Reliant®

Systemic Fungicide

Systemic fungicide for effective control of various plant diseases including black spot and scab in apples; root rot in avocados; bud rot and nut fall in coconuts; root rot in citrus and cucurbits; downy mildew in cucurbits, grapes, lettuce and onions; anthracnose in mango (suppression); root and heart rot in pineapples; late blight (suppression) in potatoes; root and collar rot in stone fruit; leather rot and *Phytophthora* spp. in strawberries; late blight in tomatoes; downy mildew, *Phytophthora* and *Pythium* spp. in ornamentals and bedding plants; root rot and pine pitch canker in conifers; damping off in turf; and sudden oak death in shade trees and ornamentals.

Active Ingredients:

Mono- and di-potassium salts of Phosphorous Acid*	45.8%
Other Ingredients	54.2%
Total	100.0%

*Contains 5.17 lbs/gallon of the active ingredients mono- and di-potassium salts of Phosphorous Acid. Equivalent to 3.35 lbs Phosphorous Acid/gallon

Keep Out of Reach of Children

CAUTION

See Booklet for First Aid, additional Precautionary Statements and complete Directions for Use

Batch No.: Doc. ID 588565

ACCEPTED
FOR REGISTRATION
Aug. 15, 2023
New York State Department
of Environmental Conservation
Division of Solid & Hazardous Materials
Pesticide Product Registration

EPA Reg. No. 83416-1
EPA Est. 83416-KS-1

Date of Manufacture:

Made in the USA

Net Contents:

- ☐ 1 Pint
- ☐ 1 Quart
- ☐ 1 Gallon
- ☐ 2.5 Gallons
- ☐ 30 Gallons
- ☐ 55 Gallons
- ☐ 250 Gallons
- ☐ _____ Gallons

Quest Products LLC
Finding New Ways to Improve the Treatment of Trees and Plants.

Quest Products LLC
23611 Linwood Road
Linwood, KS 66052
Phone: 785-542-2577
www.questproducts.us

REV. 5/2023

First Aid	
If Swallowed:	• Immediately call a poison control center or doctor 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 center or doctor. • Do not give anything by mouth to an unconscious person.
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.
If on Skin or Clothing:	• Take off contaminated clothing. • Immediately rinse skin with plenty of water for 15-20 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 mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency information on product usage call 785-542-2577, Monday through Friday, 9 am to 5 pm (Central time). For medical emergencies call the National Poison Control Center at 1-800-222-1222.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist or vapors. Thoroughly wash with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment ("PPE").

Personal Protective Equipment (PPE)

Applicators, mixers, loaders and other handlers must wear:

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

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

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

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside; then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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 wash water or rinsate.

DIRECTIONS FOR USE

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

Read entire label before using this product.

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 registration.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that are permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls worn over short-sleeved shirt and short pants; waterproof gloves; shoes plus socks; and protective eyewear.

Non-Agricultural Use Requirements

The requirements of 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.

Do not enter treated areas without protective clothing until sprays have dried.

Chemigation

Use of **Reliant Systemic Fungicide** through chemigation is not permitted in California.

Apply this product only through center pivot, solid set 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 nonuniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or a person under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Sprinkler and Drip (Trickle) Irrigation Systems:

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

Sprinkler Chemigation: Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply **Reliant Systemic Fungicide** continuously for the duration of the water application. After treatment with **Reliant Systemic Fungicide** has been completed, avoid further irrigation of the treated area until foliage is dry or for 24 to 48 hours.

Application Instructions

Apply **Reliant Systemic Fungicide** (hereinafter "**Reliant**") by various application methods, including foliar spray, soil drench, soil incorporation, basal bark application and bare root dip. For foliar sprays, apply **Reliant** with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage. To ensure good coverage, spray to wetness, but avoid runoff. When using **Reliant** with Pentra-Bark® Bark Penetrating Surfactant (hereinafter "Pentra-Bark") adhere to both products' label directions. Use Pentra-Bark with only basal bark applications. Not for tree injection in New York State.

Mixing Instructions

1. Fill the spray tank with 1/4-1/2 of the volume of water required before adding **Reliant**.
2. Slowly add **Reliant** to the tank and agitate by mechanical or hydraulic means.
3. Continue agitating as tank fills with water to the desired volume.
4. Maintain agitation during application.

Compatibility

Reliant is compatible with most products used in agriculture. However, individual crop sensitivity to these mixtures may vary. Mixtures of **Reliant** with some foliar fertilizers and copper products are not always compatible and may be phytotoxic to some plants. If these combinations or others have not been previously used, do not tank mix without first testing the compatibility of the tank mix. Do not apply tank mixture without first assessing phytotoxicity. Tank mix **Reliant** with fertilizers only if crop safety has been established and the **Reliant** use rates are carefully followed.

Due to **Reliant's** acidic nature, do not use acidifying-type compatibility agents. Test spray adjuvants before use to confirm **Reliant** compatibility. Use a jar test to test compatibility: In a clean jar using the same water source that is normally used to fill the spray tank, add the same proportions of each product and the appropriate quantity of water, then mix thoroughly. Let stand for 3 minutes. The mixture is compatible if it remains in solution or is readily remixed in the jar. Spray the solution that results from the compatibility test onto a few plants and inspect 3-7 days later for visual effects of phytotoxicity.

Recirculating Hydroponic Systems Applications

Disease	Rate	Application Program
General root rots (*Pythium* and *Phytophthora* spp.) and root diseases	1-2 qts. of **Reliant** in 5,300 gal. of nutrient solution OR 1-2 L of **Reliant** in 20,000 L of nutrient solution	Apply every 4-6 weeks in the summer and every 8 weeks in the fall. Modify the application time interval depending on crop load, water quality and disease pressure.

Agricultural Applications

Apples, Crab Apples, Loquats, Pears and Quince

Disease	Application Method	Rate	Application Program
Apple black spot and Scab (*Venturia inaequalis*)	Foliar spray	3-6 pts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 3-4 pts. of **Reliant** in 30-100 gals. of water per acre OR **Reliant** at 0.5% solution v/v concentration Example: Spray volume of 50 gals. per acre, use 2-2 1/2 pts. **Reliant**	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply in combination with a mancozeb-containing product at 3 lbs/acre. Apply at 1/4-1/2 inch green tip through first cover at 7-10 day intervals or according to forecasted infection events. Continue with **Reliant** and mancozeb in the remaining applications. First application at open cluster. Last application at fifth cover or fruit at 2-2 1/2 inch diameter. Apply a total of 10 applications at 10-12 day intervals. Immediately apply **Reliant** when conditions are conducive to a black spot outbreak. **Note:** After 4 or 5 consecutive applications some yellowing of extension growth/leaves may be observed. If yellowing occurs use another fungicide until yellowing disappears.

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Apples, Crab Apples, Loquats, Pears and Quince *(cont.)*

Disease	Application Method	Rate	Application Program
Apple black spot and Scab (*Venturia inaequalis*)	Basal bark spray	62.4 fl. oz. of **Reliant** + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell or silver tip stage of growth. Spray mixture on the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control.
Root rot and Collar rot (*Phytophthora cactorum*) and Fire blight (*Erwinia amylovora*)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Start applications when conditions favor disease development. Apply at 1-2 month intervals between treatments. Use the low rate on the shorter interval and the high rate on the longer interval. Under high disease pressure use the higher application rate and shorter spray interval.
	Basal bark spray	62.4 fl. oz. of **Reliant** + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in spring and fall for best results. Spray the mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control.

Asparagus

Disease	Application Method	Rate	Application Program
Crown rot and Asparagus spear slime (*Phytophthora* spp.)	Foliar spray	1 1/4-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply to ferns that have 2-3 inches of new growth. Do not apply to ferns that are starting to die down (senesce). For established plantings, start applications when conditions are favorable to disease (cool, wet conditions).

Avocados

Disease	Application Method	Rate	Application Program
Root rot (*Phytophthora cinnamomi*)	Tree injection (Not for tree injection in New York State)	Skeletal trees 1st year: 1/4 fl. oz. of **Reliant** per yard of canopy diameter Other situations: 3/4 tsp. of **Reliant** with 1/2 fl. oz. of water per yard of canopy diameter	Inject trees at spring flush maturity. Repeat treatment in February or March. Drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with a slight downward angle. Space injector holes evenly around the trunk circumference. Suitable for use with Ag-murf® gun, ARBORjet devices, Chemjet® tree injectors, Smart Shot® injector or hydraulic tree injection systems. Do not prune back trees before injection process as burning of new growth may occur. Do not inject trees in winter months. Do not cut back the canopy of injected trees. Do not add any materials, other than water, to **Reliant** by trunk injection. Do not inject more liquid in a lesser number of syringes than directed.
	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2 qts. of Reliant in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Spray to the point of runoff. Start applications in spring and apply up to 4 applications a year at 2 month intervals.
Canker (*Phytophthora citricola*)	Trunk spray	1 1/4-2 1/2 qts. of **Reliant** + 5 gals. of water + 6 fl. oz. of Pentra-Bark	Apply mixture to trunk lesions using sufficient spray volume to completely wet the trunk and lesions. If lesions are absent, apply to trunk from soil level up to 2 ft. up trunk. If lesions present use the higher rate.
Downy mildew	Foliar spray	2-4 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 3 3/4 pts. of Reliant in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Spray to runoff, as required for disease control.

Berries

Use on bush and cane berries such as, but not limited to, bingleberries, blackberries, black satin berries, blueberries, boysenberries, Cherokee blackberries, Chester berries, Cheyenne blackberries, Cory berries, cranberries, Darrow berries, dewberries, Dirksen thornless berries, elderberries, Himalaya berries, huckleberries, hullberries, lavacaberries, loganberries, lowberries, lucretiaberries, mammoth blackberries, marionberries, mulberries, nectarberries, olallieberries, Oregon evergreen berries, raspberries (black, hybrids/cultivars, red) and youngberries.

Disease	Application Method	Rate	Application Program
Root rot (*Phytophthora* spp.)	Foliar spray	1-3 qts. of **Reliant** per 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Completely wet foliage. New plantings: Start application when new growth is 2-3 inches long. Established plantings: Start applications when conditions (cool, wet) favor disease. West of Rocky Mountains: Autumn applications: Apply when conditions favor disease, repeat in 4 weeks. Spring applications: First application after bud break; then repeat in 4 weeks. East of Rocky Mountains: First application at spring post bud break (2-3 inches new growth) and repeat at 50-60 day intervals. Do not exceed 4 applications per crop cycle. For blueberries: First application in spring at pink bud and then on a regular application schedule at 2-3 week intervals.
Stem canker control*		4-8 pts. of **Reliant** per 30-100 gals. of water per acre **CA Only:** 4-6 pts. of **Reliant** per 30-100 gals. of water per acre	
General leaf and berry diseases such as those caused by *Septoria* spp. and suppression of Anthracnose spp., Fusicoccum canker and Phomopsis canker	Root dip	1 qt. of **Reliant** per 10 gals. of water (2.5% v/v solution)	Apply a pre-plant dip to roots for 2-3 minutes. Plant within 48 hours after dipping. Mix a fresh solution daily.
	Chemigation overhead	1-2 qts. of **Reliant** in 1000 gals. of water per acre	Apply with normal irrigation schedule. Do not apply more than 4 times per crop cycle.
	Low volume spray	2-3 qts. of **Reliant** in 100 gals. of water per acre	

*Not for use in California

(continued)

Berries *(cont.)*

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-3 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals. **Reliant** is best when used in combination with conventional registered fungicides to increase the disease control program performance.
Orange cane blotch* and Orange felt*		1-2 qts. of **Reliant** in 50-100 gals. of water per acre	Apply at primocane emergence every 14-21 days.

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Brassicas

Use on brassicas such as, but not limited to, broccoli, Brussels sprouts, cabbage, cauliflower, cavolo broccolo, collards, Chinese cabbage, Chinese mustard cabbage, kale, kohlrabi, mizuna, mustard greens, mustard spinach and rape greens.

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Pre-plant seedling nursery	1 qt. of **Reliant** in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to planting.
	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.

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Brassicas *(cont.)*

Disease	Application Method	Rate	Application Program
Bacterial diseases	Chemigation overhead	1-2 qts. of **Reliant** in 1000 gals. of water per acre	Apply with normal irrigation schedule. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Low volume spray	2-3 qts. of **Reliant** in 20-100 gals. of water per acre	
Downy mildew (*Peronospora parasitica*)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-250 gals. of water per acre **CA Only:** 1 1/4-2 1/2 qts. of **Reliant** in 30-250 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease, when conditions favor disease development (cool, moist weather). Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Diseases caused by *Septoria, Colletotrichum* and *Alternaria* spp.; and Powdery mildew		1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Cereal Grains

Apply to crops such as, but not limited to, barley, corn (field, Indian, ornamental, sweet), oats, rye, sorghum (milo), triticale and wheat.

Disease	Application Method	Rate	Application Program
Damping-off and root diseases (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Corn: Apply at 14-day intervals from 4-leaf stage, as needed. Other Grains: Apply at 14-21 day intervals, as needed.

Citrus-Mature Trees

Disease	Application Method	Rate	Application Program
Brown rot and Root rot (*Phytophthora* spp.)	Foliar spray	2 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. When conditions favor disease, spray trees to runoff. Do not apply at high temperatures (above 95°F), particularly if humidity is low, or to moisture-stressed trees.
Root rot and Collar rot (*Phytophthora* and *Nicotianae* spp.; and *Phytophthora citrophthora*)	Trunk spray	1 1/4-2 1/2 qts. of **Reliant** + a minimum of 5 gals. of water + 1 to 3 fl. oz. of Pentra-Bark	Spray trunk lesions with enough spray volume to ensure lesions are completely wet. Use higher rate when disease levels are high.
	Soil spray	2 1/2-4 qts. of **Reliant** in a minimum 20 gals. of water per acre	
	Soil applied injected or directed*	2-8 qts. of **Reliant** in 20 gal. water, then flush with volume	

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Coconuts

Disease	Application Method	Rate	Application Program
Bud rot (*Phytophthora palmivora*) and Nut fall	Injection (Not for tree injection in New York State)	2 tsp. to 1 fl. oz. of **Reliant** + 1-2 fl. oz. of water per tree	Inject 1-2 fl. oz. of mixture into the trunk or root system.

Coffee, Okra, Papaya and Persimmon

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-250 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-250 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as needed, at 14 day intervals after plant emergence.
Bacterial and leaf diseases such as coffee berry disease and various leaf spots (*Septoria* and *Cercospora* spp.); and suppression of Anthracnose (*Colletotrichum* spp.)		1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Root dip	1/3 fl. oz. of **Reliant** with 1 gal. of water (0.25% v/v solution)	Apply as a pre-plant dip to transplants immediately prior to planting. Dip plants momentarily and plant within 48 hours. Mix a fresh solution daily.
	Chemigation overhead	2-3 qts. of **Reliant** in 1000 gals. of water per acre	Apply with routine irrigation schedule. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
		2-4 qts. of **Reliant** in 100 gals. of water per acre	
	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.
Downy mildew and Powdery mildew	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 week intervals
Rust*		4-6 pts. of **Reliant** in 30-100 gals. of water per acre	
Pseudomonas garcae		2 qts. of **Reliant** with 100 gals. of water (0.1% v/v solution)	Apply to the point of saturation/runoff prior to the onset of disease.

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Cotton

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at crop emergence every 21 days or during wet conditions that favor pathogen development.
	Side dress or in furrow	1-1 1/2 qts. of **Reliant** per acre	Apply at planting either in furrow or side dress. May be applied with liquid row starter fertilizers after compatibility check.

Cucurbits

Use on field grown cucurbits such as, but not limited to, Chinese cucumber, Chinese waxgourd, citron melon, cucumber, gherkin rockmelon, honeydew melon, *Momordica* sp. balsam apple, balsam pear, bitter melon, pumpkin, squash (summer and winter), watermelon and zucchini.

Disease	Application Method	Rate	Application Program
Sudden wilt, Root rot and Fruit rot (*Phytophthora* spp.)	Foliar spray	1-3 qts. of **Reliant** per 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Do not exceed a total of 6 applications per crop cycle.
Gummy stem blight (*Mycosphaerella melonis*)			Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply when disease is evident. Continue applications at 21 day intervals until cure is apparent. Do not exceed a total of 6 applications per crop cycle.
Downy mildew (*Pseudoperonospora cubensis*)			Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply within 7-10 days of infection. Repeat as necessary. Do not exceed a total of 6 applications per crop cycle.
Powdery mildew and other leaf diseases such as Alternaria leaf blight; and suppression of Anthracnose		2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Bottom soft rot complex			Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply after fruit set and during bulking up to 3 times during the growing crop cycle.
Pumpkin and Watermelon: Bacterial blight*		4-6 pts. of **Reliant** per 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Do not exceed a total of 6 applications per crop cycle.

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Cucurbits-Tank Mixtures

Product	Disease	Rate	Application Program
Reliant + mancozeb-containing fungicide	Downy mildew diseases	Light to medium foliage cover: 1 1/4-2 qts. of **Reliant** + label rate of mancozeb product per acre	Apply as a ground foliar spray. To ensure both pre- and post-infection activity, tank mix **Reliant** with protectant fungicides such as mancozeb, copper oxychloride, etc.
		Heavy foliage cover: Apply 3 qts. of **Reliant** + label rate of mancozeb per acre	

Fruiting Vegetables

Use on fruiting vegetables such as, but not limited to, eggplant, peppers (bell, chili, cooking, pimento and sweet), tomatillos and tomatoes.

Disease	Application Method	Rate	Application Program
Eggplant: *Pythium* and *Phytophthora* spp.; and Gummy stem blight (*Mycosphaerella melonis*)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Do not exceed a total of 6 applications per crop cycle. Apply when disease is evident. Continue applications at 21 day intervals until cure is apparent.
Peppers: Late blight (*Phytophthora infestans*) and Root rot (*Phytophthora* spp.)		1 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. First application at transplant or when direct seeded crops are at 2-4 true leaf, then at 1-2 week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
Tomatillos/Tomatoes: Late blight (*Phytophthora infestans*) and Root rot (*Phytophthora* spp.)			
Tomatoes: Bacterial blight*		4-8 pts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 4-6 pts. of **Reliant** in 30-100 gals. of water per acre	

*Not for use in California

(continued)

Fruiting Vegetables *(cont.)*

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Bacterial diseases	Pre-plant seedling nursery	1 qt. of **Reliant** in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to out planting.
	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.
	Chemigation overhead	1-3 qts. of **Reliant** in 1000 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 1000 gals. of water per acre	For control of bacterial leaf spot of tomatoes, apply the higher rate of **Reliant** with registered bactericides.
Downy mildew Powdery mildew and other leaf diseases such as Alternaria leaf blight; and suppression of Anthracnose	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Garlic, Leeks, Onions and Shallots

Disease	Application Method	Rate	Application Program
Downy mildew (*Peronospora destructor*)	Foliar spray	2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. For best results, use as a regular preventative control program or when disease first appears.

Garlic, Onions and Shallots-Tank Mixtures

Product	Disease	Rate	Application Program
Reliant + mancozeb-containing fungicide	Downy mildew diseases	2 qts. of **Reliant** in 100 gals. of water + label rate of mancozeb product per acre	Apply as a foliar spray. For best results, apply **Reliant** as a tank mix with protectant fungicides such as mancozeb, copper oxychloride, etc. to ensure both pre- and post-infection activity.

Grapes

Disease	Application Method	Rate	Application Program
Downy mildew (*Plasmopara viticola*) and Black rot root rots (*Phytophthora* and *Pythium* spp.); and suppression of Armillaria	Foliar spray	Early season/small canopy: 1 1/4 qts. of **Reliant** in 30-100 gals. of water per acre Late season/large canopy: 2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. It is essential that the rate of **Reliant** be adjusted to the vine row volume, i.e., the volume of vine foliage per acre. Spray timing is critical. Apply **Reliant** at times of high disease risk, especially between the time that conditions are conducive to downy mildew and black rot infection and the appearance of oil spots. Ensure that the appropriate rate of **Reliant** is applied to match vine growth and water volume, particularly from mid-season onwards, and especially where grapes are grown on root stock. Use rotational fungicides such as captan, copper, mancozeb, etc. that also control black rot in combination with **Reliant**.
		1 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply to vines that have a stressed root system that can lead to root rots. Mitigating factors such as nematode pressure, water logging and compaction contribute to vine declines. Do not apply more than 4 times per crop cycle. Table Grapes: Begin application in the spring at the 4-6 inch shoot stage. Continue applications at 1-2 week intervals until flowering. Resume applications in the fall after harvest. Wine and Raisin Grapes: Begin applications in the spring at the 4-6 inch shoot stage. Continue applications at 1-2 week intervals through flowering.

(continued)

Grapes *(cont.)*

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at bud break with additional applications at 7-10 day intervals in a rotational program with other registered fungicides. Use higher rate and volume based on disease severity and canopy density. Do not apply more than 6 times per crop cycle. **Reliant** is most effective against downy mildew when tank mixed with other registered fungicides.
Powdery mildew		2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Rust*		4-8 pts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 4-6 pts. of **Reliant** in 30-100 gals of water per acre	

*Not for use in California

Grapes-Tank Mixtures

Product	Disease	Rate	Application Program
Reliant + mancozeb-containing fungicide	Downy mildew and Black rot	Early season small/ canopy: 1 1/4 qts. of **Reliant** in 50-100 gals. of water + label rate of mancozeb product per acre Late season/large canopy: 2-2 1/2 qts. of **Reliant** in up to 100 gals. of water + label rate of mancozeb product per acre	Apply as a foliar spray. To ensure both pre- and post-infection activity, tank mix **Reliant** with protectant fungicides such as mancozeb, copper oxychloride, etc.

Hemp*

For hemp (only non-food uses) grown indoors or outdoors.

Disease	Application Method	Rate	Application Program
Downy mildew, *Phytophthora* spp., Powdery mildew and *Pythium* spp. (damping off)	Foliar spray	4-6 pts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Recirculating hydroponic systems	1-2 qts. of **Reliant** in 5,300 gal. of nutrient solution OR 1-2 L of **Reliant** in 20,000 L of nutrient solution	Apply every 4-6 weeks in the summer and every 8 weeks in the fall. Modify the application time interval depending on crop load, water quality and disease pressure.

*Not for use in California

Herbs and Spices

Use on herbs and spices grown in fields, nurseries and greenhouses such as, but not limited to, anise, balm, basil, caraway, catnip, celery, chamomile, chives, coriander, cumin, curry leaf, dill, fennel, marjoram, mint, nasturtium, rosemary, sage, savory, sweet bay, tarragon, thyme and wintergreen. Apply before disease development and in conjunction with good agricultural management practices. Use higher application rate when disease pressure is severe. To avoid plant injury, do not exceed the following application or frequency rates. Do not apply to plants that are heat or moisture stressed.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/4-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre OR 1/2-1 1/8 fl. oz. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals.

(continued)

Herbs and Spices *(cont.)*

Disease	Application Method	Rate	Application Program
Phytophthora and *Pythium* spp. diseases	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 30-100 gals of water per acre OR 2-4 tsp. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals. **Note:** Do not apply more than 500 gals. of spray solution per acre.
	Soil drench	6 1/4-12 3/4 fl. oz. of **Reliant** per 100 gals. of water	Apply 25 gals. of solution per 100 sq. ft. Follow application with irrigation. Repeat as required, but not more often than once per month.

Hops

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray only by ground equipment	1-3 qts. of **Reliant** in 30-100 gals. of water per acre	Provided conditions favor disease, apply when: A. Shoots are 1/2-1 foot long; or B. Post-training when vines are 6 feet high; or C. 21 days post-application (B); or D. During bloom. Apply dilution to ensure thorough, uniform foliage and crop coverage.

Leafy Vegetables

Use on leafy vegetables such as, but not limited to, amaranth, arugula, cardoon, celery, chervil, corn salad, endive, fennel, lettuce, parsley, radicchio, rhubarb, spinach and Swiss chard. Excludes Brassica vegetables.

Disease	Application Method	Rate	Application Program
Downy mildew (*Bremia lactucae*)	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only**: 1-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

(continued)

Leafy Vegetables *(cont.)*

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only**: 1-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Pre-plant nursery	1 qt. of **Reliant** in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to out planting.
	Chemigation overhead	1-3 qts. of **Reliant** in 1000 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 1000 gals of water per acre	Do not apply more than 6 times per crop cycle. Apply with routine irrigation schedule. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Chemigation low volume	1-3 qts. of **Reliant** in a minimum of 100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in a minimum of 100 gals of water per acre	
	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.
Powdery mildew and leaf diseases such as leaf blights (*Septoria* and *Cercospora* spp.) and bacterial rots (*Erwinia* spp.); and suppression of Anthracnose (*Colletotrichum* spp.)	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Legumes

Use on succulent and dried legumes such as, but not limited to, beans (broad, fava, field, green, kidney, lima, mung, navy, pinto and wax), lentils, peas (black-eyed, chick, cow, English, pigeon, snow and sugar snap) and soybeans.

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as needed, at 14 day intervals after plant emergence.
Phytophthora and *Pythium* spp.			Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Soybeans: Anthracnose* and rust*		4-6 pts. of **Reliant** in 30-100 gals. of water per acre	
Green beans: Anthracnose*			
Fusarium and Rhizoctonia	Pre-plant nursery	1 qt. of **Reliant** in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to out planting.
	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.
Downy mildew	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Powdery mildew and leaf diseases such as leaf blights (*Septoria* and *Cercospora* spp.) and bacterial rots (*Erwinia* spp.); and suppression of Anthracnose (*Colletotrichum* spp.)		2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	

*Not for use in California

Mangos

Disease	Application Method	Rate	Application Program
Suppression of Anthracnose (*Colletotrichum gloeosporoides*)	Foliar spray	3-4 pts. of **Reliant** in 30-100 gals. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Spray tree to the point of runoff every 14 days during blossom period, then monthly until harvest.

Nongrass Animal Feed

Use on forage crops such as, but not limited to, alfalfa, clover and vetch.

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as needed, at 14 day intervals after plant emergence.

Palms (Including Coconut Palms)*

Disease	Application Method	Rate	Application Program
Fusarium oxysporum	Injection (Not for tree injection in New York State)	Between 4 tsp. and 2 fl. oz. of **Reliant** per tree. Small canopy (6-12 ft. spread): 4 tsp (20 mLs) Medium canopy (13-24 ft. spread): 1.3 fl. oz. (40 mLs) Large canopy (> 24 ft. spread): 2 fl. oz. (60 mLs)	Inject into trunk, drilling 4" deep, 3 ft. above soil level. To protect new spear growth, apply 10-15 weeks prior to expected initiation of new growth.

*Not for use in California

Peanuts

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-250 gals. of water per acre **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-250 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as necessary, at 14 day intervals.
Root rots, Pod rots, Damping-off and Wilt (*Phytophthora* and *Pythium* spp.)		2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Leaf and Crown diseases; and suppression of Anthracnose (*Colletotrichum*)	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side/top dressing or shank application.
White mold	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply preventatively at disease onset or during times when potential pathogen infection can occur.

Pineapples

Disease	Application Method	Rate	Application Program
Root and Heart rot (*Phytophthora cinnamomi* and *parasitica* spp.)	Foliar spray	2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply to tops 14 days prior to planting material harvest. Treats enough slips to plant one acre. Apply at 90 day intervals to established plantings when conditions favor disease.
	Pre-plant dip	1 1/4 qts. of **Reliant** in 30-100 gals. of water per acre	

Potatoes – Post-Harvest

Use **Reliant** only on russet-skinned potatoes intended for processing.

Disease	Application Method	Rate	Application Program
Suppression of Late blight (*Phytophthora infestans*) and Pink rot (*Phytophthora erythroseptica*)	Tuber spray	16.5 fl. oz. of **Reliant** in 1/2 gal. of water/ton of tubers	For best results, be sure tubers are completely and evenly covered.
	Foliar spray	2-4 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals. Late blight management using **Reliant** requires the higher application rate and is most effective when tank mixed with other registered fungicides.
	Seed piece spray	0.3 qt. of **Reliant** with 2 qts. of water (0.15% v/v solution) at the rate of 2 tons of tubers per gal. of solution	Treat seed pieces with a full coverage spray.
Suppression of Powdery mildew	Foliar spray	1-4 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-3 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 4 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Root and Tuber Vegetables

Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot (*Phytophthora cactorum*)	Foliar spray	2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. In cool, wet conditions that favor *Phytophthora*, apply at 7 day intervals. Do not exceed a total of 8 applications per crop cycle.
Carrots and radishes: Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)		1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as needed, at 14 day intervals after plant emergence.
Potatoes, Sweet Potatoes and Yams: Pink rot and Pythium leak (*Phytophthora erythroseptica* and *Pythium* spp.)	In-furrow spray	2-6 qts. of **Reliant** in 10 gals. water per acre **CA Only:** 2-5 qts. of **Reliant** in 10 gals of water per acre	Apply in a band spray directly over top of potato seed just before row is closed.
Potatoes, Sweet Potatoes and Yams: Late blight, Pink rot and Pythium leak (*Phytophthora infestans*, *Phytophthora erythroseptica* and *Pythium* spp.)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at 5-14 day intervals subject to disease incidence.
Downy mildew		1-3 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Stone Fruit

Use on stone fruit such as, but not limited to, apricots, cherries (sweet, tart), nectarines, peaches, plums and prunes (fresh).

Disease	Application Method	Rate	Application Program
Root and Collar rot (*Phytophthora* spp.)	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Three treatments are required: 1. Spring 2. Mid-summer 3. Fall, post-harvest. Apply dilution to ensure thorough, uniform foliage and crop coverage.
	Basal bark spray	62.4 fl. oz. **Reliant** + 62.4 fl. oz. of water + 3.2 fl. oz. of Pentra-Bark	Apply in spring and fall. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.
Pruning wound cankers (*Phytophthora syringae*)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply to pruning wound and surrounding area; ensure area is thoroughly wet. Use the higher application rate in high disease situations.
	Paint	50:50 solution of **Reliant** and water	Paint wounds with concentrated solution.
Suppression of Armillaria root rot (*Armillaria luteobublina*)	Basal bark spray	1 1/2-2 qts. of **Reliant** + 2 qts. of water + 1% Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above the ground) that have been previously attacked by Armillaria root rot, apply in fall prior to leaf senesce and again in spring. For trees less than 18 inches DBH, apply in early spring.

Strawberries

Disease	Application Method	Rate	Application Program
Red stele, Leather rot and Root rot (*Phytophthora* and *Pythium* spp.)	Pre-planting dip	1 1/4 qts. of **Reliant** in 100 gals. of water	Dip planting material in solution for 30 minutes, then plant within 1 day. Mix a fresh solution daily. Use for annual and perennial varieties.
	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4-2 1/2 qts. of **Reliant** in 90-200 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Annual Crops: First treatment 14-21 days post planting; repeat at 1-2 month intervals when disease is evident. Perennial Crops: First treatment during spring growth flush; repeat at 1-2 month intervals when disease is evident. For susceptible varieties, use higher rates and shorter spray intervals.
Blackroot rot*		4-6 pts. of **Reliant** in 30-100 gals. of water per acre	Gray mold and Anthracnose suppression requires use of higher application rates and is most effective when tank mixed with other registered fungicides.
Foliar fungal and bacterial diseases (*Rhizopus* and *Xanthomonas* spp.) and Red stele (*Phytophthora fragararie*)	Transplant and furrow	3 pts. of **Reliant**	Apply at planting or to newly planted seedlings by side dressing or shank application.
Leather rot (*Phytophthora cactorum*)	Foliar spray	1-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-1/4-2 1/2 qts. of **Reliant** in 90-200 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at 10% bloom and early fruit set, then as required at 1-2 week intervals for disease control. In high disease situations use higher rates and shorter spray intervals.
Phytophthora spp.	Dip	1 qt. of **Reliant** in 100 gals. of water (0.25% v/v solution)	Dip runners in the solution for 1-2 minutes, then plant within 48 hours. Mix a fresh solution daily.
Suppression of Powdery mildew	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

*Not for use in California

Tree Nuts

Use on tree nuts such as, but not limited to, almonds, black walnuts, beech nuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapin, English walnuts, hazelnuts, hickory nuts, macadamia nuts, pecans, pistachios and walnuts.

Disease	Application Method	Rate	Application Program
Other than macadamia nuts: Root and Collar rot (*Phytophthora* spp.)	Foliar spray	1 1/4-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1 1/4 qts. of **Reliant** in 30-100 gals of water per acre	Three treatments are required: 1. Spring; 2. Mid-summer; 3. Fall, post-harvest. Apply dilution to ensure thorough, uniform foliage and crop coverage.
Other than macadamia nuts: Almond pruning wound canker (*Phytophthora syringae*)	Paint or spray	2-3 qts. of **Reliant** in 100 gals. of water **CA Only:** 2 1/2 qts. of **Reliant** in 100 gals of water	Apply to pruning wound and surrounding area; ensure area is thoroughly wet.
Macadamia nuts: Raceme blight (*Phytophthora* spp.)	Foliar spray	3 3/4 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply when disease is first seen and reapply at 3 week intervals. Spray to the point of runoff.
Root rot, Crown rot, trunk cankers and foliar blights (*Phytophthora* and *Pythium* spp.) Macadamia nuts: Foliar bacterial and fungal disease, Anthracnose (*Colletotrichum* spp.), hull rot (*Monilla* spp.), flower diseases (*Cladosporium* spp.), Alternaria leaf spots (*Alternaria* spp.) and raceme blight (*Phytophthora* spp.)		2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Do not apply more than 4 times per crop cycle. Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 3 month intervals. High Disease Pressure: Apply higher rate at monthly intervals.
	Root dip	2 qts. of **Reliant** in 100 gals. of water (0.5% v/v solution)	Dip roots in the solution for 30 seconds and plant within 48 hours. Mix a fresh solution daily.

(continued)

Tree Nuts *(cont.)*

Disease	Application Method	Rate	Application Program
Pecan scab	Foliar spray	3-4 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only**: 2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply preventatively with other products shown to be effective against pecan scab.
Pruning wound, crown and trunk cankers (*Phytophthora* spp.)	Trunk spray	2 qts. of **Reliant** + 2 qts. of water + 1% of Pentra-Bark	Apply higher rate when lesions are present. Clean wound sites and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. Apply to the trunk from the soil line to 5 feet up the trunk. Apply one time in the spring, summer and fall.
Downy mildew and Powdery mildew	Foliar spray	1-4 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 1-2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Tree cankers and suppression of Armillaria	Basal bark spray	1 1/2-3 qts. of **Reliant** + 2 qts. of water + 1% of Pentra-Bark **CA Only:** 1 1/2-2 qts. of **Reliant** + 2 qts. of water + 1% of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger 18 inches DBH (Diameter at Breast Height, 4.5 feet above the ground) that have been previously attacked by Armillaria root rot, apply in fall prior to leaf senesce and again in spring for best results. For trees less than 18 inches DBH, make an early spring application at or about bud swell.
Black walnut and English walnut: For prevention and control of Thousand Cankers Disease (*Geosmithia morbida*)	Foliar spray	2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Spray every 60 days starting in early spring in combination with an insecticide that controls Walnut Twig Beetle (*Pityphthorus juglandis*) during insect flight times. Do not apply more than 6 times per year.
	Basal bark spray	32 fl. oz. of **Reliant** + 48 fl. oz. of water + 2 fl. oz. of Pentra-Bark per 18 inches of tree DBH	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.

Tobacco

Use on all varieties, including, but not limited to, aromatic fire-cured, brightleaf ("flue-cured"), burley, dark, perique and shade.

Disease	Application Method	Rate	Application Program
Preventative and curative treatment for Damping off, Downy mildew, *Phytophthora* spp., Powdery mildew, Root rot and Stem diseases	Float beds	2-4 fl oz. in 100 gals. of float solution	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at 14-21 day intervals depending upon disease pressure. Spray to runoff.
	Chemigation (drench, drip (trickle), micro irrigation (spaghetti systems), ebb and flow systems, pot plant nursery systems)	4-32 fl. oz in 30-100 gals. per acre	
	Hand-held sprayer	1 qt. in 100 gals. of water	

Commercial Applications

Conifers (Including Christmas Trees) in Commercial Nurseries, Forests and Plantations

Apply in conjunction with good agricultural management practices on conifers including, but not limited to, Douglas fir, pines and spruce. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates stated below. Do not apply to conifers that are moisture or heat stressed. Do not graze livestock in treated areas of conifer nurseries or plantations. Do not feed forage from treated plantation/nursery areas.

Disease	Application Method	Rate	Application Program
Root rot (*Phytophthora* spp.)	Foliar spray	1-2 qts. of **Reliant** per 30-100 gals. of water OR 2-4 tsp. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals.
	Soil drench	1-2 qts. of **Reliant** per 100 gals. of water OR 2-4 tsp. of **Reliant** per gal. of water	Apply 1 gal. of solution per square yard of soil. Follow application with irrigation. Repeat as required at 14-21 day intervals.
	Bare root dip	1 qt. of **Reliant** per 100 gals. of water OR 2 tsp. of **Reliant** per gal. of water	Immediately before transplanting, dip transplants for 2 minutes; keep roots submerged and ensure root mass is thoroughly wet.

(continued)

Conifers (Including Christmas Trees) in Commercial Nurseries, Forests and Plantations *(cont.)*

Disease	Application Method	Rate	Application Program
Pine pitch canker (*Fusarium subglutinans*	Basal bark spray	1 gal. of **Reliant** + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line.
	Injection (Not for tree injection in New York State)	20 mL per tree of a mixture containing: 1 gal. of **Reliant** + 2 gals. of water	Drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with a slight downward angle. Place syringe holes in the main tree trunk and space evenly around the trunk circumference. Suitable for use with Ag-murf gun, ARBORjet devices, Chemjet tree injectors or hydraulic tree injection devices. Trees must be at least 10" diameter at breast height.

Forestry, Golf Course, Landscape, Nursery and Park Applications

Use on various shade trees such as, but not limited to, Ash, Aspen, Azalea, Bald Cypress, Beech, Birch, Black Gum, Black Locust, Buckeye, Catalpa, Cedar, Cherry (Stonefruits), Chestnut, Coffee Tree, Cork Tree, Crab Apple, Dogwood (All), Elder, Elm, Fir, Golden Raintree, Hawthorne, Hazelnut, Honey Locust, Juniper, Lilac, Linden, London Plane tree, Magnolia, Maples (All), Mock Orange, Monterey Pine, Oaks (All), Olives, Ornamental Pear, Pine, Plum, Pyracantha, Red Bud, Smoke Tree, Sumac, Sweet Birch, Sweet Gum, Sycamore, Tulip Tree, Viburnum, Walnut, White Cedar, White Pine, Willow, Witch Hazel, Zelkova and various conifers in the landscape.

Apply before disease development and in conjunction with good agricultural management practices. Use higher rate of application when disease pressure is severe. To prevent tree injury, do not exceed application or frequency rates as stated below. Do not apply to trees that are heat or moisture stressed. Do not apply to trees that are in a state of dormancy. Apply to only target plants.

Disease	Application Method	Rate	Application Program
Phytophthora spp., *Pythium* spp. and Sudden Oak Death (*Phytophthora ramorum*)	Injection (Not for tree injection in New York State)	11 fl. oz. of **Reliant** per 21 fl. oz. of water	Using a slow drill, drill holes in trunk 3/16 inch (5 mm) in diameter into live sapwood (hole depth is dependent upon age of tree) with slight downward angle. Space injector holes evenly around the trunk circumference. Do not inject into areas of obvious decay, canker or mechanical injury that appear on the tree trunk. Calculate the amount of product required by measuring the tree using one of the following 3 methods and use the highest calculated number of injections: 1) 1 injection per square yard of canopy; 2) 1 injection per yard of canopy diameter measured at the drip-line; 3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level. Use injection applicators that maintain positive pressure differential such as Ag-murf gun, ARBORjet devices, ChemJet, Marley® Injector, Sidewinder®, Smart Shot injector or other hydraulic injector type equipment that forces solution into the tree sapwood.
	Basal bark spray	62.4 fl. oz. of **Reliant** + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	For best results apply in spring and fall. Best for thin bark trees such as dogwoods, lindens, maples and sycamores. Spray mixture around the complete trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.

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Forestry, Golf Course, Landscape, Nursery and Park Applications *(cont.)*

Disease	Application Method	Rate	Application Program
Phytophthora spp.*	Foliar spray	4-6 pts. of **Reliant** per 100 gals. of water	Spray to the point of runoff and ensure thorough coverage.
Pine pitch canker (*Fusarium subglutinans*)	Basal bark spray	1 gal. of **Reliant** + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Pines: Apply uniformly to trunk circumference anytime active growth is observed. Spray from top down to ground level from either first branch or from as high (5-6 feet) as possible without exposing applicator to drift. Spray to saturation/runoff. Apply with hydraulic sprayers, handheld pump-type sprayers, backpack sprayers, etc.
Pine pitch canker (*Fusarium subglutinans*) and Sycamore Anthracnose (*Gnomonia platani*)	Injection (Not for tree injection in New York State)	20 mL per tree of a mixture containing: 1 gal. of **Reliant** + 2 gals. of water	Using a slow drill, drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with slight downward angle in the main tree trunk. Space injector holes evenly around the trunk circumference. Suitable for use with Ag-murf gun, ARBORjet devices, Chemjet tree injectors, Smart Shot injector or other positive pressure hydraulic tree injector equipment. Trees must be at least 10" diameter at breast height.
Apple black spot/ scab (*Venturia inaequalis*) and suppression of Anthracnose	Basal bark spray	62.4 fl. oz. of **Reliant** + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell or silver tip stage of growth. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, backpack sprayers, hose-end applicators with backflow prevention devices and other similar application devices. For severe infestation of Anthracnose in large trees, apply in fall (at leaf senesce) and spring (bud swell to green tip).
Various tree cankers		48 fl. oz. of **Reliant** with 62.4 fl. oz. of water and 1 fl. oz. of Pentra-Bark	For severe canker infestations, apply at green tip or early spring (spring bud break) and repeat in fall prior to leaf senesce.

*Not for use in California

(continued)

Forestry, Golf Course, Landscape, Nursery and Park Applications *(cont.)*

Disease	Application Method	Rate	Application Program
Fire blight	Foliar spray	1 1/2-3 qts. of **Reliant** in 30-100 gals. of water **CA Only:** 1 1/2-2 qts. of **Reliant** in 30-100 gals of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. First application at pre-bloom (bud swell or silver tip stage). Apply at 7 day intervals until end of bloom period.
	Basal bark spray	50:50 solution of **Reliant** and water + 1% of Pentra-Bark	Apply at bud swell.
Suppression of Anthracnose	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at pre-bloom (bud swell or green tip stage) with a supplemental application 14 days later with **Reliant** or another fungicide effective against Anthracnose.
	Basal bark spray	62.4 fl. oz. of **Reliant** + 62.4 fl. oz. of water + 1 1/2-3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell until green tip stage of growth. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Anthracnose, apply in fall prior to leaf senesce and again in spring for best results. For trees less than 18 inches DBH, apply in early spring.
Suppression of Verticillium wilt	Foliar spray	2-3 qts. of **Reliant** in 30-100 gals. of water per acre **CA Only:** 2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. For trees previously identified with infections, apply first application pre-bloom. Repeat applications at 21-30 day intervals.
Suppression of Verticillium wilt and Armillaria	Basal bark spray	1 1/2-2 qts. of **Reliant** + 2 qts. of water + 2 fl. oz. of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 24 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Verticillium wilt, apply in fall prior to leaf senesce and again in spring for best results. For trees less than 24 inches DBH, apply in early spring.

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Forestry, Golf Course, Landscape, Nursery and Park Applications *(cont.)*

Disease	Application Method	Rate	Application Program
Needle cast	Foliar spray	2 1/2-4 qts. of **Reliant** per 30-100 gals. of water per acre **CA Only:** 2-2 1/2 qts. of **Reliant** in 30-100 gals of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Treat when symptoms first appear. Spray to runoff. Repeat application 30 days later.
Black walnut and English walnut: Thousand Cankers Disease (*Geosmithia morbida*)		2 1/2-4 qts. of **Reliant** in 50 gals. of water per acre or a 1% solution **CA Only:** 2-2 1/2 qts. of **Reliant** in 50 gals of water per acre or a 1% solution	Start spray program in spring and treat every 60 days in combination with an insecticide program to control Walnut Twig Beetle, *Pityphthorus juglandis*, during times of insect flight. Spray to runoff.
	Basal bark spray	32 fl. oz. of **Reliant** + 48 fl. oz. of water + 2 fl. oz. of Pentra-Bark per 18 DBH inches of tree circumference	Spray mixture, to saturation/runoff, on trunk circumference from ground level up 6 feet or to first scaffolding limbs, if present. Treat in spring at leaf out and fall prior to leaf senesce. Use in combination with an insecticide program to control Walnut Twig Beetle.
Phytophthora spp.* and *Pythium* spp.*; and Suppression of Fire blight*, Anthracnose*, Oak blight*, Oak wilt*, Apple scab*, and Stem* and twig blights*	Soil injection or drench	0.5% solution in water	Uniformly drench soil or inject solution into the soil around the base of the plant using 1 gallon of solution per diameter inch of landscape plant measured 6 inches above ground. For trees, uniformly drench soil or inject solution into the soil at the rate of 1 gallon of solution per diameter inch of tree trunk measured at DBH (4.5 feet from ground level).

*Not for use in California

Grass Grown for Seed Production

Use on turf grasses such as, but not limited to, bent, Bermuda, blue, buffalo, fescue, poa annua, rye and zoysia.

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (*Phytophthora* and *Pythium* spp.)	Foliar spray	1 1/2-2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply, as necessary, at 14-21 day intervals.

Nursery and Bedding Plants

Use on bedding plants grown in/on golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, ageratum, aglaonema, algerian ivy, anthurium, aphelandra, arborvitae, artemesia, aster, azaleas, baby's breath, begonia, bougainvillea, boxwood, caladium, carnation, cattleya skinneri, ceanothus, chrysanthemum, cissus, coleus, columbine, cotoneaster, daisy, delphinium, dieffenbachia, dogwood, Easter lily, English ivy, ficus, foxglove, gaillardia, geranium, gloxinia, hibiscus, impatiens, Japanese holly, juniper, lavender, leather fox fern, marigold, Monterey pink, pansy, peperomia, petunia, philodendron, phlox, photinia, pieris, pinks, poinsettia, pothos, pottosporum, primrose, prostrate rosemary, rhododendron, rosemary, salvia, schefflera, sedium, sempervivum, snapdragon, spathiphyllum, taxus media, verbena, vinca, white cedar, white pine, zinnia and zygocactus; and on vegetable transplants or cultivars grown in greenhouse, lath house or shade house sites.

Apply before disease development in conjunction with good agricultural management practices. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates as stated below. Do not apply to plants that are heat or moisture stressed. When applying to indoor plants do not overspray and apply only to target plants. If meeting these conditions is not possible, move plants to an outdoor location for treatment and drying before taking back indoors.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/4-2 1/2 qts. of **Reliant** per 30-100 gals. of water OR 1/2-1 1/8 fl. oz. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals.
Phytophthora spp. and *Pythium* spp. diseases		1-2 qts. of **Reliant** per 30-100 gals. of water OR 2-4 tsp. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 14-21 day intervals. Do not apply more than 500 gals. of spray solution per acre.
	Soil drench	6 1/4-12 3/4 fl. oz. of **Reliant** per 100 gals. of water	Apply 25 gals. per 100 sq. ft. Follow application with irrigation. Repeat as required at monthly intervals.
Lavender: *Phytophthora* spp.	Foliar spray	2 qts. of **Reliant** per acre	Apply in 20-60 gals. per acre.
	Hand gun	2 qts. of **Reliant** per 100 gals. of water	Thoroughly wet all foliage.

Ornamental Applications

Use on ornamentals in golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, aglaonema, anthurium, aphelandra, arborvitae, azaleas, bougainvillea, boxwood, cattleya skinneri, ceanothus, cissus, cotoneaster, dieffenbachia, English ivy, eucalyptus, ficus, hibiscus, Japanese andromeda, Japanese holly, leath-

er leaf fern, peperomia, philodendron, photinia, pieris, pittosporum, pothos, rhododendron, roses (container, field, landscape and mini varieties), schefflera, sedum, sempervivum, Spathiphyllum, syngonium, taxus media and zygocactus.

Apply before disease development and in conjunction with good agricultural management practices. Use higher application rate when disease pressure is severe. To prevent plant injury, do not exceed application or frequency rates as stated below. Do not apply to plants that are heat or moisture stressed. Do not apply to plants that are in a state of dormancy.

Disease	Application Method	Rate	Application Program
Bacterial blight (*Xanthomonas campestris*) pathovars: *dieffenbachia*, *fici*, *hederae* and *syngolini*	Foliar spray	2-4 pts. of **Reliant** per 30-100 gals. of water OR 2-4 tsp. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required at 7-14 day intervals.
Downy mildew		1 1/2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Phytophthora spp. including Sudden Oak Death (*Phytophthora ramorum*) and *Pythium* spp.		1-2 qts. of **Reliant** per 30-100 gals. of water OR 2-4 tsp. of **Reliant** per gal. of water	Apply dilution to ensure thorough, uniform foliage and crop coverage. Repeat as required, at 14-21 day intervals.
	Soil drench	6 1/4-12 3/4 fl. oz. of **Reliant** per 100 gals. of water	Apply 25 gals. of solution per 100 sq. ft. Follow application with irrigation. Repeat as required, at monthly intervals.
	Soil incorporation	1-2 pts. of **Reliant** per cubic yard of soil	Just prior to potting, mix into growing media. For high disease pressure, apply by foliar spray or soil drench.
	Root dip	2 pts. of **Reliant** per 100 gals. of water OR 2 tsp. of **Reliant** per gal. of water	Immediately before transplanting, dip transplants' bare roots for 2 minutes, keeping roots submerged. Thoroughly wet root mass.

(continued)

Ornamental Applications *(cont.)*

Disease	Application Method	Rate	Application Program
Powdery mildew	Foliar spray	1 1/2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Application amount depends upon plant type, maturity and application technique/method. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Suppression of Anthracnose		2-2 1/2 qts. of **Reliant** in 30-100 gals. of water per acre	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply prior to onset of disease. Apply spray to saturation/runoff.
Roses: Black spot		2 qts. of **Reliant** in 30-100 gals. of water OR 2 qts. of **Reliant** per gal. of water (0.5% solution v/v concentration)	Apply dilution to ensure thorough, uniform foliage and crop coverage. Apply when disease is present and spray to the point of runoff.
Phytophthora spp.* and *Pythium* spp.*; and Suppression of Fire blight*, Anthracnose*, Oak blight*, Oak wilt*, Apple scab*, and Stem* and twig blights*	Soil injection or drench	0.5% solution in water	Uniformly drench soil or inject solution into the soil around the base of the plant using 1 gallon of solution per diameter inch of landscape plant measured 6 inches above ground. For trees, uniformly drench soil or inject solution into the soil at the rate of 1 gallon of solution per diameter inch of tree trunk measured at DBH (4.5 feet from ground level).

*Not for use in California

Seed Treatment

Use on agricultural crop seeds from crops listed elsewhere on this label. Do not use treated seed for food, feed or oil. Dye used to color treated seed must be an EPA-approved dye (refer to 40 CFR § 153.155(c)). Seed treatment on agricultural establishments in hopper-box, planter box or other seed treatment application at or immediately before planting is within the scope of the WPS, while commercial treatment of seeds is not within the scope of the WPS.

Disease	Application Method	Rate
Phytophthora, *Pythium* and *Fusarium* spp.	Apply at planting or in commercial seed treatment operations	8-24 fl. oz. of **Reliant** per 100 lbs. of seed or 4-10 qts. of **Reliant** per ton of seed, depending on the size of the seeds to be treated.
Damping-off* (*Phytophthora* spp. and *Pythrium* spp. prevention)		3.5 fl. oz. of Reliant per 220.5 lbs. of seed.

*Not for use in California

Turf

Use on turf grasses in/on commercial landscapes, commercial turf production sites, golf courses, parks and sod farms. Apply preventatively when conditions favor disease and repeat as directed below. Use higher application rate when disease pressure is severe.

Disease	Application Method	Rate	Application Program
Damping-off (*Pythium* spp.)	Foliar spray	5-10 fl. oz. of **Reliant** per 1000 sq. ft.	Apply in 1-2 gals. of water per 1000 sq. ft. Ensure grass is thoroughly wet. Repeat as required at 14-21 day intervals. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Anthracnose			Apply in 5 gals. of water per 1000 sq. ft. Ensure grass is thoroughly wet. Apply every 14-21 days in a rotational fungicide program. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Pink snow mold		5-10 fl. oz. of **Reliant** in 2 gals. of water per 1000 sq. ft.	Apply when temperatures and conditions favor disease outbreak; or apply in fall prior to onset of winter with other snow mold controlling fungicides.
Rhizoctonia			Repeat applications at 14-17 day intervals.

Turf-Tank Mixtures

Apply to turf grasses in/on commercial landscapes, commercial turf production sites, golf courses, parks and sod farms. Do not graze animals on treated turf areas. Do not feed treated turf clippings to poultry or livestock.

Product	Disease	Rate per 1,000 sq. ft.	Application Program
Reliant + mancozeb-containing fungicide	Summer stress complex (*Rhizoctonia* and *Pythium* spp.)	5-10 fl. oz. of **Reliant** + 4-8 fl. oz. of mancozeb-containing fungicide	Apply as a foliar spray in 1-5 gals. of water per 1000 sq. ft. Apply as a preventive spray and repeat as required at 2 week intervals. Do not irrigate or mow treated areas until spray has completely dried.
	Pink snow mold	5-10 fl. oz. per 1000 sq. ft.	Apply prior to disease development or when conditions favor disease outbreak.

Storage and Disposal

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

Pesticide Storage: Keep this product in containers stored upright and secured with the original closure. Do not store this product near any heat source or near strong oxidants. If transfer to another container becomes necessary, ensure that the container is clearly labeled, the container is a type suitable for the product and is clean and free of other materials.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Containers with a capacity equal to or less than 5 gallons:

Triple rinse (or equivalent) or pressure rinse container 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 1/4 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.

Containers with a capacity greater than 5 gallons:

Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning; if burned, keep out of smoke.

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Ag-murf® is a registered trademark of Ag-Murf Engineering
SmartShot® is a registered trademark of Van Dorn Demag Corporation

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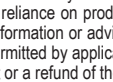

Made in the USA

Reliant® Systemic Fungicide

Active Ingredients:

Mono- and di-potassium salts of Phosphorous Acid*	45.8%
Other Ingredients	54.2%
Total	100.0%

*Contains 5.17 lbs/gallon of the active ingredients mono- and di-potassium salts of Phosphorous Acid.
Equivalent to 3.35 lbs Phosphorous Acid/gallon

Keep Out of Reach of Children

CAUTION

See below for First Aid and additional Precautionary Statements;

See booklet for complete Directions for Use

First Aid

If Swallowed: Immediately call a poison control center or doctor 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 center or doctor. Do not give anything by mouth to an unconscious person. **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. **If on Skin or Clothing:** Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 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 mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency information on product usage call 785-542-2577, Monday through Friday, 9 am to 5 pm (Central time). For medical emergencies call the National Poison Control Center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist or vapors. Thoroughly wash with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment ("PPE").

Personal Protective Equipment (PPE)

Applicators, mixers, loaders and other handlers must wear: Protective eyewear, Long pants and long-sleeved shirt, Waterproof gloves, Shoes plus socks. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside; then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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 wash water or rinsate.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.
Pesticide Storage: Keep this product in containers stored upright and secured with the original closure. Do not store this product near any heat source or near strong oxidants. If transfer to another container becomes necessary, ensure that the container is clearly labeled, the container is a type suitable for the product and is clean and free of other materials.
Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
Container Handling: Nonrefillable container. Do not reuse or refill this container.
Containers with a capacity equal to or less than 5 gallons:
Triple rinse (or equivalent) or pressure rinse container 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 1/4 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.
Containers with a capacity greater than 5 gallons:
Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning; if burned, keep out of smoke.

Batch No.:

Date of Manufacture:

Net Contents:

- ☐ 1 Pint
- ☐ 1 Quart
- ☐ 1 Gallon
- ☐ 2.5 Gallons
- ☐ 30 Gallons
- ☐ 55 Gallons
- ☐ 250 Gallons
- ☐ _____ Gallons

EPA Reg. No. 83416-1
EPA Est. 83416-KS-1

Quest Products LLC
Finding New Ways to Improve the Treatment of Trees and Plants.

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Open Here for Complete Label

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