey puzzle nut[*]			
Almond[*]	Coquito nut[*]	Okari nut[*]			
Beechnut[*]	Dika nut[*]	Pachira nut[*]			
Brazil nut[*]	Ginkgo[*]	Peach palm nut[*]			
Brazilian Pine[*]	Guiana Chestnut[*]	Pecan[*]			
Bunya[*]	Hazelnut (Filbert)[*]	Pequi[*]			
Bur Oak[*]	Heartnut[*]	Pili Nut [*]			
Butternut[*]	Hickory nut[*]	Pine nut[*]			
Cajou nut[*]	Japanese horse-chestnut[*]	Pistachio[*]			
Candlenut[*]	Macadamia Nut[*]	Sapucaia nut[*]			
Cashew[*]	Mongongo nut[*]	Tropical almond[*]			
Chestnut[*]	Monkey-pot[*]	Walnut, black[*]			
Chinquapin[*]		Walnut, English[*]			
		Yellowhorn[*]			

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Phytophthora root and crown rot ( <i>Phytophthora</i> spp.)	20.0 – 55.0**	Resets or New Plantings: Make the first soil application at planting and up to one additional application 2-6 months later, coinciding with a root growth flush.	[(*Not for use in California)]  Apply as a drench or soil spray under the canopy around the base of the tree to the zone of maximum root density, or through irrigation water (micro-sprinkler, drip, or flood)
		Established Plantings: Make up to two soil applications at a 2- to 6- month interval, coinciding with root growth flush.	drip, or flood).  For effective disease control, ensure that the product solution thoroughly wets the target root zone. If the application method does not move the product to the root zone, and rain is not imminent, then follow with irrigation.

<sup>\*\*20.0</sup> fl oz is equivalent to 0.05 lb oxathiapiprolin; 0.14 lb mefenoxam

### **Resistance Management:**

• Refer to **Section 3.1.** 

### **Integrated Pest Management:**

Refer to Section 3.2.

- 1) Refer to **Section 6.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: DO NOT exceed the maximum rate listed in the table.
- 3) **Maximum Number of Applications per Year**: **DO NOT** make more than 2 applications at the maximum rate per year.
- 4) Minimum Application Interval: 30 days
- 5) **Maximum Annual Rate:** 110.0 fl oz/A/year (equivalent to 0.25 lb ai/A/year oxathiapiprolin and 0.76 lb ai/A/year mefenoxam)
  - a) **DO NOT** apply more than 0.25 lb ai/A/year of oxathiapiprolin-containing products.
  - b) **DO NOT** apply more than 6.0 lb ai/A/year of mefenoxam- and metalaxyl-containing products.
- 6) **DO NOT** use in nursery production of transplanted crops.
- 7) Pre-harvest Interval (PHI): 30 days

<sup>\*\*55.0</sup> fl oz is equivalent to 0.12 lb oxathiapiprolin; 0.38 lb mefenoxam

### 8.0 STORAGE AND DISPOSAL

#### STORAGE AND DISPOSAL

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

### **Pesticide Storage**

Keep container closed when not in use. Always store pesticides in the original container only, away from other pesticides, food, pet food, feed, seed, fertilizers, and veterinary supplies. If a leaky container must be contained within another, mark the outer container to identify the contents. Storage areas must be locked and secure from vandalism, with precautionary signs posted. The storage area must be dry, well-lit, and well-ventilated. Keep pesticide storage areas clean. Clean up any spills promptly. Protect pesticide containers from extreme heat and cold. Store herbicides, insecticides, and fungicides in separate areas within the storage unit. Place liquid formulations on lower shelves and dry formulations above. Maintaining a spill kit and fire extinguisher on hand and having emergency phone numbers posted will allow you to be prepared for emergencies. If spill cleanup PPE is stored nearby, but outside the pesticide storage area, it must be accessible when needed.

### **Pesticide Disposal**

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

### 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 incineration, 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 incineration, 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 the 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 pressure 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.

# 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.

### 10.0 APPENDIX [Optional Text]

[Start of Optional Text]

### 10.1 Orondis Gold DC Rate Conversion Chart

fl oz product/A	lb ai/A	lb ai/A	
	mefenoxam	oxathiapiprolin	per gallon
7.0	0.05	0.02	18.3
12.0	0.08	0.03	10.7
13.7	0.09	0.03	9.3
13.9	0.10	0.03	9.2
20.0	0.14	0.05	6.4
27.8	0.19	0.06	4.6
28.0	0.19	0.06	4.6
36.0	0.25	0.08	3.6
48.0	0.33	0.11	2.7
55.0	0.38	0.12	2.3
62.0	0.43	0.14	2.1
73.0	0.50	0.17	1.8
110.0	0.76	0.25	1.2
124.0	0.85	0.28	1.0
146.0	1.00	0.33	0.9
220.0	1.51	0.50	0.6

### 10.2 Orondis Gold DC Use Summary Table

IMPORTANT: The table below is a summary of the Crop Use Directions for Orondis Gold DC. However, it is important for the user to read and follow the complete instructions contained within this label.

Crop or Crop Group/Subgroup with examples	Maximum Single Application Rate (Ib ai/A)		Maximum Annual Rate (Ib ai/A/year)		Minimum Application Interval	Pre- harvest Interval
	Mefenoxam	Oxathiapiprolin	Mefenoxam	Oxathiapiprolin	(days)	(PHI, days)
Bushberry, Crop Subgroup 13- 07B[*], except lowbush blueberry Blueberry, highbush	0.38 soil	0.12 soil	3.6 soil	0.50 soil	30	1
Caneberry, Crop Subgroup 13- 07A[*] Blackberry Raspberry	0.76 soil	0.25 soil	1.8 soil	0.50	7	45
Strawberry	0.43 soil 0.10 foliar	0.14 soil 0.03 foliar	1.5 soil 0.19 foliar	0.29 soil 0.06 foliar	30	14 soil 0 foliar
Cucurbit Vegetables, Crop Group 9: cucumber, pumpkin	0.38 soil 0.08 foliar	0.12 soil 0.03 foliar	1.0 soil 0.5 foliar	0.50 soil 0.12 foliar	20	5
Fruiting Vegetables, Crop Group 8-10: eggplant, peppers	0.38 soil 0.08 foliar	0.12 soil 0.03 foliar	1.5 soil 0.5 foliar	0.50 soil 0.12 foliar	30 for all fruiting veg except tomato, 28 for tomato	7
Ginseng	0.33 soil	0.11 soil	0.38	0.50	NA	14
Hops[*]	0.25 soil 0.08 foliar	0.08 soil 0.03 foliar	0.25 soil 0.5 foliar	0.25 soil 0.09 foliar	7	45
Leafy Greens, Crop Subgroup 4-16A: Lettuce Spinach	0.19 soil	0.06 soil	1.0 soil	0.50	NA	7 (except spinach), Spinach 21 or 3 (see Section 7.6)
Potato and Other Tuberous and Corm Vegetables, Crop Subgroup 1C Potato	0.33 soil 0.08 foliar	0.11 soil 0.03 foliar	0.34 soil 0.4 foliar	0.25 soil 0.12 foliar	14	14
Specific Tropical and Subtropical Fruits: Avocados, Black Sapote, Canistel, Mango, Papaya, and Star Apple only	0.38 soil	0.12 soil	3.0 for all tropical fruits except avocado, 6.0 for avocado	0.25 soil	90	30

Stalk and Stem Vegetables, Crop Subgroup 22A[*] (except Celtuce, Fennel, and Kohlrabi)	0.5 soil	0.17 soil	1.0 soil	0.5	14	1
Tobacco	0.25 soil	0.08 soil	1.5	0.50 soil 0.12 foliar	NA	NA
Tree Nuts Crop Group 14-12[*] Almond Pecan	0.38 soil	0.12 soil	6.0	0.25	30	30

#### \*Not for Use in California

### [End of Optional Text]

Orondis®, Ridomil Gold®, the ALLIANCE FRAME the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

Bravo® is a trademark of Makhteshim Agan of North America, Inc., d/b/a ADAMA

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

### ©20XX Syngenta

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

Orondis Gold DC XXXX NEW-C 1022-CL -- JVB -- 11/16/2023 000100-0XXXX.20221031C.ORONDIS\_GOLD\_DC.NEW-1022-CL.pdf