GROUP P 05 FUNGICIDE

Pro Farm Group Regalia® Rx Biofungicide Liquid Concentrate COMMERCIAL

Suspension

A plant extract to induce the plants' natural defense mechanisms in labeled crops against certain fungal and bacterial diseases.

ACTIVE INGREDIENT: Extract of Reynoutria sachalinensis 5 %

CAUTION: EYE IRRITANT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

REGISTRATION NO: 32350 PEST CONTROL PRODUCTS ACT

NET CONTENTS:

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Date of Manufacture:

Made in U.S.A.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. May irritate eyes.. Avoid contact with eyes. Avoid contact with skin or clothing. May cause irritation of the respiratory tract. Avoid inhaling/breathing spray mist. Wear a long-sleeved shirt, long pants, water-proof gloves, shoes plus socks and protective eyewear (goggles or face shield), when handling, mixing/loading or applying the product, and during all clean-up/repair activities.

When using high pressure sprayers workers must wear a long-sleeved shirt, long pants, water-proof gloves, protective eyewear (goggles or face shield), shoes plus socks, and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested. Handling and loading of Regalia® Rx Biofungicide Liquid Concentrate, as well as the clean-up and maintenance activities should be performed in a well-ventilated area.

Keep unprotected persons out of the treated areas of the greenhouse for the duration of the treatment period.

DO NOT enter or allow entry into treated areas until sprays have dried. For greenhouse use, do not enter or allow entry into greenhouses until after sprays have dried and thorough ventilation. For early entry into treated areas before sprays have dried, workers will be required to wear a long-sleeved shirt, long pants, water-proof gloves, shoes plus socks and protective eyewear (goggles or face shield). For greenhouse use, when entering a treated area before thorough ventilation and sprays have dried, workers must wear a long-sleeved shirt, long pants, water-proof gloves, protective eyewear (goggles or face shield), shoes plus socks, and a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested.

For agriculture use, apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreational areas is minimal. For turf or lawn use, apply only when the potential for drift to non-target areas of human habitation and human activity is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

FIRST AID:

If swallowed: Call a poison control centre 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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre 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, preferable by mouth-to-mouth, if possible. Call a poison control centre 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS:

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

STORAGE:

Store in a dry area inaccessible to children. Store product only in the original container. Keep container closed when not in use. Store this product away from food or feed..

DISPOSAL:

DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1.

Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

GENERAL USE RECOMMENDATION:

Regalia® Rx Biofungicide Liquid Concentrate contains an extract from the plant *Reynoutria sachalinensis* for use on ornamental plants and edible crops. Regalia® Rx Biofungicide Liquid Concentrate applied to actively growing tissues will induce plant resistance reactions to certain diseases in the treated leaf area, buds and fruit. Regalia® Rx Biofungicide Liquid Concentrate may be applied as a foliar spray alone, or in an alternating spray program with other registered crop protection products. When conditions are conducive to heavy disease pressure, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. Regalia® Rx Biofungicide Liquid Concentrate may be applied with ground application equipment. Because the mode of action of Regalia® Rx Biofungicide Liquid Concentrate is dependent on plant-specific resistance reactions, activity of the product may vary among different crop species and varieties and should only be applied to crops listed on the label.

INTEGRATED PEST MANAGEMENT (IPM):

Integrate Regalia® Rx Biofungicide Liquid Concentrate into an overall disease and pest management strategy whenever fungicide use is necessary. Follow practices known to reduce disease development. Consult local authorities for specific IPM strategies developed for your crop(s) and location.

USE RATE DETERMINATION:

Carefully read and follow all label directions, use rates and restrictions. Regalia® Rx Biofungicide Liquid Concentrate should be applied prior to or in the early stages of disease development. Use maximum label rates and shortened spray intervals for conditions conducive to rapid disease development. For proper application, determine the number of hectares to be treated, the recommended label use rate and select appropriate water volumes to give good canopy penetration and coverage of plant parts to be protected. Prepare only the amount of spray solution required to treat the measured acreage. Accurate spray equipment calibration is essential prior to use.

PREHARVEST INTERVAL:

Regalia® Rx Biofungicide Liquid Concentrate can be applied up to and including the day of harvest.

APPLICATION INSTRUCTIONS-Agricultural Use:

GENERAL: Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower/treatment coordinator are responsible for considering all of these factors when making decisions. Where provinces/territories have more stringent regulations, they should be observed.

DO NOT apply REGALIA® Rx Biofungicide Liquid Concentrate on indoor crops when relative humidity is predicted to be above 80%, thereby resulting in an extended drying time of spray droplets.

GROUND: Thorough coverage is essential for optimum disease control. To achieve good coverage, use the appropriate spray pressure, litres per hectare, nozzles, nozzle spacing and ground speed. Consult spray nozzle and accessory catalogues for specific information on proper equipment calibration.

MIXING INSTRUCTIONS:

MIXING: Regalia® Rx Biofungicide Liquid Concentrate must be diluted with water for spray applications and may be used in spray equipment commonly used for making ground applications. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of Regalia® Rx Biofungicide Liquid Concentrate to the tank. Finish filling the tank to the desired volume to obtain proper spray concentration. Maintain agitation continuously while spraying. Do not allow spray mixture to stand overnight or for prolonged periods.

DIRECTIONS FOR USE:

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT apply by air.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT allow releases, effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters

When applied as directed (see below), Regalia® Rx Biofungicide Liquid Concentrate will suppress or partially suppress the indicated diseases. Under conditions of moderate to high disease pressures, use the higher rate and shorter application interval indicated. Apply in sufficient water carrier volume to ensure good coverage. For most applications, Regalia® Rx Biofungicide Liquid Concentrate should be applied in 400 – 1000 L/HA. For greenhouse applications, mix Regalia® Rx Biofungicide Liquid Concentrate in water at the rate indicated in the instructions for selected crops and apply as a full coverage spray to the foliage to obtain maximum coverage. Avoid the use of water volumes and/or adjuvants that results in drip accumulation or runoff of spray material. See specific crop instructions for further directions.

Ground Application Only. Shake well prior to use. Use 50-mesh nozzle screens or larger. Plant resistance reactions are induced only in treated green tissues and buds and although there is some translaminar movement, thorough coverage of foliage is important.

APPLICATION RATES AND INSTRUCTIONS FOR SELECTED CROPS

Hops

Partial suppression of downy mildew (Pseudoperonospora humili).

Rate: 7.5 - 15 litres/ha Apply in a minimum of 750 litres of water per hectare.

Apply this product preventatively when environmental conditions are conducive for disease development. Continue sprays at a minimum 7-day interval. Maximum of 8 applications per year.

Configure spray equipment to achieve thorough coverage of all foliage as crop growth progresses. Actual spray volume will vary depending on the size of the plants being treated.

Tomato, Pepper, Eggplant, and Okra Outdoor grown and greenhouse grown

Suppression of powdery mildew (Oidium neolycopersici, Leveillula taurica and Erysiphe cichoracearum).

Greenhouse grown - Rate: 0.5 - 1.0 % v/v (5 - 10 ml/L or 2,000 – 4,000 ml per 400 L water) Outdoor grown - Rate: 5 - 10 L/ha (do not exceed a concentration of 1% v/v)

Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1,500 L/HA.

When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Tomato and Pepper

Outdoor grown and greenhouse grown

Suppression of bacterial spot (*Xanthomonas campestris*)

Outdoor grown - Rate: 5 - 10 L/ha

Apply Regalia[®] Rx Biofungicide Liquid Concentrate preventatively beginning soon after transplant. Repeat applications in 7 - 10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia[®] Rx Biofungicide Liquid Concentrate in a rotational program with other registered bactericides. Do not exceed a concentration of 1% v/v.

Greenhouse grown - Rate: 0.5 - 1.0% v/v (5 - 10 ml/L or 2,000 – 4,000 ml per 400 L water)

Begin applications when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1500 L/HA.

Tomato Outdoor grown and greenhouse grown

Suppression of gray mold (*Botrytis cinerea*)

Outdoor grown - Rate: 10 L/ha

Apply Regalia[®] Rx Biofungicide Liquid Concentrate preventatively beginning soon after transplant. Repeat applications in 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia[®] Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. Do not exceed a concentration of 1% v/v.

Greenhouse grown - Rate: 1.0% v/v (10 ml/L or 4,000 ml per 400 L water)

Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1500 L/HA.

When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Suppression of late blight (*Phytophthora infestans*)

Outdoor grown - Rate: 5 - 10 L/ha

Apply Regalia[®] Rx Biofungicide Liquid Concentrate preventatively beginning soon after transplant. Repeat applications in 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia[®] Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. Do not exceed a concentration of 1% v/v.

Greenhouse grown - Rate: 0.5 - 1.0% v/v (5 - 10ml/L or 2,000 – 4,000 ml per 400 L water)

Begin applications when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1500 L/HA.

Cantaloupe, Cucumber, Pumpkin, Zucchini, Watermelon, Melon, Muskmelon, and Squash Outdoor grown and greenhouse grown

Suppression of powdery mildew (*Podosphaera xanthii* and *Erysiphe cichoracearum*)

Outdoor grown - Rate: 5 - 10 L/ha

Apply Regalia[®] Rx Biofungicide Liquid Concentrate preventatively beginning soon after transplant. Repeat applications in 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia[®] Rx Biofungicide Liquid Concentrate in a rotational program with other registered bactericides. Do not exceed a concentration of 1% v/v.

Greenhouse grown - Rate: 0.5 - 1.0% v/v (5 - 10 ml/L or 2,000-4,000 ml per 400 L water)

Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1,500 L/HA.

When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. When greenhouse cucurbits are under high disease conditions, use the shorter spray interval.

Suppression of downy mildew (*Pseudoperonospora cubensis*)

Greenhouse grown - Rate: 1.0% v/v (10 ml/L or 4,000 ml per 400 L water)

Begin applications when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Spray until just prior to runoff. Actual spray volume will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1500 L/HA.

When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. When greenhouse cucurbits are under high disease conditions, use the shorter spray interval.

Potato

Partial Suppression of white mold (Sclerotinia sclerotiorum)

Rate: 10 litres/ha

Apply preventatively. Begin application when conditions are conducive for disease development. Repeat on a 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Apples and Pears

Suppression of white rot (*Botryosphaeria dothidea*), bitter rot (*Colletotrichum* spp.), post-harvest alternaria rot (*Alternaria* spp.), fire blight (*Erwinia amylovora*), powdery mildew (*Podosphaera leucotricha*), sooty blotch disease complex, and flyspeck (*Zygophia jamaicensis*)

Begin application of Regalia® Rx Biofungicide Liquid Concentrate preventatively at pink bud at a **rate of 5 - 10 litres per hectare**. Repeat applications at 7-10 day intervals depending upon crop growth and disease pressure. During periods of rapid plant development and frequent fire blight infection periods, use spray intervals of 3-7 days. Proper orchard cultural practices are essential to eliminate fire blight infected tissue from the orchard to assure good performance of any crop protection product. Remove and destroy dead and diseased wood from the orchard prior to and during the growing season. Do not exceed a concentration of 0.5% v/v (5 litres of Regalia Rx in 1000 litres of water) during bloom.

Beginning at petal fall apply Regalia® Rx Biofungicide Liquid Concentrate at a **rate of 5 - 10 litres per hectare** at 7-14 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides or bactericides.

Cherry, Peach, Plum and Apricot

Suppression of powdery mildew (*Podosphaera* spp.), blossom blight, and brown rot (*Monilinia fructigena*, *M. fructicola*).

Rate: 5 - 10 litres/ha

Begin application of Regalia® Rx Biofungicide Liquid Concentrate at popcorn stage, and repeat on a 7-day interval or as needed. Do not exceed a concentration of 0.5% v/v (5 litres of Regalia Rx in 1,000 litres of water) during bloom.

Cherry

Partial suppression of cherry leaf spot (Blumeriella jaapii)

Rate: 5 - 10 litres/ha

Begin application of Regalia® Rx Biofungicide Liquid Concentrate at popcorn stage, and repeat on a 7-day interval as needed. Do not exceed a concentration of 0.5% v/v (5 litres of Regalia Rx in 1,000 litres of water) during bloom.

Blackberry, Raspberry, Highbush Blueberry

Suppression of mummy berry (*Monolinia vaccinii-corymbosi*) (Highbush blueberry only), powdery mildew (*Podosphaera macularis*), fruit rots including botrytis (*Botrytis cinerea*), anthracnose (*Collectotrichum acutatum*) and alternaria fruit rot (*Alternaria* spp.)

Rate: 5 - 10 litres/ha

Initiate application of Regalia® Rx Biofungicide Liquid Concentrate preventatively at bud break and repeat applications at 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides. Do not exceed a concentration of 1.0% v/v (10 litres of Regalia Rx in 1,000 litres of water).

Cranberry

Suppression of early rot (*Phyllosticta vaccinia*) and cottonball (*Monilinia oxycocci*), partial suppression of powdery mildew (*Phyllactinia subspiralis*)

Rate: 2.5 - 3.5 litres/ha

Suppression of fruit rot (*Colletotrichum* sp.)

Rate: 5 - 10 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate when conditions are conducive for disease development in 250 - 300 litres water per hectare on a 7-14 day interval.

Grapes

Suppression of powdery mildew (*Erysiphe necator*)

Rate: 5 - 10 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively or when disease symptoms first appear after shoot emergence and when new shoots are approximately 1-3 cm in length. Repeat applications at 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Suppression of botrytis bunch rot (*Botrytis cinerea*)

Rate: 10 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively beginning at bloom. Repeat applications at bunch closure, veraison and preharvest. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Strawberry Outdoor grown and greenhouse grown Suppression of powdery mildew (*Podosphaera aphanis*)

Rate: 5 - 10 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively or when disease symptoms first appear Repeat applications at 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Suppression of gray mold (*Botrytis cinerea*)

Rate: 10 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively or when disease symptoms first appear Repeat applications at 7-10 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides

Wheat

Partial suppression of septoria leaf spot (Septoria tritici)

Rate: 2.5 - 5 litres/ha

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively or when disease symptoms first appear after initial jointing in 140 - 400 litres water per hectare. Repeat applications in 7-14 day intervals depending upon crop growth and disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Ornamental plants Annual and Perennial Flowering Plants Outdoor grown and greenhouse grown

Regalia® Rx Biofungicide Liquid Concentrate can be used to suppress powdery mildew of container, bench, flat, plug, bed, or field-grown ornamentals in greenhouses, shade-houses, outdoor nurseries, retail nurseries, and other landscape areas. Not all ornamental species have been tested for tolerance to Regalia® Rx Biofungicide Liquid Concentrate. A small lot of plants should be tested first before using for commercial scale production. To avoid visible spray deposits, do not apply Regalia® Rx Biofungicide Liquid Concentrate to light colored flowers.

Suppression of powdery mildew (*Oidium* spp.)

Rate: 0.5 - 1.0% v/v (5-10 ml/L or 2,000-4,000 ml per 400 L water)

Suppression of downy mildew (*Plasmopora* spp. and *Peronospora* spp.) Partial suppression of bacterial leaf spot or blight (*Xanthomonas* spp. and *Pseudomonas* spp.)

Rate: 1.0% v/v (10 ml/L or 4,000 ml per 400 L water)

For outdoor grown and greenhouse grown-begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval. Wait for two weeks after transplanting prior to first application. Spray until just prior to runoff. Actual spray volume

will vary depending on the size of the plants being treated. Do not apply in a spray volume of more than 1,500 L/HA.

Soybean

Suppression of aerial web blight (*Rhizoctonia solani*), alternaria leafspot (*Alternaria* spp.), brown spot (*Septoria glycines*), frogeye leaf spot (*Cercospora sojina*); partial suppression of white mold (*Sclerotinia sclerotiorum*)

Apply Regalia Rx[®] Biofungicide Liquid Concentrate preventively at the early flowering stage (R1) or when disease symptoms first appear at a **rate of 2.5 - 5 litres per hectare in 140 - 400 litres of water** per hectare. When conditions remain conducive to disease, make a second application of Regalia® Rx Biofungicide Liquid Concentrate 7-14 day later or at the beginning pod stage (R3).

Turf / Lawns

Partial suppression of brown patch (*Rhizoctonia solani*), dollar spot (*Sclerotinia homoeocarpa*) and foliar anthracnose (*Colletotrichum cereal*)

Apply Regalia® Rx Biofungicide Liquid Concentrate preventatively or when disease symptoms first appear at a **concentration of 1.0% v/v in 1,000 – 1,500 litres water per hectare**. Repeat applications at 7-10 day intervals depending upon disease pressure. When environmental conditions and plant stage are conducive to rapid disease development, use Regalia® Rx Biofungicide Liquid Concentrate in a rotational program with other registered fungicides.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturers at 1 (877) 664-4476 or obtain technical advice from the distributor or your provincial agricultural or forestry representative.

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