OXATHIAPIPROLIN	GROUP	49	FUNGICIDE
MANDIPROPAMID	GROUP	40	FUNGICIDE

PULL HERE
TO OPEN

Orondis® Ultra

syngenta®

Fungicide

Active Ingredients:

Oxathiapiprolin[1]	2.77%
Mandipropamid[2]:	23.10%
Other Ingredients:	74.13%
Total:	100.00%

[1]CAS No. 1003318-67-9
[2]CAS No. 374726-62-2

Orondis® Ultra is formulated as a suspension concentrate and contains 0.25 lb of oxathiapiprolin and 2.08 lb of mandipropamid per gallon.

KEEP OUT OF REACH OF CHILDREN.

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1612

EPA Est. No. 100-NE-001

SCP 1612A-L1B 0820
4125818

1 gallon
Net Contents

®

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DIRECTIONS FOR USE *(continued)*

1.0 FIRST AID

FIRST AID
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
HOTLINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-888-8372**

PRECAUTIONARY STATEMENTS

2.0 PRECAUTIONARY STATEMENTS

2.1 Personal Protective Equipment (PPE)

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

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

2.2 User Safety Requirements

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.

2.3 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.

2.4 User Safety Recommendations

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

2.5 Environmental Hazards

This product is toxic to aquatic invertebrates. For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. This product may contaminate water through spray drift caused by wind.

2.5.1 SURFACE WATER ADVISORY

This product has a 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 such as 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 forecasted to occur within 48 hours.

DIRECTIONS FOR USE

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

Orondis Ultra must be used only in accordance with instructions on this label, in separately issued labeling or exemptions under FIFRA (Supplemental Labels, Special Local Need Registration, 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.

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE), and 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 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC), 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 Ultra is a suspension concentrate containing oxathiapiprolin and mandipropamid and is for use by foliar application for the control or suppression of the diseases listed on this label.
- Orondis Ultra is active against Oomycete diseases listed on this label.
- Orondis Ultra is a systemic fungicide and moves systemically in the plant xylem. Uptake into the leaf tissue allows good translaminar movement and protection of new plant growth.
- Orondis Ultra must be applied in a regularly scheduled protective spray program in rotation with other fungicides.
- See **Section 7.0** for specific crop/disease directions.

RAINFASTNESS

Orondis Ultra rapidly penetrates into plant tissues and is rainfast within 30 minutes after spray residues have dried.

MODE OF ACTION

Orondis Ultra contains two active ingredients: oxathiapiprolin, which inhibits an oxysterol-binding protein (OSBP) homologue, and mandipropamid, a cell wall biosynthesis inhibitor.

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 Ultra 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 Integrated Pest Management (IPM)

Syngenta recommends the use of Integrated Pest Management (IPM) programs to control pests. Orondis Ultra 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 should 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.

3.2 Resistance Management

OXATHIAPIPROLIN	**GROUP**	**49**	**FUNGICIDE**
MANDIPROPAMID	**GROUP**	**40**	**FUNGICIDE**

For resistance management, please note that Orondis Ultra contains both a Group 49/oxathiapiprolin and Group 40/mandipropamid fungicide. Any fungal population may contain individuals naturally resistant to Orondis Ultra and other Group 49 or Group 40 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 should be followed.

Oxathiapiprolin inhibits an oxysterol-binding protein (OSBP) homologue. Oxysterol-binding proteins are implicated in the movement of lipids between membranes, among other processes. Inhibiting OSBP may disrupt other processes in the fungal cell, such as signaling, maintaining cell membranes, and the formation of more complex lipids that are essential for the cell to survive. Mandipropamid disrupts fungal cell wall biosynthesis by inhibiting cellulose synthase.

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

- Rotate the use of Orondis Ultra or other Group 49 or Group 40 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.

- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

As part of a resistance management strategy:

- Orondis Ultra applications are to be made preventively.
- Do not tank-mix Orondis Ultra 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 Ultra (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 Ultra (or any other FRAC 49-containing product).
- Do not apply more than 4 sprays during 1 crop cycle.
- Do not apply more than 6 applications of Orondis Ultra (or any other FRAC 49-containing product) per year on the same acreage.
- Do not follow soil applications of Orondis Gold (or any other FRAC 49-containing product) with foliar applications of Orondis Ultra (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 use Orondis Ultra (or any other FRAC 49-containing product) in nursery production of transplanted crops.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

4.1.1 FOLIAR APPLICATION (INCLUDING AERIAL APPLICATION)

See **Section 7.0** for specific foliar application instructions.

4.2 Application Equipment

Orondis Ultra can be applied with commonly used ground equipment, hose-end, pressurized, greenhouse and hand-held sprayers, air or chemigation equipment, except as otherwise directed, using sufficient water to obtain thorough coverage of plants. Maintain agitation during mixing and application to assure uniform product suspension.

4.2.1 AIR-ASSISTED (AIR-BLAST) FIELD CROP SPRAYERS

- Air-assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result.
- It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.
- **Note:** Air-assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air-assisted field crop sprayer can be used.

4.2.2 SPRAY TANK CLEAN-OUT

- 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.

4.3 Application Volume and Spray Coverage

See crop use directions (**Section 7.0**) for application volume information.

4.4 Mixing Directions

4.4.1 ORONDIS ULTRA ALONE

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

4.4.2 TANK-MIX PRECAUTIONS

- It is the pesticide user's responsibility to ensure that all products are registered for 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.
- The crop safety of all tank mixtures with Orondis Ultra which may include physically compatible pesticides, fertilizers, adjuvants, and/or additives, has not been tested.
- When using a tank mixture with Orondis Ultra, it is important to understand crop safety.
- To test for crop safety prepare a small volume of the intended tank mixture, apply it to an area of the target crop as directed by both this label and the tank-mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.
- Some materials including oils, surfactants, adjuvants, and pesticide formulations when applied individually, sequentially, or in tank mixtures may solubilize the plant cuticle, facilitate penetration into plant tissue, and increase potential for crop injury.

4.4.3 TANK-MIX COMPATIBILITY

Orondis Ultra is physically compatible with many commonly used fungicides, herbicides, insecticides, biological control products, liquid fertilizers, non-ionic surfactants, crop oils, methylated seed oils and drift control additives. However, since the formulations of products change, it is important to test the physical compatibility of desired tank mixes and check for undesirable physical effects, including settling out or flocculation.

A jar compatibility test is recommended prior to tank mixing with other pesticides and/or adjuvants/additives, in order to ensure the compatibility of Orondis Ultra with other tank-mixed pesticide, adjuvant or fertilizer partners. The recommended procedure for conducting jar tank-mix compatibility tests is as follows:

Compatibility Test: Since pesticides, adjuvants and fertilizers can vary in quality, always **check tank-mix compatibility with tank-mixed partners each time before use**. Be especially careful when using **complete** suspension or fluid fertilizers as carriers, as serious compatibility problems are more likely to occur with these products. Commercial application equipment may improve tank-mix compatibility in some instances. The following test assumes a spray volume of 25 gallons/A. For other spray volumes, make appropriate changes in the components. Check tank-mix compatibility using this procedure:

1. Add 1 pt of carrier (either the water or liquid fertilizer to be used in the spray operation) to each of two clear 1-qt jars with tight lids.
2. To **one** of the jars, add 1/4 teaspoon or 1.2 ml of a commercially available tank-mix compatibility agent approved for this use (1/4 teaspoon is equivalent to 2 pt/100 gallons of spray). Invert the jar, shake or stir gently to ensure thorough mixing.

3. To **both** jars, add the appropriate amount of each tank-mix partner. If more than one tank-mix partner is to be used, add them separately with dry formulations (wettable powders or water dispersible granules) first, followed by liquid flowables, capsule suspensions, emulsifiable concentrates and finally adjuvants. After each addition, invert the jar, shake or stir gently to thoroughly mix. The appropriate amount of each tank-mix partner for this test, is as follows:

   Dry formulations: For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

   Liquid formulations: For each pint to be applied per acre, add 1/2 teaspoon or 2.5 milliliters to each jar.
4. After adding all ingredients, put lids on and tighten, then invert each jar 10 times to fully mix. Let the mixtures stand for 15-30 minutes and then assess by looking for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry dry formulations in water before addition, or (B) add the compatibility agent directly into liquid formulations, before addition to the tank-mixture. If these procedures are followed but incompatibility is still observed, do not use the tank-mixture.

4.4.4 ORONDIS ULTRA IN TANK MIXTURES

- Always follow the tank mix instructions of the product label that is most restrictive.
- Apply at least the minimum labeled rate of each fungicide in the tank mix.
- Consult a Syngenta representative or local agricultural authorities for more information concerning tank mixtures.
- When using in 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) (Orondis Ultra)
  6. Capsule suspension (CS)
  7. Suspo-emulsion (SE)
  8. Oil dispersion (OD)
  9. Emulsion in water (EW)
  10. Emulsifiable concentrates (EC)
  11. Water-soluble concentrates (SL)
  12. Adjuvants, surfactants, oils
  13. Soluble fertilizers
  14. Drift retardants

4.4.5 SPRAY ADDITIVES

- Orondis Ultra may be used with adjuvants except where otherwise indicated in **Section 7.0**, for example, non-ionic surfactants, organosilicone surfactants, and blends at typical agricultural use rates for these adjuvants.
- When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Council of Producers & Distributors of Agrotechnology (CPDA) adjuvant certification is recommended.

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, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

- Apply Orondis Ultra use rates in 0.1 – 0.25 inches per acre. Excessive water may reduce efficacy.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the 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 should the need arise.

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 Ultra 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 $^{1}/_{8}$-$^{1}/_{2}$ inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Orondis Ultra 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 Ultra required to treat the area covered by the irrigation system.
- Add the required amount of Orondis Ultra 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 Ultra 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 Ultra 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 Ultra through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Orondis Ultra required to treat the area covered by the irrigation system.
- Add the required amount of Orondis Ultra 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 Ultra solution has cleared the last sprinkler head.

4.5.2 OPERATING INSTRUCTIONS FOR CHEMIGATION

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

4.5.3 SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
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, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

5.0 ROTATIONAL CROP RESTRICTIONS

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

Crop, Crop Group, or Crop Subgroup	Plant-back Interval (Days)
Basil (fresh and dried) Brassica, Head and Stem Vegetable Group (Crop Group 5-16) Bulb Vegetables (Crop Group 3-07) Citrus Fruit, (Crop-Group 10-10) Cucurbit Vegetables (Crop Group 9) Ginseng Herbs and Spices (Crop Subgroup 19A) Hops Leafy Vegetables (except Brassica Vegetables), (Crop Group 4-16A & B) Specified Fruiting Vegetables including Tomato Tobacco Tuberous and Corm Vegetables (Subgroup 1C)	0
Cereals (Crop Groups 15,16) Grass animal feeds (Crop Group 17) Oilseed (Crop Group 20) Peas, Edible-Podded Peas, Succulent Shelled Strawberries	30
Herbs and Spices (Crop Subgroup 19B) Legume Vegetables, except succulent shelled and edible-podded peas Non-grass Animal feed (Crop Group 18) Peanuts All other crops not listed	180

6.0 RESTRICTIONS AND PRECAUTIONS

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

6.1 Use Restrictions

- Orondis Ultra may be used in greenhouse production of tomatoes. **DO NOT** use in greenhouses on any other crops.
- **DO NOT** formulate this product into other end-use products.

6.2 Spray Drift Management

- To avoid spray drift, do not apply when conditions favor drift beyond the target area.
- 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.
- AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

7.0 CROP USE DIRECTIONS

7.1 Basil, Fresh and Dried

Crop			
Basil			
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Downy mildew (*Peronospora belbahrii*)	5.5-8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	May be applied by ground application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply in at least 15 gallons per acre, increasing spray volume as the plants mature to ensure thorough coverage of the foliage. For ground application, a spreading/ penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates.
*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid *8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid			
Integrated Pest Management • Refer to **Section 3.1**.			
Resistance Management: • Refer to **Section 3.2**. • Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action. • Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control. • When 3 or more applications are made, use Orondis Ultra (or other oxathiapiprolin-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.			
USE RESTRICTIONS			
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate: DO NOT** exceed maximum rate listed. 3) **Maximum Number of Applications per year: DO NOT** make more than 4 applications at the maximum rate per year. 4) **Minimum Application Interval:** 7 days 5) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid) a) **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products. b) **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products per crop cycle. For multiple croppings, apply no more than 2.08 lb/ai/A/year 6) **Pre-harvest Interval (PHI):** 1 day			

7.2 Brassica, Head and Stem Vegetable Group, Crop Group 5-16

Crops (including all cultivars, varieties, and/or hybrids of these)			
Broccoli Brussels sprouts	Cabbage Cabbage, Chinese (Napa)	Cauliflower	
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Downy mildew (*Peronospora parasitica*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer.
- **DO NOT** follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed maximum rate listed.
3) **Maximum Number of Application per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Minimum Application Interval:** 7 days
5) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a) **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b) **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
6) **Pre-harvest Interval (PHI):** 1 day

7.3 Brassica, Leafy Greens, Crop Subgroup 4-16B

Crops (including all cultivars, varieties, and/or hybrids of these)		
Arugala Broccoli raab Broccoli, Chinese Cabbage, Abyssinian Cabbage, seakale Chinese cabbage (bok choy)	Collards Cress, garden Cress, upland Hanover salad Kale Maca Mizuna	Mustard greens Radish, leaves Rape greens Rocket, wild Shepherd's purse Turnip greens Watercress (Not for use in watercress in California)

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Downy mildew (*Peronospora parasitica*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For applications made to watercress, production fields must be drained of water 24 hours prior to application and water must not be reapplied to the field for a minimum of 24 hours following the application. For ground applications, a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates. Surfactant is recommended for Arugula; Cress, garden; Cress upland; and Kale. Refer to **Section 4.4.5** for more information.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed maximum rate listed.
3) **Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Minimum Application Interval:** 7 days
5) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a) **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b) **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 1 day

7.4 Citrus Fruit, Crop Group 10-10

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

Australian desert lime	Lemon	Satsuma mandarin
Australian finger lime	Lime	Sweet lime
Australian round lime	Mediterranean mandarin	Tachibana orange
Brown River finger lime	Mount White lime	Tahiti lime
Calamondin	New Guinea wild lime	Tangelo
Citron	Orange, sour	Tangerine (Mandarin)
Citrus hybrids	Orange, sweet	Tangor
Grapefruit	Pummelo	Trifoliate orange
Japanese summer grapefruit	Russell River lime	Uniq fruit
Kumquat		

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Brown rot (*Phytophthora* spp.)	5.5 – 8.0*	Make single application to fruit before initial signs of brown rot appear. or For post-harvest control of brown rot, apply 0-1 day before harvest.	Make foliar applications by ground or air. Apply in sufficient volume to provide uniform and complete coverage of fruit. When using aerial application, the resulting level and duration of control of these pests could be reduced compared to ground application. Use the higher rate range when applying this product by air.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

continued…

7.4 Citrus Fruit, Crop Group 10-10 *(continued)*

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed maximum rate listed.
3) **Maximum Number of Applications per Year: DO NOT** make more than 1 application per year.
4) **Maximum Annual Rate:** 8.0 fl oz/A/year (equivalent to 0.02 lb ai/A/year oxiathiapiprolin and 0.13 lb ai/A/year mandipropamid)
   a) **DO NOT** apply more than 0.016 lb ai/A/year of oxathiapiprolin-containing products.
   b) **DO NOT** apply more than 0.13 lb ai/A/year of mandipropamid-containing products.
5) **DO NOT** use in citrus nurseries.
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 0 days

7.5 Cucurbit Vegetables, Crop Group 9

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

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

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Downy mildew (*Pseudoperonospora cubensis*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. When targeting downy mildew in a geography where strains exhibit reduced sensitivity to FRAC group 40 active ingredients such as mandipropamid, include a broad spectrum protectant fungicide (e.g. mancozeb) or other effective product in tank-mix with Orondis Ultra. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, the addition of a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend at labeled agricultural use rates may enhance disease control.
Phytophthora blight (*Phytophthora capsici*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval. For protection against fruit rot, make the first application during early fruit development, starting at 1-inch fruit.	Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Orondis Ultra as a foliar spray in a mixture with a copper-based fungicide (at the labeled rate) beginning at first signs of disease or based on local recommendations. Use Orondis Ultra in a program with other registered fungicides with a different mode of action. Use adjuvants as recommended above. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage and developing fruit. For aerial application, apply at least 5 gallons per acre.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

continued…

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

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.
- When 3 or more applications are made, use Orondis Ultra (or other oxathiapiprolin-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

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 on the table.
3) **Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
5) **Minimum Application Interval:** 7 days
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 0 days

7.6 Ginseng

Crop			
Ginseng			
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Phytophthora root rot (*Phytophthora cactorum*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 14-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates for heavy disease pressure conditions and susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, the addition of a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend at labeled agricultural use rates may enhance disease control.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management
- Refer to **Section 3.1**.

Resistance Management:
- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action. Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed the maximum rate listed on the table.
3) **Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
5) **Minimum Application Interval:** 14 days
6) **DO NOT** use on ginseng in California.
7) **DO NOT** use in nursery production of transplanted crops.
8) **Pre-harvest Interval (PHI):** 14 days

7.7 Hops

Crop			
Hops			
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Downy mildew (*Pseudoperonospora humuli*)	5.5 - 8.0*	Begin applications prior to disease development and continue on a 7- to 10-day interval.	Apply as a foliar application by ground, or air assisted (air blast) application. Use the higher rate when conditions are favorable for disease development, for longer application intervals, or for susceptible varieties. See **Section 4.4.5** for adjuvant recommendations.
*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid *8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid			
Integrated Pest Management • Refer to **Section 3.1**.			
Resistance Management: • Refer to **Section 3.2**. • Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action. • Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control. • Where 3 or more fungicide applications are made, use Orondis Ultra (or any other oxathiapiprolin-containing product) in no more than 33% of the applications, or a maximum of 3 applications, whichever is fewer.			
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: DO NOT** make more than 3 applications at the maximum rate per year. 4) **Minimum Application Interval:** 7 days 5) **Maximum Annual Rate:** 24.0 fl oz/A/year (equivalent to 0.05 lb ai/A/year oxathiapiprolin and 0.39 lb ai/A/year mandipropamid) a) **DO NOT** apply more than 0.09 lb ai/A/year of oxathiapiprolin-containing products. b) **DO NOT** apply more than 0.39 lb ai/A/year of mandipropamid-containing products. 6) **DO NOT** use in nursery production of transplanted crops. 7) **Pre-harvest Interval (PHI):** 7 days			

7.8 Leafy Greens, Crop Subgroup 4-16A

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

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Downy Mildew (*Peronospora farinosa*) Downy Mildew (*Bremia lactucae*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

continued…

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

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed maximum listed on the table.
3) **Maximum Number of Application per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Minimum Application Interval:** 7 days
5) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a) **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b) **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 1 day

7.9 Onion, Bulb, Crop Subgroup 3-07A

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

Daylily, bulb	Garlic, great-headed, bulb	Onion, Chinese, bulb
Fritillaria, bulb	Garlic, serpent, bulb	Onion, pearl
Fritillaria, leaves	Lily, bulb	Onion, potato, bulb
Garlic, bulb	Onion, bulb	Shallot, bulb

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Downy mildew (*Peronospora destructor*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid
*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.
- **DO NOT** follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.

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 on the table.
3) **Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
5) **Minimum Application Interval:** 7 days
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 7 days

7.10 Onion, Green, Crop Subgroup 3-07B

Crops (including all cultivars, varieties, and/or hybrids of these)			
Chive, fresh leaves Chive, Chinese, fresh leaves Elegans hosta Fritillaria, leaves Kurrat		Lady's leek Leek Leek, wild Onion, Beltsville bunching Onion, fresh	Onion, green Onion, macrostem Onion, tree, tops Onion, Welsh, tops Shallot, fresh leaves
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Downy mildew (*Peronospora destructor*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend must be added at labeled agricultural use rates.
*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid *8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid			
Integrated Pest Management • Refer to **Section 3.1**.			
Resistance Management: • Refer to **Section 3.2**. • Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action. • Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer. • **DO NOT** follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.			

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product use restrictions. 2) **Maximum Single Application Rate: DO NOT** exceed maximum rate listed on the table. 3) **Maximum Number of Applications per Year: DO NOT** make more than 3 applications at the maximum rate per year. 4) **Maximum Annual Rate:** 24.0 fl oz/A/year (equivalent to 0.05 lb ai/A/year oxathiapiprolin and 0.39 lb ai/A/year mandipropamid) a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products. b. **DO NOT** apply more than 0.39 lb ai/A/year of mandipropamid-containing products. 5) **Minimum Application Interval:** 7 days 6) **DO NOT** use in nursery production of transplanted crops. 7) **Pre-harvest Interval (PHI):** 7 days

7.11 Specified Fruiting Vegetables, including Tomato

Crops (including all cultivars, varieties of these)			
Bush tomato Currant tomato Eggplant Groundcherry		Okra Pepino Pepper, bell (field)	Pepper, non-bell (field) Tomatillo Tomato field and greenhouse Tree tomato
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Buckeye rot (*Phytophthora parasitica*) Late blight (*Phytophthora infestans*) Pepper downy mildew (*Peronospora tabacina*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, the addition of a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend at labeled agricultural use rates may enhance disease control.

continued…

7.11 Specified Fruiting Vegetables, including Tomato *(continued)*

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Phytophthora blight (*Phytophthora capsici*)	5.5 - 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Orondis Ultra as a foliar spray in a mixture with a copper-based fungicide (at the labeled rate) beginning at first signs of disease or based on local recommendations. Orondis Ultra should be used in a program with other registered fungicides with a different mode of action. Use adjuvants as recommended above. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage and developing fruit. For aerial application, apply at least 5 gallons per acre.
Buckeye rot Late blight Phytophthora blight (foliar)	5.5 – 8.0*	Begin foliar applications prior to disease development and continue on a 7- to 10-day interval.	**Greenhouse production of tomatoes:** Use a rate range of 2 – 5 ml (0.07 - 0.167 fl oz or 0.42 tsp - 1 tsp) per gallon of spray per 1518 sq ft.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid

*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control.
- When 3 or more applications are made, use Orondis Ultra (or other oxathiapiprolin-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

USE RESTRICTIONS
1) Refer to **Section 6.1** for additional product 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 4 applications at the maximum rate per year. 4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid) a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products. b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products. 5) **Minimum Application Interval:** 7 days 6) **DO NOT** use in nursery production of transplanted crops. 7) **Pre-harvest Interval (PHI):** 1 day

7.12 Tobacco

Crop			
Tobacco			
Target Disease	**Rate (fl oz/A)**	**Application Timing**	**Use Directions**
Blue mold (*Peronospora tabacina*)	5.5 - 8.0*	Begin applications prior to disease development, and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, the addition of a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend at labeled agricultural use rates may enhance disease control.
*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid *8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid			
Integrated Pest Management • Refer to **Section 3.1**.			

continued…

7.12 Tobacco *(continued)*

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

USE RESTRICTIONS

1) Refer to **Section 6.1** for additional product use restrictions.
2) **Maximum Single Application Rate: DO NOT** exceed the maximum listed rate in the table.
3) **Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
5) **Minimum Application Interval:** 7 days
6) **DO NOT** use on tobacco in California.
7) **DO NOT** use in nursery production of transplanted crops.
8) **Pre-harvest Interval (PHI):** 7 days

7.13 Tuberous and Corm Vegetables, Crop Subgroup 1C

Crops (including all cultivars, varieties, and/or hybrids of these)		
Arracacha	Chayote (root)	Sweet potato
Arrowroot	Chufa	Tanier
Artichoke, Chinese	Dasheen (taro)	Turmeric
Artichoke, Jerusalem	Ginger	Yam bean
Canna, edible	Leren	Yam, true
Cassava, bitter and sweet	Potato	

Target Disease	Rate (fl oz/A)	Application Timing	Use Directions
Late blight (*Phytophthora infestans*)	5.5 – 8.0*	Begin applications prior to disease development, and continue on a 7- to 10-day interval.	Orondis Ultra may be applied by ground, or aerial application. Use the higher rates when disease is present, for longer application intervals, or for susceptible varieties. For conventional ground application, apply at least 15 gallons per acre, increasing the spray volume as the plants mature to ensure thorough coverage of the foliage. For aerial application, apply at least 5 gallons per acre. For ground or aerial applications, the addition of a spreading/penetrating type of adjuvant such as a non-ionic surfactant, organosilicone, or blend at labeled agricultural use rates may enhance disease control.

*5.5 fl oz is equivalent to 0.01 lb oxathiapiprolin and 0.09 lb mandipropamid

*8 fl oz is equivalent to 0.02 lb oxathiapiprolin and 0.13 lb mandipropamid

Integrated Pest Management

- Refer to **Section 3.1**.

Resistance Management:

- Refer to **Section 3.2**.
- Make no more than 2 sequential applications before rotating to a fungicide with a different mode of action.
- Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of oxathiapiprolin-containing products. Use either soil applications or foliar applications but not both for disease control
- Where 3 or more fungicide applications are made, use Orondis Ultra (or any other FRAC 49-containing product) in no more than 33% of the applications, or a maximum of 4 applications, whichever is fewer.

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: DO NOT** make more than 4 applications at the maximum rate per year.
4) **Maximum Annual Rate:** 32.0 fl oz/A/year (equivalent to 0.06 lb ai/A/year oxathiapiprolin and 0.52 lb ai/A/year mandipropamid)
   a. **DO NOT** apply more than 0.12 lb ai/A/year of oxathiapiprolin-containing products.
   b. **DO NOT** apply more than 0.52 lb ai/A/year of mandipropamid-containing products.
5) **Minimum Application Interval:** 7 days
6) **DO NOT** use in nursery production of transplanted crops.
7) **Pre-harvest Interval (PHI):** 14 days

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 will 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 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.

For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

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

OXATHIAPIPROLIN	GROUP	49	FUNGICIDE
MANDIPROPAMID	GROUP	40	FUNGICIDE

Orondis® Ultra

Fungicide

Active Ingredients:

Oxathiapiprolin[1]	2.77%
Mandipropamid[2]:	23.10%
Other Ingredients:	74.13%
Total:	100.00%

[1]CAS No. 1003318-67-9
[2]CAS No. 374726-62-2

Orondis® Ultra is formulated as a suspension concentrate and contains 0.25 lb of oxathiapiprolin and 2.08 lb of mandipropamid per gallon.

AGRICULTURAL USE REQUIREMENTS

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

EPA Reg. No. 100-1612
EPA Est. No. 100-NE-001

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

SCP 1612A-L1B 0820
4125818

1 gallon

Net Contents

KEEP OUT OF REACH OF CHILDREN.

See additional precautionary statements and directions for use inside booklet.

FIRST AID Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-888-8372**.

PRECAUTIONARY STATEMENTS

Environmental Hazards: This product is toxic to aquatic invertebrates. For terrestrial uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. This product may contaminate water through spray drift caused by wind.

SURFACE WATER ADVISORY: This product has a 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 such as 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 forecasted to occur within 48 hours.

STORAGE AND DISPOSAL

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

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