		REG		РТО	HERE TO OPEN	
A d C T T	plant extract to iseases, and to in ctive ingredient ther ingredients otal	boost the plants' defense mecha nprove plant health. : Extract of <i>Reynoutria sachaline</i> : : : <b>:9-3-87865</b>	nisms to protect against certain fun nsis	gal and bacterial 	FOR May New	ACCEPTED REGISTRATIC / 9, 2013 York State Departm
		KEEP OUT OF RE CAU	ACH OF CHILDREN <b>TION</b>		of Env Division Pestici	ironmental Conserva of Materials Manag de Product Registra
		Firs	st Aid			
	F SWALLOWED:	Call poison control center or doct glass of water if able to swallow. I control center or doctor. Do not g	or immediately for treatment advice. H Do not induce vomiting unless told to do ive anything by mouth to an unconscio	ave person sip a so by the poison us person.		
	F ON SKIN OR CLOTHING:	Take off contaminated clothing. minutes. Call a poison control ce	Rinse skin immediately with plenty of nter or doctor for treatment advice.	water for 15-20		DOC ID 535184
	F INHALED:	Move person to fresh air. If persor artificial respiration, preferably by or doctor for further treatment ad	on is not breathing, call 911 or an ambu mouth-to-mouth if possible. Call a pois vice.	lance, then give on control center		
	F IN EYES:	Hold eye open and rinse slowly a lenses, if present, after the first 5 center or doctor for treatment ad	nd gently with water for 15-20 minutes. minutes, then continue rinsing eye. Cal <i>r</i> ice.	Remove contact l a poison control		
I	Have the product of	ontainer or label with you when calling	g a poison control center or doctor, or if g	oing for treatment.		
			NET CONTENTS:			
REG	2121 Second St., info -PTO-13-04	Manufactured by: Marrone <sup>®</sup> Bio Innovations Ste. B-107, Davis, CA 95618 USA p@marronebio.com LOT#	Sold by: EENGAGEAGR 118 E. Carleton Street, S Prescott, AZ 86303 Phone: 928-445-799 www.engageagrousa.	<b>O USA</b> uite A o com		
PF 6	1218-3					

T

I



<sup>67110</sup> RegaliaPTO MNC BL.indd 1

	REG	<b>ALIA<sup>®</sup> PTO</b>
		BIOFUNGICIDE
plant extract to liseases, and to ir	boost the plants' defense mecha nprove plant health.	nisms to protect against certain fungal and bacteria
ctive ingredient )ther ingredients otal	Extract of Reynoutria sachaliner	nsis
PA Reg. No. 8405	9-3-87865	<ul> <li>✓ EPA Est. No. 085970-FL-001</li> <li>□ EPA Est. No. 84059-MI-001</li> </ul>
	CAU	TION
F SWALLOWED:	Firs Call poison control center or doct glass of water if able to swallow. D	st Aid or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison
F SWALLOWED:	Firs Call poison control center or doct glass of water if able to swallow. E control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cert	or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison ive anything by mouth to an unconscious person. Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice.
IF SWALLOWED: IF ON SKIN OR CLOTHING: F INHALED:	Firs Call poison control center or doct glass of water if able to swallow. D control center or doctor. Do not gi Take off contaminated clothing, minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment ad	st Aid or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison ive anything by mouth to an unconscious person. Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice. on is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice.
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: F IN EYES:	Firs Call poison control center or doct glass of water if able to swallow. Lo control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment adv Hold eye open and rinse slowly an lenses, if present, after the first 5 center or doctor for treatment adv	st Aid or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison live anything by mouth to an unconscious person. Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice. on is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice. Ind gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control vice.
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: IF IN EYES: -lave the product co	Firs Call poison control center or doct glass of water if able to swallow. D control center or doctor. Do not gi Take off contaminated clothing, minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment adv Hold eye open and rinse slowly ar lenses, if present, after the first 5 r center or doctor for treatment adv ntainer or label with you when calling	st Aid or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison ive anything by mouth to an unconscious person. Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice. on is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice. Ind gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control vice. g a poison control center or doctor, or if going for treatment.
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: IF IN EYES: Have the product co	Firs Call poison control center or doct glass of water if able to swallow. E control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment adv Hold eye open and rinse slowly an lenses, if present, after the first 5 center or doctor for treatment adv opntainer or label with you when calling	st Aid         or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison ive anything by mouth to an unconscious person.         Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice.         nn is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice.         nd gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control rice.         g a poison control center or doctor, or if going for treatment.         NET CONTENTS:         1 gallon       2.5 gallons
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: IF IN EYES: Have the product co	Firs Call poison control center of doct glass of water if able to swallow. E control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment adv Hold eye open and rinse slowly ar lenses, if present, after the first 5 center or doctor for treatment adv ontainer or label with you when calling Manufactured by:	st Aid         or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison live anything by mouth to an unconscious person.         Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice.         on so to treatning, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice.         nd gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control center vice.         g a poison control center or doctor, or if going for treatment.         NET CONTENTS:         1 gallon       2.5 gallons         Sold by:
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: IF IN EYES: Have the product of	Firs Call poison control center or doct glass of water if able to swallow. E control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment add Hold eye open and rinse slowly ar lenses, if present, after the first 5 r center or doctor for treatment adv ontainer or label with you when calling Manufactured by: Marrone° Bio Innovations	st Aid         or immediately for treatment advice. Have person sip a 20 not induce vomiting unless told to do so by the poison ive anything by mouth to an unconscious person.         Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice.         on is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice.         nd gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control vice.         g a poison control center or doctor, or if going for treatment.         NET CONTENTS:         1 gallon       2.5 gallons         Sold by:
IF SWALLOWED: IF ON SKIN OR CLOTHING: IF INHALED: IF IN EYES: Have the product of Have the product of 2121 Second St., infe	Firs Call poison control center of doct glass of water if able to swallow. E control center or doctor. Do not gi Take off contaminated clothing. minutes. Call a poison control cer Move person to fresh air. If perso artificial respiration, preferably by or doctor for further treatment add Hold eye open and rinse slowly ar lenses, if present, after the first 5 r center or doctor for treatment add ontainer or label with you when calling Manufactured by: Marrone° Bio Innovations Ste. B-107, Davis, CA 95618 USA @marronebio.com	st Aid         or immediately for treatment advice. Have person sip a Do not induce vomiting unless told to do so by the poison live anything by mouth to an unconscious person.         Rinse skin immediately with plenty of water for 15-20 nter or doctor for treatment advice.         on is not breathing, call 911 or an ambulance, then give mouth-to-mouth if possible. Call a poison control center vice.         Ind gently with water for 15-20 minutes. Remove contact minutes, then continue rinsing eye. Call a poison control center vice.         g a poison control center or doctor, or if going for treatment.         Inter CONTENTS:         In gallon       2.5 gallons         Sold by:         Sold by:         Its E. Carleton Street, Suite A Prescott, AZ 86303         Phone: 928-445-7990

# 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

### NON-AGRICULTURAL USE REQUIREMENTS

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

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

### GENERAL INFORMATION

Regalia® PTO Biofungicide is an extract from the plant *Reynoutria* spp. for use on ornamental plants and turf. Regalia® PTO 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. Use Regalia® PTO Biofungicide as a preventative rather than a curative application. Apply prior to disease infestation to protect the growing leaf tissue. See specific information for disease controlled and use rates on ornamental plants and turf.

Regalia® PTO Biofungicide can be used as a plant dip, soil drench, 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® PTO Biofungicide, therefore, as a preventative treatment.

#### MIXING AND APPLICATION INSTRUCTIONS - SHAKE WELL PRIOR TO USE -

Regalia® PTO Biofungicide is a micro-emulsion concentrate consisting of certain 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® PTO Biofungicide alone: Add ½ of the required amount of water to the mix tank. With the agitator running, add the Regalia® PTO Biofungicide to the mix tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Regalia® PTO Biofungicide has completely dispersed into the mix water. Maintain agitation until all the mixture has been applied.

Regalia® PTO 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® PTO 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® PTO 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® PTO Biofungicide with any other tank mix component prior to adding to the spray tank.

Compatibility: Do not combine Regalia® PTO 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® PTO 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® PTO Biofungicide by aerial application to the plants listed at the rate of 1 quart per acre in a minimum of 5 gallons of water per acre unless specified differently in the APPLICATION RATES 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 is not 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 crop canopy.

APPLICATION HEIGHT: Do not make applications 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, nontarget 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 properly, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

### CHEMIGATION USE DIRECTIONS

Apply Regalia® PTO Biofungicide at 1 - 4 quarts per acre according to the instructions below unless specified differently in the APPLICATION RATES section.

### CHEMIGATION

#### General Requirements -

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

- 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 -

- 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 -

- 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 -

- 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 -

- 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.
- 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® PTO Biofungicide can be applied as a pre-plant dip for improved plant health and suppression of certain soil-borne diseases. Apply Regalia® PTO Biofungicide in 1 - 3 quarts product per 100 gallons of water as a pre-plant dip immediately prior to transplanting, unless specified differently in the APPLICATION RATES section.

# SOIL TREATMENT USE DIRECTIONS

Regalia® PTO Biofungicide can be applied by soil drench to improve plant health and to protect against certain soil-borne diseases.

In general, Regalia® PTO Biofungicide can be applied by the following methods, unless specified differently in the APPLICATION RATES section:

### Soil Drench Applications:

Apply Regalia<sup>®</sup> PTO 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<sup>®</sup> PTO 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.

# APPLICATION RATES

Regalia® PTO 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® PTO 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® PTO Biofungicide) applied at 50 - 100 gallons of water per acre. When tank mixed with another fungicide, the use rate for Regalia® PTO 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 for additional details.

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

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Crop Ornamentals Herbaceous Ornamentals Flowering Plants Foliage Plants Woody Ornamentals Broadleaves, Shrubs and Trees Conifers, Shrubs and Trees	Target Disease           Anthracnose (Colletotrichum spp.)           Bacteria (Erwinia spp.)           (Pseudomonas spp.)           (Xanthomonas spp.)           Black Spot of Rose (Diplocarpon rosae)           Blossom Blight (Monilinia spp.)           Downy Mildew (Peronospora spp.) (Plasmopara viburni)           Gray Mold	Application Method Foliar	Rate per Application 1 – 4 quarts per acre	Application Instructions For foliar applications, mix this product concentrate with water at a concentration of 2 - 4 quarts per 100 gallons of water when used alone or 1 - 4 quarts per 100 gallons of water when tank mixed with another fungicide. Begin applications preven- tatively (before disease symptoms become visible) at the 4-6 leaf stage and treat at 7-14 day intervals as needed prior to sale or harvest. Spray until just before point of nuesfi
	(Botrytis cinerea) Leaf Spot (Alternaria spp.) (Cercospora spp.) (Entomosporium spp.) (Myrothecium spp.) (Septoria spp.) Powdery Mildew (Erysiphe spp.) (Oidium spp.) (Podosphaera spp.) (Sphaerotheca spp.) Rust (Puccinia spp.)			This product may be used to control certain diseases of container, bench, flat, plug, bed, or field-grown ornamentals in greenhouses, shade-houses, outdoor nurseries, retail nurseries, and other landscape areas.

8

(continued)

Crop	Target Disease	Application Method	Product Use Rate per Application	Application Instructions
Ornamentals Herbaceous Ornamentals Flowering Plants Foliage Plants Woody Ornamentals Broadleaves, Shrubs and Trees Conifers, Shrubs and Trees	Fusarium spp. Phytophthora spp. Pythium spp. Rhizoctonia spp. Verticillium 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.
		Plant Dip	1 - 3 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 - 0.75% v/v suspension (1 - 3 quarts per 100 gallons water) as a pre- plant dip immediately prior to transplanting.
Do not enter or allow	worker entry into treated	areas during	the restricted-	entry interval (REI) of 4 hours.
The following plant s	species have been treated	d with Regalia	PTO Biofungi	cide to prevent disease.
Plants investigated Annual and Perenn Begonias, Freesias, Salvias, Snapdragor	<b>:</b> <b>ial Flowering Plants</b> Geraniums, Gerbera, Im is, Zinnias.	patiens, Lami	um, Lisianthus,	Petunias, Poinsettias, Roses,

### Trees and Shrubs

Azalea, Boxwood, Crape Myrtle, Dogwood, Indian Hawthorne, Jumbo Azalea, Lilac, Loropetalum, Japanese Maple, Japanese Privet, *Photinia*, Rhododendron, *Rosaceae*, Soft Touch Holly, Spirea, *Viburnum*.

# Tropical Foliage

Aglaonema, Dieffenbachia, Dracaena, English Ivy, Hibiscus, Leatherleaf Fern, Spathiphyllum.

Since it is not possible to test all ornamental species or varieties grown in the greenhouse, test Regalia® PTO Biofungicide on a few plants prior to large-scale usage.

Crop	Target Disease	Application Method	Product Use Rate per Application (per 1,000 sq. ft.)	Product Use Rate per Application (per Acre)	Application Instructions
Turfgrass Bluegrass Bentgrass Bermudagrass Dichondra Fescue Orchardgrass Poa annua Ryegrass St. Augustine Zoysia mixtures and other grasses Ornamental Grasses	Anthracnose (Colletotrichum graminicola) Bermudagrass Decline (Gaeumannomyces graminis var. graminis) Brown patch (Rhizoctonia solani) Copper Spot (Gloeccercospora sorghi) Dollar Spot (Lanzia spp.) (Moellerodiscus spp. formerly Sclerotinia homeocarpa) Fusarium Patch (Fusarium Patch (Fusarium Patch (Fusarium nivale) Gray Leaf Spot (Pyricularia grisea) Powdery Mildew (Erysiphe graminis) Pythium Blight Pythium Root Rot (Pythium spp.) Red Thread (Laetisaria fuciformis) Rust (Puccinia spp.) Rhizoctonia Large Patch (Rhizoctonia solani) Southern Blight (Sclerotium rolfsii)	Foliar	1 – 3 fl. oz. per 1000 sq. ft. in a minimum of 1.5 gallons of water	3 – 8 pints per acre in a minimum of 50 gallons of water	This product aids in control of turf diseases and improves turf quality. For improved performance under moderate to severe disease pressure, reduce spray intervals or use this product in a tank mix or rotational program with other registered fungicides. Begin applications preventatively (before disease symptoms become visible) and treat at 7-14 day intervals as needed. Spray water volumes must be of at least 1.5 gallons of water per 1000 sq. ft. Under predisease pressure, tank mix with other registered fungicides.

(continued)

10

Crop	Target Disease	Application Method	Product Use Rate per Application (per 1,000 sq. ft.)	Product Use Rate per Application (per Acre)	Application Instructions
Turfgrass Bluegrass Bermudagrass Dichondra Fescue Orchardgrass Poa annua Ryegrass St. Augustine Zoysia mixtures and other grasses Ornamental Grasses	Summer Bentgrass Decline Take-All Patch ( <i>Gaeumannomyces</i> graminis) Yellow Patch ( <i>Rhizoctonia cerealis</i> ) Yellow Tuft/Downy Mildew ( <i>Sclerophthora</i> macrospora) Zoysia Patch ( <i>Rhizoctonia solani</i> )	Foliar	1 – 3 fl. oz. per 1000 sq. ft. in a minimum of 1.5 gallons of water	3 – 8 pints per acre in a minimum of 50 gallons of water	This product aids in control of turf diseases and improves tur quality. For improved performance unde moderate to severe disease pressure reduce spray intervals or use this product in a tank mix or rotationa program with othe registered fungicides. Begin applications preventatively (before disease symptoms become visible) and treat at 7-14 day intervals as needed Spray water volumes 1.5 gallons of wate per 1000 sq. ft. Unde moderate to higt disease pressure tank mix with othe registered fungicides.

# 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 (offen 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and local ordinances.

Marrone Bio Innovations is a member of the Ag Container Recycling Council. Visit 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.

US Patents No. 4,863,734 and No. 5,989,429

Regalia® is a registered trademark of Marrone Bio Innovations, Inc. Marrone Bio Innovations' name and logo are registered trademarks of Marrone Bio Innovations, Inc. © Marrone Bio Innovations, Inc. 2121 Second St., Suite B-107, Davis, CA 95618 1-877-664-4476 www.marronebio.com

info@marronebio.com