

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 3, 2022

Monique T. Inforzato Regulatory Product Manager Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC

Subject: PRIA Label Amendment – Add ornamental flowers and plants; ornamental bulb,

corm, and tuber crops; conifers; Christmas trees; listed fruit and nut trees; and listed berries, fruits, herbs, nuts and vegetable transplants grown for retail sales to

consumers.

Product Name: Palladium

EPA Registration Number: 100-1328

Application Date: 01/13/2022 Decision Number: 581241

Dear Monique T. Inforzato:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5).

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling.

You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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

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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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Senedu Alemu via email at alemu.senedu@epa.gov.

Sincerely,

Nathan Mellor, Product Manager 21

Fungicide Branch

Aute/Miln

Registration Division (7505T)

Office of Pesticide Programs

Enclosure

[MASTER]

CYPRODINIL	GROUP	9	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

Palladium®

Fungicide

For control of Botrytis and other diseases of ornamental flowers and plants; ornamental bulb, corm, and tuber crops; conifers; Christmas trees; listed fruit and nut trees; and listed berries, fruits, herbs, nuts and vegetable transplants grown for retail sales to consumers.

For application to field- and container-grown plants in greenhouses and nurseries (including shade houses, lath houses, and other outdoor growing structures), evergreen (including conifer) and deciduous tree nurseries, Christmas tree farms, forestry production and plantations, interiorscapes; and ornamentals on golf courses and landscaped areas around institutional, public, commercial and industrial buildings, parks, recreational areas, and athletic fields.

Active Ingredients:

Total:	100.0%
Other Ingredients:	37.5%
Fludioxonil**	25.0%
Cyprodinil*	37.5%

^{*}CAS No. 121552-61-2 **CAS No. 131341-86-1

Palladium is a water-dispersible granule containing 0.375 lb cyprodinil and 0.25 lb fludioxonil per lb product.

KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional Precautionary Statements and Directions for Use inside booklet.

EPA Reg. No. 100-1328

EPA Est. No.

Net Weight

ACCEPTED

11/03/2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1328

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1.0 FIRST AID

	FIRST AID		
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. 		
	Call a poison control center or doctor for treatment advice.		
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.		
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.		
	Call a poison control center or doctor for treatment advice.		
Have the produ	Have the product container or label with you when calling a poison control center or		
doctor, or going for treatment.			
	HOTLINE NUMBER		
For 24-Hour Medical Emergency Assistance (Human or Animal) or			
Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),			
Call			
	1-800-888-8372		

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazards to Humans and Domestic Animals

CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. 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)

Applicators and other handlers are required to wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Handlers applying this product as a preplant dip to strawberry roots and crowns and workers packaging or preparing treated roots and crowns for shipment must wear:

- Chemical-resistant apron made of any waterproof material
- Elbow-length chemical-resistant glove made of any waterproof material
- Chemical-resistant boots made of any waterproof material

2.2.1 User Safety Requirements

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

2.2.2 Engineering Controls

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

2.2.3 User Safety Recommendations

Users should:

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

2.3 Environmental Hazards

This pesticide is toxic to fish, aquatic invertebrates, oysters, and shrimp. For terrestrial uses: **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

2.3.1 Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

2.3.2 Surface Water Advisory

This chemical may contaminate water through drift of spray in wind. This chemical 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 chemical. A level, well-maintained vegetative buffer strip between areas to which this chemical 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 chemical will be reduced by avoiding applications when conditions favor runoff (including when soils are saturated and/or significant rainfall is forecast in the next 48

hours). Sound erosion control practices will reduce this chemical's contribution to surface water contamination.

2.4 Physical or Chemical Hazards

DO NOT use or store near heat or open flame.

DIRECTIONS FOR USE

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

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

FAILURE TO FOLLOW DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY, POOR DISEASE CONTROL, AND/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, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restrictedentry interval (REI) of 12 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, including plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Exception: If the product is soil-drenched, soil-injected, or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated. No restricted-entry interval (REI) is required following soil-injected, soil-incorporated, or soil-drenched applications.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

DO NOT enter or allow others to enter the treated area until sprays have dried.

3.0 PRODUCT INFORMATION

Palladium fungicide combines two active ingredients with contact and systemic activity to provide control of a wide range of foliar and stem diseases caused by *Botrytis* spp., *Rhizoctonia* spp., *Cercospora* spp., *Alternaria* spp., *Septoria* spp., *Myrothecium* spp., and other listed pathogens. Begin application prior to disease development at specified use rates and intervals using resistance management guidelines.

3.1 Plant Safety

Palladium has been shown to be safe when applied at the labeled rates to the flowers and ornamental plants listed in **Section 6.1**. However, due to the large number of genera, species, and varieties of ornamental and nursery plants, it is impossible to test every one for tolerance to Palladium. Neither the manufacturer nor the seller has determined whether Palladium can be used safely on genera, species, or varieties of ornamental and nursery plants not specified in this label. Conduct small-scale testing at the required rates to confirm plant safety prior to broad scale commercial use on plant genera and species not listed in this label.

Refer to **Section 5.2, Use Precautions**, for additional information regarding plant safety.

3.2 Resistance Management

For resistance management, please note that Palladium contains both a Group 9/ anilinopyrimidine fungicide and a Group 12/phenylpyrrole fungicide. Any fungal population may contain individuals naturally resistant to Palladium and other Group 9 or Group 12 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly at the same use site. Follow appropriate resistance management strategies.

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

- Rotate the use of Palladium or other Group 9 or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides 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 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 Syngenta representative, retailer, or extension specialist for any additional pesticide resistance management and/or IPM guidelines for specific crops and pathogens.
- For information or to report suspected resistance, contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

4.0 APPLICATION DIRECTIONS

4.1 Methods of Application

Palladium is applied as a foliar and stem treatment unless otherwise specified. **DO NOT** apply aerially.

4.2 Application Equipment

Palladium may be applied with application equipment commonly used for greenhouse, nursery, and outdoor crop production, for example, backpack, hydraulic boom, airblast, electrostatic sprayer, manual pressurized wand, mechanically pressurized handguns, automatic cold fogging and portable fogger.

- Equip sprayers with nozzles that provide accurate and uniform application. Calibrate sprayers before use.
- Use a pump with capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the mixture in suspension. Use a jet agitator, liquid sparge tube, or mechanical paddle for agitation. DO NOT air sparge.
- Use screens to prevent nozzles from clogging. Use 50-mesh or coarser screens
 placed after the tank and before the nozzles. Check nozzle manufacturer's
 specification.

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

4.3 Application Volume and Spray Coverage

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. Adjust spray volume accordingly to achieve thorough coverage based on plant size.

For low volume applications, apply Palladium at a product rate equal to that covered by a higher volume application. Follow the manufacturer's application equipment guidelines for application instructions and for the final spray volume required to achieve appropriate coverage for the area treated.

4.4 Mixing Directions

- Thoroughly clean spray equipment before using this product.
- Prepare no more spray mixture than is needed for the immediate operation.
- Vigorous agitation is necessary for proper dispersal of the product.
- Maintain maximum agitation throughout the spraying operation.
- **DO NOT** let the spray mixture stand overnight in the spray tank.
- Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

4.4.1 Palladium Alone

- 1. Add $\frac{1}{2}$ of the required amount of water to the mix tank.
- 2. With the agitator running, add Palladium to the tank.
- 3. Continue agitation while adding the remainder of the water.
- 4. Begin application of the solution after Palladium has completely dispersed into the mix water.
- 5. Maintain agitation until all of the mixture has been applied.

4.4.2 Tank-Mix Compatibility

Palladium is compatible in tank mixtures with many commonly used fungicides, liquid fertilizers, growth regulators, insecticides, and biological control products.

- Consult compatibility charts or your local or state agricultural authorities for compatibility information, or conduct a jar test to ensure physical compatibility.
- Tank-mix compatibility does not ensure crop/plant safety. Apply any mixture on a small number of plants and determine safety prior to applying on a larger scale.

- Conduct a jar test using a 1 pt to 1 qt container with lid by adding water or other intended carrier such a liquid fertilizer to the jar.
- Next, add the appropriate amount of pesticides(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 4.4.3**. After each addition, shake or stir gently to thoroughly mix.
- After all ingredients have been added, put the lid on the jar, tighten and invert the jar 10 times to mix.
- After mixing, let the mixture stand 15–30 minutes and then examine for signs of incompatibility including obvious separation, large flakes, precipitates, gels, or heavy oily film on the jar.
- If the mixture remains mixed or can be remixed readily, it is physically compatible and can be used.
- If the mixture is incompatible, repeat the test using a compatibility agent at the 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.

4.4.3 Palladium in Tank Mixtures

- 1. To prepare the spray solution, add ½ of the required amount of water to the mix tank.
- 2. Start the agitator running before adding any tank-mix partners.
- 3. **Note**: When using Palladium in tank mixtures, add all products in water-soluble packaging to the tank before any other tank-mix partner, including Palladium. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank-mix partner to the tank.
- 4. Add tank-mix partners in this order:
 - products packaged in water-soluble packaging
 - wettable powders
 - wettable granules (dry flowables) including Palladium
 - liquid flowables
 - liquids
 - emulsifiable concentrates
- 5. Always allow each tank-mix partner to become fully dispersed before adding the next product.
- 6. Provide sufficient agitation while adding the remainder of the water.
- 7. Maintain agitation until all of the mixture has been applied.

4.4.4 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. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

- The safety of all potential tank mixes on all crops may not have been tested. Before
 applying any tank mixture not specifically directed on this label, confirm the safety to
 the target crop.
- DO NOT mix with any product that prohibits such mixing.
- Observe all directions for use, crops/sites, use rates, dilution ratios, precautions, restrictions, and limitations that appear on the tank-mix product label.
- DO NOT exceed any labeled use rate.
- Follow the most restrictive label precautions and limitations.
- Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.
- Tank mixes of Palladium with other pesticides, fertilizers, or any other additives not specifically labelled for use with Palladium 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 4.4.2** before actual tank mixing.

4.4.5 Spray Additives

Use of nonionic surfactants may be desirable to improve spray coverage on waxy or difficult-to-wet leaves. This may also help minimize visible spray residue. Test Palladium with the nonionic surfactant at the desired use rates on a small number of plants for safety before making large scale applications.

4.5 Application Through Irrigation Systems (Chemigation)

4.5.1 Application Directions for Irrigation Systems (Chemigation)

- Apply this product only through overhead, solid set, hand-held, micro-irrigation systems, and motorized calibrated irrigation systems either alone or with other pesticides that are registered for application through irrigation systems. DO NOT apply this product through any other type of irrigation system.
- Apply once the plant canopy has grown to the edge of the growing container, covering a majority of the soil surface.
- Dilution ratios are typically 1:100 to 1:200.
- Plant injury and/or poor disease control can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.

- DO NOT connect an irrigation system (including greenhouse systems) used for
 pesticide application to a public water system unless the pesticide label-prescribed
 safety devices for public water systems (Section 4.5.3) 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.

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 to 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, for example, a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

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), back-flow preventer, or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ 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, solenoidoperated valve located on the intake side of the injection pump and connected to the

- system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or, in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, for example, a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

5.0 RESTRICTIONS AND PRECAUTIONS

5.1 Use Restrictions

- **DO NOT** apply Palladium with fewer than 10 gal spray volume per acre for mechanically pressurized handguns.
- For outdoor applications, **DO NOT** apply Palladium with fewer than 10 gal spray volume per acre for portable fogger in nursery uses.
- For outdoor applications, **DO NOT** apply Palladium with any type of ultra-low volume (ULV) spray system (less than 3 gal spray volume per acre).
- **DO NOT** use handheld portable foggers for greenhouse uses.
- **DO NOT** enter the greenhouse during the automatic cold fogging application.
- **DO NOT** apply aerially.

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS INCLUDING LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH FARM PONDS.

- **DO NOT** apply within 75 ft of bodies of water including lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.
- Shut off the sprayer when at row ends.
- **DO NOT** cultivate within 10 ft of aquatic areas as to allow a vegetative filter strip.
- **DO NOT** apply when weather conditions favor drift to aquatic areas.
- **DO NOT** apply when gusts or sustained winds exceed 10 mph.
- DO NOT apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.
- For perennial crops including tree crops and grapes:
 - For all plantings within 150 ft of bodies of water as described above, spray crops from outside the planting away from the bodies of water.
 - Spray last three rows windward of aquatic areas using nozzles on one side only with spray directed away from aquatic areas. Adjust or turn off top nozzles on

the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row or passing tree gaps in the rows.

- **DO NOT** apply to **leather-leaf fern** or other **field-grown fern** intended for cutting/harvest for floral arrangements.
- **DO NOT** use on residential ornamental flowers and plants.
- New York (Nassau and Suffolk Counties): Use is limited to ornamentals grown in greenhouses, lath houses, and shade houses except as permitted through FIFRA special local needs registration.
- **Hawaii:** Use is limited to ornamentals grown in greenhouses, lath houses, and shade houses.

5.2 Use Precautions

- Avoid excessive runoff that reaches the soil when applying Palladium to small plants
 or to plants where there is little plant matter in relation to media/soil since plants
 noted to be safe to Palladium (Section 6.1) were tested for foliar applications only.
 Excessive runoff of Palladium spray or drenches to soil/media may result in stunting
 or chlorosis.
- **Impatiens or New Guinea Impatiens:** Seedling applications or excessive runoff of Palladium sprays may cause stunting and/or chlorosis.
- Geranium (*Pelargonium* spp.): Foliar applications or excessive runoff of foliar applications to some varieties may cause stunting, chlorosis, or upward cupping of foliage. Injury may be more severe at higher use rates or application volumes. Plant responses may not occur immediately after application and may vary depending on variety and environmental conditions. Apply Palladium to a limited number of plants of the varieties to be treated and evaluate variety tolerance before proceeding with treatment of all plants.
- **Poinsettia:** Palladium may result in visible residue at high use rates and short spray intervals once Poinsettia bracts are in full color. Use of spray adjuvants may help reduce spray residue and spotting. Confirm plant safety by testing on a small number of plants before making large-scale applications.

5.3 Spray Drift Advisories for Outdoor Applications

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

IMPORTANCE OF DROPLET SIZE:

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

Ground Application:

- Keep a minimum of 75 ft buffer zone.
- DO NOT apply when wind speeds exceed 15 miles per hour at the application site.

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.

BOOM HEIGHT – Ground Boom:

For ground equipment, keep the boom level with the crop and have minimal bounce.

SHIELDED SPRAYERS:

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

TEMPERATURE AND HUMIDITY:

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

TEMPERATURE INVERSIONS:

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

WIND:

Drift potential increases with speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

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

Handheld Technology Applications:Take precautions to minimize spray drift.

6.0 ORNAMENTALS

6.1 Plant Species Found to be Safe When Palladium is Applied According to the Use Directions in This Label

Abutilon - Variegated Flowering

Acalypha - Chenille, Red-Hot

Cat Tail Ageratum

Alternanthera - Joseph's Coat

Alyssum

Antirrhinum - Snapdragon

Aptenia

Astilbe - Bridal Veil

Begonia

Brachycome - Swan River Daisy

Caladium

Calendula - Pot Marigold, Poet's

Marigold

Callisia - Bolivian Jew,

Turtlevine

Calibrachoa - Trailing Petunia

Celosia - Cockscomb

Centrosa

Chlorophytum - Spider Plant

Coleus Cosmos

Cuphea - Mexican Heather

Daffodil

Dahlia - Dahlietta

Dianthus

Dicentra - Bleeding Heart

Dimorphotheca - African Daisy

Fuchsia

Gerbera Daisy

Hedera helix - English Ivy Helichrysum - Strawflower Helianthus - Sunflower

Hibiscus

Hypoestes - Polka Dot Plant

Ipomoea - Moonflower, Moonvine

Iresine spp.
Iris, Bulbous
Lamium
Lantana
Lily, Asiatic
Listhianthus
Lysimachia spp.

Marigold

Mexican Heather

Nephthytis Nemesia

Osteospermum - Cape Daisy

Oxalis

Pachysandra

Pansy Pentas

Persicaria - Fleece Flower

Petunia

Philodendron

Plectranthus - Swedish Ivy

Poinsettia Portulaca Pothos

Purslane - Red

Rose Salvia Scaevola

Senecio cineraria - Dusty Miller

Setcreasea - Wandering Jew

Snapdragon Spathiphyllum

Streptocarpella - Dancing

Flowers Strobilanthus Sunflower

Syngonium - Nephytis Tagetes - African, Mexican

Marigold

Teucrium - Germander Torenia - Wishbone Flower Tradescantia - Purple Heart

Tulips Verbena Vinca Zinnia

- 1) **DO NOT** apply to **leather-leaf fern** or other **field-grown fern** intended for cutting/harvest for floral arrangements.
- 2) **DO NOT** use on residential ornamental flowers and plants.

6.2 Foliar and Stem Diseases

Ornamental flowers and plants; ornamental bulb, corm, and tuber crops; conifers; and Christmas trees

See Section 6.1.

See Section 6.1.			
Target Disease	Use Rate (oz/100 gal)	Application Timing	Use Directions
Alternaria leaf blight (Alternaria spp.) Anthracnose leaf spot (Colletotrichum spp.) Cercospora leaf spot (Cercospora spp.) Cylindrocladium stem rot (Cylindrocladium spp.) Fusarium blight and stem rot (Fusarium spp.) Myrothecium leaf spot and blight (Myrothecium spp.) Phoma basal rot (Phoma exigua) Phomopsis dieback (Phomopsis vaccinii) Rhizoctonia aerial blight (Rhizoctonia spp.) Sclerotinia blight and stem rot (Sclerotinia spp.) Septoria leaf spot (Septoria spp.) Southern blight (Sclerotium rolfsii)	2-6	Begin applications prior to or at the onset of disease, and repeat applications at 7-14 day intervals if conditions remain favorable for disease development.	Apply in sufficient water for adequate coverage. Apply as a foliar spray at the rates listed when plants are dry or nearly dry. Apply just to runoff when conditions are favorable for disease development. For stem diseases, ensure full spray coverage of all stems and inner areas of plants to the soil/media level. Under severe disease conditions, use the highest specified rate and shortest interval corresponding with the application schedule.
Powdery mildew (Erysiphe polygoni) (Sphaerotheca macularis) Scorch (Stagnospora curtisii)	4 - 6	Make early preventative applications for Powdery mildew and Scorch control.	
Botrytis blight and gray mold (<i>Botrytis</i> spp.)	4 - 6	Spray at 7-14 day intervals while conditions are favorable for disease development.	

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Maximum Single Application Rate (Outdoor Uses): DO NOT apply more than 12 oz/A (0.281 lb ai/A cyprodinil and 0.188 lb ai/A fludioxonil)
- 2) Maximum Single Application Rate (Greenhouses, Lath Houses, and Shade Houses): DO NOT apply more than 12 oz/A (0.281 lb ai/A cyprodinil and 0.188 lb ai/A fludioxonil) of Palladium per crop
- 3) **DO NOT** make more than 4 applications at the highest listed rate.

- 4) **Maximum Annual Application Rate (Outdoor Uses): DO NOT** apply more than 56 oz/A of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A/year of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A/year of fludioxonil-containing products.
- 5) Maximum Annual Application Rate (Greenhouses, Lath Houses, and Shade Houses): DO NOT apply more than 56 oz/A of Palladium per crop.
 - a. **DO NOT** apply more than 1.3 lb ai/A/crop of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A/crop of fludioxonil-containing products.
- 6) Minimum Application interval: 7 days

7.0 BERRIES, FRUITS, HERBS, NUTS, AND VEGETABLE TRANSPLANTS GROWN FOR RETAIL SALES TO CONSUMERS

7.1 Berry and Small Fruit, Crop Subgroups 13-07A and 13-07B

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

Bushberry Subgroup 13-07B:

Aronia berry Currant, red Jostaberry

Blueberry, highbush Elderberry Juneberry (Saskatoon Berry)

Blueberry, lowbush European, barberry Lingonberry
Buffalo currant Gooseberry Native currant

Chilean guava Cranberry, highbush Salal

Currant, black Honeysuckle, edible Sea buckthorn

Huckleberry

Caneberry Subgroup 13-07A:

Blackberry Loganberry

Raspberry, red and black

Wild raspberry

Target Disease	Use Rate	Application Timing	Use Directions
Mummy berry (Monilinia vaccinia- corymbosi) Anthracnose (Colletotrichum spp.) Alternaria leaf spot and fruit rot (Alternaria tenuissima) Phomopsis (Phomopsis vaccinii) Botrytis foliar blight and fruit rot (Botrytis cinerea)	11-14 oz/A 1.3-1.6 oz/ 5000 sq ft	Begin applications prior to or at the onset of disease, and repeat applications on a 7-10 day interval if conditions remain favorable for disease development.	Good coverage is essential for optimal disease control. Apply using sufficient water volume to obtain thorough and uniform coverage. Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A 1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 3 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

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

Crops (including all cultivars, varieties, and/or hybrids of these)			
Broccoli	Cabbage, Chinese (napa)	Kohlrabi	
Broccoli, Chinese (gai lon)	Cabbage, Chinese mustard (gai	Mizuna	
Broccoli raab (rapini)	choy)	Mustard greens	
Brussels sprouts	Cauliflower	Mustard spinach	
Cabbage	Cavalo broccoli	Rape greens	
Cabbage, Chinese (bok choy)	Collards	Turnip greens	

Target Disease	Use Rate	Application Timing	Use Directions
Powdery mildew (Erysiphe polygoni)	10 – 12 oz/A 1.1 – 1.4 oz/ 5000 sq ft	Begin applications prior to or at the onset of disease, and repeat applications on a 7-10 day interval if conditions remain favorable for disease	Good coverage is essential for optimal disease control. Apply using sufficient water volume to obtain thorough and uniform coverage.
Alternaria leaf blight (Alternaria spp.) Suppression: Cercospora leaf spot (Cercospora brassicicola)	11 – 14 oz/A 1.3 – 1.6 oz/ 5000 sq ft	development.	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate: DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** use roots of treated turnips for food or feed. Only turnip varieties harvested for their leaves may be treated.
- 7) **DO NOT** apply within 7 days of shipping plants.
- 8) **DO NOT** apply to plants grown for commercial food production.

7.3 Citrus, Crop Subgroup 10-10B

Crops (including all cultivars, varieties, and/or hybrids of these)			
Australian desert lime	Lemon Swee		et lime
Australian finger lime	Lime	Tahi	ti lime
Australian round lime	Mount Whi		
Brown River finger lime		ea wild lime	
Kumquat	Russell Riv	ver lime	
Target Disease	Use Rate	Application Timing	Use Directions
Alternaria leaf spot and	11-14 oz/A	Apply prior to the onset of	Good coverage is
stem end rot		disease.	essential for optimal
(Alternaria citri)	1.3 – 1.6 oz/		disease control.
	5000 sq ft		
Anthracnose			Make one application near
(Colletotrichum			harvest to prevent post-
gloeosporioides)			harvest fruit rot. The
Blue mold			application may be made up to and including the
(Penicillium italicum)			day of harvest.
(i cinemiani kancani)			day of flat vest.
Green mold			Apply in a minimum spray
(Penicillium digitatum)			volume of 10 gal/A to
,			obtain thorough coverage.

Resistance Management: Refer to Section 3.2.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 1 application per year at the highest rate.
- 4) Application may be made by ground only.
- 5) **DO N**OT make more than one application per year.
- 6) DO NOT make more than one application per year.
- 7) **Maximum Annual Application Rate**: **DO NOT** apply more than 14 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 0.33 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.22 lb ai/A of fludioxonil-containing products.
- 8) **DO NOT** apply within 3 days of shipping plants.
- 9) **DO NOT** apply to plants grown for commercial food production.

7.4 Cucurbit Vegetables, Crop Group 9

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

Target Disease	Use Rate	Application Timing	Use Directions
Alternaria leaf blight (A. cucumerina)	11-14 oz/A	Begin applications prior to or at the onset of disease,	Good coverage is essential for optimal
Alternaria leaf spot (A. alternata)	1.3 – 1.6 oz/ 5000 sq ft	and repeat applications on a 7-10 day interval if conditions remain favorable for disease	disease control. Apply using sufficient water volume to obtain thorough and uniform coverage.
Gummy stem blight (Didymella bryoniae)		development.	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.
Powdery mildew (Sphaerotheca fuliginea, Erysiphe cichoracearum)			

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NO**T apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 1 day of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.5 Small Fruit Vine Climbing (Except Fuzzy kiwifruit), Crop Subgroup 13-07F

Crops (including all cultivars, varieties, and/or hybrids of these)				
Amur river grape	Grape	May	•	
Gooseberry	Kiwifruit, ha	ardy Schi	sandra berry	
Target Disease	Use Rate	Application Timing	Use Directions	
Botrytis (gray mold) (B. cinerea)	11-14 oz/A 1.3 – 1.6 oz/ 5000 sq ft	Apply prior to the onset of disease. Begin applications at early bloom. Up to three additional applications may be made at berry touch, veraison, or preharvest.	Good coverage is essential for optimal disease control. Apply using sufficient water volume to obtain thorough and uniform coverage. DO NOT apply at less	
Sour rot (caused by a fungal complex)		For Sour rot, make an application at veraison followed by 1-2 additional applications.	than a 21-day interval. Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.	

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 21 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 7 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.6 Herbs (Dried and Fresh), Crop Subgroup 19A

Crops (including all cultivars, varieties, and/or hybrids of these)			
Angelica	Costmary	Parsley (dried)	
Balm	Culantro (leaf)	Pennyroyal	
Basil	Curry (leaf)	Rosemary	
Borage	Dillweed	Rue	
Burnet	Horehound	Sage	
Camomile	Hyssop	Savory, summer and winter	
Catnip	Lavender	Sweet bay	
Chervil (dried)	Lemongrass	Tansy	
Chive	Lovage (leaf)	Tarragon	
Chive, Chinese	Marigold	Thyme	
Clary	Marjoram	Wintergreen	
Coriander (leaf)	Nasturtium	Woodruff	
Wormwood			

Target Disease	Use Rate	Application Timing	Use Directions
Alternaria leaf spot (Alternaria spp.)	11 – 14 oz/A 1.3 – 1.6 oz/	Begin applications prior to or at the onset of disease, and repeat applications on	Good coverage is essential for optimal disease control. Apply
Botrytis leaf blight (Botrytis spp.)	5000 sq ft	a 7-10 day interval if conditions remain favorable for disease	using sufficient water volume to obtain thorough and uniform coverage.
Fusarium blight (<i>Fusarium</i> spp.)		development.	Apply in a minimum spray volume of 30 gal/A to obtain thorough coverage.

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 7 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.7 Leafy Greens, Crop Subgroup 4-16A, except Parsley

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

Amaranth, Chinese Dang-gwi, leaves Lettuce, leaf Amaranth, leafy Dillweed Orach

Aster, Indian Dock Plantain, buckhorn Blackjack Dol-nam-mul Primrose, English Cat's whiskers Ebolo Purslane, garden Cham-chwi Endive Purslane, winter Cham-na-mul Escarole Radicchio

Cham-chwi Endive Pursiane, w
Cham-na-mul Escarole Radicchio
Chervil, fresh leaves Fameflower Spinach
Chirilin

Chipilin Feather cockscomb Spinach, Malabar Chrysanthemum, garland Good king henry Spinach, New Zealand Cilantro, fresh leaves Huauzontle Spinach, tanier

Corn salad Jute, leaves Swiss chard

Cosmos Lettuce, bitter Violet, Chinese, leaves

Dandelion, leaves Lettuce, head

	t .		
Target Disease	Use Rate	Application Timing	Use Directions
Alternaria leaf spot	11 – 14 oz/A	Begin applications prior to	Good coverage is
(<i>Alternaria</i> spp.)	1.3 – 1.6 oz/	or at the onset of disease and repeat applications on	essential for optimal disease control. Apply
Septoria leaf spot	5000 sq ft	a 7-10 day interval if	using sufficient water
(Septoria lactucae)	·	conditions remain	volume to obtain thorough
Gray mold		favorable for disease development.	and uniform coverage.
(Botrytis cinerea)		uevelepinieni.	Apply in a minimum spray
Sclerotinia rot		For control of Sclerotinia, make the first application	volume of 10 gal/A to obtain thorough coverage.
(Sclerotinia spp.)		at thinning and again two	obtain thorough coverage.
		weeks later.	
Basal rot (<i>Phoma exigua</i>)			
(i nema exigua)			
Suppression:			
Powdery mildew (Erysiphe			
cichoracearum)			

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate: DO NOT** apply more than 56 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 3 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.8 Brassica Leafy Greens, Crop Subgroup 4-16B

Crops (including all cultivars, varieties, and/or hybrids of these) Arugula Cress, garden Mustard greens Broccoli, Chinese Cress, upland Radish, leaves Broccoli raab Hanover salad Rape greens Cabbage, abyssinian Kale Rocket, wild Cabbage, seakale Maca, leaves Shepherd's purse Cabbage, Chinese, bok choy Mizuna Turnip greens Collards

Target Disease	Use Rate	Application Timing	Use Directions
Powdery Mildew (Erysiphe polygoni)	10 – 12 oz/A	Begin applications prior to or at the onset of disease	Good coverage is essential for optimal
Alternaria leaf blight (Alternaria spp.)	11 – 14 oz/A 1.3 – 1.6 oz/	and repeat applications on a 7-10 day interval if conditions remain	disease control. Apply using sufficient water volume to obtain thorough
Suppression: Cercospora leaf spot	5000 sq ft	favorable for disease development.	and uniform coverage.
(Cercospora brassicicola)			Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (0.33 lb cyprodinil and 0.22 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 3 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.9 Leaves of Root and Tuber Vegetables, Crop Group 2

				-
Crops (including all cult	ivars, varieties,	and/or hybrids o	f these)	
Beet, garden	Chervil, tur	nip-rooted	Ruta	baga
Beet, sugar	Chicory		Sals	ify, black
Burdock, edible	Dasheen		Swe	et potato
Carrot	Parsnip		Tani	er
Cassava, bitter and sweet	Radish		Turn	ip
Celeriac	Radish, ori	ental (daikon)	Yam	, true
Target Disease	Use Rate	Application Ti	ming	Use Directions
Alternaria leaf blight (Alternaria dauci)	11 – 14 oz/A 1.3 – 1.6 oz/	Begin applications or at the onset of cand repeat applica	lisease,	Good coverage is essential for optimal disease control. Apply
Powdery mildew (Erysiphe spp.)	5000 sq ft	a 7-10 day interval conditions remain favorable for disea development.	if	using sufficient water volume to obtain thorough and uniform coverage.
				Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate: DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year, **except for radish**: **DO NOT** apply more than 28 oz/A of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
 - c. For radish ONLY, DO NOT apply more than 0.66 lb ai/A of cyprodinil-containing products.
 - d. **For radish ONLY, DO NOT** apply more than 0.44 lb ai/A of fludioxonil-containing products.
 - e. For radish ONLY, DO NOT make more than two applications per year.
- 6) **DO NOT** allow cattle or other livestock to feed upon the leaves of root and tuber vegetables.
- 7) **DO NOT** apply within 7 days of shipping plants.
- 8) **DO NOT** apply to plants grown for commercial food production.

7.10 Bulb Vegetables, Crop Group 3-07

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

Chive, fresh leaves Kurrat Onion, green Chive, Chinese, fresh leaves Lady's leek Onion, macrostem Daylily, bulb Leek Onion, pearl Elegans hosta Leek, wild Onion, potato, bulb Fritillaria, bulb Lily, bulb Onion, tree, tops Fritillaria, leaves Onion, Beltsville bunching Onion, Welsh, tops Garlic, bulb Shallot, bulb

Garlic, bulb
Onion, bulb
Shallot, bulb
Shallot, bulb
Shallot, fresh leaves

Garlic, serpent, bulb Onion, fresh

Target Disease	Use Rate	Application Timing	Use Directions
Botrytis leaf blight or blast (Botrytis spp.)	11–14 oz/A 1.3 – 1.6 oz/	Begin applications prior to or at the onset of disease, and repeat applications on	Good coverage is essential for optimal disease control. Apply
Stemphylium leaf blight (Stemphylium vesicarium)	5000 sq ft	a 7-10 day interval if conditions remain favorable for disease development.	using sufficient water volume to obtain thorough and uniform coverage.
Purple blotch (<i>Alternaria porri</i>)		·	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.
Suppression: Neck rot (Botrytis spp.)			
Black mold (Aspergillus niger)			

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 7 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.11 Pistachio

Crops (including all cultivars, varieties, and/or hybrids of these)			
Pistachio			
Target Disease	Use Rate	Application Timing	Use Directions
Botrytis (Botrytis spp.) Alternaria (Alternaria alternata)	11 – 14 oz/A 1.3 – 1.6 oz/ 5000 sq ft	Make the first application during early bloom, and repeat applications at 14-day intervals if conditions remain favorable for disease development.	Good coverage is essential for optimal disease control. Apply using sufficient water volume to obtain thorough and uniform coverage. Apply in a minimum spray volume of 10 gal/A to

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 14 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply within 7 days of shipping plants.
- 7) **DO NOT** apply to plants grown for commercial food production.

7.12 Root Vegetables (Except Sugar beet), Crop Subgroup 1B

Crops (including all cultivars, varieties, and/or hybrids of these)				
Beet, garden	Ginseng	Rutabaga		
Burdock, edible	Horseradish	Salsify		
Carrot	Parsley, turnip-rooted	Salsify, black		
Celeriac	Parsnip	Salsify, Spanish		
Chervil, turnip-rooted	Radish	Skirret		
Chicory	Radish, oriental	Turnip		

Target Disease	Use Rate	Application Timing	Use Directions
Alternaria leaf blight (Alternaria dauci)	11 – 14 oz/A	Begin applications prior to or at the onset of disease,	Good coverage is essential for optimal disease control.
,	1.3 – 1.6 oz/	and repeat applications on	Apply using sufficient water
Powdery mildew	5000 sq ft	a 7-10 day interval if	volume to obtain thorough
(Erysiphe spp.)		conditions remain	and uniform coverage.
		favorable for disease	
		development.	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.

Resistance Management:

After 2 applications of Palladium, alternate with another fungicide with a different mode of action for 2 applications.

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year, *except for radish*: **DO NOT** apply more than 28 oz/A (0.66 lb cyprodinil and 0.44 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
 - c. For radish ONLY, DO NOT apply more than 0.66 lb ai/A of cyprodinil-containing products.
 - d. For radish ONLY, DO NOT apply more than 0.44 lb ai/A of fludioxonil-containing products.
 - e. For radish ONLY, DO NOT make more than two applications per year.
- 6) **DO NOT** allow cattle or other livestock to feed upon the leaves of root and tuber vegetables.
- 7) **DO NOT** apply within 7 days of shipping plants.
- 8) **DO NOT** apply to plants grown for commercial food production.

7.13 Low Growing Berry (Except Cranberry), Crop Subgroup 13-07G

Crops (including all cultivars, varieties, and/or hybrids of these)			
Bearberry	Cloudberry		idgeberry
Bilberry	Lingonberry Strawberry		wberry
Blueberry, lowbush	Muntries		
Target Disease	Use Rate	Application Timing	Use Directions
Gray mold (Botrytis cinerea) Powdery mildew (Sphaerotheca macularis) Anthracnose (Colletotrichum spp.)	11 – 14 oz/A 1.3 – 1.6 oz/ 5000 sq ft	Begin applications prior to or at the onset of disease, and repeat applications on a 7-10 day interval if conditions remain favorable for disease development.	Good coverage is essential for optimal disease control. Apply using sufficient water volume to obtain thorough and uniform coverage. Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.
Suppression: Root and crown Anthracnose (Colletotrichum spp.)	5-8 oz/100 gal water	Apply as a preplant dip to strawberry roots and crowns at planting for suppression of root and crown rot caused by Anthracnose.	Wash transplants to remove excess soil prior to dipping. This helps to remove adhering spores from the external plant parts. Completely immerse plants in dip solution for a minimum of 2 to 5 minutes. DO NOT reuse solution. Dispose of dip solution according to local regulations. Plant treated plants as quickly as possible. For continued Anthracnose control, follow with foliar applications of beginning 2-3 weeks after transplant.

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) Maximum Single Application Rate: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) Make only one pre-plant dip application per crop.
- 7) **DO NOT** apply within 3 days of shipping plants.
- 8) DO NOT apply to plants grown for commercial food production.

7.14 Fruiting Vegetables, Crop Group 8-10

Crops (including all cultivars, varieties, and/or hybrids of these)				
African eggplant	Groundche	rry Pepp	per, nonbell	
Bush tomato	Martynia	Rose	elle	
Cocona	Naranjilla	Scar	let eggplant	
Currant tomato	Okra	Sunt	Sunberry	
Eggplant	Pea eggplant		atillo	
Garden huckleberry	Pepino	Tom	ato	
Goji berry	Pepper, bell		tomato	
Target Disease	Use Rate	Application Timing	Use Directions	

Use Rate	Application Timing	Use Directions
11 – 14 oz/A 1.3 – 1.6 oz/	Begin applications prior to or at the onset of disease, and repeat applications on	Good coverage is essential for optimal disease control. Apply
5000 sq ft	a 7-10 day interval if conditions remain favorable for disease	using sufficient water volume to obtain thorough and uniform coverage.
	development.	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.
	11 – 14 oz/A 1.3 – 1.6 oz/	11 – 14 oz/A Begin applications prior to or at the onset of disease, and repeat applications on a 7-10 day interval if conditions remain favorable for disease

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate:** 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate: DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply more than a maximum total of 4 applications per year.
- 7) **DO NOT** apply within 3 days of shipping plants.
- 8) **DO NOT** apply to plants grown for commercial food production.

7.15 Tropical Fruit

Crops (including all cultivars, varieties, and/or hybrids of these)			
Acerola	Jaboticaba	Pulasan	
Avocado	Longan	Rambutan	
Black sapote	Lychee	Sapodilla	
Canistel	Mamey sapote	Spanish lime	
Dragon fruit	Mango	Star apple	
Feijoa	Papaya	Starfruit	
Guava	Passionfruit	Wax jambu	

Target Disease	Use Rate	Application Timing	Use Directions
Botrytis blight and fruit rot (Botrytis spp.)	11 – 14 oz/A 1.3 – 1.6 oz/	Make the first application during early bloom or prior to the onset of disease.	Good coverage is essential for optimal disease control. Apply
Alternaria leaf spot and fruit rot (Alternaria spp.)	5000 sq ft	Repeat applications on a 7-10 day interval if conditions remain favorable for disease	using sufficient water volume to obtain thorough and uniform coverage.
Anthracnose (Colletotrichum spp.)		development.	Apply in a minimum spray volume of 10 gal/A to obtain thorough coverage.
Bipolaris bud and fruit rot (<i>Bipolaris</i> spp.)			

Resistance Management:

- 1) Refer to **Section 5.1** for additional product use restrictions.
- 2) **Maximum Single Application Rate**: 14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
- 3) **DO NOT** apply more than 4 applications per year at the highest rate.
- 4) Minimum Application Interval: 7 days
- 5) **Maximum Annual Application Rate**: **DO NOT** apply more than 56 oz/A (1.3 lb cyprodinil and 0.9 lb fludioxonil) of Palladium per year.
 - a. **DO NOT** apply more than 1.3 lb ai/A of cyprodinil-containing products.
 - b. **DO NOT** apply more than 0.9 lb ai/A of fludioxonil-containing products.
- 6) **DO NOT** apply more than a maximum total of 4 applications per year.
- 7) **DO NOT** apply within 3 days of shipping plants.
- 8) **DO NOT** apply to plants grown for commercial food production.

8.0 STORAGE AND DISPOSAL

Storage and Disposal

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

Pesticide Storage

Keep this product in its tightly closed original container when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

Pesticide Disposal

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

Container Handling [(less than or equal to 50 pounds)]

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 ¼ 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 [(bags)]

Non-refillable container. DO NOT reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [(fiber drums with liners)]

Non-refillable container. DO NOT reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

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.

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