

A plant extract to boost the plants' defense mechanisms to protect against certain fungal and bacterial diseases, and to improve plant health.

Active ingredient: Extract of Reynoutria sachalinensis	5 %	%
Other ingredients:	.95 %	%
Total:	100	%

EPA Reg. No. 84059-3

GROUP	P5	FUNGICIDE
GNOOF	гэ	FONGICIDE

☑ EPA Est. No. 085970-FL-00)]
☐ EPA Est. No. 84059-MI-001	

KEEP OUT OF REACH OF CHILDREN CAUTION

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

CAN BE USED IN ORGANIC PRODUCTION	
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 \square 1 gallon \square 2.5 gallons \square

NET CONTENTS:

<u>ÖMRI</u>

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REG-13-04 Lot #:

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

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 exemptions pertaining to the statements on this label about personal protective equipment (PPE) and the restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

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

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

GENERAL INFORMATION

Regalia[®] Biofungicide is an extract from the plant *Reynoutria* spp. for use on edible crops. Regalia[®] Biofungicide applied to actively growing plants (see DIRECTIONS FOR USE) will improve plant health, and will help make the treated portions resistant to certain plant diseases. Plant health benefits often result in greater yields at harvest. Use Regalia[®] Biofungicide as a preventative rather than a curative application. Apply prior to disease infestation to protect the growing leaf tissue. See specific information for diseases controlled and use rates on edible crops.

Regalia[®] Biofungicide can be used as a plant dip, soil drench, in-furrow spray, or applied through drip irrigation to control or suppress certain soil-borne diseases and to promote healthy root growth.

MODE OF ACTION

The extract obtained from *Reynoutria* spp. plant material contains active chemical compounds. The extract, when applied to the host plant, increases the plant's defense system due to a five-fold increase in phenolics and antioxidants, and strengthens cell walls. This induced resistance against important diseases is not systemic, but provides some translaminar protection. Repeat foliar applications at 7-14 day intervals to maintain induction and to protect new plant growth. The resistance induction takes place within one to two days.

Use Regalia[®] Biofungicide, therefore, as a preventative treatment.

MIXING AND APPLICATION INSTRUCTIONS - SHAKE WELL PRIOR TO USE -

Regalia[®] Biofungicide is a micro-emulsion concentrate consisting of certain natural ingredients extracted from *Reynoutria* spp. Use 50-mesh nozzle screens or larger.

See AERIAL APPLICATION section for aerial application use directions.

See CHEMIGATION section for chemigation use directions.

See PRE-PLANT DIP section for pre-plant dip use directions.

See SOIL TREATMENT section for soil application use directions.

Use higher water volumes with larger sized crops and extensive foliage to secure thorough coverage.

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

Regalia® Biofungicide + tank-mixtures: Add ½ - ¾ of the required amount of water to the mix tank. Start the agitation before adding any tank mix partners. In general, tank-mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, and emulsifiable formulations such as Regalia® Biofungicide. Always allow each tank mix partner to become completely dispersed before adding the next component. Maintain continuous agitation until all components have been dispersed and throughout the application process. After all components are completely dispersed add the remainder of the water. Regalia® Biofungicide cannot be mixed with another product with a prohibition against mixing. Use of the tank mix must be in accordance with the more restrictive label limitations and precautions. **Do not pre-mix Regalia® Biofungicide with any other tank mix component prior to adding to the spray tank**.

Compatibility: Do not combine Regalia[®] Biofungicide in the spray tank with pesticides, adjuvants, 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.

Regalia[®] Biofungicide is compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants, but has not been evaluated with all potential combinations. To ensure compatibility of the tank mix combinations, evaluate prior to use as follows: Using a suitable container, add the proportional amounts of product to water. Add wettable powders first, then water dispersible granules, then 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 mix on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of the application.

AERIAL APPLICATION INSTRUCTIONS

Apply Regalia[®] Biofungicide by aerial application to the Edible Crops listed at the rate of 0.5 - 1 quart per acre in a minimum of 5 gallons of water per acre unless specified differently in the SELECTED CROPS section. Increasing the amount of water applied per acre may improve product performance. Follow all instructions to reduce aerial drift.

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 droplets large enough to 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: 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. Number 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 nospray zone, do not release spray at a height greater than 10 feet above the ground or 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.

CHEMIGATION USE DIRECTIONS

Apply Regalia[®] Biofungicide at 1 - 4 quarts per acre according to the instructions below unless specified differently in the SELECTED CROPS section.

CHEMIGATION

General Requirements -

- 1) Apply this product only through a drip system or sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, flood (basin), furrow, border or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers 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 necessary adjustments should the need arise.

Specific Requirements for Chemigation Systems Connected to Public Water Systems -

- 1) Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2) Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4) The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering 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.

Specific Requirements for Sprinkler Chemigation -

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Flood (Basin), Furrow and Border Chemigation -

- 1) Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
- 2) The systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
 - a. The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
 - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
 - c. 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.

- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e. 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.
- f. 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.

Specific Requirements for Drip (Trickle) Chemigation -

- 1) The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Application Instructions for All Types of Chemigation -

- 1) 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.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions. Product can be applied continuously or at any time during the water application.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required.

PRE-PLANT DIP USE DIRECTIONS

Regalia[®] Biofungicide can be applied as a pre-plant dip for improved plant health and suppression of certain soil-borne diseases. Apply Regalia[®] Biofungicide in 1 - 4 quarts product per 100 gallons of water as a pre-plant dip immediately prior to transplanting, unless specified differently in the SELECTED CROPS section.

SOIL TREATMENT USE DIRECTIONS

Regalia[®] Biofungicide can be applied by soil drench, in-furrow spray, or soil injection to improve plant health and to protect against certain soil-borne diseases.

In general, Regalia® Biofungicide can be applied by the following methods, unless specified differently in the SELECTED CROPS section:

Soil Drench Applications:

Apply Regalia Biofungicide at a concentration of 1 - 3 quarts per 100 gallons of water, and at a sufficient rate to thoroughly soak the growing media and root zone. Make an initial application of Regalia Biofungicide during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth. Multiple drench applications can be made on a 10 -14 day interval.

Shanked-In and Injected Applications:

Regalia[®] Biofungicide can be shanked-in or injected into the soil alone, or with most types of liquid nutrients.

In-Furrow Applications:

At planting, apply Regalia[®] Biofungicide as an in-furrow spray at the rate of 1 - 4 quarts per acre or 2.2 - 8.8 fluid ounces per 1000 feet of row according to the chart below. Apply Regalia[®] Biofungicide in 5 -15 gallons of water so as the spray is directed into the seed furrow just before the seeds are covered.

D-4-	In-Furrow Application Rates Product per Acre (fl. oz.)					
Rate	30" Rows	32" Rows	34" Rows	36" Rows	38" Rows	40" Rows
2.2 fl. oz. per 1000 ft. row	38.3	36.0	33.8	32.0	30.3	28.7
8.8 fl. oz. per 1000 ft. row	153.2	144.0	135.2	128.0	121.2	114.8

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

APPLICATION RATES FOR SELECTED CROPS

Regalia[®] Biofungicide used as specified will improve plant health, and induce the defense system of the treated plants listed below towards the diseases specified below.

The general recommended use rate for Regalia[®] Biofungicide applied alone or as an alternate spray is 2 - 4 quarts per 100 gallons of water (0.5-1.0% v/v dilution of Regalia[®] Biofungicide) applied at 50 - 100 gallons of water per acre. When tank mixed with another fungicide, the use rate for Regalia[®] Biofungicide is 1 - 4 quarts in 100 gallons of water applied at 50 - 100 gallons of water per acre. Use higher water volumes with larger sized crops and extensive foliage in order to secure thorough coverage. See specific application recommendations pertaining to each crop for additional details.

For greenhouse application on the crops and diseases listed, the recommended use rate for Regalia[®] Biofungicide is 2 - 4 quarts in 100 gallons of water (0.5-1.0% v/v dilution of Regalia[®] Biofungicide) sprayed until just before point of runoff. When tank mixed with another fungicide, the use rate for Regalia[®] Biofungicide is 1 - 4 quarts in 100 gallons of water. Repeat at 7- 14 day intervals as needed. See specific application recommendations for each crop for additional details.

Cron	Target Disease	Application	Product Use Rate	Application
Crop	Met Met		per Application	Instructions
Artichoke	Powdery Mildew	Foliar	1-4 quarts	For ground applications, apply this product in 50-
	(Erysiphe	(Ground)	per acre	100 gallons of water per acre.
	cichoracearum) (Leveillula taurica) Ramularia Leaf Spot			Apply this product preventatively or when the first disease symptoms are visible and reapply every 7- 14 days.
	(Ramularia cynarae)	Foliar	0.5 - 1 quart	For aerial applications, apply this product in a
		(Aerial)	per acre	minimum of 5 gallons of water per acre.
				Apply this product preventatively or when the first disease symptoms are visible and reapply every 7- 14 days.
		Chemigation	1 – 4 quarts	For chemigation applications for improved plant
			per acre	growth, apply this product through drip irrigation
				immediately after transplant and at 14-day
				intervals or begin 14 days after transplant when
D 1: ® D: C			CO 1	soil drench applications are used.

Regalia[®] Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Asparagus	Botrytis Blight	Foliar	1 – 4 quarts	For ground applications, apply this product in 50-100
	(Botrytis	(Ground)	per acre	gallons of water per acre.
	cinerea) Rust			Apply this product preventatively or when the first disease symptoms are visible and reapply every 7- 14 days
	(Puccinia aspargi)	Foliar (Aerial)	0.5 - 1 quart per acre	For aerial applications, apply this product in a minimum of 5 gallons of water per acre. Apply this product preventatively or when the first disease symptoms are visible and reapply every 7- 14 days.
D 1: ® D:	0 1111	<u> </u>	1 (DIII) - CO -1	symptoms are visible and reapply every 7- 14 days.

Regalia Biofungicide has a pre-harvest interval (PHI) of 0 days.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Bushberries	Mummy Berry	Foliar	1 – 4 quarts	For ground applications, apply this product
and	(Monilinia vaccinii-	(Ground)	per acre	in 50 - 100 gallons of water per acre.
Caneberries Blueberry Blackberry (all varieties) Cranberry Currant Elderberry Gooseberry	corymbosi) Alternaria Fruit Rot (Alternaria spp.) Anthracnose Fruit Rot (Colletotrichum acutatum) Bacterial Canker (Pseudomonas syringae)			Mummy Berry – Initiate application at bud break stage of development. Apply this product preventatively and repeat on a 7-10 day interval or as needed. For best performance, tank mix this product with other registered fungicides for Mummy Berry control. Botrytis Blight – Apply this product
Huckleberry	(1 seadononas syringue)			preventatively when the first disease

Juneberry	Botrytis Blight			symptoms are visible and reapply every 7-
Ligonberry	(Botrytis cinerea)			14 days.
Loganberry Raspberry (red and black) Salal and other berry crops	Leaf Rust (Pucciniastrum vaccinii) Leaf Spot and Blotch (Mycosphaerella spp.) (Septoria spp.) Phomopsis Leaf Spot,			Bacterial Canker – Apply this product prior to Fall rains and repeat applications during dormancy before Spring growth. This product can be tank mixed with another registered fungicide for improved control of bacterial canker. Anthracnose Fruit Rot and Alternaria Fruit
	Twig Blight, and Fruit Rot			Rot on blueberries – Initiate application at
	(Phomopsis spp.)			green tip and continue applications on a 7-
				10 day.
	Powdery Mildew	Foliar	0.5 - 1 quart	For aerial applications, apply this product in
	(Microsphaera alni)	(Aerial)	per acre	a minimum of 5 gallons of water per acre.
	Spur Blight (Didymella spp.) (Phoma spp.)			

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Bulb Vegetables Onion (Bulb and Green) Garlic Leek Shallot and other bulb vegetable crops	Botrytis Leaf Blight (Botrytis squamosa) Botrytis Neck Rot (Botrytis spp.) Downy Mildew (Peronospora spp.) Onion Purple Blotch (Alternaria porri) Powdery Mildew (Erysiphe spp.) Rust (Puccinia porri)	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product preventatively in 50 - 100 gallons of water per acre. Repeat applications at 7- 14 day intervals. Under moderate to heavy disease pressure, tank mix this product with another fungicide.
	Stemphyllium Leaf Blight (Stemphylium vesicarium) Fusarium spp. Pythium spp. Rhizoctonia spp.	Soil Drench	1 – 3 quarts per 100 gallons	For soil drench applications, apply this product at a concentration of 1 - 3 quarts per 100 gallons of water, and at a sufficient rate to thoroughly soak the growing media and root zone. Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth. Multiple drench applications can be made on a 10 - 14 day interval.
		In-Furrow	1 – 4 quarts per acre 2.2 - 8.8 fl. oz. per 1000 ft. row	For in-furrow applications, at planting apply this product as an in-furrow spray at the rate of 1 - 4 quarts per acre or 2.2 - 8.8 fluid ounces per 1000 feet of row according to the chart in the SOIL TREATMENT USE DIRECTIONS section. Apply this product in 5 - 15 gallons of water so as the spray is directed into the seed furrow just before the seeds are covered.

	Chemigation	1 – 4 quarts	For chemigation applications, apply this		
		per acre	product through irrigation at the rate of 1 - 4		
			quarts per acre immediately after transplant		
			and at 14-day intervals or begin 14 days		
			after transplant when plant dip or soil		
			drench applications are used.		
	Plant Dip	1 - 4 quarts	For plant dip applications for improved		
		per 100 gallons	plant growth and suppression of soil-borne		
			diseases, apply this product in a $0.25 - 1\%$		
			v/v suspension (1 - 4 quarts this product per		
			100 gallons water) as a pre-plant dip		
			immediately prior to transplanting.		
Pagalia Piaturgiaida has a pro harvast interval (PHI) of 0 days					

Crop	Target Disease	Application Method	Product Use Rate	Application Instructions
Cereal	Powdery Mildew	Foliar	per Application 1 – 2 quarts	For ground applications to optimize disease
Grains	(Erysiphe graminis)	(Ground)	per acre	control and to maximize yields, apply this
Grains	(Erysiphe graminis)	(Ground)	per acre	product in 15 - 40 gallons of water per acre.
Barley	Bacterial Blight and Streak			product in 13 - 40 gamons of water per acre.
Buckwheat	(Xanthomonas spp.)			It is important to apply this product at the flag
Grain	Brown Rot, Leaf Spots &			leaf stage to maximize yield. Apply this product
Amaranth	Smuts			preventatively or when the first disease
Milo	(Ceratobasidium spp.)		,	symptoms appear. Repeat applications in 7- 14
Oat	(Cercospora spp.)			day intervals depending upon crop growth and
Millets	(Cochliobolus spp.)			disease pressure.
Rice*	(Drechslera spp.)			When the plants are under high disease pressure,
Rye				tank mix this product with another fungicide for
Sorghum				more effective control.
Triticale		Foliar	0.5 - 1 quart	For aerial applications, apply this product in a
	Rust	(Aerial)	per acre	minimum of 5 gallons water per acre.
	(Puccinia spp.)			
	Septoria Leaf Spot			It is important to apply this product at the flag
	(Septoria spp.)			leaf stage to maximize yield. Apply this product
	117			preventatively or when the first disease
	Sheath Spot and Blight			symptoms appear. Repeat applications in 7- 14
	(Rhizoctonia oryzae)			day intervals depending upon crop growth and
	(Thanatephorus cucumeris)			disease pressure.
	Stem Rot			When the plants are under high disease pressure,
	(Sclerotium oryzae)			tank mix this product with another registered
				fungicide for more effective control.
	Smut			rangiciae for more effective control.
	(Tilletia barclayana)			

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Citrus Crops	Bacterial Canker (<i>Xanthomonas</i> spp.)	Foliar (Ground)	1 – 4 quarts per acre	For ground applications, apply this product preventatively in 50-100 gallons of water per acre.
Orange Grapefruit Lemon Tangelo Tangerine Pummelo and other citrus crops	Alternaria Brown Spot (Alternaria alternata) Bacterial Blast (Pseudomonas syringae) Black Spot (Guignardia citricarpa) (Phyllosticta citricarpa)	(Ground)	per acre	For improved performance, use this product in a tank mix or rotational program with other registered fungicides. Repeat applications at 7- 14 day intervals. Dilute applications: this product can be applied by ground equipment to tree crops in dilute applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that

Greasy Spot (Mycosphaerella citri)	Foliar (Aerial)	0.5 - 1 quart per acre	For aerial applications, apply this product in a minimum of 5 gallons water per acre.
Melanose (Diaporthe citri) Postbloom Fruit Drop (Colletotrichum acutatum)			For improved performance, use this product in a tank mix or rotational program with other registered fungicides. Repeat applications at 7- 14 day intervals.
Scab (Elsinoe australis) (Elsinoe fawcetti)			

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Cole Crops (Brassicas)	Powdery Mildew	Foliar	0.5 – 4 quarts	For ground applications, apply
Broccoli Broccoli Rabe	(Erysiphe cruciferarum) (Erysiphe polygoni)	(Ground)	per acre	this product at 1 - 4 quarts per 50 gallons of water.
Brussels Sprouts Cabbage Chinese Broccoli Chinese Cabbage (Bok Choy) Chinese Cabbage (Napa) Chinese Mustard Cabbage (Gai Choy)	Alternaria Leaf Spot (Alternaria spp.) Downy Mildew (Peronospora parasitica) Pin Rot Complex (Alternaria/Xanthomonas)			For concentrated ground applications, apply this product at 0.5 – 1.5 quarts per acre in 10 - 25 gallons of water per acre. Repeat applications at 7- 14 day intervals.
Cauliflower Cavalo	Xanthomonas Leaf Spot (Xanthomonas			Under moderate to heavy disease pressure, tank mix this product with another fungicide.
Collards Kale	campestris)	Foliar (Aerial)	0.5 – 1.5 quarts per acre	For aerial applications, apply this product in a minimum of 5
Kohlrabi Mizuna			•	gallons of water per acre.
Mustard Greens Mustard Spinach				Repeat applications at 7- 14 day intervals.
Rape Greens Turnip and other cole crops				Under moderate to heavy disease pressure, tank mix this product with another fungicide.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Cotton	Alternaria Leaf Spot, Boll Rot (Alternaria spp.) Anthracnose, Boll Rot (Glomeria spp.) Ascochyta Blight, Boll Rot (Ascochyta spp.) Cercospora Blight & Leaf Spot (Cercospora spp.) Diplodia Boll Rot (Diplodia spp.) Hard Lock, Boll Rot (Fusarium spp.) Leaf Spot (Corynespora cassicola)	Foliar (Ground) Foliar (Aerial)	1 – 2 quarts per acre 0.5 - 1 quart per acre	For ground applications for foliar and Boll Rot disease control, apply this product preventatively in 15 - 40 gallons of water per acre prior to disease development using sufficient volume for thorough coverage. Repeat applications at 7- 14 day intervals. For aerial applications, apply this product in a minimum of 3 gallons of water per acre.

Phoma Blight, Boll Rot	
(Phoma spp.)	
Rust	
(Puccinia spp.)	
(<i>Phykopsora</i> spp.)	
Stemphyllium Leaf Spot	
(Stemphyllium spp.)	

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Cucurbits	Powdery Mildew	Foliar	1 – 4 quarts	For ground applications, apply this product
T 1 1 11 / 1	(Erysiphe	(Ground)	per acre	preventatively in 25-100 gallons of water per
Includes all types and	cichoracearum)			acre or when the first symptoms of disease are
hybrids of:	(Sphaerotheca			visible. Increase water volume as plant size
Chayote Chinese	fuliginea)			increases.
waxgourd	Anthracnose			Repeat applications in 7- 14 day intervals
Cucumber	(Colletotrichum			depending upon crop growth and disease
Citron melon	lagenarium)			pressure.
Gherkin	iagenarium)			
Pumpkin	Alternaria Blight			When greenhouse cucurbits are under high
Watermelon	(Alternaria			disease conditions, use the shorter spray
w atermeron	cucumerina)			interval.
Edible Gourd:				Downy Mildew - Tank mix this product with
Chinese okra	Cercospora Leaf			another fungicide labeled for Downy Mildew
Cucuzza	Spot			control and re-apply at a 7-day interval or
Hyotan	(Cercospora			according to the label directions of the tank
10	citrulina)			mix partner.
Mormordica spp.:	Downy Mildew			•
Balsam apple	(Pseudoperonospora			Phytophthora Blight - Apply this product in
Balsam pear Bitter melon	cubensis)			combination with labeled rates of a copper
Chinese				fungicide or with another fungicide labeled
cucumber	Gummy Stem Blight			for Phytophthora Blight control.
Cucumber	(Didymella bryoniae)	Foliar	0.5 - 1 quart	For aerial applications, apply this product in a
Muskmelon:	Phytophthora Blight	(Aerial)	per acre	minimum of 5 gallons of water per acre.
Cantaloupe	(Phytophthora			Repeat applications in 7- 14 day intervals
Casaba	capsici)			depending upon crop growth and disease
Crenshaw melon	cupsici)			pressure.
Golden pershaw				
melon				Downy Mildew - Tank mix this product with
Honeydew				another fungicide labeled for Downy Mildew
melon	<i>y</i>			control and re-apply at a 7-day interval or
Honey balls				according to the label directions of the tank
Mango melon				mix partner.
Persian melon				Phytophthora Blight - Apply this product in
Pineapple melon				combination with labeled rates of a copper
Santa Claus				fungicide or with another fungicide labeled
melon				for Phytophthora Blight control.
Snake melon	Fusarium spp.	Soil Drench	1 – 3 quarts	For soil drench applications, apply this
Summer Squash:	·rr·		per 100	product at a concentration of 1 - 3 quarts per
Crookneck squash	Phytophthora spp.		gallons	100 gallons of water, and at a sufficient rate to
Scallop squash			_	thoroughly soak the growing media and root
Straightneck	Pythium spp.			zone. Make an initial application of this
squash				product during or shortly after transplant to
Vegetable	Rhizoctonia spp.			reduce transplant shock, suppress soil-borne
marrow				diseases and improve root growth. Multiple
Zucchini	Verticillium spp.			drench applications can be made on a 10-14
				day interval.

Winter Squash:	In-Furrow	1 – 4 quarts	For in-furrow applications at planting, apply
Acorn squash		per acre	this product as an in-furrow spray at the rate
Butternut squash			of 1 - 4 quarts per acre or 2.2 - 8.8 fluid
Calabaza		2.2 - 8.8.	ounces per 1000 feet of row according to the
Hubbard squash		per 1000 ft.	chart in the SOIL TREATMENT USE
Spaghetti squash		row	DIRECTIONS section. Apply this product in
			5 - 15 gallons of water so as the spray is
and other cucurbit			directed into the seed furrow just before the
crops			seeds are covered.
	Plant Dip	1 - 4 quarts	For plant dip applications for improved plant
		per 100	growth and suppression of soil-borne
		gallons	diseases, apply this product in a $0.25 - 1\% \text{ v/v}$
			suspension (1 - 4 quarts this product per 100
			gallons water) as a pre-plant dip immediately
			prior to transplanting.
	Chemigation	1 – 4 quarts	For chemigation applications for improved
		per acre	plant growth and suppression of soil-borne
			diseases, apply this product through drip
			irrigation at the rate of 1 - 4 quarts per acre
			immediately after transplant and at 14-day
			intervals or begin 14 days after transplant
			when plant dip or soil drench applications are
			used.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Fruiting	Bacterial Blight	Foliar	1 – 3 quarts	For ground applications, apply this product
Vegetables	(Xanthomonas spp.)	(Ground)	per acre	preventatively in 25 - 100 gallons of water
vegetables	(Aunthomonus spp.)	(Ground)	per acre	per acre. Increase water volume as plant size
Tomato	Bacterial Spot			increases.
Pepper	(Xanthomonas spp.)			mercases.
Eggplant				Repeat applications at 7- 10 day intervals.
Ground	Bacterial Speck			
Cherry	(Pseudomonas syringae)			Tank mix this product with other registered
Okra	DI LAKII			fungicides for improved disease control
Tomatillo	Black Mold			under heavy pressure.
1 omatilio	(Alternaria alternata)			
1 . 41	Early Blight			Phytophthora Blight - Apply this product in
and other	(Alternaria solani)			combination with labeled rates of a copper
fruiting	(Atternaria solani)			fungicide or with another fungicide labeled
vegetable	Gray Mold			for Phytophthora Blight control.
crops	(Botrytis cinerea)	Foliar	0.5 - 1 quart	For aerial applications, apply this product in
		(Aerial)	per acre	a minimum of 10 gallons of water per acre.
	Late Blight			Bonost andications at 7, 10 descintancels
	(Phytophthora infestans)			Repeat applications at 7- 10 day intervals.
	DI CONTROLL			Tank mix this product with other registered
	Phytophthora Blight			fungicides for improved disease control
	(Phytophthora capsici)			under heavy pressure.
				under neavy pressure.
	Powdery Mildew			Phytophthora Blight - Apply this product in
	(Erysiphe spp.)			combination with labeled rates of a copper
	(Leveillula taurica)			fungicide.
	(Oidopsis taurica)			Tungiciae.
	(Sphaerotheca spp.)			
	(-r z _F r.)			
	Target Spot			
	(Corynespora cassiicola)			

	Fusarium spp.	Soil Drench	1-3 quarts	For soil drench applications, apply this
			per 100 gallons	product at a concentration of 1 - 3 quarts per
	Phytophthora spp.			100 gallons of water, and at a sufficient rate
				to thoroughly soak the growing media and
	Pythium spp.			root zone. Make an initial application of this
				product during or shortly after transplant to
	Rhizoctonia spp.			reduce transplant shock, suppress soil-borne
	Tr.			diseases and improve root growth. Multiple
	Verticillium spp.			drench applications can be made on a 10 - 14
	y or trettitum spp.			day interval.
		In-Furrow	1 – 4 quarts	For in-furrow applications, at planting, apply
			per acre	this product as an in-furrow spray at the rate
				of 1 - 4 quarts per acre or 2.2 - 8.8 fluid
			2.2 - 8.8.	ounces per 1000 feet of row according to the
			per 1000 ft. row	chart in the SOIL TREATMENT USE
				DIRECTIONS section. Apply this product in
				5 - 15 gallons of water so as the spray is
				directed into the seed furrow just before the
				seeds are covered.
		Plant Dip	1 - 4 quarts	For plant dip applications for improved plant
			per 100 gallons	growth and suppression of soil-borne
				diseases, apply this product in a $0.25 - 1\%$
				v/v suspension (1 - 4 quarts this product per
				100 gallons water) as a pre-plant dip
				immediately prior to transplanting.
		Chemigation	1-4 quarts	For chemigation applications for improved
			per acre	plant growth and suppression of soil-borne
				diseases, apply this product through drip
				irrigation at the rate of 1 - 4 quarts per acre
				immediately after transplant and at 14-day
				intervals or begin 14 days after transplant
				when plant dip or soil drench applications
				are used.
Regalia® Biofun	oicide has a nre-harvest int	arval (PHI) of (dove	

		Application	Product Use Rate	Application
Crop	Target Disease	Method	per Application	Instructions
Grape	Powdery Mildew (Uncinula necator) Angular Leaf Spot (Mycosphaerella angulata) Anthracnose (Elsinoe ampelina) Botrytis Bunch Rot (Botrytis cinerea) Black Rot (Guignardia bidwellii) Downy Mildew (Plasmopara viticola) Eutypa (Eutypa lata) Leaf Blight (Pseudocercospora vitis) Phomopsis Fruit Rot (Phomopsis viticola) Ripe Rot (Colletotrichum gloeosporioides)	Foliar	1 – 4 quarts per acre	For ground applications, apply this product preventatively in 50 - 100 gallons of water per acre or when the first disease symptoms are visible. Under high disease pressure, use in a tank mix with another registered fungicide for more effective control. Repeat applications in 7- 14 day intervals depending upon crop growth and disease pressure. Dilute applications: this product can be applied by ground equipment to vine and tree crops in dilute applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that result in the runoff of spray material.

Sour Rot		
(Alternaria	tenuis)	
(Aspergillus	spp.)	
(Botrytis cir	perea)	
(Cladosport	um herbarum)	
(Penicilliun	spp.)	
(Rhizopus a	rrhizus)	

Regalia® Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI)** of **4 hours**.

Стор	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Grass Seed	Powdery Mildew	Foliar	1 – 4 quarts	For ground applications, apply this product
	(Erysiphe graminis)	(Ground)	per acre	preventatively in 25 – 100 gallons of water per
	(Oidium spp.)			acre when disease symptoms are first visible or
	(Podosphaera spp.)			when environmental conditions are conducive
	(Sphaerotheca spp.)			to rapid disease development. Continue sprays
	.			at 7-day intervals or as needed.
	Rust	Foliar	0.5 – 1 quart	For aerial applications, apply this product in a
	(Puccinia spp.)	(Aerial)	per acre	minimum of 5 gallons of water per acre.

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	e Application Method	Product Use Rate per Application	Application Instructions
Downy Mildew (Pseudoperonosphumuli) Powdery Mildew (Sphaerothecamacularis)		1 – 4 quarts per acre	Apply this product preventatively when disease symptoms are first visible or when environmental conditions are conducive to rapid disease development. Continue sprays at 7-day intervals or as needed. Minimum spray volumes for hop growth stages are as follows: Emergence to Training: Apply 1 - 2 quarts this product per acre 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. Training to Wire-Touch: Apply 1 - 2 quarts this product per acre 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. Wire-Touch through Harvest: Apply 2 - 4 quarts of this product using a minimum of 100 gallons of water per acre. Higher water volumes may be necessary to achieve thorough coverage after side arms develop. Do not apply more than 4 quarts of product per acre per application. Apply adequate spray volume to achieve complete spray coverage. Use the higher rates when moderate to high disease pressure is present or expected. For control of Downy Mildew, tank mix this product with another fungicide labeled for Downy Mildew control and re-apply at a 7-day interval or according to the label directions of the tank mix partner.

Regalia Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Leafy Vegetable	Downy Mildew	Foliar	0.5 – 4 quarts	For ground applications, apply this
Crops	(Bremia lactuca)	(Ground)	per acre	product at 0.5 - 4 quarts in 50 - 100
Arugula	(Peronospora spp.)			gallons of water per acre.
Beet	Bacterial Blight/Rot			For concentrated ground applications,
Celery	(Xanthomonas spp.)			apply this product at $0.5 - 1.5$ quarts
Chervil				per acre in a minimum of 10 gallons
Cilantro	Cercospora leafspot			of water per acre.
Corn Salad	(Cercospora spp.)			Repeat applications at 7- 14 day
Cress	Late Blight			intervals.
Dandelion	(Septoria apiicola)	Foliar	0.5 – 1.5 quarts	West of the Rocky Mountains - For
Dock		(Aerial)	per acre	aerial applications, apply this product
Edible Chrysanthemum	Pink Rot	(11011111)	per were	at $0.5 - 1.5$ quarts per acre in a
Endive	(Sclerotinia			minimum of 10 gallons of water per
Fennel	sclerotiorum)			acre.
Garden Peas	Powdery Mildew			Fact of the Dealer Marutaine For
Head Lettuce	(Erysiphe			East of the Rocky Mountains – For
Leaf Lettuce	cichoracearum)			aerial applications, apply this product at 0.5 - 1 quarts per acre in a
Parsley	,			minimum of 5 gallons of water per
Purslane	Sclerotinia Head and			acre.
Radicchio	Leaf Drop			
Rhubarb	(Sclerotinia minor)			For California: For aerial application,
Spinach Swiss Chard	(Sclerotinia		/	apply this product at 1 – 3pints per
	sclerotiorum)			acre in 10 – 20 gallons of water per
Watercress	White Rust			acre.
And other leafy	(Albugo occidentalis)			Repeat applications at 7- 14 day
vegetable crops	(11101180 occinemans)		7	intervals.

Regalia[®] Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Restrictions: Regalia[®] Biofungicide should be applied to healthy, actively growing plants. Do not apply Regalia[®] Biofungicide to plants that are stressed due to cold weather, drought, excessive moisture, etc. Do not apply when extended cold or cold and cloudy conditions are expected.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Legumes/ Vegetables (not including soybeans and peanuts)	Bacterial Blight (Xanthomonas campestris) Gray Mold (Botrytis cinerea) Pythium (aerial blight phase)	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product preventatively in 20 - 100 gallons of water per acre. For improved performance, use this product in a tank mix or rotational
Chick Peas Dry Beans Garbanzo Beans Green Beans Lentils Lima Beans Peas Shell Beans Snap Beans	(Pythium spp.) Powdery Mildew (Erysiphe spp.) Rust (Puccinia spp.) (Uromyces appendiculatus) White Mold (Sclerotinia sclerotiorum)			program with another registered fungicide. Repeat applications at 7- 14 day intervals.
Split Peas and other legume crops (including those grown for seed or oil production)	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp.	In-Furrow	1 – 4 quarts per acre 2.2 - 8.8. per 1000 ft. row	For in-furrow applications, at planting apply this product as an in-furrow spray at the rate of 1 - 4 quarts per acre or 2.2 - 8.8 fluid ounces per 1000 feet of row according to the chart in the SOIL TREATMENT USE DIRECTIONS section. Apply this product in 5 - 15 gallons of water so as the spray is directed into the seed furrow just before the seeds are covered.

Regalia[®] Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Mint and Other	Downy Mildew	Foliar	1 – 4 quarts	For ground applications, apply this product
Herbs/Spices	(Peronospora spp.)	(Ground)	per acre	preventatively in a minimum of 50 gallons
		, , ,	1	of water per acre.
Angelica	Powdery Mildew			
Balm	(Erysiphe spp.)			Repeat applications at 7- 14 day intervals.
Basil		Foliar	0.5 - 1 quart	For aerial applications, apply this product
Borage	Rust	(Aerial)	per acre	in a minimum of 5 gallons water per acre.
Burnet	(Puccinia menthae)			Depart applications at 7, 14 descriptoryals
Chamomile				Repeat applications at 7- 14 day intervals.
Catnip				
Chervil				
Chive				
Clary				
Coriander				
Costmary				
Cilantro				
Curry				
Dillweed				
Horehound				
Hyssop				
Lavender			· ·	
Lemongrass				
Lovage				Y Y
Marjoram				
Nasturtium				
Parsley (dried)				
Peppermint				
Rosemary				
Sage				
Savory (summer				
and winter)				
Sweet Bay				
Tansy				
Tarragon				
Thyme				
Wintergreen				
Woodruff				
Wormwood				
a.u.d. a.th.a.u	1			
and other				
herbs/spices				

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Oil Seed Crops	Bacterial Pustule	Foliar	0.5-2 quarts	For ground applications to optimize
(not including	(Xanthomonas spp.)	(Ground)	per acre	disease control and to maximize yields,
cotton, peanut, or soybean)	Bacterial Speck (Pseudomonas syringe pv.			apply this product preventatively in 15 - 40 gallons of water per acre.
Canola Castor Flax Rapeseed	glycinea) Brown Spot (Septoria glycines)			For improved performance, apply this product in a tank mix program with another registered fungicide.
Safflower Sesame Sunflower	Cercospora Leaf Spot (Cercospora spp.)			Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications.

and other oil seed	Downy Mildew	Foliar	0.5 - 1 quart	For aerial applications, apply this
crops	(Peronospora mansherica)	(Aerial)	per acre	product in a minimum of 3 gallons per
	Pod and Stem Blight (Diaporthe phaseolorum var. sojae), (Phomopsis longicola)			For improved performance, apply this product in a tank mix program with another registered fungicide.
	White Mold/ Sclerotinia Stem Rot (Sclerotinia sclerotiorum)			Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications.

Regalia® Biofungicide has a pre-harvest interval (PHI) of 0 days.

Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI)** of **4 hours**.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Olive	Olive Knot (Pseudomonas savastanoi)	Foliar	1 – 4 quarts per acre	Apply this product preventatively in 50 - 100 gallons of water per acre. Repeat applications at 7- 14 day intervals. Dilute applications: this product can be applied by ground equipment to tree crops in dilute applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that result in the runoff of spray material.

Regalia[®] Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter or allow worker entry into treated areas during the **restricted-entry interval** (**REI**) of **4 hours**.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Peanut	Aspergillus Crown Rot (Aspergillus niger) Rhizoctonia Foliar Blight,	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product preventatively in 20 - 50 gallons of water per acre.
	Peg, & Root Rot (Rhizoctonia solani)			Repeat applications at 7- 14 day intervals.
	White Mold (Sclerotium rolfsii)			
	Aspergillus Crown Rot (Aspergillus niger) Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp.	Soil Drench	1 – 3 quarts per 100 gallons	For soil drench applications, apply this product at a concentration of 1 -3 quarts per 100 gallons of water, and at a sufficient rate to thoroughly soak the growing media and root zone. Make an initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne diseases and improve root growth. Multiple drench applications can be made on a 10-14 day interval.
	Verticillium spp.	In-Furrow	1 – 4 quarts per acre	For in-furrow applications at planting, apply this product as an in-furrow spray at the rate of 1 - 4 quarts per acre or 2.2 - 8.8 fluid ounces
	White Mold (Sclerotium rolfsii)		2.2 - 8.8. per 1000 ft. row	per 1000 feet of row according to the chart in the SOIL TREATMENT USE DIRECTIONS section. Apply this product in 5 - 15 gallons of water so as the spray is directed into the seed furrow just before the seeds are covered.

Regalia[®] Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Pome Fruits Apple Crabapple Loquat Oriental Pear Pear Quince Mayhaw and other pome fruit crops	Powdery Mildew (Podosphaera leucotricha) Alternaria Blotch (Alternaria mali) Apple Scab (Venturia inaequalis) Suppression only Bitter Rot (Colletotrichum spp.) Black Rot/ Frogeye Leaf Spot (Botryosphaeria obtusa) Bot Rot (Botryosphaeria dothidea) Brooks Spot (Mycosphaerella pomi) Bull's Eye Rot (Neofabraea spp.) Cedar-Apple Rust (Gymnosporangium juniperi-virginianae) Suppression only Fire Blight (Erwinia amylovora) Suppression only Flyspeck (Zygophiala jamaicensis) Sooty Blotch (Geastrumia polystigmati) (Leptodontium elatius) (Peltaster fructicola) White Rot (Botryosphaeria dothidea)	Foliar	1 – 4 quarts per acre	Instructions For foliar applications, apply this product in 50 - 100 gallons of water per acre. Begin applications when conditions are conducive to disease development but not prior to petal fall. Repeat applications on 7- 10 day intervals. 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. Fire Blight – For suppression, apply 1 - 2 quarts of this product in 50 - 100 gallons of water per acre beginning at petal fall. For maximum control, use this product prior to infection events. During periods of rapid development and frequent infection periods, use spray intervals of 3 - 7 days. Apply in sufficient water to provide full coverage. For improved performance, use this product 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. Scab – For suppression, apply 1 quart of this product in 50 - 100 gallons of water per acre at green tip and through bloom when environmental conditions become favorable for primary Scab development and repeat on a 7 - 10 day interval or as needed. Use this product in a tank mix or rotational program with other fungicides labeled for Scab control. Following bloom, this product can be applied at 2-4 quarts per acre. Use caution when selecting spray adjuvants. Select only those adjuvants which through prior experience do not affect fruit finish when combined with this product. Dilute applications: this product can be applied by ground equipment to tree crops in dilute applications of 100-400 gallons of water. Appl

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Root, Tuber & Corm Crops	Bacterial Leaf Blight (Xanthomonas campestris)	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product in 25 - 100 gallons of water per acre
Potato Beet Carrot	Black Root Rot / Black Crown Rot (<i>Alternaria</i> spp.)			sufficient to provide thorough coverage. Begin application soon after emergence or transplant, and when conditions are conducive to disease development. Repeat
Cassava Ginger Ginseng	Downy Mildew (Peronospora spp.)			on a 7- 10 day interval or as needed. Use shorter intervals when conditions are conducive to rapid disease development.
Horseradish Radish Sweet Potato	Early Blight (Alternaria solani)			For suppression of Early Blight, Black Root Rot/Black Crown Rot, and Late
Turnip and other root	Gray Mold (Botrytis spp.)			Blight, begin application of this product in 25 - 100 gallons of water per acre soon after emergence when conditions are
crops (including those for seed	Late Blight (Phytophthora infestans)			conducive to disease development. Repeat on a 5-7 day interval or as needed. For improved performance, use this product in
production)	Powdery Mildew (Erysiphe spp.)			a tank mix with other registered fungicides.
	White Mold (Sclerotinia sclerotiorum)			
	Clubroot (Plasmodiophora brassicae)	Soil Drench	1 – 3 quarts per 100 gallons	For soil drench applications, apply this product at a concentration of 1 - 3 quarts
	Common Scab (Streptomyces scabies)			per 100 gallons of water, and at a sufficient rate to thoroughly soak the growing media and root zone. Make an
	Fusarium spp. Phytophthora spp.			initial application of this product during or shortly after transplant to reduce transplant shock, suppress soil-borne
	Pythium spp.	17		diseases and improve root growth. Multiple drench applications can be made
	Rhizoctonia spp. Verticillium spp.	In-Furrow	1 – 4 quarts per acre	on a 10-14 day interval. For in-furrow applications at planting, apply this product as an in-furrow spray at the rate of 1 - 4 quarts per acre or 2.2 - 8.8
			2.2 - 8.8. per 1000 ft. row	fluid ounces per 1000 feet of row according to the chart in the SOIL TREATMENT USE DIRECTIONS section. Apply this product in 5 -15 gallons of water so as the spray is directed into the seed furrow just before the seeds
		Chemigation	1 – 4 quarts per acre	are covered. For chemigation applications for improved plant growth and suppression of soil-borne diseases, apply this product
				through drip irrigation at the rate of 1 - 4 quarts per acre immediately after transplant and at 14-day intervals or begin 14 days after transplant when plant dip or soil drench applications are used.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Stone Fruits	Alternaria Spot/Fruit Rot (Alternaria alternata)	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product preventatively in 50 - 100 gallons of water per acre.
Apricot Cherry (sweet and tart)	Anthracnose (Colletotrichum spp.)			Bacterial Blight – Apply this product in 50 - 100 gallons of water per acre postharvest before Fall rains.
Nectarine Peach Plum	Bacterial Canker (Pseudomonas spp.)			Brown Rot Blossom Blight – Begin application of this product in 50 - 100 gallons of water per acre at
Plumcot Prune	Bacterial Spot (Xanthomonas pruni)			early bloom, and repeat through petal fall on a 7-day interval or as needed.
and other stone fruit	Brown Rot Blossom Blight (Monilinia laxa)			Powdery Mildew – Begin application of this product in 50 - 100 gallons of water per acre at
crops	Brown Rot Fruit Rot (Monilinia fruticola)			popcorn stage, and repeat on a 7-day interval or as needed. For improved performance, use this product in a tank mix or rotational program with other
	Cercospora Leaf Spot (Cercospora spp.)			registered fungicides for powdery mildew control. Scab – Begin application of this product in 50 - 100
	Cherry Leaf Spot (Blumeriella jaapii)			gallons of water per acre at petal fall, and repeat on a 7-10 day interval or as needed. For improved performance, tank mix this product with another
	Gray Mold (Botrytis cinerea)		4	fungicide labeled for Scab control. For all other diseases – Begin application prior to
	Powdery Mildew (<i>Podosphaera</i> spp.)			disease development when environmental conditions and plant stage are conducive to rapid
	(Sphaerotheca pannosa) Rust			disease development, and repeat on a 7-10 day interval or as needed. Use in a tank mix or
	(Tranzschelia discolor)			rotational program when disease conditions are severe.
	Rusty Spot (Podosphaera leucotricha)			Dilute applications: this product can be applied by ground equipment to tree crops in dilute
	Scab (Cladosporium carpophilum)	(1)		applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive
D 11 (b) - 1 -	Shot Hole (Wilsonomyces carpophilus)			amounts of water that result in the runoff of spray material.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Strawberry	Anthracnose (Collectotrichum spp.) Suppression only Botrytis (Botrytis cinerea) Leaf Spot (Mycosphaerella fragariae) Phomopsis Leaf Blight (Phomopsis obscurans) Powdery Mildew (Sphaerotheca macularis)	Foliar	1 – 3 quarts per acre	For foliar applications, apply this product preventatively in 50 - 100 gallons of water per acre at 7- 14 day spray intervals or as soon as first symptoms of disease appear. Anthracnose - For suppression, apply this product preventatively in 50 - 100 gallons of water per acre and repeat on a 7- 10 day interval or as needed. For best performance, tank mix this product with other registered fungicides for Anthracnose control. Dilute applications: this product can be applied by ground equipment to strawberries in dilute applications of 100 - 200 gallons of water. Apply this product at a rate of 2 - 3 quarts per acre when applied alone, or at 1 - 3 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that result in the runoff of spray material.

Black Root Rot	Plant Dip	1 - 4 quarts	For plant dip applications for improved plant
(Rhizoctonia spp.)		per 100 gallons	growth and suppression of soil-borne diseases,
(Pythium spp.)			apply this product in a $0.25 - 1\%$ v/v suspension (1
(Fusarium spp.)			- 4 quarts per 100 gallons water) as a pre-plant dip
(Cylindrocarpon spp.)			to strawberry plants, roots and crowns immediately
			prior to transplanting.
Phytophthora Root Rot	Soil Drench	1 – 3 quarts	For soil drench applications, apply this product at a
and Crown Rot		per 100 gallons	concentration of 1 - 3 quarts per 100 gallons of
(Phytophthora spp.)			water, and at a sufficient rate to thoroughly soak
Verticillium Wilt			the growing media and root zone. Make an initial
(Verticillium spp.)			application of this product during or shortly after
(renemm spp.)			transplant to reduce transplant shock, suppress soil-
Fusarium spp.			borne diseases and improve root growth. Multiple
			drench applications can be made on a 10 - 14 day
Pythium spp.			interval.
Rhizoctonia spp.	Chemigation	1 – 4 quarts	For chemigation applications for improved plant
Knizocionia spp.		per acre	growth and suppression of soil-borne diseases,
			apply this product through drip irrigation at the rate
			of 1 - 4 quarts per acre immediately after transplant
			and at 14-day intervals or begin 14 days after
			transplant when plant dip or soil drench
			applications are used.
Regalia® Riofungicide has a pre-harvest in	nterval (PHI)	of O dove	

Regalia® Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

Do not enter or allow worker entry into treated areas during the **restricted-entry interval (REI)** of **4 hours**.

Crop	Target Disease	Application Method	Product Use Rate	Application Instructions
_			per Application	
Sugar Beets	Powdery Mildew	Foliar	1-2 quarts	To optimize disease control and to maximize
	(Erysiphe betae)		per acre	yields, apply this product preventatively in 15 - 40
(includes crop	(Erysiphe polygoni)			gallons of water per acre by ground or aerial
for seed	Leaf Spot			application.
production)	(Cercospora beticola)		$\langle \lambda \rangle \gamma$	For improved performance, apply this product in a
	Ramularia			tank mix program with another registered fungicide.
	(Ramularia spp.)	\\		14.18.4144.
	Desert			Consult your local Extension Specialist or Crop
	Rust			Consultant regarding the optimum timing of
	(Uromyces betae)			fungicide applications.

Regalia® Biofungicide has a **pre-harvest interval (PHI)** of **0 days**.

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Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Sugarcane	Brown Rust (Puccinia melanocephela) Orange Rust (Puccinia kuehnii)	Foliar (Ground)	1 – 2 quarts per acre	For ground applications to optimize disease control and to maximize yields, apply this product preventatively in 15 - 40 gallons of water per acre by ground application. Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications. For improved performance, apply this product in a tank mix program with another registered fungicide.
	gicide has a pre-ha	Foliar (Aerial)	0.5 - 1 quart per acre	For aerial applications, apply this product in a minimum of 3 gallons of water per acre. Consult your local Extension Specialist or Crop Consultant regarding the optimum timing of fungicide applications. For improved performance, apply this product in a tank mix program with another registered fungicide.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Tobacco	Blue Mold (Peronospora tabacina)	Foliar	1 – 4 quarts per acre	For foliar applications, apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide preventatively in a minimum of 50 gallons of water per acre. Avoid excessive amounts of water that result in spray material dripping from the foliage. If necessary, repeat applications at a 7-day interval.
	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp. Verticillium spp.	Plant Dip	1 - 4 quarts per 100 gallons	For plant dip applications, for improved plant growth and suppression of soil-borne diseases, apply this product in a 0.25 – 1% v/v suspension (1 - 4 quarts per 100 gallons water) as a pre-plant dip to tobacco roots and plants immediately prior to transplanting.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Tree Nut	Walnut Blight	Foliar	1 – 4 quarts	For ground applications, apply this
Crops	(Xanthomonas campestris)	(Ground)	per acre	product in 50 - 100 gallons of water
Crops Walnut (Black and English) Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert Hickory nut Macadamia nut Pecan	(Xanthomonas campestris) Alternaria Late Blight, Alternaria Leaf Spot (Alternaria spp.) Anthracnose (Collectotrichum spp.) (Gnomonia leptostyla) Bacterial Canker (Erwinia nigrifluens) (Pseudomonas syringae) Botryosphaeria Blight (Botryosphaeria dothidea)	(Ground)	per acre	product in 50 - 100 gallons of water per acre. This product can be tank mixed at the lower rate with another registered fungicide under heavy disease pressure. Walnut Blight - For preventative control, apply this product in 50-100 gallons of water per acre. Repeat applications at 7- 10 day intervals. Under conditions of heavy disease pressure, tank mix this product with a copper-based fungicide.
Pistachio and other tree nut crops	Brown Rot (Monilinia spp.) Eastern Filbert Blight (Anisogramma anomala) Green Fruit Rot (Botrytis cinerea) Leaf Rust (Tranzschelia discolor)			Dilute applications: this product can be applied by ground equipment to tree crops in dilute applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that result in the runoff of spray material.
	Scab (Cladosporium carpophilum) (Sphaceloma perseae) Shot Hole (Wilsonomyces carpophilus)	Foliar (Aerial)	0.5 - 1 quart per acre	For aerial applications, apply this product in a minimum of 10 gallons per acre.

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Tropical	Anthracnose	Foliar	1 – 4 quarts	For ground applications, apply this product
Fruits	(Colletotrichum gloeosporioides)	(Ground)	per acre	preventatively in 50-100 gallons of water per acre.
Avocado				Repeat applications at 7- 14 day intervals.
Banana Kiwi Mango Papaya Plantain Pineapple Pomegranate	Bacterial Blight (Pseudomonas syringae) (Pseudomonas viridiflava) Bacterial Canker (Xanthomonas campestris)			Dilute applications: this product can be applied by ground equipment to tree crops in dilute applications of 100 - 400 gallons of water. Apply this product at a rate of 2 - 4 quarts per acre when applied alone, or at 1 - 4 quarts per acre when tank mixed with another fungicide. Avoid excessive amounts of water that result in the runoff of spray material.
and other tropical fruit crops	Botrytis Fruit Rot (Botrytis cinerea) Scab (Elsinoe mangiferae)			Sigatoka - Initiate applications when leaves first appear and repeat on a 7-10 day schedule. Apply in sufficient water by ground or air to obtain thorough coverage of foliage. For improved disease control, this product may be tank mixed with oil or other fungicides registered for Sigatoka control at label rates.
	Sigatoka (Mycosphaerella fijiensis)	Foliar (Aerial)	0.5 - 1 quart per acre	For aerial applications, apply this product in a minimum of 10 gallons per acre. Repeat applications at 7- 14 day intervals.

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INTEGRATED PEST MANAGEMENT (IPM)

Many conventional fungicides have been tested in an IPM regime with Regalia[®] Biofungicide with very satisfactory results. One of the major objectives of IPM has been to reduce the probability of disease resistance development to a particular active ingredient.

The alternate use of (1-2 sprays) followed by a conventional, registered fungicide (1-2 sprays) has been successfully used in many crops. In addition, the use of tank mixes with a conventional fungicide has also been successful.

Follow label instructions of the particular registered product: Do not exceed amounts or treatment intervals on the label.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store in a cool, dry place. Avoid freezing.

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 pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ½ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

Marrone Bio Innovations is a member of the Ag Container Recycling Council. Visit http://www.acrecycle.org/contact for information on how to arrange pick-up of this empty pesticide container.



WARRANTY

To the extent permitted by applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in strict accordance with the accompanying directions.

Label date: February 11, 2013

Made in the U.S.A.

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