U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number: 100-1664	Date of Issuance: 2/3/20				
NOTICE OF PESTICIDE: <u>X</u> Registration	Term of Issuance:					
Reregistration	Unconditional					
(under FIFRA, as amended)	Name of Pesticide Proc	luct:				
	SERENVA					
Name and Address of Registrant (include ZIP Code):						
Ricky Kyaw Regulatory Product Manager Syngenta Crop Protection, LLC. P.O. Box 18300 Greensboro, NC 27419						
	Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.					
 Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number. On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of ar name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others. This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you 1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data. 						
Signature of Approving Official:	Date:					
Moyan R. Muhannad, Acting Product Manager 21 Fungicide Branch, Registration Division (7505P)	2/3/20					

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EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 100-1664."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under 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 or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

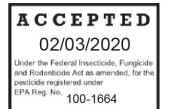
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 08/05/2019

If you have any questions, please contact Maryam K. Muhammad by phone at 703-347-0301, or via email at <u>Muhammad.maryam@epa.gov</u>.

Enclosure

Stamped Accepted "SERENVA" Product Label



[MASTER]

CYPRODINIL	GROUP	9	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

Serenva®

Fungicide

Active Ingredients:	27 50/
Cyprodinil* Fludioxonil**	
Other Ingredients:	37.5%
Total:	100.0%

*CAS No. 121552-61-2 **CAS No. 131341-86-1

Serenva is a water-dispersible granule containing 37.5% cyprodinil and 25% fludioxonil.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use [inside booklet][on container label].

EPA Reg. No. 100-

EPA Est.

Net Contents

	FIRST AID			
If on skin or	Take off contaminated clothing.			
clothing	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
lf 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 product container or label with you when calling a poison control center or				
doctor, or going for treatment.				
HOT LINE 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

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.

Personal Protective Equipment (PPE)

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
- Chemical-resistant elbow-length gloves made of any waterproof material
- Chemical-resistant boots made of any waterproof material

All other applicators and other handlers must wear:

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

In addition, mixers and loaders for aerial, groundboom, and chemigation applications must wear:

• A minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter [e.g. N95, R95 or P95]; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter.

User Safety Requirements

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

Engineering Controls

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

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.

Environmental Hazards

This pesticide is toxic to fish, aquatic invertebrates, oysters and shrimp. 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.

Groundwater Advisory

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

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 such as 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 (such as 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.

Physical or Chemical Hazards

Do not use or store near heat or open flame.

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.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

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

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

PRODUCT INFORMATION

Serenva is a broad spectrum fungicide for the control of certain diseases.

PRODUCT USE RESTRICTIONS

Rotational Crop Restrictions

Do not plant any crop which is not registered for use with cyprodinil or fludioxonil for a period of 30 days, unless a shorter interval is specified on the following list.

Rotational Crop	Planting Time From Last Serenva Application
Beans (dried and succulent except cowpeas)* Berries (bushberries 13-07B, caneberries 13-07A)* Brassica (Cole) Leafy Vegetables* Cucurbits* Herbs (fresh and dried)* Leafy Vegetables* Leaves of Root and Tuber Vegetables* Onions (dry bulb, garlic, and green) Peppers Tuberous and Corm Vegetables (crop subgroup 1C)* Root and Tuber Vegetables except Sugar beet* Strawberries Tomatoes Watercress Crops Not Intended for Food or Feed	0 days
All Other Crops Intended for Food or Feed	30 days

*See crop lists in CROP USE DIRECTIONS section.

In annual crops where multiple crops can be grown per year (double/triple cropping), do not apply more than 1.3 lb ai cyprodinil and 0.9 lb ai fludioxonil per acre per year to an individual plot of land.

For the crops to which aerial applications are allowed, refer to the specific crop directions for use. Aerial applicators must be in enclosed cockpits.

Nassau and Suffolk counties of New York: use limited to strawberries and onions.

RESISTANCE MANAGEMENT

CYPRODINILGROUP9FUNGICIDEFLUDIOXONILGROUP12FUNGICIDE

For resistance management, please note that Serenva contains both a Group 9 [cyprodinil] and group 12 [fludioxonil] fungicide. Any fungal population may contain individuals naturally resistant to either or both of the active ingredients in Serenva 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 in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of Serenva or other Group 9 and 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 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 Crop Protection at 1-866-796-4368. You can also contact university extension specialist to report resistance.

APPLICATION INSTRUCTIONS

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. Use minimum ground spray volumes of 10 gal/A for field and vegetable crops and 50 gal/A for tree crops. For aerial application, see directions in the specific crop directions for use.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury may occur.

Equip sprayers with nozzles that provide accurate and uniform application. Calibrate sprayer 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 manufacturers' recommendations.

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

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS 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 such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes, or estuaries.
- 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 such as 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.

Ground Application

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.

Spray Drift Advisories

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

Importance of Droplet Size

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

Controlling Droplet Size – Ground Boom

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

 Adjust Nozzles – Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height – Ground Boom

• For ground equipment, the boom should remain level with the crop and have minimal bounce.

Release Height – Aircraft

• Higher release heights increase the potential for spray drift.

Shielded Sprayers

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

Temperature and Humidity

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

Temperature Inversions

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

Wind

Drift potential generally increases with 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.

Aerial Spray Directions

Avoid applications under conditions when uniform coverage cannot be obtained or when excessive drift may occur.

Aerial Spray Restrictions

Observe the following restrictions when spraying in the vicinity of aquatic area such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

• Use only on crops where aerial applications are indicated.

- Do not apply by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Release spray at the lowest height consistent with pest control and flight safety. Do not make applications more than 10 feet above the crop canopy.
- Do not apply when weather conditions favor drift to aquatic areas.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.

Aerial Spray Precautions

Observe the following precautions when spraying in the vicinity of aquatic area such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use the largest droplet size consistent with good pest control.
- Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Reduce risk of exposure to aquatic areas by avoiding applications when wind direction is toward the aquatic area.
- Low humidity and high temperatures increase the evaporation rate of spray droplets, and therefore the likelihood of increased spray drift to aquatic area. Avoid spraying during conditions of low humidity and/or high temperatures.
- For the crops to which aerial applications are allowed, refer to the specific crop directions for use.
- Apply in a minimum of 5 gallons of water per acre, unless specified otherwise.

Application Through Irrigation Systems (Chemigation)

• Use only on crops for which chemigation is specified on this label.

- Apply this product only through drip, microjet, center pivot, solid set, hand move, and 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 in 0.125-0.25 inches/A of water. 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.

Operating Instructions

- 1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing 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.

Center Pivot Irrigation Equipment

Restrictions: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Serenva through center pivot systems because of non-uniform application.

- 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 Serenva 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 Serenva required to treat the area covered by the irrigation system.
- Add the required amount of Serenva 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 Serenva 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 Serenva 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 Serenva through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution.

- Determine the amount of Serenva required to treat the area covered by the irrigation system.
- Add the required amount of Serenva 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 Serenva solution has cleared the last sprinkler head.

Drip or Microjet Chemigation Systems

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

Spray Preparation: Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

Use Directions for Drip or Microjet Irrigation Applications

Drip or Microjet Irrigation: Serenva may be applied through drip irrigation systems for soil-borne disease control. The soil should have adequate moisture capacity prior to drip application.

- Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

- 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.
- 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.
- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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.
- 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.

SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system 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, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, 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.

MIXING PROCEDURES

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. 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.

Serenva Alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the Serenva to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Serenva has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Serenva + Tank Mixtures: Serenva is compatible in tank mixtures with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult compatibility charts or your local or state agricultural authorities for compatibility information.

To prepare spray solution, add ½ of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, add tank mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables) such as Serenva, liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

When using Serenva in tank mixtures, add all products in water-soluble packaging to the tank before any other tank mix partner, including Serenva. 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.

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

CROP USE DIRECTIONS

When a range of rates is provided, use the higher specified rates if weather conditions are conducive for higher disease pressure.

Сгор	Disease	Product Rate oz/Acre	Remarks
Beans (Dried and Succulent	White Mold (Sclerotinia	11-14*	Begin applications prior to or at the onset of disease and repeat applications on a
except cowpeas)	sclerotiorum)		7-day interval if conditions remain favorable for disease development.
Chickpea (garbanzo bean)	Gray Mold		
Bean (<i>Lupinus</i> spp.) (grain lupin, sweet lupin, white lupin, white sweet lupin) Bean	(Botrytis cinerea)		For White Mold control, make the first application at 10-20% bloom. In some locations a single application at this timing will provide adequate disease control.
(<i>Phaseolus</i> spp.) (kidney, lima, mung, navy, pinto, snap, wax) Broad Bean (fava bean) Bean (<i>Vigna</i> spp.) (asparagus, blackeyed pea)			Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.

*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 6) Do not apply within 7 days of harvest (7-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Berries Bushberry Subgroup 13- 07B** Blueberry Currant Caneberry Subgroup 13- 07A*** Blackberry Red and Black Raspberry And cultivars and/or hybrids of these.	Mummy berry (<i>Monilinia</i> <i>vacciniicorymbosi</i>) Anthracnose (<i>Colletotrichum</i> spp.) Alternaria fruit rot (<i>Alternaria</i> <i>tenuissima</i>) Phomopsis (<i>Phomopsis</i> <i>vaccinii</i>) Botrytis Fruit Rot	11-14*	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. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains 0. *14 oz product/A contains 0.			
Complete List of Bushberr **Bushberries: Aronia berr guava, Edible honeysuckle, Huckleberry, Jostaberry, Jur Sea buckthorn ***Caneberries: Blackberry Application Instructions:	ies and Caneberries: y, Black currant, Blueb Elderberry, European I neberry (Saskatoon ber r, Loganberry, Red and Application may be ma	erry high ai barberry, G rry), Lingon I Black Ras de by groui	nd low bush, Buffalo currant, Chilean ooseberry, Highbush cranberry, berry, Native currant, Red currant, Salal,
 Specific Use Restrictions 1) Maximum Single Applica 2) Do not apply more than 3) Make no more than two 4) Do not apply more than 	4 applications per year applications by air. 56 oz/A of Serenva pe 1.3 lb ai/A of cyprodini	r at the high r year (1.3 l	kimum rate listed in the table. lest rate. lb cyprodinil and 0.9 lb fludioxonil). l products and 0.9 lb ai/A of fludioxonil-

containing products per year.6) May be applied on the day of harvest (0-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Brassica (Cole) Leafy Vegetables** Broccoli	Powdery Mildew (Erysiphe polygoni)	10-12*	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.
Brussels sprouts Cabbage Cauliflower Collards Kale Mustard greens And cultivars and/or hybrids of these.	Alternaria leaf blight (<i>Alternaria</i> spp.) Suppression: Cercospora leaf spot (<i>Cercospora</i> <i>brassicicola</i>)	11-14*	Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.

*10 oz product/A contains 0.23 lb cyprodinil/A and 0.16 lb fludioxonil/A.

*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A.

*12 oz product/A contains 0.28 lb cyprodinil/A and 0.19 lb fludioxonil/A.

*14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.

****Complete List of Brassica (Cole) Leafy Vegetables:** Broccoli; Broccoli, Chinese; Broccoli raab; Brussels sprouts; Cabbage; Cabbage, Chinese; Cauliflower; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach; Rape greens; Turnip greens

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not use roots of treated turnips for food or feed. Only turnip varieties harvested for their leaves may be treated.
- 5) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 6) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 7) Do not apply within 7 days of harvest (7-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks		
Citrus	Alternaria Stem	11-14*	Make one application near harvest to		
Lemon	End Rot (<i>A. citri</i>)		prevent post-harvest fruit rot. The application may be made up to and		
Lime			including the day of harvest.		
	Anthracnose				
	(Colletotrichum				
	gloeosporioides)				
	Blue Mold				
	(Penicillium				
	italicum)				
	Green Mold				
	(Penicillium				
	digitatum)				
termine de las destructes de las destructes					
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A.					
*14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.					
 Specific Use Restrictions Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 					
 Do not apply more than 1 application per year at the highest rate. Application may be made by ground only. 					
		r year (0.33	b lb cyprodinil and 0.22 lb fludioxonil).		
5) Do not apply more than 0.33 lb ai/A of cyprodinil-containing products and 0.22 lb ai/A of fludioxonil-					
containing products per year.					
6) May be applied on the day of harvest (0-day PHI).					

7) Do not exceed one application per year.

Crop	Disease	Product Rate oz/Acre	Remarks		
Cucurbits**	Alternaria Leaf	11-14*	Begin applications prior to or at the onset		
	Blight		of disease and repeat applications on a		
Cantaloupe	(A. cucumerina)		7-10 day interval if conditions remain		
Cucumber			favorable for disease development.		
Honeydew	Alternaria Leaf				
Muskmelon	Spot		Resistance Management: After 2		
Mushinelon	(A. alternata)		applications of Serenva, alternate with		
Watermelon	(A. alternata)		another fungicide with a different mode		
Pumpkin	Gummy Stem		of action for 2 applications.		
Squash	Blight				
Zucchini					
Zucchini	(Didymella				
	bryoniae)				
And cultivars and/or					
hybrids of these.	Powdery Mildew				
	(Sphaerotheca				
	fuliginea,				
	Erysiphe				
	cichoracearum)				
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A. **Additional List of Cucurbits: Cantaloupe; Chayote; Chinese waxgourd; Cucumber; Gourds; Honeydew; <i>Momordica</i> spp. (Bitter melon, Balsam apple); Muskmelon; Pumpkin; Squash; Watermelon;					
Zucchini					
Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.					
Specific Use Restriction	5				
		ed the max	kimum rate listed in the table.		
	n 4 applications per year				
 Make no more than two applications by air. 					
4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).					
		r vear (1.3 l	b cyprodinil and 0.9 lb fludioxonil).		
	n 56 oz/A of Serenva pe		b cyprodinil and 0.9 lb fludioxonil). products and 0.9 lb ai/A of fludioxonil-		

6) May be applied up to 1 day before harvest (1-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks	
Grapes and Small Fruit Vine Climbing Subgroup 13-07F (except fuzzy kiwifruit) Grapes Amur river grape Hardy kiwifruit Maypop Schisandra berry	Botrytis (grey mold) <i>(B. cinerea)</i>	11-14*	Begin applications of Serenva at early bloom. Up to three additional applications may be made at berry touch, veraison, or preharvest. Botrytis Bunch Rot is most effectively controlled by ground application, using sufficient water volume to provide thorough coverage. Thorough coverage of bunches is essential. Do not apply closer than a 21-day interval.	
And cultivars and/or hybrids of these.	Sour rot (caused by a fungal complex)		For sour rot, make an application at veraison followed by 1-2 additional applications. Do not apply closer than a 21-day interval. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.	
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.				
Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air. Make no more than two applications by air.				
 Do not apply more than Make no more than two Do not apply more than 	4 applications per year applications by air. 56 oz/A of Serenva pe	r at the high r year (1.3 l	kimum rate listed in the table. hest rate. Ib cyprodinil and 0.9 lb fludioxonil).	

- 5) Do not apply more than 1.4 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonil-containing products per year.
 6) Do not apply within 7 days of harvest (7-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Herbs (Dried and fresh)**	Alternaria leaf spot (<i>Alternaria</i> spp.) Botrytis leaf blight (<i>Botrytis</i> spp.) Fusarium blight (<i>Fusarium</i> spp.)	11-14*	 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. Apply in a minimum spray volume of 30 gal/A to obtain thorough coverage. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.			

**Dried and Fresh Herbs Include: Angelica, Balm, Basil, Borage, Burnet, Chamomile, Catnip, Chervil, dried leaves, Chives, Clary, Coriander, leaves (cilantro), Costmary, Culantro, leaves, Curry, leaves, Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage, leaves, Marigold, Marjoram, Nasturtium, Parsley, dried leaves, Pennyroyal, Rosemary, Rue, Sage, Savory, summer and winter, Sweet bay, Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 6) Do not apply within 7 days of harvest (7-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Leafy Greens Subgroup 4A (except Brassica) and Leaf Petioles Subgroup 4B** Arugula Celery Lettuce, head and leaf Parsley Spinach And cultivars and/or hybrids of these.	Alternaria leaf spot (<i>Alternaria</i> spp.) Septoria leaf spot (<i>Septoria</i> <i>lactucae</i>) Gray mold (<i>Botrytis cinerea</i>) Sclerotinia rot (<i>Sclerotinia</i> spp.) Basal rot (<i>Phoma exigua</i>) Suppression: Powdery mildew (<i>Erysiphe</i> <i>cichoracearum</i>)	11-14*	 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. For control of Sclerotinia, make the first application at thinning and again two weeks later. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.			

****Complete List of Leafy Greens:** Amaranth; Arugula; Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum (Edible); Corn Salad; Cress; Dandelion; Dock; Endive (Escarole); Fennel, Florence; Lettuce (Head and Leaf); New Zealand spinach; Orach; Parsley; Purslane; Radicchio; Rhubarb; Spinach; Spinach, vine; Swiss Chard

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 6) May be applied on the day of harvest (0-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Leaves of Root and Tuber Vegetables** Beet, garden Beet, sugar Carrot Parsnip Radish Sweet Potato Turnip Yam (true)	Alternaria Leaf Blight <i>(Alternaria dauci)</i> Powdery Mildew <i>(Erysiphe</i> spp.)	11-14*	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. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.			

**Complete List of Root and Tuber Vegetables, Leaves: Beet, garden; Beet, sugar; Burdock, edible; Carrot; Cassava; Celeriac; Chicory; Dasheen; Parsnip; Radish; Radish (oriental); Rutabaga; Salsify (including black and Spanish); Sweet potato; Tanier; Turnip; Turnip-rooted chervil; Yam (true)

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Specific Use Restrictions

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Radish ONLY Make no more than two applications per year.
- 5) Radish ONLY Do not apply more than 28 oz/A of Serenva per year (0.66 lb cyprodinil and 0.44 lb fludioxonil).
- 6) Radish ONLY Do not apply more than 0.66 lb ai/A of cyprodinil-containing products and 0.44 lb ai/A of fludioxonil-containing products per year.
- 7) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 8) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 9) Do not apply within 7 days of harvest (7-day PHI).

10) Do not allow cattle or other livestock to feed upon the leaves of root and tuber vegetables.

Сгор	Disease	Product Rate oz/Acre	Remarks	
Onions and Garlic Bulb Vegetables Crop Group 3-07A and 3- 07B***	Botrytis leaf blight or blast (<i>Botrytis</i> spp.)	11-14*	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.	
Garlic Onion, bulb Onion, green Onions grown for seed And cultivars and/or hybrids of these.	Stemphylium leaf blight (Stemphylium vesicarium) Purple blotch (Alternaria porri) Suppression: Neck rot (Botrytis spp.) Black Mold (Aspergillus niger)		For optimal effect on neck rot, apply on a 7-day schedule at the 14 oz rate. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.	
			b cyprodinil/A and 0.17 lb fludioxonil/A. b cyprodinil/A and 0.22 lb fludioxonil/A.	
	Soilborne diseases White rot (Sclerotium cepivorum)	7-14** (0.5-1.0 oz/ 1,000 ft row)	Apply at the time of planting as an in- furrow spray.	
	**7 oz product/A contains 2.4 lb cyprodinil/A and 1.6 lb fludioxonil/A. **14 oz product/A contains 4.8 lb cyprodinil/A and 3.2 lb fludioxonil/A.			
Lily bulb; Pearl onion; Potato Green Onion: Beltsville bur	egetables: ; Dry Bulb onion; Dayl o onion; Serpent garlic; hching onion; Chinese pnion; Hosta elegans; I	illy bulb; Fri Shallot; chive fresh Kurrat; Lady	tillaria bulb; Garlic; Great-headed garlic; leaves; Fresh chive leaves; Fritillaria y's leek; Leek; Macrostem onion; Shallot	

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 1.0 lb ai/A of fludioxonilcontaining products per year.
- 6) For in-furrow applications, do not apply more than 0.68 lb ai/A of fludioxonil-containing products per acre per application.
- 7) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Product Rate oz/Acre	Remarks		
Pistachio	achioBotrytis (Botrytis spp.)11-14*Make the first application during early bloom and repeat applications at 14-da intervals if conditions remain favorable for disease development.Alternaria (Alternata)alternata)for disease development.				
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.					
Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air. Make no more than two applications by air.					
 Specific Use Restrictions 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table. 2) Do not apply more than 4 applications per year at the highest rate. 3) Make no more than two applications by air. 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil). 					

5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonil-containing products per year.
6) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate oz/Acre	Remarks
Potatoes Tuberous and Corm Vegetables Crop Subgroup 1C*	Brown spot (<i>Alternaria</i> <i>alternata</i>) Early blight	11 - 14*	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.
Sweet Potatoes	(<i>A. solani</i>) Powdery mildew (<i>Erysiphe</i> <i>cichoracearum</i>) Septoria leaf spot (<i>Septoria</i> <i>lycopersici</i>) Tan spot (<i>Botrytis cinerea</i>)		Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains *14 oz product/A contains			
*Additional Vegetables, t (Chinese and Jerusalem),	uberous and corm sub Canna, Cassava (bitter a	group 1C: and sweet),	Arracacha, Arrowroot, Artichoke Chayote (root), Chufa, Dasheen (Taro), Itivars and/or hybrids of these
essential for good disease	control. Use a minimum r. For chemigation, app	n of 5 gallor ly in 0.1-0.2	nd, air, or chemigation. Good coverage is ns/A spray volume by air. Make no more 5 inches/A of water. Chemigation with
 Do not apply more that Make no more than tw Do not apply more that 	cation Rate: Do not exce n 4 applications per year o applications by air. n 56 oz/A of Serenva pe	r at the high r year (1.3 l	kimum rate listed in the table. lest rate. b cyprodinil and 0.9 lb fludioxonil). products and 0.9 lb ai/A of fludioxonil-

- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonil-containing products per year.
 6) Do not apply within 14 days of harvest (14-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks	
Root Vegetables except Sugar beet** Carrot Beet, garden Ginseng Horseradish Parsnip Radish Radish (oriental) Rutabaga Turnip	Alternaria Leaf Blight <i>(Alternaria dauci)</i> Powdery Mildew <i>(Erysiphe</i> spp.)	11-14*	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. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.	
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.				
**Additional Root and Tuber Vegetables: Burdock, edible, Celeriac, Chicory, Salsify (including black and Spanish), Skirret, Turnip-root parsley, and Turnip-rooted chervil.				

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Radish ONLY Make no more than two applications per year.
- 5) Radish ONLY Do not apply more than 28 oz/A of Serenva per year (0.66 lb cyprodinil and 0.44 lb fludioxonil).
- 6) Radish ONLY Do not apply more than 0.66 lb ai/A of cyprodinil-containing products and 0.44 lb ai/A of fludioxonil-containing products per year.
- 7) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 8) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 9) Do not apply within 7 days of harvest (7-day PHI).
- 10) Do not allow cattle or other livestock to feed upon the leaves of root and tuber vegetables.

	 Begin application at or before bloom and continue on a 7-10 day interval. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
theca s) se ichum duct/A contains 0.	applications of Serenva, alternate with another fungicide with a different mode
duct/A contains 0.	
Juct/A contains 0.	0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.
rown 5-8 c per 1 gal <i>ichum</i> wate	ozApply as a preplant dip to strawberry100roots and crowns at the rate of 5 to 8 ozalper 100 gallons of water for suppression

****Additional Low Growing Berries:** Bearberry; bilberry; cloudberry; muntries; partridgeberry; and cultivars and/or hybrids of these

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 5 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Make only one pre-plant dip application per crop.
- 5) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 6) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 7) May be applied on the day of harvest (0-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Tomatoes and Fruiting Vegetable Crop Group 8-10** Eggplant	Early Blight (<i>Alternaria solani</i>) Grey Mold (<i>Botrytis cinerea</i>)	11-14*	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.
Okra Pepper, bell Pepper, nonbell	Powdery Mildew (Leveillula taurica) Target Spot (Corynespora cassicola)		Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.
*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.			

****Complete List of Fruiting Vegetable Crop Group 8-10:** African eggplant; Bush tomato; Cocona; Currant tomato; Eggplant; Garden huckleberry; Goji berry; Groundcherry; Martynia; Naranjilla; Okra; Pea eggplant; Pepino; Pepper, bell; Pepper, nonbell; Roselle; Scarlet eggplant; Sunberry; Tomatillos; Tomato; Tree tomato and cultivars and/or hybrids of these.

Application Instructions: Application may be made by ground, air, or chemigation. Good coverage is essential for good disease control. Use a minimum of 10 gallons/A spray volume by air. Make no more than two applications by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 6) Do not apply more than a maximum total of 4 applications (air plus ground plus chemigation) per year.
- 7) May be applied on the day of harvest (0-day PHI).

Сгор	Disease	Product Rate oz/Acre	Remarks
Tropical Fruits**	Botrytis fruit rot (<i>Botrytis</i> spp.)	11-14*	Make the first application during early bloom and repeat on 7-10 day intervals if
Avocado			conditions remain favorable for disease
Dragon Fruit Guava	Alternaria fruit rot (Alternaria spp.)		development.
Longan			Resistance Management: After 2
Lychee	Anthracnose		applications of Serenva, alternate with
Mamey sapote	(Colletotrichum		another fungicide with a different mode
Mango Papaya	spp.)		of action for 2 applications.
Passionfruit			
Spanish lime			
Starfruit			

*11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A.

*14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A.

****Tropical Fruits:** Acerola; Avocado; Black Sapote; Canistel; Dragon Fruit; Feijoa; Guava; Jaboticaba; Longan; Lychee; Mamey Sapote; Mango; Papaya; Passionfruit; Pulasan; Rambutan; Sapodilla; Spanish lime; Star apple; Starfruit; Wax Jambu

Application Instructions: Application may be made by ground or air. Good coverage is essential for good disease control. Use a minimum of 20 gallons/A spray volume by air. Make no more than two applications by air.

- 1) Maximum Single Application Rate: Do not exceed the maximum rate listed in the table.
- 2) Do not apply more than 4 applications per year at the highest rate.
- 3) Make no more than two applications by air.
- 4) Do not apply more than 56 oz/A of Serenva per year (1.3 lb cyprodinil and 0.9 lb fludioxonil).
- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonilcontaining products per year.
- 6) Do not apply more than a maximum total of 4 applications (air plus ground) per year.
- 7) May be applied on the day of harvest (0-day PHI).

Crop	Disease	Product Rate oz/Acre	Remarks	
Watercress	Cercospora leafspot (<i>Cercospora</i> spp.) Sclerotinia white mold (<i>Sclerotinia</i> spp.) Rhizoctonia rot (<i>Rhizoctonia</i> solani)	11-14*	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. Resistance Management: After 2 applications of Serenva, alternate with another fungicide with a different mode of action for 2 applications.	
 *11 oz product/A contains 0.26 lb cyprodinil/A and 0.17 lb fludioxonil/A. *14 oz product/A contains 0.33 lb cyprodinil/A and 0.22 lb fludioxonil/A. Application Instructions: Applications may be made by ground or chemigation. Good coverage is essential for good disease control. For chemigation apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy. 				
 Do not apply more th Applications can be r Do not apply more th 	blication Rate: Do not exce an 4 applications per year made to a dry bed only. N an 56 oz/A of Serenva pe	at the high o direct ap r year (1.3		

- 5) Do not apply more than 1.3 lb ai/A of cyprodinil-containing products and 0.9 lb ai/A of fludioxonil-containing products per year.
 6) May be applied on the day of harvest (0-day PHI).

CROP USE DIRECTIONS

FOR POST-HARVEST APPLICATIONS

Pomegranates

Use Serenva as a post-harvest dip for the control of Botrytis fruit rot and Gray mold in pomegranates.

Application Method	Disease	Rate (oz)	Remarks		
In-Line Dip/Drench	Botrytis fruit rot Gray mold	19.2 oz/100 gal	 Mix 19.2 oz of Serenva in 100 gal of water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain. 		
In-Line Dip/Drench	Botrytis fruit rot Gray mold	19.2 oz/100 gal	 Mix 19.2 oz of Serenva in 100 gal of water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain. 		
Application Instructions: For maximum decay control, treat fruit once before storage and once after storage, just prior to marketing. Ensure the Serenva solution remains in suspension by using agitation. Specific Use Restriction: Do not make more than two post-harvest applications of fludioxonil-					
containing products to	containing products to the fruit.				

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 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 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 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.

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

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SERENVA XXXX MAS NEW-C-0819-CL - di - 2/3/2020 000100-0XXXX.20190821C.SERENVA-NEW-0819-CL