69592-11 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 1/67

06/02/2008

Ms. Sherry D. Heins
Product Registration Manager
Agraquest, Incorporated
1540 Drew Avenue
Davis, CA 95618-6320

JUN 02 2008

Subject: Agraquest, Incorporated; Serenade® MAX
EPA Registration No. 69592-11
Minor Label ("Fast Track") Amendment
Submission dated 03/31/2008

Dear Ms. Heins:

The Agency has reviewed your request to amend the subject product registration, which included the following changes to the product label:

1) Minor adjustments to the Hazards to Humans and Domestic Animals and Environmental Hazards statements (per the Label Review Manual and the active ingredient's Biopesticide Registration Action Document)
2) Removal of the reference to "Biotune"
3) Minor revisions to the Storage and Disposal statements (per PR Notice 2007-4)
4) Addition of the pest, Aerial Stem Rot, and associated application instructions to the Root/Tuber and Corm Vegetable Crop Group
5) Addition of Animal Feed Nongrass Crop Group with associated pests and application instructions
6) Addition of clarifying language ("including those grown for seed production") to select crop groups
7) Clarification of one of the Worker Protection Standard general statements in the Directions for Use
8) Addition of soil drench application for agricultural field crops
9) Reduction of spray intervals for some of the targeted bacterial diseases
10) Addition of the pest, *Laetisaria fuciformis* ("Red Thread"), to Sub-Label C
11) Clarification of application instructions in the Berry Crop Group
12) Correction of typographical, spelling, and printing errors
13) Addition of new alternate brand names: Jazz, Serenade® MAX Garden Disease Control, and Serenade® MAX Garden Disease Control Wettable Powder
14) Addition of the Mushroom Crop Group with associated pests and application instructions

CONCURRENCES								
SYMBOL ▶	7511P	7511P						
SURNAME ▶	KAUSCH	Reilly						
DATE ▶	06/02/2008	6/2/08						

2/67

The changes referred to above, submitted in connection with registration under FIFRA section 3(c)(5), are acceptable provided that you:

1) Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.

2) Submit two (2) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of a final printed label.

Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions. If you have any questions contact Jeannine Kausch at 703-347-8920 or by email at: kausch.jeannine@epa.gov.

A stamped copy of the label is enclosed for your records.

Sincerely,

Sheryl Reilly, Ph.D., Chief
Microbial Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)

Enclosures

SERENADE® MAX

[Alternate Brand Names: JAZZ, Serenade® MAX Garden Disease Control, Serenade® MAX Garden Disease Control Wettable Powder]

MASTER LABEL

Sub-label A: Agricultural/Commercial Use

Sub-label B: Agricultural Use – Mushroom Production Only

Sub-label C: Residential Use (Home and Garden Use)

ACTIVE INGREDIENT:

QST 713 strain of dried *Bacillus subtilis**	14.6%
OTHER INGREDIENTS	85.4%
TOTAL	100.0%

***Contains a minimum of 7.3 x 10^9 cfu/g**

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Registration No. **69592-11**
EPA Est. No.:

1	2	3	4	5
69592-MEX-1	**67545-AZ-1**	**66728-GA-2**	**37429-GA-2**	**69592-CA-1**

Agraquest, Inc.
1540 Drew Avenue
Davis, CA 95618
www.agraquest.com

ACCEPTED

JUN 0 2 2008

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 69592-11

SERENADE® MAX
WETTABLE POWDER BIOFUNGICIDE
SUB-LABEL A

For Agricultural/Commercial Use Only

SERENADE® MAX

[A Wettable Powder Biofungicide]

[Optional/Alternate Statement: "NOP Logo: For Organic Production"]
[Optional/Alternate Statement: "NOP Logo: Can be Used for Organic Production"]
[USE INDOORS AND OUTDOORS]
[USE IN FIELD APPLICATIONS, GREENHOUSES, NURSERIES, SHADE HOUSES, LANDSCAPES, INTERIORSCAPES, SEEDLING PRODUCTION SITES, AND FOREST SEEDLING PRODUCTION SITES]
[USE IN TANK MIXES OR ROTATIONAL ALTERNATING SPRAY PROGRAMS WITH OTHER CROP PROTECTION PRODUCTS]
[USE IN RESISTANT MANAGEMENT PROGRAMS]
[USE GROUND, AERIAL, CHEMIGATION AND HAND APPLIED EQUIPMENT]
[FOR AGRICULTURAL USE]
[FOR USE ON ORNAMENTALS, TREES, SHRUBS, TURF, LAWNS, SOD, GOLF COURSES (GREENS, TEES, FAIRWAYS AND ROUGHS), SEEDLINGS, AND CONIFERS]
[USE IN PRODUCTION OF CONIFERS FOR REFORESTATION]

ACTIVE INGREDIENT:	
QST 713 strain of dried *Bacillus subtilis**	14.6%
OTHER INGREDIENTS	85.4%
TOTAL	100.0%

*Contains a minimum of 7.3×10^9 cfu/g

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]
[Peel back tab for First Aid and Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]

EPA Registration No. 69592-11
EPA Est. No.:

[Superscript corresponds to last digit of lot number stamped on container.]

1	2	3	4	5
69592-	67545-	66728-	37429-	69592-
MEX-1	AZ-1	GA-2	GA-2	CA-1

Agraquest, Inc.
1540 Drew Avenue
Davis, CA 95618
www.agraquest.com

U.S. Patent Nos. 6,060,051, 6,103,228, 6,291,426, and 6,417,163 on QST 713 strain of *Bacillus subtilis*

Net weight: [

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. 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.

FIRST AID	
IF IN EYES:	• Hold eyes open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for further treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. • Call a poison control center or doctor for further treatment advice.
Have the product label with you when calling a poison control center or doctor or going for treatment.	

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

[OPTIONAL: ENGINEERING CONTROLS]

[OPTIONAL STATEMENT: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.]
[IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.]

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticides get 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

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. Do not apply when weather conditions favor drift or runoff from treated areas.

EMERGENCY INFORMATION

For emergencies such as leaks or spills, call 24-hour toll-free CHEMTREC hotline at 1.800.424.9300.

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 State or Tribal 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) 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 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- coveralls
- waterproof gloves
- shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses 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 green houses.

[Post harvest Applications:]
Post harvest treatment of harvested agricultural plants does not fall within the scope of the WPS. An agricultural plant is considered harvested when 1) a desirable portion of the agricultural plant (seed, fruit, flower, stem, foliage, or roots) is detached from its parent or 2) a whole agricultural plant is separated from its growth media (soil, water, or other media).

PPE for applicators treating portions of harvested agricultural plants or handlers exposed to treated portions of harvested agricultural plants is waterproof gloves.

Keep unprotected persons from handling portions of harvested agricultural plants that have been treated until sprays have dried

[Commercial Treatment of plants that are in ornamental gardens, parks, golf courses, and public or residential turf and grounds, and that are intended only for aesthetic purposes or climatic modification:]

Keep unprotected persons out of treated areas until sprays have dried.

GENERAL USE INFORMATION

Serenade MAX is a broad spectrum, preventative product for the control or suppression of many important plant diseases. Apply Serenade MAX as a foliar spray alone, in alternating spray programs or in tank mixes with other registered crop protection products. [Apply Serenade MAX as a soil drench alone or in tank mixes with other registered crop protection products.] When conditions are conducive to heavy disease pressure, use Serenade MAX in a rotational program with other registered fungicides. Apply Serenade MAX with spray equipment commonly used for making ground or aerial applications and sprinkler/irrigation systems commonly used for chemigation. Heavy rainfall or irrigation shortly after application may require retreatment. Serenade MAX can be used for organic production.

[OPTIONAL STATEMENT: Serenade MAX is most effectively used in a preventive disease management program. For improved performance, use Serenade MAX in a tank-mix or rotational program with other registered fungicides. When using Serenade MAX alone for the first time, use a rate of 2 lbs. Serenade MAX per acre. Increase the application rate and/or decrease spray intervals of Serenade MAX depending upon disease pressure. To enhance performance, consider adding a surfactant, known to be safe to the target crop, to the spray tank to improve penetration and coverage of above-ground portions of the plant.]

INTEGRATED PEST MANAGEMENT (IPM)

Integrate Serenade MAX into an overall disease and pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

Be sure use of this product conforms to resistance management strategies, which may include rotating and/or tank-mixing with other products with different modes of action.

USE RATE DETERMINATION

Carefully read and follow all label directions, use rates and restrictions. Application of Serenade MAX prior to or in the early stages of disease development provides the best control or suppression of the targeted plant disease. Use maximum label rates and shortened spray intervals for conditions conducive to threatening or rapid disease development. For proper application, determine the number of acres to be treated, the label use rate and select appropriate gallonage to give good canopy penetration and coverage of plant parts to be protected. Prepare only the amount of spray solution required to treat the

measured acreage. Accurate spray equipment calibration is essential prior to use.

PREHARVEST INTERVAL

Serenade MAX can be applied up to and including the day of harvest.

APPLICATION INSTRUCTIONS

GENERAL: Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they should be observed. Note: This section is advisory in nature and does not supersede the mandatory label requirements.

GROUND: Be sure to maintain agitation during mixing and application to assure uniform product suspension. Thorough coverage of all foliage is essential for effective disease control. Serenade MAX can be applied in commonly used ground equipment, hose-end, pressurized, greenhouse and hand-held sprayers. To achieve good coverage, use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

AERIAL: This product can be applied by aerial application. Refer to the Aerial Drift Reduction Advisory Information section of this label for general directions and precautions. Use the application rate indicated for the appropriate crop in sufficient water to achieve thorough coverage, typically between 3 – 20 gallons of water per acre depending upon the crop. Three gallons of water per acre is the minimum.

CHEMIGATION: This product can be applied through sprinkler (center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, and hand move) or drip type irrigation systems. Refer to the Chemigation Directions for Use section of this label for general directions and precautions. Use the application rate indicated for the appropriate crop as specified in the Application Rate tables of this label.

MIXING INSTRUCTIONS

MIXING: Serenade MAX must be diluted with water. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of Serenade MAX to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. It is critical that the spray solution be agitated during mixing and application to assure a uniform suspension. Do not allow spray mixture to stand overnight or for prolonged periods. [Optional Statement: Maintain a spray solution pH between 4.5 and 8.5.]

Serenade MAX may be tank-mixed with other registered pesticides to enhance plant disease control. This product cannot be mixed with any product with prohibition against such mixing. When tank-mixing Serenade MAX with other registered pesticides, always read and follow all use directions, restrictions, and precautions of both Serenade MAX and the tank-mix partner(s). Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. Do not exceed label dosage rates.

COMPATIBILITY: Do not combine Serenade MAX in the spray tank with pesticides, surfactants or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective and non-injurious under your use conditions.

Serenade MAX is compatible with many commonly used pesticides, fertilizers, adjuvants and surfactants but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the

crop to be treated to ensure that a phytotoxic response will not occur as a result of application. [OPTIONAL STATEMENT: Do not use with penetrant-type adjuvants.]

ADDITIVES: Serenade MAX is compatible with a wide range of additives. Since the product is primarily a protectant, thorough coverage of all above-ground plant parts is required for effective product performance. To improve plant surface coverage, add a nonphytotoxic adjuvant to spray tank.

CHEMIGATION DIRECTIONS FOR USE

General Requirements:

1) Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move) or drip type irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
3) Ensure that the irrigation system used is properly calibrated and if you have questions, call the State Extension Service specialists, the equipment manufacturer or other experts.
4) 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.
5) 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 any necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems:

1) Public water supply 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 25 individuals daily at least 60 days throughout the year.
2) Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply 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 of the 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 towards 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 filled with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment.
8) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
9) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has <u>not</u> been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.
10) Maintain agitation in the pesticide supply tank.
11) Apply Serenade MAX during the last half of the water application.

12) Dilute Serenade MAX in enough water to be able to draw through system for the last half of the water application.

Sprinkler Chemigation Requirements:

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 back flow.
2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment.
8) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
9) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has <u>not</u> been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.

Center-pivot, Lateral Move, End Tow, and Traveler Irrigation Equipment (Use only with electric or oil hydraulic drive systems which provide a uniform water distribution):

- Determine size of area to be treated.
- Determine the time required to apply no more than 1/4 inch of water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Serenade MAX fungicide required to treat area.
- Add required amount of Serenade MAX fungicide and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until Serenade MAX fungicide solution has cleared the sprinkler head.

Solid-set, Side (wheel) Roll, and Hand Move Irrigation Equipment:

- Determine acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- Determine the amount of Serenade MAX fungicide required to treat area.
- Add the required amount of Serenade MAX fungicide into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.

- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject Serenade MAX fungicide at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until Serenade MAX fungicide solution has cleared the last sprinkler head.

Drip Chemigation Requirements:

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 back flow.
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 inter-locking 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) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
8) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has not been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.
9) Maintain agitation in the pesticide supply tank.
10) Apply Serenade MAX during the last half of the water application.
11) Dilute Serenade MAX in enough water to be able to draw through system for the last half of the water application.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

General: Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed. Note: This section is advisory in nature and does not supersede the mandatory label requirements.

INFORMATION ON DROPLET SIZE: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE: Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger

droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure. # of Nozzles - Use the minimum number of nozzles that provide uniform coverage. Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential. Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM WIDTH: For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3 – 10 mph as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or the crop canopy.

APPLICATION HEIGHT: Do not make application at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND: Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS: Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

SENSITIVE AREAS: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

FOR USE AS A FOLIAR SPRAY ON SELECT AGRICULTURAL FIELD CROPS AND SELECT AGRICULTURAL GREENHOUSE CROPS

Serenade MAX has a 0-Day PreHarvest Interval for all crops contained on this label.
Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use Serenade MAX in a tank mix or rotational program with other registered fungicides.

Application Rates of Serenade MAX for Selected Field Crops			
Crops	**Disease**	**Rate Lbs./acre**	**Application Instructions**
Artichoke	**Powdery Mildew** *Leveillula taurica, Erysiphe cichoracearum* **Gray Mold** *Botrytis* spp. **Bacterial Crown Rot** *Erwinia chrysanthemi*	1 - 3	Begin application when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Serenade MAX may be applied up to and including the day of harvest.
Asparagus	**Rust** *Puccinia asparagi* **Botrytis Blight** *Botrytis cinerea*	1 - 3	Begin application soon after emergence and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Serenade MAX may be applied up to and including the day of harvest.
Bananas Plantains	**Sigatoka** *Mycosphaerella* spp.	1 - 3	Begin application when leaves first appear and repeat on 7 to 21 day intervals or as needed. The addition of an approved emulsifiable oil to spray solutions will improve performance.

Berry Blueberries Blackberry Raspberry Loganberry Huckleberry Cranberry Gooseberry Elderberry Currant Caneberry Bushberry and other berry crops	**Mummy Berry** *Monilinia vaccinii-corymbosi* **Anthracnose Fruit Rot** *Colletotrichum gloeosporiodes* *Colletotrichum acutatum* **Botrytis Blight** *Botrytis cinerea* **Leaf Rust** *Pucciniastrum vaccinii* **Powdery Mildew** *Microsphaera alni* **Sooty Mold** Misc. fungi **Alternaria Fruit Rot** *Alternaria tenuissima* **Bacterial Canker** *Pseudomonas* spp. **Downy Mildew** *Peronospora sparsa* **Phomopsis** *Phomopsis vaccinii*	1 - 3	Mummy Berry - For suppression, begin application at the bud break stage of development and repeat on a 7 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Mummy Berry control. Bacterial Canker – Apply before fall rains and again during dormancy before spring growth. Apply throughout the growing season prior to disease development and repeat on a 2 to 10 day interval or as needed. Alternaria Fruit Rot and Anthracnose - suppression– Begin application prior to disease development and repeat on a 2 to 10 day interval or as needed. For improved performance of Serenade MAX, add a surfactant to the spray tank to improve coverage. For all other diseases – Begin application prior to disease development and repeat on a 2 to 10 day interval or as needed. For improved performance of Serenade MAX, add a surfactant to the spray tank to improve coverage. Cranberries – Make application to non-flooded fields only. Serenade MAX may be applied to fruit up to and including the day of harvest.

Crops	Disease	Rate Lbs./acre	Application Instructions
Brassica Vegetables (Cole Crops) Broccoli Cabbage Cauliflower Brussels Sprouts Collards Kale Mustard Greens Kohlrabi and other brassica crops	**Pin Rot Complex** *Alternaria/Xanthomonas* **Bacterial Leaf Spot** *Pseudomonas syringae* **Bacterial Soft Rot** *Erwinia / Pseudomonas* **Black Rot** *Xanthomonas campestris* **Xanthomonas Leaf Spot** *Xanthomonas campestris* **Alternaria Leaf Spot** *Alternaria* spp. **Anthracnose** *Colletotrichum higginsianum* **Cercospora Leaf Spot** *Cercospora brassicicola* **Downy Mildew** *Peronospora parasitica* *Peronospora* spp. **Powdery Mildew** *Erysiphe polygoni* **Southern Blight** *Sclerotium rolfsii*	1 - 3	Pin Rot - For suppression, begin application when environmental conditions are conducive to disease development and repeat on 2 to 10 day intervals or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Pin Rot control. For all other diseases - Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 3 to 10 day interval or as needed.
Bulb Vegetables Onion Garlic Shallots and other bulb vegetables including those grown for seed production.	**Botrytis Neck Rot** *Botrytis* spp. **Botrytis Leaf Blight** *Botrytis squamosa* **Onion Purple Blotch** *Alternaria porri* **Onion Downy Mildew** *Peronospora destructor* **Downy Mildew** *Peronospora* spp. **Powdery Mildew** *Erysiphe* spp. **White Rot** *Sclerotium cepivorum*	1 - 3	Begin application when environmental conditions are conducive to disease development and repeat on a 7 to 10 day interval or as needed. Apply sufficient water to provide complete coverage of plants. When conditions are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides
	Rust *Puccinia porri*	1 - 3	For suppression, begin application when conditions are conducive to disease development and repeat on a 7 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Rust control.

Crops	Disease	Rate Lbs./acre	Application Instructions
Cereal Grains Barley Corn Millets Oat Rice Rye Sorghum Triticale Wheat and other cereal grain crops	**Powdery Mildew** *Erysiphe graminis* **Rust** *Puccinia* spp. **Blast** *Pyricularia oryzae* **Sheath Spot** *Rhizoctonia oryzae* **Sheath Blight** *Thanatephorus cucumeris,* (Anamorph: *Rhizoctonia solani*) *Thanatephorus kernel* **Smut** *Tilletia barclayana* **Bacterial Blight and Streak** *Xanthomonas* spp. **Stem Rot** *Sclerotium oryzae* *Magnaporthe* spp. **Brown Rot, Leaf Spots and Smuts** *Cercospora* spp. *Entyloma* spp. *Dreschlera* spp. *Cochliobolus* spp. *Ceratobasidium* spp.	1 - 3	Begin applications when environmental conditions and plant stage are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.

Crops	Disease	Rate Lbs./acre	Application Instructions
Citrus Orange Grapefruit Lemon Tangerine Tangelo Pummelo and other citrus crops	**Greasy Spot** *Mycosphaerella citri* **Post Bloom Fruit Drop** *Colletotrichum acutatum* **Scab** *Elsinoe fawcetti* **Melanose** *Diaporthe citri* **Alternaria Leaf Spot** *Alternaria alternate* **Bacterial Blast** *Pseudomonas syringae*	1 -3	Greasy Spot - For suppression, begin applications at first new foliar flush, and repeat with subsequent new flushes. When conditions are conducive to rapid disease development, Serenade MAX must be used in a tank mix program with other registered products, such as spray oil or copper-based fungicides, at labeled rates. Post Bloom Fruit Drop – For suppression, begin applications at early bloom and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed. Utilize the shorter spray interval between applications if warm, wet conditions persist. Citrus Scab – For suppression, begin applications at first new foliar flush and repeat at petal fall and at ½ inch diameter fruit. Melanose – For suppression, begin applications at petal fall and repeat on a 14 to 21 day interval until fruit becomes resistant. Alternaria Leaf Spot – Begin applications when environmental conditions and plant stage are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Bacterial Blast - Begin applications when environmental conditions are conducive to disease development. Repeat on 3 to 10 day intervals or as needed. For improved performance on Post Bloom Fruit Drop, Scab and Melanose, use Serenade MAX in a tank mix or rotational program with other registered fungicides.
Coffee	**Coffee Berry Disease** *Colletotrichum coffeanum* **Bacterial Blight** *Pseudomonas syringae*	1-3	Begin applications when environmental conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides.

Crops	Disease	Rate Lbs./acre	Application Instructions
Corn Sweet Corn Popcorn Seed Corn Silage Corn Field Corn and other corn crops	**Common Rust** *Puccinia sorghi* **Northern Leaf Blight** *Exserohilum turcicum* *Helminthosporium turcium* **Southern Leaf Blight** *Bipolaris maydis* *Helminthosporium maydi* *Cochliobolus heterostrophus*	1 - 3	Begin applications when environmental conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
Clover, forage **Alfalfa, forage** Other animal feed nongrass crops including those grown for seed production	**White Mold (Sclerotinia Stem Rot)** *Sclerotinia sclerotiorum*	1 - 3	For suppression of White Mold, begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed.
Cucurbits Cucumber Cantaloupe Melon Muskmelon Squash Watermelon and other cucurbit crops	**Powdery Mildew** *Erysiphe* spp. *Sphaerotheca* spp. **Gummy Stem Blight** *Didymella bryoniae* *Phoma cucurbitacearum* **Angular Leaf Spot** *Pseudomonas syringae* **Anthracnose** *Colletotrichum lagenarium* **Downy Mildew** *Pseudoperonospora cubensis* **Bacterial Fruit Blotch** *Acidovorax avenae*	1- 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on 7 to 10 day interval or as needed. When environmental conditions and plant stage are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides.

Crops	Disease	Rate Lbs./acre	Application Instructions
Fruiting Vegetables Pepper Tomato Eggplant Ground Cherry Tomatillo Okra and other fruiting vegetables continued	**Bacterial Spot** *Xanthomonas* spp. **Target Spot** *Corynespora cassiicola*	1 - 3	Begin application soon after emergence or transplant and when environmental conditions are conducive to disease development. Continue applications on a 2 to 7 day interval or as needed. When conditions are conducive to rapid disease development, for improved control, use Serenade MAX in a tank mix program with copper-based bactericides registered for control of Bacterial Spot at labeled rates.
	Bacterial Speck *Pseudomonas syringae* pv. *tomato*	1 - 3	Begin application soon after emergence or transplant and when environmental conditions are conducive to disease development. Continue applications on a 2 to 7 day interval or as needed. Use higher rates when conditions are conducive to rapid disease development.
	Early Blight *Alternaria solani* **Late Blight** *Phytophthora infestans*	1 - 3	For suppression, begin application when plants are 4 to 6 inches high. Repeat applications on a 5 to 7 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides Use shorter spray intervals under conditions conducive to rapid disease development.
	Powdery Mildew *Leveillula taurica* *Oidiopsis taurica* *Erysiphe* spp. *Sphaerotheca* spp. **Downy Mildew** *Pseudoperonospora cubensis*	1 - 3	For suppression, begin application soon after emergence or transplant and continue on a 7 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides.
	Buck-eye Rot *Phytophthora parasitica* **Anthracnose** *Colletotrichum candidum*	1-3	Begin application soon after emergence or transplant and continue on a 7 to 10 day interval or as needed. For improved performance of Serenade MAX, add a surfactant to the spray tank to improve coverage.
	Bacterial Canker *Clavibacter michiganensis*	1-3	Begin applications when environmental conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed.
	Gray Mold *Botrytis cinerea*	1 - 3	Begin application soon after emergence or transplant and repeat on a 7 to 10 day interval or as needed.

Crops	Disease	Rate Lbs./acre	Application Instructions
Grape	**Gray Mold** *Botrytis cinerea* **Sour Rot** [a complex of pathogens *Aspergillus niger, Alternaria tenuis, Botrytis cinerea, Cladosporium herbarum, Rhizopus arrhizus, Penicillium* spp., and others]	1 - 3	Begin application at bloom, before bunch closure, at verasion and preharvest. Apply in sufficient water to provide full coverage. Serenade MAX may be applied to fruit up to and including the day of harvest. For Table Grapes - After initiation of Berry set, it is encouraged to switch from Serenade MAX to Serenade ASO to avoid the potential for white deposits on fruit.
	Powdery Mildew *Uncinula necator*	1 - 3	Begin application when new shoots are ½ to 1½ inches long. Repeat when shoots are 3 to 5 inches long, when shoots are 8 to 10 inches long and then at 7 to 10 day intervals until disease conditions no longer exist. Use high rates and shorter intervals when conditions are conducive to rapid disease development. Apply in sufficient water to provide thorough coverage. For Table Grapes - After initiation of Berry set, it is encouraged to switch from Serenade MAX to Serenade ASO to avoid the potential for white deposits on fruit.
	Downy Mildew *Plasmopara viticola*	1 - 3	For suppression, apply at 10-inch shoot, then at 7 to 10 day intervals until bunch closure (berry touch). For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Downy Mildew control. For Table Grapes - After initiation of Berry set, it is encouraged to switch from Serenade MAX to Serenade ASO to avoid the potential for white deposits on fruit.
	Phomopsis *Phomopsis viticola*	1 - 3	Begin applications when shoots are ½ to 1 inch long and repeat when shoots are 6-8 inches long.
	Black Rot *Guignardia bidwelli*	1-3	Begin applications when shoots are 4 to 6 inches in length and repeat on 7 to 10 day intervals throughout the season until the berries start to change color. For Table Grapes - After initiation of Berry set, it is encouraged to switch from Serenade MAX to Serenade ASO to avoid the potential for white deposits on fruit.
	Eutypa *Eutypa lata*	2 – 5% w/v*	Apply solution to pruning wounds. Sanitation is critical. All wood from infected plants must be removed from the vineyard and destroyed (either buried or burned).

*2-5% w/v rate (Serenade MAX to water) for this use only.

Crops	Disease	Rate Lbs./acre	Application Instructions
Herbs/ Spices	**Bacterial Blight** *Pseudomonas syringae* **Anthracnose** *Colletotrichum* spp. **Alternaria Leaf Blight** *Alternaria* spp. **Botrytis** *Botrytis* spp.	1 - 3	Begin application when environmental conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed.
Hop	**Powdery Mildew** *Sphaerotheca macularis* **Downy Mildew** *Peronospora* spp.	2 - 4 lbs./100 gal	Use the higher rates when moderate to high disease pressure is present or expected. Begin applications when environmental conditions are conducive to rapid disease development. Continue sprays at 7-day intervals or as needed. Apply at a rate of 2-4 lbs. of Serenade MAX per 100 gallons of water using ground equipment. Spray volume ranges for hop growth stages are as follows: Emergence to training: Use 2-4 lbs. of product per 100 gallons of water. Apply using a minimum spray volume of 20 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage. Maximum spray volume is 400 gallons per acre. Training to wire: Use 2-4 lbs. of product per 100 gallons of water. Apply using a minimum spray volume of 50 gallons per acre. Coverage will vary with the size of the vines and the type of spray equipment. Apply adequate spray volume to achieve complete spray coverage. Maximum spray volume is 400 gallons per acre. Wire touch through harvest: Use 2-4 lbs. of product per acre. Apply in a minimum spray volume of 100 gallons per acre. Consider higher water volumes to achieve thorough coverage after side arms develop. Apply adequate spray volume to achieve complete spray coverage. Maximum spray volume is 400 gallons per acre. Use the higher rates when moderate to high disease pressure is present or expected.

Crops	Disease	Rate Lbs./acre	Application Instructions
Leafy Vegetables Lettuce Celery Spinach Parsley Radicchio and other leafy vegetable crops including those grown for seed production	**Downy Mildew** *Bremia lactucae* *Peronospora* spp. **Powdery Mildew** *Erysiphe cichoracearum* **White Rust** *Albugo occidentalis* **Pink Rot** *Sclerotinia sclerotiorum* **Anthracnose** *Colletotrichum* spp. **Bacterial Leaf Spot** *Xanthomonas campestris* pv. *vitians* **Bacterial Blight** *Xanthomonas campestris*	1 - 3	Pink Rot – Begin application approximately 8 weeks before harvest and repeat on a 14-day interval. Apply Serenade MAX as a directed spray in sufficient water to ensure thorough coverage of the base of the plants and the surrounding soil surface. Light irrigation following application to incorporate Serenade MAX may improve disease control. Downy Mildew / Powdery Mildew / White Rust- For suppression, begin application when conditions are conducive to disease development and repeat on 2 to 10 day intervals or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Downy Mildew and Powdery Mildew control. Anthracnose – suppression- Begin application prior to disease development when environmental conditions and plant stage are conducive to rapid disease development and repeat on a 7 to 10 day interval or as needed. Use higher rates and shorter application intervals under heavy disease pressure. Bacterial Blight / Bacterial Leaf Spot- Begin applications when environmental conditions are conducive to disease development. Repeat on 2 to 10 day intervals or as needed.

Crops	Disease	Rate Lbs./acre	Application Instructions
Leafy Vegetables Lettuce Celery Spinach Parsley Radicchio and other leafy vegetable crops including those grown for seed production.	**Sclerotinia Head and Leaf Drop** *Sclerotinia* spp.	1 - 3	For control of early Sclerotinia Head and Leaf Drop: Apply at planting or immediately following planting but prior to crop emergence as a 4 to 6 inch seed line treatment. Make a second application as a directed spray with multiple nozzles per each seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning. Repeat applications on 10 to 14 day intervals if conditions for disease development persist. Use higher rates under conditions conducive to moderate to severe disease pressure. Light irrigation after application to incorporate the product may improve disease control. OR For control of Sclerotinia Head and Leaf Drop: Apply as a directed spray with multiple nozzles per each seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning or transplanting. Repeat applications on 10 to 14 day intervals if conditions for disease development persist. Use higher rates under conditions conducive to moderate to severe disease pressure. Light irrigation after application to incorporate the product may improve disease control.
Legumes/ Vegetables (succulent and dried beans and peas) Beans Green beans Snap beans Shell beans Soybeans Dry Beans Garbanzo beans Lima beans Peas Chick peas Split peas Lentils and other legume/ vegetable	**Rust** *Uromyces appendiculatus*	1 - 3	For suppression, begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Rust control.
	Rust *Puccinia* spp. **Bacterial Pustule** *Xanthomonas* spp. **Powdery Mildew** *Erysiphe* spp. **Downy Mildew** *Peronospora manshurica*	1 - 3	Begin applications when environmental conditions and plant stage are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
	Asian Soybean Rust *Phakospora pachyrhizi*	1 - 3	Use as part of a program with other fungicides labeled for Asian Soybean Rust. Begin applications when environmental conditions are conducive to disease development. Continue at 7 to 14 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.

crops including those grown for seed production	**Damping-Off** *Aphonomyces* spp.	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed.
	White Mold (Sclerotinia Stem Rot) *Sclerotinia sclerotiorum* **Gray Mold (Botrytis Blight)** *Botrytis* spp.	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. When conditions are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides.
Mint and other herb/spices	**Rust** *Puccinia menthae* **Powdery Mildew** *Erysiphe* spp. **Downy Mildew** *Peronospora* spp.	1 - 3	Begin application soon after emergence and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
Oil Seed Crops Canola Castor Coconut Cotton Flax Oil Palm Olive Peanut Rapeseed Safflower Sesame Sunflower Soybeans and other oilseed crops including those grown for seed production	**Bacterial Speck** *Pseudomonas syringe* pv. *glycinea* **Brown Spot** *Septoria glycines* **Pod and Stem Blight** *Diaporthe phaseolorum* var. *sojae* *Phomopsis longicola* **Downy Mildew** *Peronospora manshurica* **Rust** *Albugo* spp. *Puccinia* spp. **White Mold (Sclerotinia Stem Rot)** *Sclerotinia sclerotiorum* **Bacterial Pustule** *Xanthomonas* spp.	1 - 3	Begin application soon after emergence and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure. For suppression of White Mold, begin application soon after emergence and when conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
	Asian Soybean Rust *Phakospora pachyrhizi*	1 - 3	Use as part of a program with other fungicides labeled for Asian Soybean Rust. Begin applications when environmental conditions are conducive to disease development. Continue at 7 to 14 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
Olive	**Olive Knot** *Pseudomonas Savastanoi* **Leaf Spot** *Cercospora cladosporioides*	1 - 3	Apply before fall rains and again during dormancy before spring growth. Under conditions conducive to heavy disease pressure, for improved control, use Serenade MAX in a tank-mix or rotational program with a copper-based bactericide registered for control of Olive Knot. In cool, wet areas, apply preventive treatments to olive trees after harvest but before winter rains begin and again in spring if wet, rainy weather persists.

Crops	Disease	Rate Lbs./acre	Application Instructions
Peanut	**Early Leaf Spot** *Cercospora* spp. *Cercospora arachidicola* **Late Leaf Spot** *Cercosporidium Personatum* **Rust** *Puccinia arachidis* **White Mold** *Sclerotinia sclerotiorum* **Web Blotch** *Phoma arachidicola*	1 - 3	Begin application when environmental conditions are conducive to disease development. Repeat applications on 14-day intervals or as needed. For improved control of Leaf Spot diseases, use Serenade MAX in a tank mix program with copper-based fungicides registered for control of Peanut Leaf Spot. Peanut hay may be fed to livestock.
Pome Fruit Apple Crabapple Pear Quince Mayhaw and other pome fruit	**Fire Blight** *Erwinia amylovora*	1 - 3	For suppression, begin application at 1 – 5% bloom and repeat or as needed to protect open, untreated blossoms when conditions favoring disease development are likely to occur. For maximum control, use Serenade MAX prior to and as close as possible to Fire Blight infection events. During periods of rapid bloom development and frequent infection periods, use 2 to 7 day spray intervals. After petal fall, continue applications on a 7-day interval while environmental conditions favor disease development. Apply in sufficient water to provide full coverage. For improved performance, use Serenade MAX in a rotational program with antibiotics registered for Fire Blight control such as but not limited to oxytetracycline or streptomycin. Proper orchard cultural practices are essential to eliminate Fire Blight-infected tissue from the orchard to assure good performance of any crop protection product. Care must be taken to remove and destroy dead and diseased wood from the orchard prior to and during the growing season. Use of Serenade Max alone has not been shown to affect fruit finish. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with Serenade MAX.

Crops	Disease	Rate Lbs./acre	Application Instructions
Pome Fruit Apple Crabapple Pear Quince Mayhaw and other pome fruit	**Scab** *Venturia* spp.	1 - 3	For suppression, begin application at green tip or when environmental conditions become favorable for primary Scab development and repeat on a 7 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Scab control.
	Brooks Spot *Mycosphaerella pomi* **Cedar Apple Rust** *Gymnosporangium juniperi-virginianae* **Flyspeck** *Schizothyrium pomi* **Sooty Blotch** *Gloeodes pomigena* **Bot Rot** *Botryosphaeria dothidea* **Bitter Rot** *Colletotrichum* spp. **Bull's Eye Rot** *Neofabraea* spp.	1-3	For control of Brooks Spot, Cedar Apple Rust, Flyspeck, Sooty Blotch, Bot Rot, Bitter Rot and Bull's Eye Rot: Begin applications pre-bloom when environmental conditions are conducive to disease development. Repeat applications at 7 to 14 day intervals or as needed. Apply in sufficient spray volume to ensure thorough coverage. Use higher application rates and shorter spray intervals when conditions are conducive to rapid disease development or heavy disease pressure. For improved performance of Serenade MAX, add a surfactant, known to be safe to the target crop, to the spray tank to improve coverage and wetting of plant surfaces. Serenade MAX may be applied up to and including the day of harvest (0-day PHI).
	Powdery Mildew *Podosphaera leucotricha*	1 - 3	Begin application at tight cluster, or sooner, if conditions are conducive to disease development. Repeat applications through the second cover spray on a 7 to 10 day interval. Additional sprays beyond second cover may be needed on susceptible varieties or when environmental conditions are conducive to rapid disease development. Use high label rate and shorter spray intervals when conditions are conducive to rapid disease development.

Crops	Disease	Rate Lbs./acre	Application Instructions
Root / Tuber and Corm Vegetables Carrot Potato Sweet Potato Beets Ginger Horseradish Radish Ginseng Turnip and other root/ tuber and corm crops including those grown for seed production	**Black Rot/ Black Crown Rot** *Alternaria* spp. **Alternaria Leaf Blight** *Alternaria dauci* **Bacterial Leaf Spot** *Xanthomonas campestris* pv. *carotae*	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed. Use high rates and shorter intervals when conditions are conducive to rapid disease development. Apply in sufficient water to provide thorough coverage.
	Bacterial Leaf Blight *Xanthomonas campestris* **Downy Mildew** *Peronospora* spp. **Powdery Mildew** *Erysiphe* spp. **White Mold** *Sclerotinia sclerotiorum* **Gray Mold** *Botrytis* spp.	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed. For suppression of White Mold, begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed.
	Aerial Stem Rot *Erwinia carotovora*	1 - 3	For suppression, begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat or as needed on a 7 to 10 day interval.
	Early Blight *Alternaria solani* **Late Blight** *Phytophthora infestans*	1 - 3	For suppression, begin application soon after emergence and when conditions are conducive to disease development. Repeat on a 5 to 7 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Early and Late Blight control.
Roses, Field	**Powdery Mildew** *Sphaerotheca* spp. **Rust** *Puccinia* spp.	1 - 3	Begin applications when environmental conditions and plant stage are conducive to disease development. Continue applications on 7 to 14 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.

Crops	Disease	Rate Lbs./acre	Application Instructions
Stone Fruit Apricot Cherry Nectarine Peach Plum Prune and other stone fruit crops	**Anthracnose** *Colletotrichum* spp. **Powdery Mildew** *Sphaerotheca parnnosa* *Podosphaera clandestine* *Podosphaera* spp. **Rusty Spot** *Podosphaera leucotricha* **Bacterial Canker** *Pseudomonas* spp. **Alternaria Spot / Fruit Rot** *Alternaria alternata* **Scab** *Cladosporium carpophilum* **Brown Rot Blossom Blight** *Monilinia laxa* **Fruit Brown Rot** *Monilinia fruticola* **Gray Mold** *Botrytis cinerea* **Shot Hole** *Wilsonomyces carpophilus* *Xanthomonas pruni* *Bhumeriella gaapi* *Cercospora* spp. **Bacterial Leaf Spot/ Bacterial Spot** *Xanthomonas arboricola*	1 - 3	Brown Rot Blossom Blight – Begin application at early bloom and repeat through petal fall on a 7-day interval or as needed. Scab – Begin application at petal fall and repeat on a 7 to 10 day interval or as needed. Bacterial Canker – Apply post harvest before fall rains and again during dormancy before spring growth. Powdery Mildew - For suppression, begin application at popcorn stage and repeat on a 7-day interval or as needed Bacterial Leaf Spot / Bacterial Spot - Begin applications at bud break and continue on a 7 to 14 day schedule or as needed until harvest. During periods of rapid disease development and frequent infection periods, use Serenade MAX in a program with other registered antibiotics and/or copper bactericides. For the improved performance of Serenade MAX, add a surfactant to the spray tank to improve coverage. Anthracnose and Fruit Brown Rot - suppression - Begin application prior to disease development when environmental conditions and plant stage are conducive to rapid disease development and repeat on a 7 to 10 day interval or as needed. For all other diseases – Begin application prior to disease development when environmental conditions and plant stage are conducive to rapid disease development and repeat on a 7 to 10 day interval or as needed. For all diseases: Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides. Post harvest disease protection – To aid in the control of post harvest infections of *Botrytis* and *Monilinia*, apply Serenade MAX prior to harvest with sufficient water to thoroughly cover fruit. Apply on a 7-day schedule or as needed up until the time of harvest. Serenade MAX may be applied to fruit up to and including the day of harvest.

Crops	Disease	Rate Lbs./acre	Application Instructions
Strawberry	**Powdery Mildew** *Sphaerotheca macularis* *Erysiphe* spp. **Anthracnose** *Colletotrichum acutatum* **Botrytis** *Botrytis cinerea* **Gray Mold** *Botrytis* spp. **Angular Leaf Spot** *Xanthomonas fragariae*	1 - 3	Botrytis / Powdery Mildew - For suppression, begin application at or before flowering and repeat on 7 to 10 day intervals or as needed through harvest. Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Powdery Mildew and Botrytis control. Anthracnose – Begin application prior to disease development and repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides. Thorough coverage is essential. Angular Leaf Spot - Begin applications when environmental conditions are conducive to disease development. Continue applications on 3 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides. Thorough coverage is essential. Serenade may be applied up to and including the day of harvest.

Sugar Beets	**Powdery Mildew** *Erysiphe betae* *Erysiphe polygoni* **Leaf Spot** *Cercospora beticola* **Ramularia** *Ramularia* spp. **Rust** *Uromyces betae*	1 - 3	Begin applications when environmental conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.
Tobacco	**Blue Mold** *Peronospora hyoscyami*	1 - 3	Begin applications when conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed.

Crops	Disease	Rate Lbs./acre	Application Instructions
Tree Nuts Almond Pistachio Pecan Walnut Filberts Chestnut Cashew Beechnut Butternut Macadamia and other tree nut crops	**Walnut Blight** *Xanthomonas campestris* **Alternaria Leaf Spot** *Alternaria alternata* **Anthracnose** *Colletotrichum acutatum* **Bacterial Canker** *Pseudomonas syringae* **Scab** *Cladosporium carpophilum* **Botryosphaeria Blight** *Botryosphaeria dothidea* **Shot Hole** *Wilsonomyces carpophilus* *Xanthomonas pruni* *Blumeriella gaapi* *Cercospora* spp. **Brown Rot** *Monilinia* spp. **Pecan Scab** *Cladosporium caryigenum*	1 – 3	Walnut Blight – Begin application no later than pistillate bloom and repeat on 3 to 10 day intervals or as needed. Apply in advance of rain for maximum protection. Under conditions conducive to heavy disease pressure, for improved control, use Serenade MAX in a tank-mix or rotational program with a copper-based bactericide registered for control of Walnut Blight. Anthracnose, Shot Hole and Brown Rot - suppression - Begin application prior to disease development and repeat on 7 to 10 day intervals or as needed. For all other diseases – Begin application prior to disease development and repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides.
Tropical Fruits Avocado Mango Papaya Bananas Plantains Pineapple and other tropical fruits	**Anthracnose** *Colletotrichum gloeosporioides* *Colletotrichum ananas* **Bacterial Canker** *Xanthomonas campestris* **Scab** *Sphaceloma perseae*	1 - 3	Avocado/Mango - Begin application at budbreak and repeat on a 14 to 21 day interval or as needed through harvest. Papaya/Pineapple - Begin application at flowering and repeat on a 14 to 21 day interval or as needed through harvest. Bacterial Canker – Begin applications when environmental conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Serenade MAX may be applied to fruit up to and including the day of harvest.
	Sigatoka *Mycosphaerella fijiensis.*	1 - 3	Begin application when leaves first appear and repeat on a 7 to 21 day interval or as needed. Apply in sufficient water to obtain thorough coverage of foliage. For improved disease control, Serenade MAX may be tank-mixed with oil or other fungicides registered for control of Sigatoka at labeled rates. When conditions are conducive to rapid disease development and/or heavy disease pressure, use higher application rates and rotational spray programs with other fungicides registered for control of Sigatoka.

Crops	Disease	Rate Lbs./acre	Application Instructions
Kiwi	**Botrytis Fruit Rot** *Botrytis cinerea* **Bacterial Blight** *Pseudomonas viridiflava* and *Pseudomonas syringae* **Sclerotinia** *Sclerotinia sclerotiorum*	1 - 3	Begin application at early bloom and repeat on 7 to 10 day intervals or as needed. Serenade MAX may be applied to fruit up to and including the day of harvest.
Watercress	**Cercospora Leaf Spot** *Cercospora* spp.	1 – 3	Begin applications when conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed.
Seed Production Crops blue grass rye grass fescue orchard grass and other crops grown for seed production	**Powdery Mildew** *Erysiphe* spp. **Rust** *Puccinia* spp.	1 -3	Begin applications when environmental conditions and plant stage are conducive to disease development. Repeat on 7 to 10 day intervals or as needed. Use higher rates and shorter application intervals under heavy disease pressure.

Application Rates of Serenade MAX for Selected Greenhouse Crops			
Greenhouse Crops	**Disease**	**Rate Lbs./100 gallons spray mix**	**Application Instructions**
Brassica Broccoli Cabbage Cauliflower Brussels Sprouts Collards Kale Mustard Greens Kohlrabi and other brassica crops	**Pin Rot Complex** *Alternaria/Xanthomonas* **Bacterial Leaf Spot** *Pseudomonas syringae* **Bacterial Soft Rot** *Erwinia / Pseudomonas* **Black Rot** *Xanthomonas campestris* **Xanthomonas Leaf Spot** *Xanthomonas campestris* **Alternaria Leaf Spot** *Alternaria* spp. **Anthracnose** *Colletotrichum higginsianum* **Cercospora Leaf Spot** *Cercospora brassicicola* **Downy Mildew** *Peronospora parasitica* *Peronospora* spp. **Powdery Mildew** *Erysiphe polygoni* **Southern Blight** *Sclerotium rolfsii*	1 - 3	Pin Rot – For suppression, begin application when environmental conditions in the greenhouse are conducive to disease development and repeat on a 3 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Pin Rot control. For all other diseases – Begin application soon after emergence or transplant and when conditions in the greenhouse are conducive to disease development. Repeat on a 7 to 10 day interval or as needed.
Bulb Vegetables Onion Garlic Shallots and other bulb vegetables	**Botrytis Neck Rot** *Botrytis spp.* **Botrytis Leaf Blight** *Botrytis squamosa* **Onion Purple Blotch** *Alternaria porri* **Onion Downy Mildew** *Peronospora destructor* **Downy Mildew** *Peronospora* spp. **Powdery Mildew** *Erysiphe* spp. **White Rot** *Sclerotium cepivorum*	1 - 3	Begin application when environmental conditions in the greenhouse are conducive to disease development and repeat on a 7 to 10 day interval or as needed. When conditions in the greenhouse are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides. Thorough coverage is essential.
	Rust *Puccinia porri*	1 – 3	For suppression, begin application when conditions are conducive to disease development and repeat on a 7 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Rust control.

Greenhouse Crops	Disease	Rate Lbs./100 gallons spray mix	Application Instructions
Cucurbits Cucumber Cantaloupe Melon Muskmelon Squash Watermelon and other cucurbits	**Powdery Mildew** *Erysiphe* spp. *Sphaerotheca* spp. **Gummy Stem Blight** *Phoma cucurbitacearum* *Didymella bryoniae* **Angular Leaf Spot** *Pseudomonas syringae* **Anthracnose** *Colletotrichum lagenarium* **Downy Mildew** *Pseudoperonospora cubensis* **Bacterial Fruit Blotch** *Acidovorax avenae*	1 - 3	Begin application soon after emergence or transplant and when environmental conditions in the greenhouse are conducive to disease development. Repeat on 7 to 10 day interval or as needed. Thorough coverage is essential. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides.
Fruiting Vegetables Pepper Tomato Eggplant and other fruiting vegetables	**Gray Mold** *Botrytis cinerea*	1 - 3	For suppression, begin applications soon after emergence or transplant and continue on a 7 to 10 day interval or as needed. When environmental conditions in the greenhouse are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides. Thorough coverage is essential.
	Powdery mildew *Leveillula taurica* *Oidiopsis taurica* *Erysiphe* spp. *Sphaerotheca* spp. **Downy Mildew** *Pseudoperonospora cubensis*	1 – 3	For suppression, begin applications soon after emergence or transplant and continue on a 7 to 10 day interval or as needed. Thorough coverage is essential. Use maximum label rates under conditions conducive to rapid disease development. For improved performance, use Serenade MAX in a tank mix or in a rotational program with other registered fungicides.
	Bacterial Speck *Pseudomonas syringae* pv. tomato	1 - 3	Begin application soon after emergence or transplant and when environmental conditions are conducive to disease development. Continue applications on a 2 to 7 day interval or as needed. Use higher rates when conditions are conducive to rapid disease development. For improved performance, use Serenade MAX in a tank mix or in a rotational program with other registered fungicides.
	Bacterial Spot *Xanthomonas* spp. **Target Spot** *Corynespora cassiicola*	1 – 3	Begin application soon after emergence or transplant and when environmental conditions are conducive to disease development. Continue applications on a 2 to 7 day interval or as needed. When conditions are conducive to rapid disease development, for improved control, use Serenade MAX in a tank mix program with copper-based bactericides registered for control of Bacterial Spot at labeled rates

Greenhouse Crops	Disease	Rate Lbs./100 gallons spray mix	Application Instructions
Fruiting Vegetables Pepper Tomato Eggplant and other fruiting vegetables	**Buck-eye Rot** *Phytophthora parasitica* **Anthracnose** *Colletotrichum candidum*	1 - 3	Begin application soon after emergence or transplant and continue on a 7 to 10 day interval or as needed. For improved performance of Serenade MAX, add a surfactant to the spray tank to improve coverage.
	Bacterial Canker *Clavibacter michiganensis*	1 - 3	Begin applications when environmental conditions are conducive to disease development. Repeat on 7 to 10 day intervals or as needed.
	Early Blight *Alternaria solani* **Late Blight** *Phytophthora infestans*	1 – 3	For suppression, begin application when plants are 4 to 6 inches high. Repeat applications on a 5 to 7 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Early and Late Blight control. Use shorter spray intervals under conditions conducive to rapid disease development.
Herbs/ Spices	**Bacterial Blight** *Pseudomonas syringae* **Anthracnose** *Colletotrichum* spp. **Alternaria Leaf Blight** *Alternaria* spp. **Botrytis** *Botrytis* spp.	1 – 3	Begin application when environmental conditions in the greenhouse are conducive to disease development. Repeat on a 7 to 10 day interval or as needed.

Greenhouse Crops	Disease	Rate Lbs./100 gallons spray mix	Application Instructions
Leafy Vegetables Lettuce Celery Spinach Parsley Radicchio and other leafy vegetables	**Downy Mildew** *Bremia lactucae* *Peronospora* spp. **Powdery Mildew** *Erysiphe cichoracearum* *Erysiphe* spp. **White Rust** *Albugo occidentalis* **Pink Rot** *Sclerotinia sclerotiorum* **Anthracnose** *Colletotrichum* spp. **Bacterial Blight** *Xanthomonas campestris* **Bacterial Leaf Spot** *Xanthomonas campestris* pv. *vitians*	1 – 3	Pink Rot – Begin application approximately 8 weeks before harvest and repeat on a 14-day interval. Apply Serenade MAX as a directed spray in sufficient water to ensure thorough coverage of the base of the plants and the surrounding soil surface. Light irrigation following application to incorporate Serenade MAX may improve disease control. Downy Mildew / Powdery Mildew / White Rust – For suppression, begin application when conditions are conducive to disease development and repeat on a 3 to 10 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Downy Mildew and Powdery Mildew control. Anthracnose - suppression - Begin application prior to disease development when environmental conditions and plant stage are conducive to rapid disease development and repeat on 7 to 10 day interval or as needed. Use higher rates and shorter application intervals under heavy disease pressure. Bacterial Blight / Bacterial Leaf Spot- Begin applications when environmental conditions are conducive to disease development. Repeat on 3 to 10 day intervals or as needed.
	Sclerotinia Head and Leaf Drop *Sclerotinia* spp.	1 – 3	For control of early Sclerotinia Head and Leaf Drop: Apply at planting or immediately following planting but prior to crop emergence as a 4 to 6 inch seed line treatment. Make a second application as a directed spray with multiple nozzles per each seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning. Repeat applications on 10 to 14 day intervals if conditions for disease development persist. Use higher rates under conditions conducive to moderate to severe disease pressure. Light irrigation after application to incorporate the product may improve disease control. OR For control of Sclerotinia Head and Leaf Drop: Apply as a directed spray with multiple nozzles per each seed line in sufficient water to ensure thorough coverage of lower plant

			leaves and surrounding soil surface within 7 days of thinning or transplanting. Repeat applications on 10 to 14 day intervals if conditions for disease development persist. Use higher rates under conditions conducive to moderate to severe disease pressure. Light irrigation after application to incorporate the product may improve disease control.
Root / Tuber Carrot Potato Sweet Potato Beets Ginger Horseradish Radish Ginseng Turnip and other root/ tuber crops	**Black Rot/Black Crown Rot** *Alternaria* spp. **Alternaria Leaf Blight** *Alternaria dauci* **Bacterial Leaf Spot** *Xanthomonas campestris* pv. *carotae*	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed. Use high rates and shorter intervals when conditions are conducive to rapid disease development. Apply in sufficient water to provide thorough coverage.
	Bacterial Leaf Blight *Xanthomonas campestris* **Downy Mildew** *Peronospora* spp. **Powdery Mildew** *Erysiphe* spp. **Gray Mold** *Botrytis* spp. **White Mold** *Sclerotinia sclerotiorum*	1 - 3	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat on a 7 to 10 day interval or as needed. Use high rates and shorter intervals when conditions are conducive to rapid disease development. Thorough coverage is essential.
	Early Blight *Alternaria solani* **Late Blight** *Phytophthora infestans*	1 - 3	For suppression, begin application soon after emergence and when conditions are conducive to disease development. Repeat on a 5 to 7 day interval or as needed. For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides for Early and Late Blight control.
Strawberry	**Powdery Mildew** *Sphaerotheca macularis* *Erysiphe* spp. **Anthracnose** *Colletotrichum acutatum* **Botrytis** *Botrytis cinerea* **Gray Mold** *Botrytis* spp. **Angular Leaf Spot** *Xanthomonas fragariae*	1 - 3	Botrytis / Powdery Mildew - For suppression, begin application at or before flowering and repeat on a 7 to 10 day interval or as needed through harvest. Anthracnose – Begin application prior to disease development and repeat on a 7 to 10 day interval or as needed. Angular Leaf Spot - Begin application when conditions are conducive to disease development. Continue sprays at 7 to 10 day intervals or as needed. Use high rates and shorter intervals when conditions are conducive to rapid disease development. For all diseases - For improved performance, use Serenade MAX in a tank mix or rotational program with other registered fungicides. Thorough coverage is essential. Serenade may be applied up to and including the day of harvest.

FOR USE AS A POST HARVEST TREATMENT ON HARVESTED PORTIONS OF AGRICULTURAL CROPS

Serenade MAX has a 0-Day PreHarvest Interval for all crops contained on this label.

Post Harvest Application Rates of Serenade MAX for Selected Crops			
Crops	**Disease**	**Rate**	**Application Instructions**
Bulb Vegetables Onion Garlic Shallots and other bulb vegetables	**Botrytis** *Botrytis* spp.	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.
Root/ Tuber Potatoes Carrot Potato Sweet Potato Beets Ginger Horseradish Radish Ginseng Turnip and other root/ tuber crops	**Silver Scurf** *Helminthsporium solani* **Fusarium Tuber Rot** *Fusarium sambucinum*	1.0-3.0 oz / Ton potatoes	Potatoes: For the post harvest application to aid in the control of Silver Scurf and Fusarium Tuber Rot. Sanitation and other cultural practices will aid in control and minimize the potential for disease. Conveyer Line Application: Prepare the equivalent of 3 1/4 to 9 3/4 lbs of Serenade MAX in 25 gallons of water. Spray 2 quarts of the Serenade MAX/ water suspension per ton of potatoes. Potatoes must rotate along the conveyor line into the storage area to ensure complete coverage. If needed, adjust rate of spray solution to ensure thorough coverage while maintaining application rate of Serenade MAX per ton of potatoes.
	Gray Mold *Botrytis cinerea* **Sclerotinia Rot** *Sclerotinia sclerotiorum*	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.
Pome Fruit Apple Crabapple Pear Quince Mayhaw and other pome fruits	**Gray Mold** *Botrytis cinerea*	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.

Post Harvest Application Rates of Serenade MAX for Selected Crops			
Crops	**Disease**	**Rate**	**Application Instructions**
Stone Fruit Apricot Cherry Nectarine Peach Plum and other stone fruit crops	**Gray Mold** *Botrytis cinerea* **Brown Rot** *Monilinia fructicola*	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.
Kiwi	**Gray Mold** *Botrytis cinerea*	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.
Citrus Orange Grapefruit Lemon Tangerine Tangelo Pummelo and other citrus crops	**Anthracnose** *Colletotrichum gloeosporioides*	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.
Tropical Fruit Avocado Bananas Plantains Mangos Papaya Pineapple and other tropical fruits	**Anthracnose** *Colletotrichum* spp.	1-3 lbs. / 25 gallons water	For suppression, prepare the equivalent of 1 lb. to 3 lb. of Serenade MAX in 25 gallons of water. Spray, flood or dip with sufficient water to achieve thorough coverage of fruit. When dipping, replenish the suspension when the volume is too low or when it becomes dirty.

FOR USE AS A SOIL TREATMENT ON SELECT AGRICULTURAL FIELD CROPS

Serenade MAX has a 0-Day PreHarvest Interval for all crops contained on this label.
Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use Serenade MAX in a tank mix or rotational program with other registered fungicides.

Serenade MAX is a broad spectrum biofungicide for the prevention, suppression and control of soil borne diseases on a wide range of fruits and vegetables as well as cotton. Serenade MAX enhances germination and plant growth by suppressing diseases caused by *Rhizoctonia, Pythium, Fusarium, Verticillium*, and *Phytophthora*.

APPLICATION INSTRUCTIONS:

Soil Treatment At Planting:
Use at planting, seeding, or transplant. Mix 0.5 lb. to 3 lb. of Serenade MAX in appropriate amount of water per acre. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture at a rate to thoroughly soak the growing media through the root zone (1 pint finished mixture / sq. ft for each 3 inches of soil depth) as a drench or directed spray using hand held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler or drip irrigation systems. Serenade MAX can be mixed with chemical fungicides registered for soil applications.

Soil Treatment Through Irrigation: Use at any stage of plant growth. Mix 0.5 lb. to 3 lb. of Serenade MAX in appropriate amount of water per acre. Use higher application rates under conditions of heavy disease pressure. Optimal performance is obtained with preventative treatments repeated every 21 to 28 days throughout the growing cycle. Serenade MAX can be mixed with chemical fungicides registered for soil applications.

In-Furrow Applications:
For in-furrow applications, apply Serenade MAX as an in-furrow spray in 5-15 gallons of water at planting. Mount the spray nozzle so the spray is directed in the furrow just before the seeds are covered. Use the higher rates when the weather conditions are expected to be conducive for disease development, if the field has a history of disease problems, of if minimum/low till programs are in place.

See application rates tables for rates and application instructions.

IN-FURROW APPLICATION RATES

Rate per 1000 row feet	Product Per Acre (oz)						
oz. product	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0.6	13.1	9.6	9.0	8.5	8.0	7.6	7.2
3.3	78.4	57.5	53.9	50.8	48.0	45.5	43.1

40" = 13,068 row ft/acre, 38" = 13,754 row ft/acre, 36" = 14,520 row ft/acre, 34" = 15,374 row ft/acre, 32" = 16,315 row ft/acre, 30" = 17,424 row ft/acre, and 22" = 23,760 row ft/acre.

[Optional Rate Table:]

IN-FURROW APPLICATION RATES

Rate per 1000 row feet	Product Per Acre (1lb)						
oz. product	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0.6	0.82	0.60	0.56	0.53	0.50	0.47	0.45
3.3	4.90	3.59	3.37	3.17	3.00	2.84	2.70

40" = 13,068 row ft/acre, 38" = 13,754 row ft/acre, 36" = 14,520 row ft/acre, 34" = 15,374 row ft/acre, 32" = 16,315 row ft/acre, 30" = 17,424 row ft/acre, and 22" = 23,760 row ft/acre.

Application Rates of Serenade MAX for Soil Uses in Field for Soilborne/Seedling Disease Control

Crops	Disease	Rate	Application Instructions Soil Drench and In-furrow
Brassica Broccoli Cabbage Cauliflower Brussels Sprouts Collards Kale Mustard Greens Kohlrabi and other brassica crops	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**	Soil Drench 0.5. to 3 lb. / acre	Soil Drench Uses: Field Mix 0.5 lb. to 3 lb. of Serenade MAX in appropriate amount of water per acre. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture at a rate to thoroughly soak the growing media through the root zone (1 pint finished mixture / sq. ft for each 3 inches of soil depth) as a drench or directed spray using hand held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler or drip irrigation systems. Begin applications at planting, during or after seeding, during or after transplanting and at any stage of plant growth. Optimal performance is obtained with preventative treatments repeated every 21 to 28 days throughout the growing cycle. Serenade MAX can be mixed with chemical fungicides registered for soil applications. In-Furrow Applications: For in-furrow applications, apply Serenade MAX as an in-furrow spray in 5-15 gallons of water at planting. Mount the spray nozzle so the spray is directed in the furrow just before the seeds are covered. Use the higher rates when the weather conditions are expected to be conducive for disease development, if the field has a history of disease problems, of if minimum/low till programs are in place. See in-furrow application table for rates based on row width.
Bulb Vegetables Onion Garlic Shallots and other bulb vegetables	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**		
Root / Tuber and Corm Vegetables Carrot Potato Sweet Potato Cassava Beets Ginger Horseradish Radish Ginseng Turnip and other root/ tuber and corm crops including those grown for seed production.	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**	In- furrow 0.6-3.3 oz / 1000 row feet	
Fruiting Vegetables Pepper Tomato Eggplant Ground Cherry Tomatillo Okra and other fruiting vegetables	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**		

Crops	Disease	Rate	Application Instructions In-furrow
Corn Sweet Corn Popcorn Seed Corn Silage Corn Field Corn and other corn crops	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**	In- furrow 0.6-3.3 oz/ 1000 row feet	In-Furrow Applications: For in-furrow applications, apply Serenade MAX as an in-furrow spray in 5-15 gallons of water at planting. Mount the spray nozzle so the spray is directed in the furrow just before the seeds are covered. Use the higher rates when the weather conditions are expected to be conducive for disease development, if the field has a history of disease problems, of if minimum/low till programs are in place. See in-furrow application table for rates based on row width.
Cotton			
Cucurbits Cucumber Cantaloupe Melon Muskmelon Squash Watermelon and other cucurbit crops			
Leafy Vegetables Lettuce Celery Spinach Parsley Radicchio and other leafy vegetables			
Legumes/ Vegetables (succulent and dried beans and peas) Bean Green beans Snap beans Shell beans Soybeans Dry Beans Garbanzo beans Lima beans Peas Chick peas Split peas Lentils and other legume / vegetable crops including those grown for seed production			

FOR USE ON ORNAMENTALS, TREES, SHRUBS, FLOWERS, BEDDING PLANTS, TROPICAL PLANTS (ORNAMENTALS - Poinsettia, Orchids, Dieffenbachia, Palms, Spathiphyllum, Rhaphiolepis, Aglaonema and FRUIT – Bananas, Mangos, Papaya), TURF, LAWNS, SOD, GOLF COURSES (GREENS, TEES, FAIRWAYS AND ROUGHS), SEEDLINGS, CONIFERS - [Agricultural Use], [Commercial], [Residential Use], [Reforestation]

Serenade MAX has a 0-Day PreHarvest Interval for all crops contained on this label.
Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use Serenade MAX in a tank mix or rotational program with other registered fungicides.

[As appropriate for uses:]
Serenade MAX is a protectant fungicide for use indoors and outdoors for control of certain foliar diseases in the field, greenhouses [open or enclosed], interiorscape, residential and commercial landscapes, nurseries [open or enclosed], shade house environments, glasshouses, seedling production sites, golf courses (greens, tees, fairways, and roughs), forests, and forestry seedling production sites.

Serenade MAX can be applied to ornamentals, trees, shrubs, flowers, annual and perennial bedding plants, potted flowers, cut flowers, tropical foliage, container grown trees and shrubs, forestry seedlings, turf, lawn, sod, golf courses (greens, tees, fairways, and roughs) and conifer production for reforestation purposes (greenhouses, shade houses, nurseries, indoors, outdoors, containers or field).

[PLANTS EVALUATED FOR PHYTOTOXICITY]

Serenade MAX has been tested for phytotoxicity on [a number of] [the] ornamental species [listed below.] Since it is impossible to test all of the species and cultivars listed on this label under all conditions, it is recommended that a small-scale preliminary trial be conducted to check for sensitivity before using this product on a large number of plants, using the product in accordance with all label use directions.

[TABLE OF PLANTS EVALUATED FOR PHYTOTOXICITY]

[Annual and Perennial Flowering Plants:]

[Alyssum	Asters	Azalea	Begonia	Calla lily	Chrysanthemum
Cyclamen	Dianthus	Dwarf Bee-Balm		Easter lily	Garden phlox
Geraniums	Gerbera	Golden star	Hydrangea	Impatiens	Kalanchoe
Linaria	Lisianthus	Lobelia	Marigolds	Orchids	Pansies
Petunia	Poinsettia	Portulaca	Ranunculus	Roses	*Salvia* spp.
Snapdragons	Stock	*Verbena* spp.	Vinca	Violas	Zinnias]

[Tropical foliage:]

[Aglaonema	Dieffenbachia	*Dracaena* spp.	English Ivy
Hibiscus	Leatherleaf Fern	Spathiphyllum]	

[Trees and Shrubs:]

[Azalea	Boxwood	Crape myrtle	Dogwood	Gumpo azalea
Indian (India) Hawthorn		Japanese maple		*Ligustrum japonicum*
Lilac	Loropetalum	Photinia	Rhododendron	*Rosaceae* spp.
Soft Touch Holly		Spirea]		

Foliar Application Use on Ornamentals, Trees, Shrubs, Flowers, Bedding Plants, Tropical Plants, Seedlings, Conifers:

APPLICATION INSTRUCTIONS: Apply Serenade MAX at rates ranging from 1 to 3 lbs. of product in 100 [– 300] gallons of water per acre. Make applications on a 3 to 10 day schedule. Begin applications when conditions favor disease development prior to the onset of disease. [Begin applications prior to or in the early stages of disease development.]

Under normal conditions, apply Serenade MAX at a rate of 2 lbs. of product per 100 [– 300] gallons of spray solution per acre on a 7-day schedule. When conditions favor severe disease development, shorten the spray interval or use a higher rate. Thorough coverage is essential for effective disease control.

When more diluted or concentrated spray solutions are needed for the type of equipment being used, follow the "Use Rate Determination" section of this label.

See application rate tables for more detailed application instructions.

Application Rates for Serenade MAX When Used as a Foliar Spray on Ornamentals, Trees, Shrubs, and Flowering Plants

Crops	Disease	Rate lbs./100 gallons spray mix	Application Instructions
Ornamentals Trees, Shrubs, Flowering Plants, and Tropical Plants Field, Outdoors, Indoors, Greenhouses, and Nurseries Annuals Perennials Bedding plants Potted flowers Cut flowers Foliage plants Deciduous trees Deciduous shrubs Tropical foliage Container grown plants	**Anthracnose** *Colletotrichum* spp. **Bacteria** *Erwinia* spp. *Pseudomonas* spp. *Xanthomonas* spp. **Black Spot of Rose** *Diplocarpon rosea* **Botrytis** *Botrytis cinerea* **Downy Mildew** *Peronospora* spp. **Leaf Spots** *Alternaria* spp. *Cercospora* spp. *Entomosporium* spp. *Helminthsporium* spp *Myrothecium* spp. ***Septoria* spp.** **Powdery Mildew** *Erysiphe* spp. *Oidium* spp. *Podosphaera* spp. *Sphaerotheca* spp. ***Phytophthora* spp.** **Rust** *Puccinia* spp. **Scab** *Venturia* spp.	1 - 3	Indoors, Outdoors, Field, Greenhouse, Glasshouse and Nursery Grown Plants: Apply Serenade MAX at rates ranging from 1-3 lbs. of product in 100 [– 300] gallons of water per acre. Make applications on a 3 to 10 day schedule. Begin applications when conditions favor disease development prior to the onset of disease. [Begin applications prior to or in the early stages of disease development.] Under normal conditions, apply Serenade MAX at a rate of 2 pounds of product per 100 - 300 gallons of spray solution per acre on a 7 day schedule. When conditions favor severe disease development, shorten the spray interval or use a higher rate. Thorough coverage is essential for effective disease control. When more diluted or concentrated spray solutions are needed for the type of equipment being used, follow the "Use Rate Determination" section of this label.

Post Harvest Dip Use on Cut Flowers/Buds:

APPLICATION INSTRUCTIONS: For post-harvest dip applications on cut flower crops, dip cut flowers/buds in a solution containing 3 to 12 ounces of Serenade MAX in 10 gallons of water soon after cutting. Immerse flowers for a period sufficient to provide thorough contact between cut flower/bud and the treatment solution. Use higher rates under conditions of heavy disease pressure.
See application rates tables for rates and application instructions.

Application Rates for Serenade MAX for Post-Harvest Dip on Cut Flowers/Buds

Crops	Disease	Rate oz./10 gallons	Application Instructions
Cut flowers	**Black Spot of Rose** *Diplocarpon rosea* **Botrytis** *Botrytis cinerea* **Downy Mildew** *Peronospora* spp. **Powdery Mildew** *Erysiphe* spp. *Oidium* spp. *Podosphaera* spp. *Sphaerotheca* spp.	3 - 12	Dip cut flowers/buds in a solution containing 3 to 12 ounces of Serenade MAX in 10 gallons of water soon after cutting. Immerse flowers for a period sufficient to provide thorough contact between cut flower/bud and the treatment solution. Use higher rates under conditions of heavy disease pressure.

Soil Drench Applications on Ornamentals, Trees, Shrubs, Flowers, Bedding Plants, Tropical Plants, Seedlings, Conifers, Fruits and Vegetables: [Agricultural], [Commercial], [Residential Use], [Indoors and Outdoors], [Greenhouses, Glasshouses, Nurseries], [Open and Enclosed]

Serenade MAX is a broad spectrum biofungicide for the prevention, suppression and control of soil borne diseases on a wide range of annual and perennial bedding plants, potted flowers, foliage plants, deciduous trees and shrubs, and fruits and vegetables grown in protected environments. Serenade MAX enhances germination and plant growth by suppressing diseases caused by *Rhizoctonia*, *Pythium*, *Fusarium, Verticillium,* and *Phytophthora*.

APPLICATION INSTRUCTIONS: Mix 1 lb. to 3 lb. of Serenade MAX with 100 gallons of water. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture at a rate to thoroughly soak the growing media through the root zone (1 pint finished mixture / sq. ft. for each 3 inches of soil depth) as a drench or directed spray using hand held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems. Begin applications during or after seeding, sticking of cuttings or after transplanting to propagation beds, containers, pots or trays. Optimal performance is obtained with preventative treatments repeated every 21 – 28 days throughout the growing cycle. Serenade MAX can be mixed with chemical fungicides registered for soil applications.
See application rate tables for more detailed application instructions.

Application Rates for Serenade MAX When Used as a Soil Drench in Field, Greenhouses, Glasshouses, Shadehouses, or Nurseries [Outdoors and Indoors] [Open or Enclosed]

Crops	Disease	Rate Lbs./100 gallons spray mix	Application Instructions
Ornamentals Trees Shrubs Annuals Perennials Flowering plants Tropical plants Bedding plants Container plants Potted plants Foliage plants Deciduous trees Deciduous shrubs Forestry Seedlings Fruits Vegetables and other crops grown in greenhouses and open and enclosed nurseries	***Rhizoctonia* spp.** ***Pythium* spp.** ***Fusarium* spp.** ***Verticillium* spp.** ***Phytophthora* spp.**	1 - 3	**Soil Drench Uses: Field, Greenhouses, Glasshouses, Shadehouses, Indoors/Outdoors, Open And Enclosed Nurseries** Mix 1 lb. to 3 lb. of Serenade MAX with 100 gallons of water. Use higher application rates under conditions of heavy disease pressure. Apply finished mixture at a rate to thoroughly soak the growing media through the root zone (1 pint finished mixture / sq. ft. for each 3 inches of soil depth) as a drench or directed spray using hand held, mechanical or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler irrigation systems. Begin applications during or after seeding, sticking of cuttings or after transplanting to propagation beds, containers, pots or trays. Optimal performance is obtained with preventative treatments repeated every 21 to 28 days throughout the growing cycle. Serenade MAX can be mixed with chemical fungicides registered for soil applications.

Turf, Lawns, Sod, Golf Courses (Greens, Tees, Fairways, and Roughs), and Ornamental Turf Use: [Agricultural], [Commercial], [Residential Use]

Serenade MAX is a broad spectrum biofungicide for use in the prevention, suppression and aiding in control of turf and lawn diseases (Brown Patch, Dollar Spot, Powdery Mildew, Rust, Gray Leaf Spot and Anthracnose).

APPLICATION INSTRUCTIONS: Apply at the rate of 1-3 oz. of Serenade MAX per 1000 sq. ft. of surface area. Apply in sufficient water to provide thorough coverage, depending on the application equipment. Two gallons of water per 1000 sq. ft of surface is commonly used.
See application rate tables for more detailed application instructions.

Application Rates for Serenade MAX for Turf, Lawns, Sod, Golf Courses (Greens, Tees, Fairways and Roughs), and Ornamental Turf

Crops	Disease	Rate oz/1000 sq. ft of surface area	Application Instructions
Turf, Sod, Lawns, Golf Course, (Fairways, Roughs, Greens, Tees) **Seed production grasses, etc.** Bluegrass Bentgrass Bermuda grass Dichondra Fescue Orchard grass Poa Annua St. Augustine Ryegrass Zoysia Mixtures and other grasses or ornamental turf	**Brown Patch** *Rhizoctonia solani* **Dollar Spot** *Lanzia* spp. *Moellerodiscus* spp. *Sclerotinia homeocarpa* **Powdery Mildew** *Erysiphe graminis* **Rust** *Puccinia* spp. **Anthracnose** *Colletotrichum graminicola* **Gray Leaf Spot** *Pyricularia grisea*	1-3 oz.	Apply at the rate of 1 oz to 3 oz of Serenade MAX per 1000 sq. ft. of surface area. Apply in sufficient water to provide thorough coverage, depending on the application equipment. Two gallons of water per 1000 sq. ft. of surface is commonly used. Begin applications when conditions are conducive to disease development. Continue applications on 7 to 10 day intervals or as needed. Under moderate to severe disease pressure, for improved performance, increase rates and reduce spray intervals or use Serenade MAX in a tank mix or rotational program with other registered fungicides. Aids in control of: Brown Patch, Dollar Spot, Powdery Mildew, Rust, Anthracnose and Gray Leaf Spot. [Optional/Alternate Statements / Examples of Mixing/Application Instructions are in Brackets below] [Mix at the rate of 0.5 - 1.5 oz of Serenade MAX per gallon of water and apply spray solution at the rate of 2 gallons per 1000 sq. ft. (equivalent to 1 to 3 oz per 1000 sq. ft. of turf).] [Mix at the rate of 1 oz to 3 oz of Serenade MAX per gallon of water and spray solution at the rate of one gallon per 1000 sq. ft. of turf (equivalent to 1 to 3 oz per 1000 sq. ft. of turf).] [Mix at the rate of 1.5 oz. of Serenade MAX per gallon of water when included in a tank mix with other registered fungicides.]

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL:
[For 1000 lb. bulk bag with liner intended for repackaging:]
Nonrefillable container. Do not reuse or refill this container. Completely empty liner into packaging equipment hopper by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of liner in a sanitary landfill or by incineration. If bulk bag is contaminated, dispose of in the same manner as its liner. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke

[Paper and Plastic bags]:
Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

[batch codes are sticker applied to the front panel of every label on every product container]

CONDITIONS FOR SALE AND WARRANTY

AgraQuest warrants to those persons lawfully purchasing this product that at the time of the first sale of this product by Seller that this product conformed to its description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions. Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. Except to the extent prohibited by applicable law, AgraQuest offers this product with the following conditions: 1) buyers and users of this product assume the risk of any storage, handling or use contrary to AgraQuest's label and directions and 2) AgraQuest's liability shall in no case exceed the purchase price of the applicable AgraQuest product.

Serenade® is a registered trademark of AgraQuest.

Made in Mexico

AgraQuest, Inc.
1540 Drew Avenue
Davis, California 95618
www.agraquest.com

SERENADE® MAX
WETTABLE POWDER BIOFUNGICIDE
SUB-LABEL B

Agricultural Use – Mushroom Production Only

SERENADE® MAX

[Alternate Brand Name: JAZZ]

[A Wettable Powder Biofungicide]

[Optional/Alternate Statement: "NOP Logo: For Organic Production"]
[Optional/Alternate Statement: "NOP Logo: Can be Used for Organic Production"]
[FOR MUSHROOM PRODUCTION USE]
[FOR AGRICULTURAL USE]

ACTIVE INGREDIENT:
QST 713 strain of dried *Bacillus subtilis**.....14.6%
OTHER INGREDIENTS.....85.4%
TOTAL.....100.0%

*Contains a minimum of 7.3×10^9 cfu/g

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]
[Peel back tab for First Aid and Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]

EPA Registration No. 69592-11
EPA Est. No.:

[Superscript corresponds to last digit of lot number stamped on container.]

1	2	3	4	5
69592-	67545-	66728-	37429-	69592-
MEX-1	AZ-1	GA-2	GA-2	CA-1

Agraquest, Inc.
1540 Drew Avenue
Davis, CA 95618
www.agraquest.com

U.S. Patent Nos. 6,060,051, 6,103,228, 6,291,426, and 6,417,163 on QST 713 strain of *Bacillus subtilis*

Net weight:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. 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.

FIRST AID	
IF IN EYES:	• Hold eyes open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for further treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. • Call a poison control center or doctor for further treatment advice.
Have the product label with you when calling a poison control center or doctor or going for treatment.	

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

[OPTIONAL: ENGINEERING CONTROLS]

[OPTIONAL STATEMENT: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in the WPS.]
[IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.]

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticides get 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

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. Do not apply when weather conditions favor drift or runoff from treated areas.

EMERGENCY INFORMATION

For emergencies such as leaks or spills, call 24-hour toll-free CHEMTREC hotline at 1.800.424.9300.

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 State or Tribal 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) 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 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- coveralls
- waterproof gloves
- shoes plus socks

GENERAL USE INFORMATION

SERENADE MAX is a preventative product for the suppression of Green Mold in mushroom production. Mix SERENADE MAX with mushroom spawn grains, mushroom growing supplement or apply Serenade MAX as a drench alone to the surface of mushroom beds, in alternating drench programs or in tank mixes with other registered mushroom production protection products. When used as a drench, apply SERENADE MAX with spray equipment commonly used for making ground applications and sprinkler/irrigation systems commonly used for chemigation in mushroom production. SERENADE MAX can be used for organic production.

INTEGRATED PEST MANAGEMENT (IPM)

Integrate SERENADE MAX into an overall disease and pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local agricultural

authorities for specific IPM strategies developed for your crop(s) and location.

Be sure use of this product conforms to resistance management strategies, which may include rotating and/or tank-mixing with other products with different modes of action.

USE RATE DETERMINATION

For all treatments, carefully read and follow all label directions, use rates and restrictions. For treatment of mushroom spawn grains and growing supplement, use maximum label rates when heavy disease development is anticipated. For drench applications, application of SERENADE MAX prior to or in the early stages of disease development provides the best suppression of Green Mold. Use maximum label rates for conditions conducive to rapid disease development or when disease development is anticipated. For proper application, determine the number of square feet of bed surface to be treated and the label use rate. For drench applications, prepare only the amount of spray solution required to treat the measured square feet of bed surface. Accurate spray equipment calibration is essential prior to use.

PREHARVEST INTERVAL

SERENADE MAX can be applied up to and including the day of harvest.

APPLICATION INSTRUCTIONS

GROUND: For treatment of mushroom spawn grains and growing supplement, be sure to completely mix SERENADE MAX with gypsum, limestone or chalk according to Application Instructions and Dosages Table prior to mixing with mushroom spawn grains or growing supplement. Thorough mixture of the treated mushroom growing substrate is essential for effective disease suppression.

For drench applications, be sure to maintain agitation during mixing and application to assure uniform product suspension. Thorough coverage of beds is essential for effective disease suppression. SERENADE MAX can be applied with commonly used ground equipment: hose-end, pressurized, greenhouse and hand-held sprayers. To achieve good coverage, use proper spray pressure, gallonage per square feet of bed surface, nozzles, nozzle spacing and ground speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

CHEMIGATION: This product can be applied through sprinkler (solid set and hand move) or drip type irrigation systems. Refer to the Chemigation Directions for Use section of this label for general directions and precautions. Use the drench application rate as specified in the Application Instructions and Dosages Table of this label.

MIXING INSTRUCTIONS

MIXING: For treatment of mushroom spawn grains and growing supplement, be sure to completely mix SERENADE MAX with gypsum, limestone or chalk according to Application Instructions and Dosages Table prior to mixing with mushroom spawn grains or growing supplement. Thorough mixture of the treated mushroom growing substrate is essential for effective disease suppression.

For drench applications, SERENADE MAX must be diluted with water. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of SERENADE MAX to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. It is critical that the spray solution be agitated during mixing and application to assure a uniform suspension. Do not allow spray mixture to stand overnight or for prolonged periods. Maintain a spray solution pH between 4.5 and 8.5.

SERENADE MAX may be tank-mixed with other registered pesticides to enhance mushroom disease control. This product cannot be mixed with any product containing a prohibition against such mixing. When tank-mixing Serenade MAX with any other registered pesticides, always read and follow all use directions, restrictions, and precautions of both Serenade MAX and the tank mix partner(s). Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. Do not exceed label dosage rates.

COMPATIBILITY: Do not combine SERENADE MAX in the spray tank with pesticides, surfactants or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective and non-injurious under your use conditions.

SERENADE MAX is compatible with many commonly used pesticides, fertilizers, adjuvants and surfactants but has not been fully evaluated with all of these. To ensure compatibility of tank-mix combinations, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

ADDITIVES: SERENADE MAX is compatible with a wide range of additives. Since the product is primarily a protectant, thorough coverage of the mushroom bed surface is required for effective product performance when used as a drench. When used to treat mushroom spawn grains and growing supplement, thorough mixing of the mushroom growing substrate is required for effective product performance.

CHEMIGATION DIRECTIONS FOR USE

General Requirements:

1) Apply this product only through sprinkler (solid set and hand move) or drip type irrigation systems. Do not apply this product through any other type of irrigation system.
2) Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
3) Ensure that the irrigation system used is properly calibrated and if you have questions, call the State Extension Service specialists, the equipment manufacturer or other experts.
4) 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.
5) 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 any necessary adjustments should the need arise.

Requirements for Chemigation Systems Connected to Public Water Systems:

1) Public water supply 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 25 individuals daily at least 60 days throughout the year.
2) Chemigation systems connected to the public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply 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 of the 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 towards 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 filled with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment

8) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
9) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has not been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.
10) Maintain agitation in the pesticide supply tank.
11) Apply Serenade MAX during the last half of the water application.
12) Dilute Serenade MAX in enough water to be able to draw through system for the last half of the water application.

Sprinkler Chemigation Requirements:

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 back flow.
2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7) Do not apply when wind speed favors drift beyond the area intended for treatment.
8) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
9) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has not been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.

Solid-set and Hand Move Irrigation Equipment:

- Determine acreage (square footage) covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- Determine the amount of Serenade MAX fungicide required to treat area.
- Add the required amount of Serenade MAX fungicide into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject Serenade MAX fungicide at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until Serenade MAX fungicide solution has cleared the last sprinkler head.

Drip Chemigation Requirements:

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 back flow.
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 inter-locking 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) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
8) Do not combine Serenade MAX with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. Serenade MAX has not been fully evaluated for compatibility with all adjuvants or surfactants. Conduct a spray compatibility test if mixture with adjuvants or surfactants is planned.
9) Maintain agitation in the pesticide supply tank.
10) Apply Serenade MAX during the last half of the water application.
11) Dilute Serenade MAX in enough water to be able to draw through system for the last half of the water application.

FOR USE AS A MIX WITH MUSHROOM SPAWN GRAINS OR MUSHROOM GROWING SUPPLEMENT AND AS A DRENCH FOR MUSHROOM GROWING BEDS

Serenade MAX has a 0-Day PreHarvest Interval for all crops contained on this label.
If higher disease pressure is anticipated, use higher dosage.

Application Instructions and Dosages of Serenade MAX for Mushroom Production		
Crop	**Disease**	**Application Instructions and Dosage**
Mushroom spawn grains	**Green Mold** *Trichoderma harzianum*	For suppression of Green Mold in mushroom spawning media: Thoroughly mix 5 to 10 lbs. of SERENADE MAX with 80 to 100 lbs. of gypsum, limestone or chalk. Use this mixture to coat spawn grains (approximately 1,600 units) before mixing the spawn into the mushroom growing substrate. Apply treated spawn to 8,000 square feet of bed surface at spawning.
Mushroom growing supplement	**Green Mold** *Trichoderma harzianum*	For suppression of Green Mold in mushroom growing supplement: Thoroughly mix 5 to 10 lbs. of SERENADE MAX with 80 to 100 lbs. of gypsum, limestone or chalk. Use this mixture to coat supplement (approximately 2,000 lbs.) before mixing the supplement into the mushroom growing substrate. Apply treated supplement to 8,000 square feet of bed surface at spawning.
Mushroom growing beds	**Green Mold** *Trichoderma harzianum*	For suppression of Green Mold on the surface of mushroom beds: Apply 5-10 lbs. SERENADE MAX in 150 gallons of irrigation water as a drench to 8,000 square feet of bed surface at casing before 1st flush, between 1st and 2nd flush and/or between 2nd and 3rd flush according to disease pressure. Maintain adequate circulation in the irrigation tank.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL:
[For 1000 lb. bulk bag with liner intended for repackaging:]
Nonrefillable container. Do not reuse or refill this container. Completely empty liner into packaging equipment hopper by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of liner in a sanitary landfill or by incineration. If bulk bag is contaminated, dispose of in the same manner as its liner. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke

[Paper and Plastic bags]:
Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

[batch codes are sticker applied to the front panel of every label on every product container]

CONDITIONS FOR SALE AND WARRANTY

AgraQuest warrants to those persons lawfully purchasing this product that at the time of the first sale of this product by Seller that this product conformed to its description and was reasonably fit for the purposes stated on the label when used in accordance with Seller's directions. Buyers and users of this product assume the risk of any use contrary to such directions. EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO. Except to the extent prohibited by applicable law, AgraQuest offers this product with the following conditions: 1) buyers and users of this product assume the risk of any storage, handling or use contrary to AgraQuest's label and directions and 2) AgraQuest's liability shall in no case exceed the purchase price of the applicable AgraQuest product.

Made in Mexico

OMRI™ Listed
Organic Materials Review Institute

AgraQuest, Inc.
1540 Drew Avenue
Davis, California 95618
www.agraquest.com

SERENADE® MAX
WETTABLE POWDER BIOFUNGICIDE
SUB-LABEL C

For Home and Garden Use

SERENADE® MAX

[Alternate Name: Serenade® MAX Garden Disease Control]
[Alternate Name: Serenade® MAX Garden Disease Control Wettable Powder]

[A Wettable Powder Biofungicide]

[Alternate/optional Statements as follows:]

[For Home and Garden Use] [For Home, Garden and Lawn (Turf) Use]
[Optional/Alternate Statement: "NOP Logo: For Organic Production"]
[Optional/Alternate Statement: "NOP Logo: Can be Used for Organic Production"]

[Optional Claims:]
[Attacks over 40 diseases][Attacks both fungal & bacterial diseases]
[Apply any time of day][Will not burn or injure leaves, lawns (turf)]
[Fungicide (or Biofungicide) that attacks harmful garden and lawn diseases]
[Use on Roses, Vegetables, Fruits, Flowering Plants, Trees, Shrubs and Lawns (Turf)]
[Controls Bacterial Spot, Powdery Mildew, Rust, Gray Mold, Late Blight, Scab][Same active ingredient used by farmers]
[Optional Claims for Lawn and Turf Label:]
[Prevents and controls harmful (major) lawn diseases (including brown patch, dollar spot)]
[Controls Brown Patch, Dollar Spot and other common lawn diseases]
[Use anytime on all lawns to prevent and control major lawn diseases]
[Promotes healthy disease-free lawns]["Easy! Attach Hose and Spray!"]
[Same active ingredient used on golf courses][Promotes Greener, Healthier Lawns]

ACTIVE INGREDIENT:
QST 713 strain of dried *Bacillus subtilis**.....14.6%
OTHER INGREDIENTS.....85.4%
TOTAL.....100.0%
*Contains a minimum of 7.3×10^9 cfu/g

KEEP OUT OF REACH OF CHILDREN

CAUTION

[See attached label booklet for First Aid, Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]
[Peel back tab for First Aid and Precautionary Statements, Storage and Disposal Instructions and Directions for Use.]

EPA Registration No. 69592-11
EPA Est. No.:

[Superscript corresponds to last digit of lot number stamped on container.]

1	2	3	4	5
69592-MEX-1	67545-AZ-1	66728-GA-2	37429-GA-2	69592-CA-1

Agraquest, Inc.
1540 Drew Avenue
Davis, CA 95618
www.agraquest.com

U.S. Patent Nos. 6,060,051, 6,103,228, 6,291,426, and 6,417,163 on QST 713 strain of *Bacillus subtilis*

Net Weight:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. 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.

FIRST AID	
IF IN EYES:	• Hold eyes open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for further treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. • Call a poison control center or doctor for further treatment advice.
Have the product label with you when calling a poison control center or doctor or going for treatment.	

ENVIRONMENTAL HAZARDS

Do not apply directly to water. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

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

GENERAL USE INFORMATION

Serenade MAX [Alternate Statement: is a broad spectrum, preventative biofungicide recommended for the control or suppression of many important plant diseases and] [Alternate Statement: effectively controls or prevents a wide range of important fungal and bacterial plant diseases and] [Serenade MAX] may be used on roses, vegetables, fruits, nuts, flowers, houseplants, foliage, trees, shrubs, lawns, turf, sod, and ornamental turf [located in residential landscapes].

[Serenade MAX may be applied any time of day, in full sun and high temperatures, without stressing or burning foliage.]

[Serenade MAX CAN BE USED ON THE DAY OF HARVEST AND ON ALL FRUITS AND VEGETABLES USED IN CANNING.]
This product can be used for organic and non-organic crop production.

As a general precaution, when exposed to high concentrations of a living microbial product such as this, wear a dust particle mask when mixing or applying this product.

MIXING AND APPLICATION INSTRUCTIONS

Serenade MAX can be applied in commonly used pressurized hand-held sprayers and spray trigger bottles. Spray to ensure thorough coverage of the plant.

For best results, treat prior to foliar disease development or at the first sign of foliar disease infection. Repeat at 3 to 10 day intervals or as needed. [Under conditions of high disease pressure,] When environmental conditions favor rapid disease development (high humidity, excessive rain, extreme moisture condition, etc.), spray more often [Alternate: shorten the spray interval].

Serenade MAX can be applied up to and including the day of harvest.

Pressurized Hand-Held Sprayer and Spray Trigger Bottle Application Instructions:

Mixing and Application:
For all applications, mix the spray solution thoroughly and keep spray solution agitated during application. Do not allow spray mixture to stand overnight or for prolonged periods.

For Fruits, Vegetables, Nuts (e. g. Apples/Pears, Broccoli, Carrot, Cherries, Cucurbits, Grapes, Leafy Vegetables, Onions/Garlic, Pepper, Tomato, and Walnuts): mix 1/8 cup to ½ cup (1/8 cup = 2 TBSP to ½ cup = 8 TBSP) of Serenade MAX per gallon of water. Spray plants to runoff, covering both top and bottom surface of foliage to ensure thorough coverage.

For Annual and Perennial Ornamental Plants, Flowering Plants, Tropical Foliage, Trees and Shrubs: mix 1/8 cup to ½ cup (1/8 cup = 2 TBSP to ½ cup = 8 TBSP) of Serenade MAX per gallon of water. Spray plants to runoff, covering both top and bottom surface of foliage to ensure thorough coverage.

For Lawns, Turf and Ornamental Turf: mix 3 TBSP of Serenade MAX per gallon of water. Apply at a rate of 1 gallon of spray solution per 500 square feet.

[Optional/Alternate: For Lawns, Turf and Ornamental Turf: mix 1.5 TBSP of Serenade MAX per gallon of water. Apply at a rate of 2 gallons of spray solution per 500 square feet.]

[SERENADE MAX] MAY BE USED ON [THE FOLLOWING]: [Alternate: VEGETABLES, FRUIT, NUTS, AND ORNAMENTAL PLANTS] [Alternate: PLANTS, CROPS, SITES]
PLANTS [CROPS, SITES]:

HOME and GARDEN [VEGETABLE, FRUIT AND NUTS] PLANTS:

Artichoke, Asparagus

Berries (Blueberries, Blackberry, Raspberry, Loganberry, Huckleberry, Cranberry, Gooseberry, Elderberry, Currant, Caneberry and other berry crops)

Brassica (Broccoli, Cabbage, Cauliflower, Brussels Sprouts, Collards, Kale, Mustard Greens, Kohlrabi and other brassica crops)

Bulb Vegetables (Onion, Garlic, Shallots and other bulb vegetables)

Citrus (Orange, Grapefruit, Lemon, Tangerine, Tangelo, Pummelo and other citrus crops)

Cucurbits (Cucumber, Cantaloupe, Melon, Muskmelon, Squash, Watermelon and other cucurbit crops)

Fruiting Vegetables (Pepper, Tomato, Eggplant and other fruiting vegetables)

Grape, Herbs/ Spices, Hop

Leafy Vegetables (Lettuce, Celery, Spinach, Parsley, Radicchio and other leafy vegetable crops)

Legumes/vegetables (Beans, Green beans, Snap beans, Shell beans, Dry Beans, Garbanzo beans, Lima beans, Peas, Chick peas, Split peas, Lentils and other legume/ vegetable crops)

Mango, Mint, Olive, Papaya, Peanuts

Pome Fruit (Apple, Crabapple, Pear, Quince, Mayhaw and other pome fruit)

Root / Tuber (Carrot, Potato, Sweet Potato, Beets, Ginger, Horseradish, Radish, Ginseng, Turnip and other root/ tuber crops)

Roses

Stone Fruit (Apricot, Cherry, Nectarine, Peach, Plum, Prune, and other stone fruit crops)

Strawberry, Sweet Corn, Tobacco, Watercress

Tree Nut (Almond, Pistachio, Pecan, Walnut, Filberts, Chestnut, Cashew, Beechnut, Butternut and other tree nut crops)

RESIDENTIAL GREENHOUSE PLANTS:

Brassica (Broccoli, Cabbage, Cauliflower, Brussels Sprouts, Collards, Kale, Mustard Greens, Kohlrabi and other brassica crops)

Bulb Vegetables (Onion, Garlic, Shallots and other bulb vegetables)

Cucurbits (Cucumber, Cantaloupe, Melon, Muskmelon, Squash, Watermelon and other cucurbits)

Fruiting Vegetables (Pepper, Tomato, Eggplant and other fruiting vegetables)

Herbs/ Spices

Leafy Vegetables (Lettuce, Celery, Spinach, Parsley, Radicchio, and other leafy vegetables)

Root / Tuber (Carrot, Potato, Sweet Potato, Beets, Ginger, Horseradish, Radish, Ginseng, Turnip and other root/ tuber crops)

Strawberry

ORNAMENTALS, TREES, SHRUBS, FLOWERING PLANTS, TROPICAL PLANTS:

[PLANTS EVALUATED FOR PHYTOTOXICITY]

[Annual and Perennial Flowering Plants:]

[Alyssum	Asters	Azalea	Begonia	Calla lily		
Chrysanthemum		Cyclamen	Dianthus	Dwarf Bee-Balm		
Easter lily	Garden phlox		Geraniums	Gerbera	Goldenstar	
Hydrangea	Impatiens		Kalanchoe	Linaria	Lisianthus	Lobelia
Marigolds	Orchids		Pansies	Petunia	Poinsettia	Portulaca
Ranunculus	Roses		*Salvia* spp.	Snapdragons	Stock	
Verbena spp.	Vinca		Violas	Zinnias]		

[Tropical foliage:]

[Aglaonema	Dieffenbachia	*Dracaena* spp.	English Ivy
Hibiscus	Leatherleaf Fern	Spathiphyllum]	

[Trees and Shrubs:]

[Azalea	Boxwood	Crape myrtle
Dogwood	Jumbo azalea	Indian Hawthorn
Japanese maple	*Ligustrum japonicum*	Lilac
Loropetalum	Photinia	Rhododendron
Rosaceae spp.	Soft Touch Holly	Spirea]

[Optional Statement: It is impossible to test all plants for phytotoxicity. To assure that the plants to be treated are not sensitive to the treatment, apply a small amount of the highest application rate of the product to a few leaves or the above ground portion of a plant and check within 3 days. Use product according to label directions.]

DISEASES CONTROLLED [OR SUPRESSED] [OR PREVENTED] [BY SERENADE MAX] [ON VEGETABLES, FRUIT, NUTS, ORNAMENTAL PLANTS] [Alternate: ON PLANTS, CROPS, SITES]

Anthracnose (*Colletotrichum* spp.)

Bacteria (*Erwinia* spp, *Pseudomonas* spp., *Xanthomonas* spp.)

Bacterial Leaf Blight *(Xanthomonas campestris)*

Bacterial Speck (Pseudomonas syringae pv.) Tomato

Bacterial Spot *(Xanthomonas* spp.*)* - suppression

Bean Rust *(Uromyces appendiculatus)* - suppression

Black Mold (*Alternaria alternata)*

Black Rot/Black Crown Rot *(Alternaria* spp.*)*

Black Spot of Rose (*Diplocarpon rosea)*

Botrytis *(Botrytis* spp.*)*

Botrytis Leaf Blight *(Botrytis squamosa)*

Botrytis Neck Rot *(Botrytis* spp.*)*

Downy Mildew *(Bremia lactucae, Peronospora* spp., and *Plasmopara viticola)* - suppression

Early Blight *(Alternaria solani)* – suppression

Fire Blight *(Erwinia amylovora)* – suppression

Gray Mold *(Botrytis cinerea)*

Greasy Spot *(Mycosphaerella citri)* - suppression

Late Blight *(Phytophthora infestans)* – suppression

Leaf Spots (*Alternaria* spp., *Cercospora* spp., *Entomosporium* spp., *Helminthsporium* spp., *Myrothecium* spp., *Septoria* spp.)

Onion Downy Mildew *(Peronospora destructor)*

Onion Purple Blotch *(Alternaria porri)*

Phytophthora spp.

Pin Rot *(Alternaria/Xanthomonas* complex) - suppression

Powdery Mildew *(Uncinula necator, Erysiphe* spp., *Sphaerotheca* spp., *Oidiopsis taurica, Leveillula taurica, Podosphaera leucotricha)*

Powdery Mildew (*Erysiphe* spp., *Oidium* spp., *Podosphaera* spp., *Sphaerotheca* spp.)

Rust (*Puccinia* spp.)

Scab *(Venturia* spp.) - suppression

Sclerotinia Head and Leaf Drop *(Sclerotinia* spp.)

Sour Rot

Target Spot (*Corynespora cassiicola*)

Walnut Blight *(Xanthomonas campestris)*

White Mold *(Sclerotinia sclerotiorum)* – suppression

[SERENADE MAX] MAY BE USED ON LAWNS, TURF AND ORNAMENTAL TURF AND GOLF COURSES (FAIRWAYS, GREENS, ROUGHS, TEES).

LAWNS, TURF AND ORNAMENTAL TURF, GOLF COURSES (FAIRWAYS, GREENS, ROUGHS, TEES):
Bluegrass, Bentgrass, Bermudagrass, Dichondra, Fescue,
Orchard grass, Poa Annua, St. Augustine, Ryegrass, Zoysia, Mixtures and other grasses or ornamental turf.

DISEASES CONTROLLED [OR SUPRESSED] [OR PREVENTED] [BY SERENADE MAX] [ON LAWNS, TURF AND ORNAMENTAL TURF AND GOLF COURSES (FAIRWAYS, GREENS, ROUGHS, TEES).]

Lawn and Turf Diseases:
Brown Patch (*Rhizoctonia solani)*
Dollar Spot (*Lanzia* spp., Moellerodiscus, spp. formerly *Sclerotinia homeocarpa*)
Powdery Mildew (*Erysiphe graminis*)
Rust (*Puccinia* spp.)
Anthracnose (*Colletotrichum graminicola)*
Red Thread (*Laetisaria fuciformis*)

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal

PESTICIDE STORAGE: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

PESTICIDE DISPOSAL AND CONTAINER DISPOSAL:
If empty:
Nonrefillable container. Do not reuse or refill this container. Place in trash or offer for recycling, if available.
If partly filled:
Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

CONDITIONS FOR SALE AND WARRANTY

Except to the extent prohibited by applicable law, AgraQuest offers this product with the following conditions: 1) buyers and users of this product assume the risk of any storage, handling or use contrary

to AgraQuest's label and directions and 2) AgraQuest's liability shall in no case exceed the purchase price of the applicable AgraQuest product.

Serenade is a registered trademark of AgraQuest, Inc.

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