

Agricultural Uses

Reliant[®]

Systemic Fungicide

SYSTEMIC FUNGICIDE FOR THE EFFECTIVE CONTROL OF VARIOUS PLANT DISEASES INCLUDING BLACK SPOT OR SCAB IN APPLE, ROOT ROT IN AVOCADO, BUD ROT AND NUT FALL IN COCONUT, ROOT ROT IN CITRUS AND CUCURBITS, DOWNY MILDEW IN CUCURBITS, GRAPE, LETTUCE, AND ONION, ANTHRACNOSE IN MANGO, ROOT AND HEART ROT IN PINEAPPLE, LATE BLIGHT IN POTATO, ROOT AND COLLAR ROT IN STONEFRUIT, LEATHER ROT AND PHYTOPHTHORA DISEASES IN STRAWBERRY, LATE BLIGHT IN TOMATO, DOWNY MILDEW, PHYTOPHTHORA & PYTHIUM IN ORNAMENTALS, INTERIORSCAPES & BEDDING PLANTS, PHYTOPHTHORA AND FUSARIUM IN CONIFERS, PYTHIUM IN TURF, AND PHYTOPHTHORA AND PYTHIUM DISEASES ASSOCIATED WITH STEM AND CANKER BLIGHT (SUDDEN OAK DEATH) AND GENERAL BEECH DECLINE.

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**

CONSULT PAGE 2 OF THIS BOOKLET FOR FIRST AID & PRECAUTIONARY STATEMENTS

Batch No.: _____ EPA Reg. No. 83416-1
Date of Manufacture: _____ EPA Est. No. 89083-FL-001
EPA Est. No. 71975-WA-001
EPA Est. No. 83416-KS-001

NET CONTENTS:
 1 Quart 30 Gallons
 1 Gallon 55 Gallons
 2.5 Gallons 250 Gallons


Quest Products L.L.C.
 11712 230th St. * Linwood KS 66052
 Phone: 785-542-2577
 Fax: 785-542-2531
www.QuestProducts.us

Agricultural Use

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • 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 poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> • 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. Hotline Number: National Poison Control, 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. Wash thoroughly 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 manufacturer's instructions for maintaining/cleaning personal protective equipment (PPE). If no such instructions for washables, use hot water and detergent. Keep and wash PPE separately from other laundry.

When handlers use closed systems, aircraft or enclosed cabs 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 drinking, eating, chewing gum, using tobacco or using the toilet.
- Remove PPE clothing 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 Use: 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 waters or rinsate.

Specimen Label

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, CFR 40 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, soils 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 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 Only): 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.

GENERAL APPLICATION INSTRUCTIONS

Apply RELIANT[®] SYSTEMIC FUNGICIDE by various application methods, including foliar spray, soil drench, soil incorporation, basal bark application and bare root dip.

For foliar sprays, apply RELIANT[®] SYSTEMIC FUNGICIDE with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage. To ensure good coverage, spray to wetness, but avoid run-off.

When using RELIANT[®] SYSTEMIC FUNGICIDE with Penra-Bark™ adhere to all applicable label directions. Only use Penra-Bark™ with basal bark or tree injection applications.

MIXING INSTRUCTIONS

1. Fill the spray tank with 1/4 – 1/2 of the volume of water required before adding RELIANT[®] SYSTEMIC FUNGICIDE.
2. Add RELIANT[®] SYSTEMIC FUNGICIDE slowly 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[®] SYSTEMIC FUNGICIDE is compatible with most products used in agriculture. However, individual crop sensitivity to these mixtures may vary. Mixtures of RELIANT[®] SYSTEMIC FUNGICIDE with some foliar fertilizers and copper products are not always compatible or cause phytotoxicity to some plants. If these combinations or others have not been used previously, do not tank mix without first testing the compatibility of the tank mix. Do not apply tank mixture without first assessing its safety to the crop (phytotoxicity). Tank mix RELIANT[®] SYSTEMIC FUNGICIDE with fertilizers only if crop safety has been established and the RELIANT[®] SYSTEMIC FUNGICIDE use rates are followed.

Due to RELIANT[®] SYSTEMIC FUNGICIDE's acidic nature, do not use acidifying-type compatibility agents. If spray adjuvants are used test them before use to confirm compatibility with RELIANT[®] SYSTEMIC FUNGICIDE.

Use a jar test to confirm compatibility with RELIANT[®] SYSTEMIC FUNGICIDE. In a clean jar using the same water source that is normally used to fill spray tank, add the same proportions of each product and the appropriate quantity of water and mix thoroughly. Let stand for 3 minutes. If mixture remains in solution or is remixed readily the tank mix is compatible.

Spray the solution that results from the above compatibility test onto a few plants and inspect for visual effects of phytotoxicity (leaf burn) 3 to 7 days later.

GENERAL HYDROPONIC APPLICATIONS

For use with plants grown in recirculating hydroponic systems.

Disease	Rate	Application Program
General root rots (Pythium and Phytophthora spp) and root diseases	1 to 2 quarts RELIANT in 5300 gallons of nutrient solution	Apply every 4 to 6 weeks in the summer and every 8 weeks in the fall. The application time interval may be modified depending on crop load, water quality, and disease pressure.
	OR 1 to 2 liters RELIANT in 20,000 liters of nutrient solution	

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AGRICULTURAL APPLICATIONS

APPLES, CRAB APPLES, LOQUATS, PEARS & QUINCE

Use RELIANT® for effective control of black spot, root and collar rot and fire blight in apples, crab apples, loquats, pears, and quinces.

Disease	Application Method	Rate	Application Program
Apple black spot and scab (Venturia inaequalis)	Foliar spray	Apply 3 to 4 pints RELIANT per acre in 100 gallons water per acre 1/2 gallon RELIANT per acre in 25 – 250 gallons water per acre Or apply RELIANT at 0.5% (1/2 %) solution volume/volume concentration to foliage. Example: spray volume of 50 gpa, use 2 to 2.5 pints RELIANT	Apply in combination with a mancozeb-containing product at 3 lbs/acre. Apply at ¼- ½ inch green tip through first cover at 7 to 10 day intervals or according to forecasted infection events. Continue with RELIANT® and Captan in the remaining applications. First application at open cluster. Last application fifth cover or fruit at 2" to 2 1/2" diameter. Total of 10 applications at 10 to 12 day intervals. When conditions are conducive to a black spot outbreak, apply RELIANT® immediately. NOTE: After 4 or 5 consecutive applications some yellowing of extension growth may be observed. If yellowing occurs use another fungicide until yellowing of leaves disappears.
	Basal bark spray at bud swell or silver tip stage of growth in early spring	62.4 fl.oz. RELIANT + 62.4 fl. oz. of water + 3 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT and Pentra-Bark™ on the complete circumference of the tree trunk 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 and collar rot (Phytophthora cactorum) Fire Blight (Erwinia amylovora)	Foliar spray	Apply at 1 ¼ to 2 ½ quarts RELIANT per acre with a maximum of 250 gallons water per acre. 2 ½ to 5 pints in 100 gallons of water per acre.	Thorough spray coverage of plant is required. Start applications when conditions favor disease development. Apply at one to two 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 higher application rate and shorter spray interval. Ensure thorough coverage.
	Basal bark spray treat in spring and fall for best results	62.4 fl. oz. RELIANT + 62.4 fl. oz. of water + 3 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT and Pentra-Bark™ around the complete circumference of the tree trunk 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

Use RELIANT® for effective control of crown rot & asparagus spear slime disease in asparagus.

Disease	Application Method	Rate	Application Program
Crown rot & Asparagus spear slime (Phytophthora spp.)	Foliar spray	1 ¼ quarts RELIANT per acre in 25 gallons water to 2 ½ quarts RELIANT per acre in 250 gallons water	Apply to ferns that have 2 to 3 inches of new growth. Do not apply to ferns that are starting to die down (senesce). Established plantings, start applications when conditions are favorable to disease (cool wet conditions). Ensure thorough coverage.

Avocados Use RELIANT® for effective control of root rot, trunk cankers and downy mildew disease in avocado.

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora cinnamomi)	Tree injection	Skeletal trees 1st year: 1/4 fl. oz. RELIANT per yard of canopy diameter. Other situations: 3/4 teaspoon 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 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Ag-murf gun, Smart Shot injector or hydraulic tree injection. 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 material, other than water, to RELIANT by trunk injection. Do not inject more liquid in a lesser number of syringes than directed.
	Foliar spray	2 quarts RELIANT in 100 gallons of water per acre	Spray to run off at 2- 2 ½ gallons of spray solution per adult tree. Start applications in spring, up to 4 applications a year at two-month intervals. Ensure thorough coverage.
Canker (Phytophthora citricola)	Trunk spray	1 ¼ to 2 ½ quarts mixed with 5 gallons of water with 6 fl. oz. of Pentra-Bark Penetrating Surfactant	Apply to trunk lesions using sufficient spray volume to completely wet the trunk and lesions. If lesions absent, apply to trunk from soil level up to two feet up trunk. If lesions present use higher rate.
Downy Mildew	Foliar spray	3 ¾ pints in 100 to 500 gallons of water	Spray to run-off, as required for disease control

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BERRIES

Use RELIANT® for effective control of root rot, general leaf and berry diseases such as those caused by Septoria spp., and downy mildew, and for suppression of Anthracnose spp., Fusicoccum canker, phomopsis canker, in bush and cane berries such as, but not limited to, bingleberries, blackberries, black satin berries, blueberries, boysenberries, Cherokee blackberries, Chesterberries, Cheyenne blackberries, coryberries, cranberries, darrowberries, dewberries, Dirksen thornless berries, elderberries, Himalayaberries, huckleberries, hullberries, Lavacaberries, loganberries, lowberries, lucretiaberies, mammoth blackberries, marionberries, mulberries, nectarberries, olallieberries, Oregon evergreen berries, raspberries (red, black, hybrids/cultivars), and youngberries.

Use RELIANT for effective control of root rot in bush and cane berries such as, but not limited to, blueberries, blackberries, loganberries, and raspberries (red, black, hybrids/cultivars).

Disea	Application Method	Rate	Application Program
Root rot (Phytophthora spp.)	Foliar spray	1–3 quarts RELIANT per 100 gallons of water per acre. Ensure foliage is completely wet.	New plantings: start application when new growth is 2 to 3 inches long. Established plantings start applications when cool wet conditions occur which favor disease. West of Rocky Mountains: Autumn applications, apply when conditions favor disease, repeat in 4 weeks. Spring applications, first application after bud break and repeat in 4 weeks. East of Rocky Mountains: First application spring post bud break (2 to 3 inches new growth) and repeat at 50 to 60 day intervals. Do not exceed 4 applications per season. For blueberries – First application in spring at pink bud and then on a regular schedule of application at two to three intervals.

General leaf and berry diseases such as those caused by Septoria spp and Anthracnose spp	Root Dip	Mix a 2.50% v/v solution (1 quart RELIANT per 10 gallons of water)	Apply as pre-plant dip to the roots for 2-3 minutes. Plant within 48 hours after dipping. Mix a fresh solution daily.
	Chemigation Overhead Low Volume	1 to 2 quarts RELIANT in 1000 gallons of water per acre 2 to 3 quarts RELIANT in 100 gallons of water per acre	Apply with normal irrigation schedule. Do not apply more than 4 times per crop cycle.
Downy Mildew	Foliar spray	1 ½ to 2 quarts RELIANT in 20 to 100 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 3 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle. RELIANT is best when used in combination with conventional registered fungicides to increase the performance of the disease control program.

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BRASSICAS

Use RELIANT® for effective control of dampening-off, root rot, bacterial, and fungal diseases, and downy mildew in brassicas such as, but not limited to, broccoli, Brussels sprouts, cabbage, cauliflower, cavalo broccolo, collards, Chinese cabbage, Chinese mustard cabbage, kale, kohlrabi, mizuna, mustard greens, mustard spinach and rape greens.

Disease	Application Method	Rate	Application Program
Root rot and damping off (Phytophthora spp and Pythium spp)	Foliar spray	1 to 2 quarts RELIANT in 30 to 100 gallons of water per acre	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
	Pre-plant seedling Nursery	1 quart RELIANT in 100 gallons of water to nursery plants in seedling trays 1 to 7 days prior to planting	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
	Transplant and Furrow Application	3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	
Bacterial diseases	Chemigation Overhead	1 to 2 quarts RELIANT in 1000 gallons of water per acre	Apply with normal irrigation schedule.
	Low Volume	2 to 3 quarts RELIANT in 20 to 100 gallons of water per acre	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

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Downy mildew (Peronospora parasitica)	Foliar spray	1 ¼ quarts to 2 ½ quarts RELIANT per acre in 25 to 250 gallons of water per acre.	1 to 3 week intervals between applications when conditions favor disease development (cool, moist weather). Use higher rates and shorter intervals when disease pressure increases. Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Diseases caused by Septoria, Collectotrichum, Alternaria, and Powdery mildew	Foliar spray	1 to 2 quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

CEREAL GRAINS

Apply RELIANT® to crops such as, but not limited to, field corn, ornamental corn, sweet corn, Indian corn, wheat, rye, barley, oats, triticale, and sorghum (milo). Use RELIANT® for effective control of damping-off and root rot diseases.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	1 ½ quarts to 2 quarts RELIANT per acre in 25 to 100 gallons of water	Corn: Apply at 14-day intervals from 4-leaf stage, as needed. Assure good coverage. Other grains: Apply at 14 – 21 day intervals, as needed. Assure good coverage.

CITRUS- Mature trees

Use RELIANT® for effective control of root rot and collar rot diseases in citrus.

Disease	Application Method	Rate	Application Program
Brown rot and foot rot rot Phytophthora spp.	Foliar spray	2 ½ quarts RELIANT per acre in a maximum of 250 gallons of water	When conditions favor disease. Spray trees to run off ensure even coverage. 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 spp. nicotianae and Phytophthora citrophthora)	Trunk spray Soil Spray	Mix 1 ¼ to 2 ½ quarts RELIANT in a minimum of 5 gallons of water with 1 to 3 fl. oz. of Penra-Bark Penetrating Surfactant. 2 ½– 4 qts Reliant per acre in a minimum 20 gpa.	Spray trunk lesions with enough spray volume to ensure lesions are completely wet. When disease levels are high, use higher rate.

COCONUTS

Use RELIANT® for effective control of bud rot and nut fall in coconuts.

Disease	Application Method	Rate	Application Program
Bud rot – Nut fall (Phytophthora palmivora)	Injection	Between 2 tsp. and 1 fl. oz. RELIANT per tree	Dilute RELIANT® with water to give final injection volume of 1 fl. oz. to 2 fl. oz. of water and RELIANT®. Inject into the trunk or root system.

COTTON

Use RELIANT® for effective control of damping-off and root rot disease in cotton.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp	Foliar spray Side dress at planting or in furrow	1 to 2 quarts RELIANT in 30 to 50 gallons of water acre 1 to 1 ½ qts per acre	Apply at crop emergence every 21 days or during wet conditions that favor pathogen development. Apply at planting either in furrow, or side dress, can be applied with liquid row starter fertilizers with previous compatibility check

CUCURBITS

Use RELIANT® for effective control of sudden wilt, gummy stem blight, downy mildew, powdery mildew, Alternaria leaf blight, and bottom soft rot complex, and for suppression of Anthracnose diseases in cucurbits grown in field situations such as, but not limited to, cucumber, Chinese waxgourd, citron melon, gherkin rock melon, honeydew melon, pumpkin, zucchini, watermelon and squash (summer and winter), momordica spp. balsam apple, balsam pear, bitter melon, and Chinese cucumber.

Disease	Application Method	Rate	Application Program
Sudden wilt – Root and fruit rot (Phytophthora spp.)	Foliar spray	1 – 3 quarts RELIANT per 100 gallons.	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season.
Gummy stem blight (Mycosphaerella melonis)			Apply when disease is evident. Continue applications at 21 day intervals until cure is apparent. Do not exceed a total of 6 applications per season.
Downy mildew (Pseudoperonospora cubensis)			Apply within 7 to 10 days of infection. Repeat as necessary. Do not exceed a total of 6 applications per season.
Powdery mildew and other leaf diseases such as Anthracnose and Alternaria leaf blight	Foliar spray	2 to 2 ½ quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Bottom Soft Rot Complex	Foliar spray	2 to 2 ½ quarts RELIANT in up to 100 gallons of water per acre.	<u>Apply after fruit set and during bulking 3 during the growing season.</u>

Specimen Label

CUCURBUTS, TANK MIXTURES

For the effective control of downy mildew diseases, tank-mix RELIANT® with a mancozeb-containing fungicide and apply to cucurbits.

Product	Disease	Rate Per Acre	Application Program
RELIANT® + mancozeb-containing fungicide	Downy mildew	Light to medium foliage cover: Apply 1 ¼ – 2 quarts RELIANT per acre. Heavy foliage cover: Apply 3 quarts ELIANT per acre+ Label rate of mancozeb	Apply as a ground foliar spray the indicated quantity and dilution rates with water of both products. 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.

FRUITING VEGETABLES

Use RELIANT® for effective control of damping-off, root rot, gummy stem blight, bacterial diseases, downy mildew, powdery mildew, and Alternaria leaf blight, and for suppression of Anthracnose on fruiting vegetables such as but not limited to eggplant, tomatoes, tomatillos, peppers, bell, chili, cooking, pimento, and sweet.

Disease	Application Method	R	Application Program
Eggplant: Phythium and Phytophthora spp., and Gummy stem blight (Mycosphaerella melonis)	Foliar spray	Apply 1 ¼ quarts RELIANT per acre in 40 gallons of water.	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season. Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent.
Peppers: Late blight and root rot (Phytophthora infestans and Phytophthora spp.)		1 ½ to 2 quarts RELIANT per acre in 25 to 100 gallons of water	First application at transplant or when direct seeded crops are at 2–4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
Tomatoes/Tomatillos: Late blight and root rot (Phytophthora infestans and Phytophthora spp.)		1 ½ to 2 quarts RELIANT per acre in 25 to 100 gallons of water	First application at transplant or when direct seeded crops are at 2–4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.

Root Rot and damping off (Phytophthora spp and Pythium spp)	Foliar spray	1 to 2 quarts RELIANT in 30 gallons of water per acre	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
Bacterial diseases	Pre-plant seedling Nursery treatment	1 quart RELIANT in 100 gallons of water to nursery plants in seedling trays 1 to 7 days prior to out planting	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
	Transplant and furrow application	3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	For control of bacterial leaf spot of tomatoes, apply the high rate of RELIANT with registered bacteriacides.
	Chemigation Overhead	1 to 2 quarts RELIANT in 1000 gallons of water per acre	
Downy mildew	Foliar spray	1 to 2 quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Powdery mildew and other leaf diseases such as Anthracnose and Alternaria leaf blight	Foliar spray	1 to 2 quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

GRAPES

Use RELIANT® for effective control of downy mildew and black rot in grapes.

Disease	Application Method	Rate	Application Program
Downy mildew (Plasmopara viticola) Black Rot	Foliar spray	Early season small canopy, 1 ¼ quarts RELIANT per acre in up to 100 gallons of water Late season/large canopy, 2-2½ quarts RELIANT per acre in up to 100 gallons water	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 spray coverage is adequate and 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 rotation fungicides that also control black rot in combination with Reliant, such as Captan, Copper, Mancozeb and others
Phytophthora and Pythium root rots and suppression of Armalieria	Foliar Spray	1 ½ to 2 quarts RELIANT in 50 to 100 gallons of water per acre	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. Table Grapes: Begin application in the spring at the 4 to 6 inch shoot stage. Continue applications at 1 to 2 week intervals until flowering. Resume applications in the fall after harvest. Do not apply more than 4 times per crop cycle. Wine and Raisin Grapes: Begin applications in the spring at the 4 to 6 inch shoot stage. Continue applications at 1 to 2 week intervals through flowering. Do not apply more than 4 times per crop cycle.
Downy mildew	Foliar spray	1 ½ to 2 quarts RELIANT in 50 gallons of water per acre RELIANT is most effectively applied to control downy mildew when tank is mixed with other registered fungicides.	Apply at bud break with additional applications at 7 to 10 day intervals in a rotational program with other registered fungicides. Use higher rate and volume based on disease severity and density of canopy. Do not apply more than 6 times per crop cycle.
Powdery mildew	Foliar spray	2 to 2 ½ quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply at lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

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GRAPES, TANK MIXTURES

For the effective control of downy mildew diseases, tank-mix RELIANT® with a mancozeb-containing fungicide and apply to grapes.

Disease	Application Method	Rate	Application Program
Downy mildew and Black rot	Foliar spray	Early season small canopy, 1 ¼ quarts RELIANT per acre in 50 to 100 gallons water Late season/large canopy, 2 to 2 ½ quarts RELIANT per acre in Up to 100 gallons water + Label rate of Mancozeb	Apply as a foliar spray the indicated quantity and dilution rates with water of both products. 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.

HERBS AND SPICES

Use RELIANT for effective control of Downy mildew, Phytophthora spp and Pythium spp diseases of Herbs and Spices grown in fields, nurseries, and greenhouses. Apply RELIANT to plants such as, but not limited to, Anise, Balm, Basil, Chamomile, Caraway, Catnip, Celery, Chives, Coriander, Cumin, Curry Leaf, Dill, Fennel, Marjoram, Mint, Nasturium, Rosemary, Sage, Savory, Sweet Bay, Tarragon, Thyme, and Wintergreen. Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 ¼ to 2 ½ quarts RELIANT per 100 gallons of water OR ½ to 1 1/8 fl. oz. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
Phytophthora spp and Pythium spp	Foliar spray	1 to 2 quarts RELIANT per 100 gallons of water OR 2 to 4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required. Note do not apply more than 500 gallons of spray solution per acre.
	Soil drench	6 ¼ to 12 ¾ fl. oz. RELIANT per 100 gallons of water	Apply each 25 gallons of solution to an area of 100 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.

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Specimen Label

HOPS

Use RELIANT® SYSTEMIC FUNGICIDE for effective control of downy mildew in hops.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray by ground equipment only.	1 – 3 quarts RELIANT per 100 gallons of water per acre	conditions favor disease, apply when A. Shoots are 1/2 to 1 foot long. B. Post-training when vines are 6 feet high. C. 21 days post-application (B) D. During bloom

Leafy Vegetables

Use Reliant® for effective control of root rot, damping off, downy mildew, powdery mildew and other fungal diseases and for suppression of Anthracnose in leafy vegetables such as but not limited to: amaranth, arugula, Cardoon, celery, chevil, corn salad, endive, fennel, lettuce, parsley, radicchio, rhubarb, spinach and Swiss Chard.

Disease	Application Method	Rate	Application Program
Downy mildew (Bremia lactucae)	Foliar spray	1 to 2 quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle. Ensure spray coverage is adequate to wet the whole plant.
Root rots and damping off (Phytophthora spp and Pythium spp)	Foliar spray	Apply 1 to 2 quarts RELIANT in 40 gallons of water per acre	Begin application after plants are established and conditions favor disease development.
	Pre-plant nursery application	1 quart RELIANT in 100 gallons of water to nursery plants in seedling trays 1 to 7 days prior to out planting	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
	Chemigation Overhead	Apply 1 to 2 quarts RELIANT in 1000 gallons of water per acre	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
	Low Volume	Apply 1 to 2 quarts RELIANT in a minimum of 100 gallons of water per acre	Apply with normal irrigation schedule. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
	Transplant and Furrow application	3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

Powdery mildew and leaf diseases such as Anthracnose (Collectotrichum spp), leaf blights (Septoria and Cercospora spp), and bacterial rots (Erwinia spp)	Foliar spray	1 ½ to 2 quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
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LEGUMES

Use RELIANT® for effective control of damping-off, root rot, Fusarium, Rhizoctonia, downy mildew, powdery mildew, and other fungal diseases, and for suppression of Anthracnose in legumes (succulent and dried) such as, but not limited to, green beans, soybeans, wax beans, field beans, navy beans, lima beans, fava beans, kidney beans, pinto beans, mung beans, broad beans, lentils, chickpeas, English peas, snow peas, sugar snap peas, black-eyed peas, cow peas, and pigeon peas.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	1 ½ to 2 quarts RELIANT per acre in 25 to 250 gallons of water per acre	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.
Phytophthora and Pythium spp	Foliar spray	1 ½ to 2 ½ quarts RELIANT in 30 gallons of water per acre	Begin application after plants are established and conditions favor disease development.
Fusarium and Rhizoctonia	Pre-plant nursery application	1 quart RELIANT in 100 gallons of water to nursery plants in seedling trays 1 to 7 days prior to out planting.	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
	Transplant and furrow application	3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Downy mildew	Foliar spray	1 to 3 quarts RELIANT in 30 gallons of water per acre	Lower Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1-2 week intervals. Do not apply more than 6 times per crop cycle. Higher Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
Powdery mildew and leaf disease such as Anthracnose (Collectotrichum spp), leaf blights (Septoria and Cercospora spp), and bacterial rots (Erwinia spp)	Foliar spray	2 to 2 ½ quarts RELIANT in 30 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

MANGOS

Use RELIANT for effective control of suppression of Anthracnose in mangos.

Disease	Application Method	Rate	Application Program
Anthracnose (Colletotrichum gloeosporoides)	Foliar spray	3 to 4 pints. RELIANT per 100 gallon of water	Spray tree every 14 days during blossom period, then monthly until harvest. Spray to the point of run-off.

NONGRASS ANIMAL FEED

Use RELIANT® for effective control of damping-off and root rot diseases in forage crops such as, but not limited to, alfalfa, clover, and vetch.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	1 ½ TO 2 quarts RELIANT 25 to 100 gallons of water per acre	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

OKRA, COFFEE, PAPAYA and PERSIMMON

Use RELIANT® for effective control of damping-off, root rot, downy mildew, powdery mildew, and other bacterial and leaf diseases, and for suppression of Anthracnose diseases in coffee, okra, papaya, and persimmon.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp	Foliar spray	1 ½ to 2 quarts RELIANT in 25 to 250 gallons of water per acre	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.
Phytophthora and Pythium spp	Foliar spray	1 to 2 quarts RELIANT in 25 to 100 gallons of water per acre	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
Bacterial and leaf diseases such as coffee berry disease, Anthracnose (Collectotrichum spp), and various leaf spots (Septoria and Cercospora spp)	Foliar spray	1 to 2 quarts RELIANT in 25 to 100 gallons of water per acre	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
	Root dip	Mix a 0.25% v/v solution (1/3 fl. oz. RELIANT with 1 gallon of water)	Apply as pre-plant dip to transplants immediately prior to

	Chemigation Overhead	2 to 3 quarts RELIANT in 1000 gallons of water per acre	planting. Dip plants momentarily and plant within. Mix a fresh solution daily.
	Transplant and furrow application	2 to 4 quarts RELIANT in 100 gallons of water per acre	Apply with normal irrigation schedule
		3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
Downy mildew or Downy Mildew	Foliar spray	1 to 3 quarts RELIANT in up to 100 gallons of water per acre	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Pseudomonas garcae	Foliar spray	Mix a 0.50% v/v solution (2 quarts RELIANT per 100 gallons of water)	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
			High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 week intervals. Do not apply more than 6 times per crop cycle.

ONIONS

Use RELIANT® for effective control of downy mildew disease in onions, garlic, shallots, and leeks. Use as a preventative control program for best results.

Disease	Application Method	Rate	Application Program
Downy mildew (Peronospora destructor)	Foliar spray	2 quarts RELIANT in 100 gallons water per acre	As a regular preventative control program or when disease first appears.

ONIONS, TANK MIXTURES

For the effective control of downy mildew diseases, tank-mix RELIANT® with a mancozeb-containing fungicide and apply to onions, garlic and shallots.

Disease	Application Method	Rate	Application Program
RELIANT® + mancozeb-containing fungicide	Downy mildew	2 quarts RELIANT in 100 gallons water per acre + Label rate of Mancozeb	Apply as a foliar spray the indicated quantity and dilution rates with water of both products. For best results, apply RELIANT® as a tank mix with protectant fungicides such as Mancozeb to ensure both pre- and post-infection activity.

PEANUTS

Use RELIANT® for effective control of damping-off and root rot disease in peanuts and for suppression of Anthracnose and white mold complex in peanuts.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	1 ½ to 2 quarts RELIANT in 25 to 250 gallons of water per acre	Apply at 14-day intervals, as necessary. Ensure thorough coverage.
Root rots, pod rots, damping off, wilt (Phytophthora and Pythium spp)	Foliar spray	2 to 2 ½ quarts RELIANT in 100 gallons water per acre	Begin application after plants are established and conditions favor disease development.
Leaf and crown diseases, Anthracnose (Collectothricum)	Transplant and furrow application	3 pints RELIANT at planting or to newly planted seedlings by side/top dressing or shank application	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
White mold	Foliar application	2 to 2 1/2 quarts Reliant	Apply preventatively at disease on set or during times when potential pathogen infection can occur

PINEAPPLES

Use RELIANT® for effective control of Phytophthora root and heart rot diseases in pineapples.

Disease	Application Method	Rate	Application Program
Phytophthora root and heart rot (Phytophthora cinnamomi and parasitica spp.)	Foliar spray	2 to 2 ½ quarts RELIANT in 50-100 gallons of water per acre	Apply to tops, 14 days prior to harvest of planting material.
	Pre-plant dip	1 ¼ quarts RELIANT in 100 gallons water per acre	Will treat enough slips to plant one acre.
	Foliar spray	2 quarts RELIANT in 100 gallons water per acre	Established plantings when conditions favor disease. Apply at 90 day intervals. Ensure thorough coverage of plants.

POTATOES, POST-HARVEST

Use RELIANT® only on russet-skinned potatoes intended for processing for suppression of late blight (Phytophthora infestans), pink rot (Phytophthora erythroseptica), and powdery mildew. Apply 16.5 fl. oz. of RELIANT per ton of tubers in one half gallon of water as a mist spray. For the best control, be sure the tubers are completely and evenly covered.

Disease	Application Method	Rate	Application Program
Potatoes, Post-harvest: late blight (Phytophthora infestans) and pink rot (Phytophthora erythroseptica)	Spray on tubers	16.5 fl. oz. RELIANT in ½ gallon of water/ton of tubers	Apply only to russet-skinned potatoes intended for processing. For best results, be sure tubers are thoroughly and evenly covered.
Late blight (phytophthora infestans) and pink rot (Phytophthora erythroseptica)	Foliar spray	2 to 2 ½ quarts RELIANT in 50 gallons of water per acre	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle. Late blight management using RELIANT requires the high

	Seed piece spray	Mix a 15% v/v solution (0.3 quart RELIANT with 2 quarts of water). Treat 2 tons of tubers per 1 gallon of solution.	application rate and is most effectively applied when tank mixed with other registered fungicides. Treat seed pieces with a full coverage spray.
Powdery mildew	Foliar spray	1 to 3 quarts RELIANT in 50 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 4 times per crop cycle. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat application at 7 to 10 day intervals. Do not apply more than 4 times per crop cycle.

ROOT AND TUBER VEGETABLES

Use RELIANT® for effective control of foliar and root rot but not limited to ginseng, damping-off and root rot diseases in carrots, radishes and late blight disease and storage diseases such as pink rot and pythium leak in potatoes, sweet potatoes, and yams and other similar root and tuber crops

Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot (Phytophthora cactorum)	Foliar spray	2 ¼ quarts RELIANT in 100 gallons of water per acre	In cool wet conditions that favor Phytophthora. Apply at 7 day intervals. Do not exceed a total of 8 applications per season.
Carrots: Phytophthora and Pythium spp.	Foliar spray	1 ½ to 2 quarts RELIANT in 25 gallons to 250 gallons of Water per acre	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.
Potatoes, Sweet Potatoes, Yams: Pink rot and Pythium leak (Phytophthora erythroseptica and Pythium spp.)	In-furrow spray	2-5 quarts RELIANT in 10 gallons water per acre	Apply in a band spray directly over top of potato seed just before row is closed.

Potatoes, Sweet Potatoes, Yams: Late blight, Pink rot and Pythium leak (Phytophthora infestans, Phytophthora erythroseptica and Pythium spp.)	Foliar spray	1 ¼ quarts RELIANT in 90 – 375 gallons water of water per acre	Apply at 5 to 14 day intervals subject to disease incidence.
Downy mildew	Foliar spray	1 to 3 quarts RELIANT in 10-50 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

STONE FRUIT

Use RELIANT® for effective control of root, collar rot and almond pruning wound, and various cherry canker diseases, and suppression of amrillaria in stone fruit such as, but not limited to, apricots, sweet and tart cherries, nectarines, peaches, plums, and fresh prunes.

Disease	Application Method	Rate	Application Program
Root and collar rot (Phytophthora spp.)	Foliar spray	2 ½ quarts RELIANT in 250 gallons water per acre	Three treatments are required 1. Spring 2. Mid summer 3. Fall, post harvest
	Basal bark spray Apply in spring and fall.	62.4 fl. oz. RELIANT + 62.4 fl. oz. of water + 3.2 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Pentra-Bark™ around the complete circumference of the tree trunk 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. Treat in spring and fall for best results.
Almond pruning – wound cankers (Phytophthora syringae)	Foliar spray	1 ¼ – 2 ½ quarts RELIANT in 100 gallons water per acre	Apply to pruning wound and surrounding area, ensure area is thoroughly wet. In high disease situations use higher rate. Or paint wounds with concentrated solution
	Paint wound with solution	50-50 solution of water and Reliant	

Suppression of armillaria root rot (Armillaria luteobublina)	Basal bark spray	1 ¼ to 2 quarts RELIANT+ 2 quarts water + 1% Pentra-Bark Bark Penetrating Surfactant	Spray a combination of RELIANT and Pentra-Bark around the complete circumference of the tree trunk 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 large trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Armillaria root rot, make a fall application prior to leaf senesce and a spring application for best results. For trees less than 18 inches DBH, make an early spring application.
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STRAWBERRIES

Use RELIANT® for effective control of leather rot, red stele and Phytophthora, foliar and bacterial disease in strawberries and suppression of powdery mildew.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp (red steele, leather rot, and root rot)	Pre-planting dip	1 ¼ quarts RELIANT in 100 gallons water	Dip planting material in this solution for 30 minutes, then plant within one day. Use program for annual and perennial varieties.
	Foliar spray	1–3 quarts RELIANT in 50 – 100 gallons water per acre 1 ¼ to 2 ½ quarts RELIANT in 90-200 gallons of water per acre (CA only)	Annual crops, first treatment 14 to 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.
Foliar fungal and bacterial diseases (Rhizopus and Xanthomonas) Red steele (Phytophthora fragariae)	Transplant and furrow application	3 pints RELIANT at planting or to newly planted seedlings by side dressing or shank application	Grey mold and Anthracnose suppression using RELIANT requires use of high application rates and is most effective when tank mixed with other registered fungicides.
Leather rot (Phytophthora cactorum)	Foliar spray	1–3 quarts RELIANT in 50 – 100 gallons water per acre 1 ¼ to 2 1/2 quarts RELIANT per acre in 90-200 gallons of water per acre in (CA only)	Apply at 10% bloom and early fruit set, then at one to two week intervals as required for disease control. In high disease situations use higher rates and shorter spray intervals.

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Phytophthora spp	Dip	Mix a 0.25% v/v solution (1 quart RELIANTY in 100 gallons of water)	Dip runners in the solution for 1 to 2 minutes. Plant within 48 hours. Mix a fresh solution daily.
Suppression of powdery mildew	Foliar spray	2 to 2 ½ quarts RELIANT in 50 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.

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TREE NUTS

Use RELIANT for effective control of root and collar rot, scabs and almond pruning-wound canker disease in tree nuts such as, but not limited to, almonds, beech nuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapin, hickory nuts, macadamia nuts, pecans, pistachios, and walnuts. Prevention and control of 1,000 Canker Disease, *Geosmithia morbida* in Black and English Walnut, when used in a comprehensive spray program with an insecticides that control Walnut Twig Blight *Pityophthorus juglandis*.

Disease	Application Method	Rate	Application Program
Other than macadamia nuts: Root and collar rot (Phytophthora spp.)	Foliar spray	1 ¼ quarts RELIANT in 125 gallons water per acre	Three treatments are required 1. Spring 2. Mid summer 3. Fall, post harvest
Other than macadamia nuts: Almond pruning – wound canker (Phytophthora syringae)	Paint or spray	2 ½ quarts RELIANT in 100 gallons water	Apply to pruning wound and surrounding area, ensure area is thoroughly wet.
Macadamia nuts: Raceme blight (Phytophthora spp.)	Foliar spray	3 ¾ quarts RELIANT in 250 gallons of water per acre	Apply when disease is first seen and reapply at 3 week intervals. Spray to the point of run-off.
Root rot, crown rot, trunk cankers, foliar blights (Phytophthora and Pythium spp) Foliar bacterial and fungal disease, Anthracnose (Collectotrichum), hull rot (Monilla spp), flower diseases (Cladosporium spp), Alternaria leaf spots (Alternaria spp), and raceme blight (Phytophthora) in macadamia	Foliar spray Root Dip	2 to 2 ½ quarts RELIANT in 100 gallons of water per acre Mix 0.5% v/v solution (2 quarts RELIANT in 100 gallons of water)	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 3 month intervals. Do not apply more than 4 times per crop cycle. High Disease Pressure: Apply higher rate at monthly intervals. Do not apply more than 4 times per crop cycle. Dip roots in the solution for 30 seconds. Plant within 48 hours. Mix a fresh solution daily.
Pecan scab	Foliar spray	2 quarts RELIANT in 50 to 100 gallons of water per acre	Apply preventatively with other products shown to be effective against pecan scab.

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Pruning wound, crown and trunk cankers (Phytophthora spp)	Trunk spray	2 quarts RELIANT + 2 quarts of water + 1% Penetra-Bark Bark Penetrating Surfactant	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	Foliar spray	1 to 2 quarts RELIANT in 20 to 100 gallons of water per acre	Lower Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle.
Powdery mildew			High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per crop cycle.
Tree cankers and suppression of Armillaria	Basal bark spray	1 ½ to 2 quarts RELIANT + 2 quarts water + 1% Penetra-Bark Penetrating Surfactant	Spray a combination of RELIANT and Penetra-Bark around the complete circumference of the tree trunk 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 large trees larger 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Armillaria root rot, make a fall application prior to leaf senesce and a spring application for best results. For trees less than 18 inches DBH, make an early spring application at or about at bud swell.
1,000 Cankers of Walnut, Geosmithia morbida on both Black and English Walnut	Foliar spray	2 to 2 ½ qt. RELIANT in 50 gallons of water per acre	Foliar spray every 60 days starting in early spring in combination with an insecticide that controls Walnut Twig Beetle, Pityphthorous juglandis during insect flight times. Maximum 6 times per year
	Basal Bark spray	Spray apply 32 oz RELIANT in 48 oz water with 2oz. Penetra—Bark Surfactant per 18 inches of tree DBH	Spray apply to tree trunk circumference from ground level to first scaffold limb or to 6 feet up tree trunk.

SEED TREATMENT APPLICATIONS

Use RELIANT® for effective control of Phytophthora and Pythium diseases 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 establishment in hopper-box, planter box, or other seed treatment application at or immediately before planting is within the scope of WPS, while commercial treatment of seeds is not within the scope of WPS.

Disease	Application Method	Rate
Phytophthora, Pythium and Fusarium spp.	Can be applied at-planting or in commercial seed treatment operations.	8–24 fl. oz. RELIANT® per 100 lbs. of seed or 4–10 quarts RELIANT® per ton of seed, depending on the size of the seeds to be treated.

GRASS GROWN FOR SEED PRODUCTION

Use RELIANT® for effective control of damping-off and root rot diseases in turf grasses such as, but not limited to, Bermuda, fescue, bent, blue, rye, zoysia, buffalo, and poa annua.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	1 ½ to 2 quarts RELIANT in 25 to 250 gallons of water to 2 quarts per acre	Apply at 14 –21 day intervals, as necessary. Ensure thorough coverage.

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LANDSCAPE, GOLF COURSE, NURSERY, FORESTRY, AND PARK APPLICATIONS

Use RELIANT® for effective control of Phytophthora, Pythium, suppression of Amrillaria and other diseases associated with Stem and Canker Blight, and phloem and xylem inhabiting cankers, such as Botryosphaeria, Nectria, Thyronectria, Cytospora, phomopsis, Hypoxylon, Seiridium canker, Sudden Oak Death, (Phytophthora ramorum), Beech Decline, general tree decline syndromes, for suppression of Anthracnose and Verticillium wilt on various shade trees in landscapes, nurseries, golf courses, forests, and parks. Apply RELIANT® to trees such as, but not limited to, Ash, Aspen, Azalea, Bald Cypress, Beech, Black Gum, Black Locust, Birch, Buckeye, Catalpa, Cedar, Cherry (Stonefruits), Chestnut, Coffee Tree, Crab Apple, Cork Tree, Dogwood-All, Elder, Elm, Fir, Golden Raintree, Hazelnut, Hawthorne, Honey Locust, Juniper, Lilac, Linden, London Plane tree, Magnolia, Maples-All, Mock Orange, Pine, Oaks-All (Coastal, Live, Shreve, Black, Canyon), Olives, Ornamental Pear, Plum, Pyracantha, Red Bud, Smoke Tree, Sumac, Sweet Birch, Sweet Gum, Sycamore, Tulip Tree, Viburnum, Walnut, White Pine, White Cedar, Willow, Witch Hazel, Zelkova and various conifers in the landscape.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label or tree injury may occur. Do not apply to trees that are heat or moisture stressed. Do not apply to trees that are in a state of dormancy. Do not exceed indicated spray intervals or label rates in order to avoid tree injury. When applying to do not overspray and use care to apply only to target plants.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp., and Phytophthora ramorum	Injection	11 fl. oz. RELIANT per 21 fl. oz. of water OR 1/2 TPS. RELIANT per TPS. of water	Drill holes 3/16 inch (5 mm) in diameter <u>into live sapwood</u> (depth dependent upon age of tree) with downward angle into trunk uniformly around the tree circumference, using a slow drill. 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 trees by 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 diameter of canopy measured at the drip-line; 3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level. Make injections with applicators that maintain positive pressure differential such as ChemJet®, Sidewinder®, Agmurf Gun®, Marley® Injector, Smart Shot injector, or hydraulic applicator type equipment that forces solution into the sapwood of the tree.
	Basal bark spray (all other tree species) apply in spring and fall. Best for thin bark trees such as maples, lindens, sycamores, and dogwoods	62.4 fl. oz. RELIANT® + 62.4 fl. oz. of water + 3 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Pentra-Bark™ around the complete circumference of the tree trunk 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. Treat in spring and fall for best results.

Disease	Application Method	Rate	Application Program
Fusarium subglutinans (Pine Pitch Canker)	Basal bark spray (pines) Apply anytime active growth is observed.	1 gallon of RELIANT® + 2 gallons of water + 4 fl. oz. of Pentra-Bark™ BarkPenetrating Surfactant	Apply uniformly to 5 to 6 feet of trunk circumference. Spray from top down to ground level from either first branch or from as high as possible without exposing applicator to drift. Spray to saturation/runoff. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, and backpack sprayers.
Fusarium subglutinans (Pine Pitch Canker) and Gnomonia platani (Sycamore Anthracnose)	Injection	20 ml per tree of a 1 gallon RELIANT® + 2 gallons of water + 4 fl. oz. of Pentra-Bark™ solution	Drill holes 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Agmurf gun, Smart Shot injector or positive pressure hydraulic tree injection. Trees should be at least 10" diameter at breast height.
Apple black spot and scab (Venturia inaequalis) and Anthracnose	Basal bark spray apply early spring at bud swell or silver tip stage of growth	62.4 fl. oz. RELIANT + 62.4 fl. oz. of water + 3 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Pentra-Bark™ around the complete circumference of the tree trunk 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, make a fall (at leaf senescence) and spring (bud swell to green tip) application for large trees.
Various Tree Cankers	Basal Bark spray apply at green tip or spring bud break	48 fl/oz. Reliant with 62.4oz of water and 1 fl/oz of Pentra Bark surfactant	Apply early spring and repeat in fall prior to leaf senescence for severe canker infestations.
Fire blight	Foliar spray	1 ½ to 2 quarts RELIANT in 100 gallons of water	First application pre bloom (bud swell or silver tip stage). Application intervals: 7 days until end of bloom period. Apply spray to thoroughly wet all foliage.
Fire blight	Basal Bark Spray	Use 50/50 mixture Reliant with water and 1% Pentra Bark	Apply at bud swell
Suppression of Anthracnose	Foliar spray	2 quarts RELIANT in 100 gallons water per acre	Apply at pre bloom (bud swell or green tip stage) with a supplemental application 14 days later with RELIANT or other fungicide compound with efficacy on Anthracnose.

Suppression of Anthracnose	Basal bark spray Apply early spring at bud swell until green tip stage of growth	62.4 fl. oz. RELIANT + 62.4 fl. oz. of water + 1.5 to 3.0 fl. oz. Penetra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT and Penetra-Bark around the complete circumference of the tree trunk 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 large trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attached by Anthracnose, make a fall application prior to leaf senescence and a spring application for best results. For trees less than 18 inches DBH, make an early spring application.
Suppression of Verticillium wilt	Foliar spray	2 quarts RELIANT in 100 gallons of water per acre	For trees previously identified with infections, apply first application pre-bloom. Repeat applications between 21 to 30 days.
Suppression of Verticillium wilt Suppression of Armillaria	Basal bark spray	1 ½ to 2 quarts RELIANT + 2 quarts of water + 2 fl. oz. Penetra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT and Penetra-Bark around the complete circumference of the tree trunk 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 large trees larger than 24 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Verticillium wilt, make a fall application prior to leaf senescence and a spring application for best results. For trees less than 24 inches DBH, make an early spring application.
Needle Cast	Foliar spray	2 to 2 ½ qt. RELIANT sprayed to run off	Treat when symptoms first appear. Repeat application 30 days
1,000 of Walnut, <i>Geosmithia morbida</i> English and Black	Foliar spray	2 to 2 ½ qts RELIANT in 50 GPA or a 1% solution sprayed to run-off	Start spray program in spring and treat every 60 days in combination with insecticide program for control of Walnut Twig Beetle, <i>Pityophthorus juglandis</i> during times of insect flight
	Basal Bark spray	Spray apply 32 oz. of RELIANT in 48 oz. water with 2 oz Penetra Bark surfactant per 18 DBH inches of tree diameter	Spray trunk circumference from ground level to 6 feet up tree or to first scaffold limb to saturation runoff. Treat in spring leaf out and fall approaching leaf senescence. Use in combination with an effective insecticide program for Walnut Twig Beetle.

ORNAMENTAL APPLICATIONS

Use RELIANT® for effective control of Bacterial blight, Downy mildew, powdery mildew, Phytophthora spp. and Pythium spp. Diseases and for suppression of Anthracnose and blights on Ornamentals in landscapes, nurseries, golf courses, parks, interiorscapes, and greenhouses. Apply RELIANT® to plants such as, but not limited to, Aglaonema, Anthurium, Aphelandra, Arborvitae, Azaleas, Bougainvillea, Boxwood, Cattelya skinneri, Ceanothus, Cotoneaster, Cissus, Diffenbachia, English ivy, Eucalyptus, Ficus, Hibiscus, Japanese andromeda, Japanese Holly, Leather leaf Fern, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Rhododendron, Roses (container, field, landscape, and mini varieties), Schefflera, Sedum, Sempervivum, Syngonium, Spathiphyllum, Taxus media, and Zygocactus.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label or plant injury may occur. Do not apply to plants that are heat or moisture stressed. Do not apply to plants that are in a state of dormancy. Do not exceed indicated spray intervals or label rates in order to avoid plant injury.

Disease	Application Method	Rate	Application Program
Bacterial blight (<i>Xanthomonas campestris</i>) pathovars: <i>dieffenbachiae</i> , <i>fici hederiae</i> , and <i>syngonii</i>	Foliar spray	2 – 4 pints RELIANT per 100 gallons of water OR 2 – 4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 7 to 14 days. Repeat as required.
Downy mildew	Foliar spray	1 1/2 – 2 1/2 RELIANT quarts in 100 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per crop cycle. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals.
Phytophthora spp., Phytophthora ramorum, and Pythium spp.	Foliar spray	1 – 2 quart RELIANT per 100 gallons of water OR 2 – 4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Soil drench	6 1/4 – 12 3/4 fl. oz. RELIANT per 100 gallons of water	Apply each 25 gallons of solution to an area of 100 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.
	Soil incorporation	1 – 2 pints RELIANT per cubic yard of soil	Just prior to potting, mix 1 to 2 pts. of RELIANT® into each cubic yard of growing media. If disease pressure is high, apply foliar spray or soil drench.
	Bare rooted dipping of transplants	2 pints RELIANT per 100 gallons of water OR 2 tsp. RELIANT per gallon	Immediately before transplanting, dip transplants for two minutes, keep roots submerged, ensure root mass is thoroughly wet.

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Powdery mildew	Foliar spray	1 ½ to 2 ½ quarts RELIANT in 50 gallons of water per acre	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1-2 week intervals. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle. Application amount depends upon plant type, maturity, and application technique/method.
Suppression of Anthracnose	Foliar spray	2 to 2 ½ quarts RELIANT in 50 gallons of water per acre	Apply prior to onset of disease. Apply spray to saturation or runoff.
black spot roses		2 qtr. per 100 gallons or 0.5% solution concentration	apply when disease present spray to run off

NURSERY AND BEDDING PLANTS

Use RELIANT® for effective control of Downy mildew, Phytophthora spp. and Pythium spp. diseases of BEDDING PLANTS grown in landscapes, nurseries and golf courses, parks, interiorscapes, and greenhouses. Apply RELIANT® to plants such as, but not limited to, Ageratum, Aglaonema, Algerian Ivy, Anthurium, Aphelandra, Arborvitae, Artemesia, Aster, Azaleas, Baby's Breath, Begonia, Bougainvillea, Boxwood, Caladium, Carnation, Cattelya Skinneri, Ceanothos, 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, Pittosporum, Poinsettia, Pothos, Primrose, Prostrate Rosemary, Rosemary, Rhododendron, Salvia, Schefflera, Sedum, Sempervivum, Snapdragon, Spathiphyllum, Taxus Media, Verbena, Vinca, White Cedar, White Pine, Zinnia and Zygocactus. RELIANT may also be used for Vegetable Transplants grown in Greenhouse, Lath house, or Shade house sites.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed. When applying to indoor plants do not overspray and use care to apply only to target plants. If meeting these conditions is not possible, remove plants to an outdoor location for treatment and drying before bringing back indoors.

Disease	Application Method	Rate	Application Program
Downy Mildew	Foliar Spray	1 1/4 – 2 1/2 quarts RELIANT per 100 gallons of water OR 1/2–1 1/8 fl. oz. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
Phytophthora spp. and Pythium spp.	Foliar spray	1–2 quarts RELIANT per 100 gallons of water OR 2–4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required. NOTE: Do not apply more than 500 gallons of spray solution per acre.
	Soil drench	6 1/4 – 12 3/4 fl. oz. RELIANT per 100 gallons of water	Apply each 25 gallons of solution to an area of 100 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.
Phytophthora spp.*	Foliar spray	2 quarts RELIANT per acre	Apply spray in 20 –60 gallons per acre.
	Hand gun	2 quarts RELIANT per 100 gallons of water	Apply spray to thoroughly wet all foliage.

*Lavender applications.

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**CONIFERS IN COMMERCIAL NURSERIES, PLANTATIONS AND FORESTS
(INCLUDING CHRISTMAS TREES)**

Apply RELIANT® in conjunction with good cultural management practices for effective control of root rot (Phytophthora spp) in CONIFERS including, but not limited to, Pines, Spruce and Douglas Fir. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to CONIFERS that are moisture or heat stressed.

Disease	Application Method	Rate	Application Program
Phytophthora	Foliar spray	1–2 quarts RELIANT per 100 gallons of water OR 2–4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Soil drench	1–2 quarts RELIANT per 100 gallons of water OR 2–4 tsp. RELIANT per gallon of water	Apply one gallon of solution per sq yd. Follow application with irrigation. Application intervals: 14 to 21 days. Repeat as required.
	Bare root dipping at transplanting	1 quart RELIANT per 100 gallons of water OR 2 tsp. RELIANT per gallon of water	Immediately before transplanting, dip transplants for two minutes; keep roots submerged and ensure root mass is thoroughly wet.
Fusarium subglutinans (Pine Pitch Canker)	Basal bark spray Apply any time active growth is observed.	1 gallon RELIANT® + 2 gallons of water + 4 fl. oz. of Penetra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Penetra-Bark™ around the complete circumference of the tree trunk until saturation/runoff. Spray from ground level up to 5 feet above the soil line.
	Injection	20 ml per tree of a 1 gallon RELIANT® + 2 gallons of water + 4 fl. oz. of Penetra-Bark™ solution	Drill holes 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Ag-muri gun, or hydraulic tree injection. Trees should be at least 10" diameter at breast height.

Do not graze livestock in treated areas of conifer nurseries or plantations. Do not feed forage from treated areas of plantations and/or nurseries.

TURF

Use RELIANT® for the effective control of Rhizoctonia, Pythium and damping-off diseases, and for suppression of Anthracnose of turf grasses on golf courses, parks, commercial landscapes, commercial turf production, and sod farms. When conditions favor disease, begin preventive applications and repeat at indicated intervals. Use higher rate of application when disease pressure is severe.

Disease	Application Method	Rate	Application Program
Pythium	Foliar spray	5 to 10 fl. oz. RELIANT per 1000 sq. ft.	Apply indicated quantity of product in 1 to 2 gallons of water per 1000 sq. ft. Ensure foliage is thoroughly wet. Application intervals: 14 –21 days. Repeat as required. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Anthracnose	Foliar spray	5 to 10 fl. oz. RELIANT per 1000 sq. ft.	Apply indicated quantity of product in 2.5 gallons of water per 1000 sq. ft. Ensure foliage is thoroughly wet. Apply every 14 to 21 days in a fungicide rotational program. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Pink Snow mold	Foliar spray	5 to 10 fl. oz. RELIANT in 2 gallons of water per 1000 sq. ft.	Apply when temperatures and conditions favor disease development and outbreak, or apply in fall prior to onset of winter with other snow mold controlling fungicides.
Suppression of Rhizoctonia	Foliar spray	5 to 10 fl. oz RELIANT in 2 gallons of water per 1000 sq. ft.	Apply prior to onset of disease. Apply every 7 to 14 days.

TURF TANK MIXTURES

For the effective control of summer stress complex caused by a complex of Rhizoctonia and Pythium diseases, tank-mix RELIANT® with Fore® WP [or Protect T/O or mancozeb-containing] fungicide and apply to turf grasses on golf courses, parks, commercial landscapes, commercial turf production, and sod farms.

Product	Disease	Rate per 1000 sq. ft.	Application Program
RELIANT® + FORE® WP** [or Protect T/O or mancozeb-containing fungicide]	Summer Stress Complex (Rhizoctonia and Pythium spp.)	5 to 10 fl. oz. RELIANT® + 4 to 8 fl. oz. FORE® WP** [or Protect T/O or mancozeb-containing fungicide]	Apply indicated quantity of product in 1 to 5 gal. of water per 1000 sq. ft. as a foliar spray. Start as a preventive spray at two-week intervals and repeat as required. Do not irrigate or mow treated areas until spray has completely dried.
	Pink Snow mold	5 to 10 oz per 1,000 sq.ft	Apply prior to disease development or when conditions favor disease outbreak

**Registered trademark of Rohm & Haas.

Do not graze animals on treated areas of turf. Do not feed treated turf clippings to poultry or livestock.

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. Do not store 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 DISPOSAL:

Nonrefillable container. Do not use or refill this container.

Containers with a capacity of equal to or less than 5 gallons: Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Containers with a capacity of greater than 5 gallons: Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, insuring 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.

WARRANTY AND DISCLAIMER

To the extent permitted by applicable law, all conditions and warranties and statutory or other rights of action which buyer or any other user may have against Quest Products LLC. are hereby excluded. To the extent permitted by applicable law, Quest Products LLC. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by Quest Products LLC. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. To the extent permitted by applicable law, Quest Products LLC's liability shall in all circumstances be limited to replacement of product or a refund of the purchase price thereof.

Residential Uses

Reliant®

Systemic Fungicide

SYSTEMIC FUNGICIDE FOR THE EFFECTIVE CONTROL OF VARIOUS PLANT DISEASES INCLUDING BLACK SPOT OR SCAB IN APPLE, ROOT ROT IN AVOCADO, BUD ROT AND NUT FALL IN COCONUT, ROOT ROT IN CITRUS AND CUCURBITS, DOWNY MILDEW IN CUCURBITS, GRAPE, LETTUCE, AND ONION, ANTHRACNOSE IN MANGO, ROOT AND HEART ROT IN PINEAPPLE, LATE BLIGHT IN POTATO, ROOT AND COLLAR ROT IN STONEFRUIT, LEATHER ROT AND PHYTOPHTHORA DISEASES IN STRAWBERRY, LATE BLIGHT IN TOMATO, DOWNY MILDEW, PHYTOPHTHORA & PYTHIUM IN ORNAMENTALS, INTERIORSCAPES & BEDDING PLANTS, PHYTOPHTHORA AND FUSARIUM IN CONIFERS, PYTHIUM IN TURF, AND PHYTOPHTHORA AND PYTHIUM DISEASES ASSOCIATED WITH STEM AND CANKER BLIGHT (SUDDEN OAK DEATH) AND GENERAL BEECH DECLINE.

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

CONSULT PAGE 2 OF THIS BOOKLET FOR FIRST AID & PRECAUTIONARY STATEMENTS

Batch No.:

EPA Reg. No. 83416-1

EPA Est. No. 89083-FL-001

EPA Est. No. 71975-WA-001

EPA Est. No. 83416-KS-001

Date of

Manufacture:

NET CONTENTS:

- 1 Quart 30 Gallons
- 1 Gallon 55 Gallons
- 2.5 Gallons 250 Gallons



Quest Products L.L.C.
11712 230th St. * Linwood KS 66052
Phone: 785-542-2577
Fax: 785-542-2531
www.QuestProducts.us

Specimen Label

Residential Use

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • 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 poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 – 20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> • 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. Hotline Number: National Poison Control, 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. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

Applicators must wear:

- Protective Eye wear
- Long pants, and long sleeved shirt
- Waterproof gloves
- Shoes and socks

ENVIRONMENTAL HAZARDS

For Terrestrial Use: To protect the environment do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Apply this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

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. For use only in home gardens, on home lawns, and on home ornamentals and related home plants.

When using RELIANT® with Pentra-Bark™ adhere to all applicable label directions. Only use Pentra-Bark™ with basal bark or tree injection applications.

GENERAL APPLICATION INSTRUCTIONS

Apply 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 plant type and growth stage. To ensure good coverage, spray to wetness, but avoid run-off. Harvest when dry.

When applying RELIANT® to plant species for the first time, spray a limited number of plants first and wait for 3-7 days. Then check for leaf burn (phytotoxicity).

MIXING INSTRUCTIONS

1. Fill the spray tank with 1/4 – 1/2 of the volume of water required before adding RELIANT®
2. Add RELIANT® slowly to the tank and agitate
3. Fill tank with balance of water to the desired volume
4. Agitate during application

Conversion Table

1/8 fl. oz.	=	3/4 teaspoon (tsp.)		
1/4 fl. oz.	=	1 1/2 tsp.		
1/3 fl. oz.	=	2 tsp.		
1/2 fl. oz.	=	3 tsp.		
2/3 fl. oz.	=	4 tsp.		
3/4 fl. oz.	=	4 1/2 tsp.		
1 fl. oz.	=	2 tablespoons (Tbs.)	=	6 tsp.

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CITRUS, FRUIT, NUT AND VEGETABLE APPLICATIONS

APPLES, CRAB APPLES, LOQUATS, PEARS & QUINCE

Use RELIANT® for effective control of black spot, root and collar rot and fire blight in apples, crab apples, loquats, pears, and quinces.

Disease	Application Method	Rate	Application Program
Apple black spot and scab (Venturia inaequalis)	Foliar spray	3-4 tsp. RELIANT per gallon of water	Apply at ¼ - ½ inch green tip through first cover at 7 to 10 day intervals or according to forecasted infection events. Continue with RELIANT® and Captan in the remaining applications. First application at open cluster. Last application at fifth cover or fruit at 2" to 2 1/2" diameter. Total of 10 applications at 10 to 12 day intervals. When conditions are conducive to a black spot outbreak, apply RELIANT® immediately. NOTE: After 4 or 5 consecutive applications some yellowing of extension growth may be observed. If yellowing occurs use another fungicide until yellowing of leaves disappears.
	Basal bark spray apply early spring at bud swell or at silver tip stage of growth	16 fl. oz. RELIANT + 16 fl. oz. of water + 1 fl. oz. Penetra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Penetra-Bark™ around the complete circumference of the tree trunk 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.
Root and collar rot (Phytophthora cactorum) Fire Blight (Erwinia amylovora)	Foliar spray	2 1/2-5 tsp. RELIANT per gallon of water	Thorough spray coverage of plant is required. Start applications when conditions favor disease development. One apply at one to two 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 higher application rate and shorter spray interval. Ensure thorough coverage.
	Basal bark spray apply spring and fall for best results	16 fl. oz. + 16 fl. oz. of water + 1 fl. oz. Penetra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Penetra-Bark™ around the complete circumference of the tree trunk 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

Use RELIANT® for effective control of crown rot & asparagus spear slime disease in asparagus crops.

Disease	Application Method	Rate	Application Program
Crown rot & Asparagus spear slime (Phytophthora spp.)	Foliar	1/3 fl. oz. RELIANT per gallon of water	Apply to ferns that have 2 to 3 inches of new growth. Do not apply to ferns that are starting to die down (senesce). Established plantings, start applications when conditions are favorable to disease (cool wet conditions). Ensure thorough coverage.

AVOCADOS

Use RELIANT® for effective control of root rot, trunk cankers and downy mildew disease in Avocado.

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora cinnamomi)	Tree injection	Skeletal trees 1st year: 1/4 fl. oz. RELIANT undiluted per yard of canopy diameter. Other situations: 1/8 fl. oz. RELIANT diluted 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 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Ag-murf gun, Smart Shot injector, or hydraulic tree injection. 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 material, other than water, to RELIANT® by trunk injection. Do not inject more liquid in a lesser number of syringes than directed.
	Foliar spray	1/3 fl. oz. RELIANT per gallon of water	Spray to runoff at 2-2 1/2 gallons of spray solution per adult tree. Start applications in spring, up to 4 applications a year at two-month intervals. Ensure thorough coverage.
Canker (Phytophthora citricola)	Trunk spray	8 to 16 fl. oz. RELIANT with one gallon of water + 1.2 fl. oz. of Penetra-Bark™ Bark Penetrating Surfactant	Apply to trunk lesions using sufficient spray volume to completely wet the trunk and lesions. If lesions absent, apply to trunk from soil level to two feet up trunk. If lesions present use higher rate.
Downy mildew	Foliar spray	3/4 teaspoon per gallon of water	Spray to runoff, as required for disease control.

Specimen Label

BERRIES

Use RELIANT® for effective control of root rot, general leaf and berry diseases such as those caused by Septoria spp., and downy mildew, and for suppression of Anthracnose spp. in bush and cane berries such as, but not limited to, bingleberries, blackberries, black satin berries, blueberries, boysenberries, Cherokee blackberries, Chesterberries, Cheyenne blackberries, coryberries, cranberries, darrowberries, dewberries, Dirksen thornless berries, elderberries, Himalayaberries, huckleberries, hullberries, Lavacaberries, loganberries, lowberries, lucretiaberreries, mammoth blackberries, marionberries, mulberries, nectarberries, olallieberries, Oregon evergreen berries, raspberries (red, black, hybrids/cultivars), and youngberries.

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora spp.)	Foliar spray	2–6 tsp. RELIANT per gallon of water. Ensure foliage is completely wet.	New plantings: start application when new growth is 2 to 3 inches long. Established plantings start applications when cool wet conditions occur which favor disease. West of Rocky Mountains: Autumn applications, apply when conditions favor disease, repeat in 4 weeks. Spring applications, first application after bud break and repeat in 4 weeks. East of Rocky Mountains: First application spring post bud break (2 to 3 inches new growth) and repeat at 50 to 60 day intervals. Do not exceed 4 applications per growing season. For blueberries – First application in spring at pink bud and then on a regular schedule of application at two to three intervals.
General leaf and berry diseases such as those caused by Septoria spp and Anthracnose spp	Root dip	Mix a 2.50% v/v solution (3 fl. oz. RELIANT/1 gallon of water)	Apply as pre-plant dip to the roots for 2-3 minutes. Plant within 48 hours after dipping. Mix a fresh solution daily.
Downy mildew	Foliar spray	2 to 4 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 3 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 intervals. Do not apply more than 6 times per growing season. RELIANT® is best when used in combination with conventional registered fungicides to increase the performance of the disease control program.

BRASSICAS

Use RELIANT® for effective control of downy mildew, damping-off, root rot, bacterial, and fungal diseases in brassicas such as, but not limited to, broccoli, Brussels sprouts, cabbage, cauliflower, cavalo broccolo, collards, Chinese cabbage, Chinese mustard cabbage, kale, kohlrabi, mizuna, mustard greens, mustard spinach and rape greens.

Disease	Application Method	Rate	Application Program
Root rot and damping off (Phytophthora spp and Pythium spp)	Foliar spray	1 to 2 fl. oz. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development.
	Pre-plant seedling Treatment	2 tsp. RELIANT in 1 gallon of water to plants in seedling trays 1 to 7 days prior to out planting	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season.
	Transplant and furrow application	3 pints RELIANT at planting or to newly planted seedlings by side dressing	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Downy mildew (Peronospora parasitica)	Foliar spray	2 tsp. to 2 fl. oz. RELIANT per gallon of water California: 1/3 to ½ fl. oz. per gallon of water	1 to 3 week intervals between applications when conditions favor disease development (cool, moist weather). Use higher rates and shorter intervals when disease pressure increases.
Diseases caused by Septoria, Collectotrichum, Alternaria, and powdery mildew	Foliar spray	1 to 2 fl. oz. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.

CITRUS - Mature trees

Use RELIANT® for effective control of root rot and collar rot diseases in citrus.

Disease	Application Method	Rate	Application Program
Brown rot and foot rot (Phytophthora spp.)	Foliar spray	1 teaspoon RELIANT per gallon of water	When conditions favor disease. Spray trees to run off ensure even coverage. 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 spp. nicotianae and Phytophthora citrophthora)	Trunk spray	8 fl. oz. to 16 fl. oz. RELIANT per gallon of water with ¼ to ½ fl. oz. Penra- Bark™ Bark Penetrating Surfactant	Spray trunk lesions with enough spray volume to ensure lesions are completely wet. When disease levels are high use higher rate.
Pre-harvest blue and green mold and brown rot (Phytophthora citricola)	Foliar spray	4 tsp. RELIANT per gallon of water	Apply 2-4 weeks prior to harvest. Ensure fruit is thoroughly covered by the spray application.

COCONUTS

Use RELIANT® for effective control of bud rot and nut fall in coconuts.

Disease	Application Method	Rate	Application Program
Bud rot – Nut fall (Phytophthora palmivora)	Injection	1/3 to 1 fl. oz. RELIANT per tree	Dilute RELIANT® with water to give final injection volume of 1 fl. oz. to 2 fl. oz. of water and RELIANT®. Inject into the trunk or root system.

CUCURBITS

Use RELIANT® for effective control of sudden wilt, gummy stem blight, downy mildew, powdery mildew, Alternaria leaf blight, and bottom soft root complex, and for suppression of Anthracnose in cucurbits such as, but not limited to, cucumber, Chinese waxgourd, citron melon, gherkin rock melon, honeydew melon, pumpkin, zucchini, watermelon and squash (summer and winter), momordica spp. balsam apple, balsam pear, bitter melon, and Chinese cucumber.

Disease	Application Method	Rate	Application Program
Sudden wilt – Root and fruit rot (Phytophthora spp.)	Foliar spray	2–6 tsp. RELIANT per gallon of water	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season.
Gummy stem blight (Mycosphaerella melonis)		Apply 1 fl. oz. RELIANT per gallon of water (CA only)	Apply when disease is evident. Continue applications at 21 day intervals until cure is apparent. Do not exceed a total of 6 applications per season.
Downy mildew (Pseudoperonospora cubensis)			Apply within 7 to 10 days of infection. Repeat as necessary. Do not exceed a total of 6 applications per growing season.
Powdery mildew and other leaf diseases such as Anthracnose and Alternaria leaf blight	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Bottom soft rot complex	Foliar spray	4-5 tsp. RELIANT per gallon of water	Apply after fruit set and during bulking 3 times during the growing season.

FRUITING VEGETABLES

Use RELIANT® for effective control of damping-off, root rot, and gummy stem blight diseases, bacterial diseases, downy mildew, powdery mildew, and Alternaria leaf blight, and for suppression of Anthracnose in eggplant, tomatoes, tomatillos, and peppers such as, but not limited to, bell, chili, cooking, pimento, and sweet.

Disease	Application Method	Rate	Application Program
Eggplant: Pythium and Phytophthora spp., and Gummy stem blight (Mycosphaerella melonis)	Foliar spray	Apply 1 fl. oz. RELIANT per gallon of water.	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season. Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent. Do not exceed a total of 6 applications per growing season.
Peppers: Late blight and root rot (Phytophthora infestans and Phytophthora spp.)		2 tsp. to 2 fl. oz. RELIANT per gallon of water	First application at transplant or when direct seeded crops are at 2–4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.

Tomatoes/Tomillos: Late blight and root rot (Phytophthora infestans and Phytophthora spp.)		2 tsp. to 2 fl. oz. RELIANT per gallon of water California: 3 tsp. per gallon of water	First application at transplant or when direct seeded crops are at 2–4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
Root rot and damping off (Phytophthora spp and Pythium spp)	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Bacterial Diseases	Pre-plant seedling treatment	1 tsp. RELIANT in 1 gallon of water to plants in seedling trays 1 to 7 days prior to out planting.	For control of bacterial leaf spot of tomatoes, apply the high rate of RELIANT with registered bacteriacides.
	Transplant and furrow application	2 to 6 tsp RELIANT at planting or to newly planted seedlings by side dressing.	
Downy mildew	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Powdery mildew	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Black spot roses		2 to 6 tsp. per gallon or 0.5% solution concentration	apply when disease present spray to run off

GRAPES

Use RELIANT® for effective control of root rot, downy mildew, and powdery mildew diseases in grapes.

Disease	Application Method	Rate	Application Program
Downy mildew (Plasmopara viticola)	Foliar spray	½ fl. oz. RELIANT per gallon of water	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 infection and the appearance of oil spots. Ensure spray coverage is adequate and that the appropriate rate of RELIANT® is applied to match vine growth, particularly from mid- season onwards, and especially where grapes are grown on root stock.
Phytophthora and Pythium root rots	Foliar spray	½ fl. oz. RELIANT per gallon of water	Apply to vines that have stressed root system that can lead to root rots. Mitigating factors such as nematode pressure, water logging, and compaction contribute to vine declines. Table Grapes: Begin application in the Spring at the 4 to 6 inch shoot stage. Continue applications at 1 to 2 week intervals until flowering. Resume applications in the Fall after harvest. Do not apply more than 4 times per growing season. Wine and Raisin Grapes: Begin applications in the Spring at the 4 to 6 inch shoot stage. Continue applications at 1 to 2 week intervals through flowering. Do not apply more than 4 times per growing season.
Downy mildew	Foliar spray	1/2 to 1 fl. oz. RELIANT per gallon of water RELIANT is most effectively applied to control downy mildew when mixed with other registered fungicides.	Apply at bud break with additional applications at 7 to 10 day intervals in a rotational program with other registered fungicides. Use higher rate and volume based on disease severity and density of canopy. Do not apply more than 6 times per growing season.
Powdery mildew	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.

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Specimen Label

HERBS AND SPICES

Use RELIANT for effective control of downy mildew, phytophthora spp and pythium spp diseases of Herbs and Spices grown in fields, nurseries, and greenhouses. Apply RELIANT to plants such as, but not limited to, anise, balm, basil, chamomile, caraway, catnip, celery, chives, coriander, cumin, curry leaf, dill, fennel, marjoram, mint, nasturtium, rosemary, sage, savory, sweet bay, tarragon, thyme, and wintergreen.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	½ to 1 1/8 fl. oz. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required. Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
Phytophthora spp And Pythium spp	Foliar	2-4 tsp. RELIANT per gallon of water	Apply each gallons of solution to an area of 4 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.
	Soil Drench	1/8 tsp. RELIANT per gallon of water	

HOPS

Use RELIANT® for effective control of downy mildew in hops.

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray by ground equipment only.	2-6 tsp. RELIANT per gallon of water	When conditions favor disease, apply when A. Shoots are ½ to 1 foot long. B. Post-training when vines are 6 feet high. C. 21 days post-application (B) D. During bloom

LEAFY VEGETABLES

Use RELIANT® for effective control of root rot, damping-off, downy mildew, powdery mildew, and other fungal leaf diseases, and for suppression of Anthracnose in leafy vegetables such as, but not limited to, amaranth, arugula, cardoon, celery, chervil, chrysanthemum, corn salad, cress, dandelion, dock, endive, fennel, lettuce, orach, parsley, purslane, radicchio, radish, rhubarb, spinach, and Swiss chard. Excludes Brassica vegetables.

Disease	Application Method	Rate	Application Program
Downy mildew (Bremia lactucae)	Foliar spray	1 2/3 fl. oz. RELIANT per gallon of water	Ensure spray coverage is adequate to wet the whole plant. During warm, wet conditions repeat application at 7 to 10 day intervals, if needed.
Root rots and damping off (Phytophthora and Pythium spp)	Foliar spray	1 to 1 ½ fl. oz. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
	Pre-plant application	2 tsp. RELIANT in 1 gallon of water to plants in seedling trays 1 to 7 days prior to out planting	
Powdery mildew and leaf diseases such as Anthracnose (Collectotrichum spp), leaf blights (Septoria and Cercospora spp), and bacterial rots (Erwinia spp)	Foliar spray	1 ½ to 2 fl. oz. RELIANT per gallon of water	

LEGUMES

Use RELIANT® for effective control of damping-off, root rot, Fusarium, Rhizoctonia, downy mildew, powdery mildew, and other fungal diseases, and for suppression of Anthracnose in legumes (succulent and dried) such as, but not limited to, green beans, soybeans, wax beans, field beans, navy beans, lima beans, fava beans, kidney beans, pinto beans, mung beans, broad beans, lentils, chickpeas, English peas, snow peas, sugar snap peas, black-eyed peas, cow peas, and pigeon peas.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	2 tsp. to 2 fl. oz. RELIANT per gallon of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.
Phytophthora and Pythium spp	Foliar spray	2 tsp to 6 tsp quarts RELIANT per gallon of water per acre.	Apply at crop emergence or during periods of crop stress caused by Summer Stress Syndrome or wet conditions that favor disease development.
Fusarium and Rhizoctonia	Pre-plant application	2 tsp. RELIANT in 1 gallon of water to plants in seedling trays 1 to 7 days prior to out planting	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season.
	Transplant and furrow application	3 tsp RELIANT at planting or to newly planted seedlings by side dressing	High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Downy mildew	Foliar spray	1 to 2 fl. oz. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of the disease. Repeat applications at 1-2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at the first onset of disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per growing season.
Powdery mildew and leaf diseases such as Anthracnose (Collectotrichum spp), leaf blights (Septoria and Cercospora spp), and bacterial rots (Erwinia spp)	Foliar spray	2 tsp to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset of disease. Repeat applications at 1-2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at first onset of disease. Repeat application at 7-10 day intervals. Do not apply more than 6 times per growing season.

MANGOS

Use RELIANT® for effective control of anthracnose in mangos.

Disease	Application Method	Rate	Application Program
Anthracnose (Colletotrichum gloeosporoides)	Foliar spray	2 tsp. RELIANT per gallon of water	Spray tree every 14 days during blossom period, then monthly until harvest. Spray to the point of run-off.

MICELLANEOUS CROPS

Use RELIANT® for effective control of damping-off, root rot, downy mildew, powdery mildew, and other bacterial diseases in coffee, okra, papaya, and persimmon.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp	Foliar spray	2 to 4 tsp. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development.
Bacterial and leaf diseases such as coffee berry disease (Collectotrichum spp), Anthracnose (Collectotrichum spp), and various leaf spots (Septoria and Cercospora spp)	Root Dip	Mix a 0.25% v/v solution (1/3 fl. oz. RELIANT with 1 gallon of water)	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season. Apply as pre-plant dip to transplants immediately prior to planting. Dip plants momentarily and plant within 48 hours. Mix a fresh solution daily.
Downy mildew	Foliar spray	2 to 6 tsp. RELIANT gallon of water	Low Disease Pressure: Apply lower rate at the first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at the first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.

Powdery mildew	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at the first onset of disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at the first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Pseudomonas garcae	Foliar spray Ground	Mix a 0.50% v/v solution (4 tsp. RELIANT per gallon of water)	Apply prior to onset of disease. Apply spray to saturation or runoff.

NONGRASS ANIMAL FEED

Use RELIANT® for effective control of damping-off and root rot diseases in forage crops such as, but not limited to, alfalfa, clover, and vetch.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	2 tsp. to 2fl. oz. RELIANT per gallon of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

OKRA

Use RELIANT® for effective control of damping-off and root rot diseases in okra.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	2 tsp. to 2fl. oz. RELIANT per gallon of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

ONIONS

Use RELIANT® for effective control of downy mildew disease in onions, garlic, shallots, and leeks. Use as a preventative control program for best results.

Disease	Application Method	Rate	Application Program
Downy mildew (Peronospora destructor)	Foliar spray	4 tsp. RELIANT per gallon of water	As a regular preventative control program or when disease first appears.

PEANUTS

Use RELIANT® for effective control of damping-off and root rot disease and for suppression of Anthracnose in peanuts.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp.	Foliar spray	2 tsp. to 2fl. oz. RELIANT per gallon of water	Apply at 14-day intervals, as necessary. Ensure thorough coverage.

Root rots, pod rots, damping off, wilt (Phytophthora and Pythium spp)	Foliar spray	4 to 5 tsp. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development.
Leaf and crown diseases, Anthracnose (Collectothricum)	Transplant and furrow application	3 tsp to 6 tsp RELIANT at planting or to newly planted seedlings by side dressing	Low Disease Pressure: Apply lower rate at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at 7 to 10 day intervals. Do not apply more than 6 times per growing season.

PINEAPPLES

Use RELIANT® for effective control of Phytophthora root and heart rot diseases in pineapples.

Disease	Application Method	Rate	Application Program
Phytophthora root and heart rot (Phytophthora cinnamomi and parasitica spp.)	Foliar spray	1 2/3 fl. oz. to 3 1/3 fl. oz. RELIANT oz. per gallon of water	Apply to tops, 14 days prior to harvest of planting material. Established plantings when conditions favor disease. Apply at 90 day intervals. Ensure thorough coverage of plants.
	Pre-plant dip	2 tsp. RELIANT per gallon of water	
	Foliar spray	2/3 fl. oz. RELIANT per gallon of water	

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ROOT AND TUBER VEGETABLES

Use RELIANT® for effective control of foliar and root rot in ginseng, damping-off and root rot diseases in carrots, and late blight disease and storage diseases such as pink rot and pythium leak, and downy mildew in potatoes, sweet potatoes, and yams.

Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot (Phytophthora cactorum)	Foliar spray	4 ½ tsp. RELIANT per gallon of water	In cool wet conditions that favor Phytophthora. Apply at 7 day intervals. Do not exceed a total of 8 applications per season.
Carrots: Phytophthora and Pythium spp.	Foliar spray	2tsp. to 2 fl. oz. RELIANT per gallon of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.
Potatoes, Sweet Potatoes, Yams: Pink rot and Pythium leak (Phytophthora erythroseptica and Pythium spp.)	In-furrow spray	2 tsp to 6 tsp RELIANT per gallon of water	Apply in a band spray directly over top of potato seed just before row is closed.
Potatoes, Sweet Potatoes, Yams: Late blight, Pink rot and Pythium leak (Phytophthora infestans, Phytophthora erythroseptica and Pythium spp.)	Foliar spray	2/3 tsp to 3tsp. RELIANT per gallon of water	Apply at 5 to 14 day intervals subject to disease incidence.
Downy mildew	Foliar spray	1 to 2 fl. oz. RELIANT per gallon of water	Low Disease Pressure: Apply the lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply the higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.

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STONE FRUIT

Use RELIANT® for effective control of root, collar rot and almond pruning wound, and various canker disease in stone fruit such as, but not limited to, apricots, sweet and tart cherries, cherries, nectarines, peaches, plums, and fresh prunes.

Disease	Application Method	Rate	Application Program
Root and collar rot (Phytophthora spp.)	Foliar spray	1/3 fl. oz. RELIANT per gallon of water	Three treatments are required 1. Spring 2. Mid summer 3. Fall, post harvest Spray a combination of RELIANT® and Pentra-Bark™ around the complete circumference of the tree trunk 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.)
	Basal bark spray apply spring and fall for best results	16 fl. oz. RELIANT + 16 fl. oz. of water + 1 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	
Almond pruning – wound cankers (Phytophthora syringae)	Paint or spray	1/3 to 3/4 fl. oz. RELIANT per gallon of water	Apply to pruning wound and surrounding area, ensure area is thoroughly wet. In high disease situations use higher rate.
Suppression of armillaria root rot (Armillaria luteobubulina)	Basal bark spray	1.5 qt to 2 quarts RELIANT + 2 quarts water + 1% Pentra-Bark™ Bark Penetrating Surfactant	Spray a combination of RELIANT® and Pentra-Bark around the complete circumference of the tree trunk 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 large trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Armillaria root rot, make a fall application prior to leaf senescence and a spring application for best results. For trees less than 18 inches DBH, make an early spring application.

Specimen Label

STRAWBERRIES

Use RELIANT® for effective control of leather rot, red stele and Phytophthora, foliar and bacterial disease in strawberries and suppression of powdery mildew.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp (red stele, leather Rot, and root rot)	Pre-planting dip	1/3 fl. oz. RELIANT per gallon of water	Dip planting material in this solution for 30 minutes, then plant within one day. Use program for annual and perennial varieties.
Suppression of Rhizoctonia	Foliar spray	2 to 6 tsp. RELIANT per gallon of water	Annual crops, first treatment 14 to 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.
	Transplant and furrow application	3 tsp RELIANT at planting or to newly planted seedlings by side dressing	For leather rot, apply at 10% bloom and early fruit set, then 1 to 2 week intervals as required for disease control. In high disease situations, use higher rate and shorter spray intervals. Grey mold and Anthracnose suppression using RELIANT® requires use of high application rates and is most effective when tank mixed with other registered fungicides.
Phytophthora spp	Dip	Mix a 0.25% v/v solution (1/3 fl. oz. RELIANT with 1 gallon of water	Dip runners in the solution for 1 to 2 minutes. Plant within 48 hours. Mix a fresh solution daily.
Suppression of Powdery mildew	Foliar spray	1 to 1 ½ fl. oz. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at the first onset of the disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season. High Disease Pressure: Apply higher rate at the first onset of the disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Red stele (Phytophthora fragariae)	Pre-planting dip	1/3 fl. oz. RELIANT per gallon of water	Dip planting material in this solution for 30 minutes, then plant within one day. Use program for annual and perennial varieties.

	Foliar spray	2 tsp to 6 tsp. RELIANT per gallon of water 2 to 3 tsp. RELIANT per gallon of water (CA only)	Annual crops, first treatment 14 to 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.
Leather rot (Phytophthora cactorum)	Foliar spray	2 to 6 tsp. RELIANT per gallon of water 2 to 3 tsp. RELIANT per gallon of water (CA only)	Apply at 10% bloom and early fruit set, then at one to two week intervals as required for disease control. In high disease situations use higher rates and shorter spray intervals.

TREE NUTS

Use RELIANT® for effective control of root and collar rot, and almond pruning-wound canker disease in tree nuts such as, but not limited to, almonds, beech nuts, Brazil nuts, butternuts, cashews, chestnuts, chinquapin, 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	2tsp. RELIANT per gallon of water	Three treatments are required 1. Spring 2. Mid summer 3. Fall, post harvest
Other than macadamia nuts: Almond pruning – wound canker (Phytophthora syringae)	Paint or spray	4 1/2 tsp. RELIANT per gallon of water	Apply to pruning wound and surrounding area, ensure area is thoroughly wet.
Macadamia nuts: Raceme blight (Phytophthora spp.)	Foliar spray	3tsp. RELIANT per gallon of water	Apply when disease is first seen and reapply at 3 week intervals. Spray to the point of run-off.
Root rot, crown rot, trunk cankers, foliar blights (Phytophthora and Pythium spp)	Foliar spray	4 to 5 tsp. RELIANT per gallon of water	Begin application after plants are established and conditions favor disease development. Low Disease Pressure: Apply lower rate at 3 month intervals. Do not apply more than 4 times per growing season. High Disease Pressure: Apply higher rate at monthly intervals. Do not apply more than 4 times per growing season.

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Specimen Label

Foliar bacterial and fungal disease, Anthracnose (Collectotrichum), hull rot (Monilla spp), flower diseases (Cladosporium spp), Alternaria leaf spots (Alternaria spp), and raceme blight (Phytophthora) in Macadamia	Root dip	Mix a 0.5% v/v solution (4 tsp. RELIANT in 1 gallon of water)	Dip roots in the solution for 30 seconds. Plant within 48 hours. Mix a fresh solution daily.
Pecan scab	Foliar spray	1 ½ fl. oz. RELIANT per gallon of water	Apply preventatively at 21 to 30 day intervals.
Pruning wound, crown and trunk cankers (Phytophthora spp)	Trunk spray	1 ½ quarts RELIANT + 2 quarts of water + 1% Pentra-Bark Bark Penetrating Surfactant	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 (Phytophthora and Peronospora spp)	Foliar spray	2 to 4 tsp. RELIANT per gallon of water	Low Disease Pressure: Apply lower rate at first onset disease. Repeat applications at 1 to 2 week intervals. Do not apply more than 6 times per growing season.
Powdery mildew			High Disease Pressure: Apply higher rate at first onset of disease. Repeat applications at 7 to 10 day intervals. Do not apply more than 6 times per growing season.
Tree cankers	Basal bark spray	1 ½ to 2 quarts RELIANT + 2 quarts of water + 1% Pentra-Bark Bark Penetrating Surfactant	Spray a combination of RELIANT and Pentra-Bark around the complete circumference of the tree trunk 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 large trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Armillaria root rot, make a fall application prior to leaf senescence and a spring application for best results. For trees less than 18 inches DBH, make an early spring application.
1000 Cankers of Walnut, <i>Geosmithia morbida</i> on both Black and English Walnut	Foliar spray	2 to 4 tsp per gallon of water spray until run off	Spray every 60 days from spring through fall. Use in combination with an insecticide that controls Walnut Twig Beetle, <i>Pityophthorus juglandis</i> maximum treatment 6 times per year
	Basal Bark Spray	Spray apply a solution of 32 oz. RELIANT and 48oz water with 2oz Pentra-Bark to 18 DBH inches of tree trunk	Spray apply to circumference of tree trunk until saturation runoff from ground level to 6 feet up or to first scaffold limb. Apply spring and fall. (DBH is measured diameter 4 ft above ground level)

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LANDSCAPE APPLICATIONS

Use RELIANT® for effective control of Phytophthora and Pythium spp. and other diseases associated with Sudden Oak Death, Beech Decline, and general tree decline syndromes, and for suppression of Anthracnose and Verticillium wilt. Apply RELIANT™ to trees such as, but not limited to, Ash, Azalea, Beech, Black Locust, Buckeye, Catalpa, Cedar, Cherry-Stonefruits, Chestnut, Coffee Tree, Crab Apple, Cork Tree, Dogwood-All, Elm, Fir, Hawthorne, Honey Locust, Juniper, Lila c, Linden, Magnolia, Maples-All, Pine, Oaks-All (Coastal, Live, Shreve, Black, Canyon), Olives, Ornamental Pear, Plum, Pyracantha, Redbud, Smoke Tree, Sumac, Sweet Birch, Sweet Gum, Sycamore, Viburnum, White Pine, White Cedar, and Willow.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label or tree injury may occur. Do not apply to trees that are heat or moisture stressed. Do not apply to trees that are in a state of dormancy. Do not exceed indicated spray intervals or label rates in order to avoid tree injury.

Disease	Application Method	Rate	Application Program
Phytophthora and Pythium spp., and Phytophthora ramorum	Injection	11 fl. oz. RELIANT per 21 fl. oz. of water OR 1/2 tsp. RELIANT per tsp. of water	Drill holes 3/16 inch (5 mm) in diameter <u>into live sapwood</u> (depth dependent upon age of tree) with downward angle into trunk uniformly around the tree circumference, using a slow drill. 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 trees by 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 diameter of canopy measured at the drip-line; 3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level. Make injections with applicators that maintain positive pressure differential such as ChemJet , Sidewinder , Ag-murph Gun , Marley Injector, Smart Shot Injector, or hydraulic applicator type equipment that forces solution into the sapwood of the tree.
	Basal bark spray (all other tree species) apply spring and fall for best results or anytime active growth occurs. Best for thin bark trees such as maples, lindens, sycamores, and dogwoods.	16 fl. oz. RELIANT + 16 fl. oz. of water + 1.6 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	Apply uniformly to 6-9 feet of trunk circumference. Spray from top down to ground level from either first branch or from as high as possible without exposing applicator to drift. Spray to saturation/runoff. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, and backpack sprayers.
Fusarium subglutinans (Pine Pitch Canker)	Basal bark spray (Pine)	16 fl. oz. RELIANT + 32 fl. oz. water + 0.5 fl. oz. of Pentra-Bark Bark Penetrating Surfactant	Spray a combination of RELIANT® and Pentra-Bark™ around the complete circumference of the tree trunk 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.)

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Specimen Label

Fusarium subglutinans (Pine Pitch Canker) and Gnomonia platani (Sycamore Anthracnose)	Injection	20 ml per tree of a 16 fl. oz. RELIANT® + 32 fl. oz. of water + 0.5 fl. oz. of Penetra-Bark™ Bark Penetrating Surfactant solution.	Drill holes 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Ag-murf gun, Smart Shot injector, or hydraulic tree injection. Trees should be at least 10" diameter at breast height.
Apple black spot and scab (Venturia inaequalis), and suppression of Anthracnose	Basal bark spray apply in early spring at bud swell or silver tip stage of growth	16 fl. oz. RELIANT + 16 fl. oz. of water + 1 fl. oz. Penetra-Bark Bark Penetrating Surfactant	Apply uniformly to 6-9 feet of trunk circumference. Spray from top down to ground level from either the first branch or from as high as possible without exposing applicator to drift. Spray to saturation/runoff. Can be used as a preventative or curative application for trees listed. 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.
Flire Blight	Foliar Spray	Use 2-3tsp per gallon of water.	For severe infestation of anthracnose, make a fall (at leaf senesce) and spring (bud swell to green tip) application for large trees.
Suppression of Anthracnose	Foliar spray	3-4 tsp. RELIANT per gallon of water	Apply at pre bloom (bud swell or green tip stage) with a supplemental application 14 days later with RELIANT or other fungicide compound with efficacy on Anthracnose.
Suppression of Anthracnose	Basal bark spray apply early spring at bud swell until green tip stage of growth	16 fl. oz. RELIANT + 16 fl. oz. of water + 1 fl. oz. Penetra-Bark Bark Penetrating Surfactant	Spray a combination of RELIANT and Penetra-Bark around the complete circumference of the tree trunk 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 large trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Anthracnose, make a fall application prior to leaf senesce and a spring application for best results. For trees less than 18 inches DBH, make an early spring application.

Disease	Application Method	Rate	Application Program
Suppression of Verticillium wilt	Foliar Spray	3-4 tsp. RELIANT per gallon of water	For trees previously identified with infections apply first application pre-bloom. Repeat applications between 21 to 30 days.
Suppression of Verticillium Wilt	Basal Bark spray	1 ½ to 2 quarts RELIANT + 2 quarts water + 2 fl. oz. Penetra-Bark Bark Penetrating Surfactant	Spray a combination of RELIANT and Penetra-Bark around the complete circumference of the tree trunk 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 large trees larger than 24 inches DBH (Diameter at Breast Height, 4.5 feet above ground) that have been previously attacked by Verticillium wilt, make a fall application prior to leaf senesce and a spring application for best results. For trees less than 24 inches DBH, make an early spring application.

Specimen Label

ORNAMENTAL APPLICATIONS

Use RELIANT® for effective control of Bacterial blight, Downy mildew, powdery mildew, Phytophthora spp. (root rot) and Pythium spp. (damping-off) diseases, and Sudden Oak Death, and for suppression of Anthracnose of Ornamentals in landscapes and interiorscapes. Apply RELIANT® to plants such as, but not limited to, Aglaonema, Aphelandra, Arborvitae, Azaleas, Bougainvillea, Boxwood, Cattelya skinneri, Ceanothus, Cotoneaster, Cissus, Diffenbachia, English ivy, Eucalyptus, Ficus, Hibiscus, Japanese andromeda, Japanese Holly, Leather leaf Fern, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Rhododendron, Roses (container, landscape, mini varieties), Schefflera, Sedum, Sempervivum, Syngonium, Spathiphyllum, Taxus media, and Zygocactus.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed. Do not apply to plants that are in a state of dormancy. When applying to indoor plants do not overspray and use care to apply only to target plants. If meeting these conditions is not possible, remove plants to an outdoor location for treatment and drying before bringing back indoors.

Disease	Application Method	Rate	Application Program
Bacterial blight (Xanthomonas campestris) pothovars: dieffenbachiae, fici hederiae and syngonii	Foliar spray	2-4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 7 to 14 days Repeat as required.
Black spot (Diplocarpon spp)	Foliar spray	2-4 tsp. RELIANT per gallon of water	Apply uniformly to foliage preventatively or at first sign of disease.
Downy mildew	Foliar spray	2-4 tsp. RELIANT per gallon of water	Apply uniformly to foliage at disease onset and repeat applications every 14 days. Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
Phytophthora spp. (root rot), Phytophthora ramorum, and Pythium spp. (damping-off)	Foliar spray	2-4 tsp. RELIANT per gallon of water	Apply uniformly to foliage to point of runoff. Apply spray to thoroughly wet all foliage. Application intervals: 14-21 days. Repeat as required.
	Soil drench	Mix a 0.5% to 1.0% v/v solution (1/2 to 6 1/2 fl. oz. RELIANT in 1 to 5 gallons of water) 1/8 tsp. per gallon of water	Apply uniformly to soil at base of plant and surrounding soil. Apply each 25 gallons of solution to an area of 100 sq feet. Follow application with irrigation. Repeat as required. Limit of one application per month.
	Soil incorporation	1-2 pints RELIANT per cubic yard of soil	Just prior to potting mix 1 to 2 pts of RELIANT® into each cubic yard of growing media. If disease pressure is high, make application by foliar spray or soil drench.
	Bare rooted dipping of transplants	2 tsp. RELIANT per gallon of water	Immediately before transplanting, dip transplants for two minutes, keep roots submerged, ensure root mass is thoroughly wet.
Powdery mildew	Foliar spray	2 to 4 tsp. RELIANT per gallon of water	Apply uniformly to foliage at disease onset and repeat applications every 14 days.
Suppression of Anthracnose	Foliar spray	1 1/2 fl. oz. RELIANT per gallon of water	Apply prior to onset of disease. Apply spray to saturation or runoff.

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RESIDENTIAL NURSERY, GREENHOUSE, AND BEDDING PLANTS

Use RELIANT® for effective control of Downy mildew, Phytophthora spp. (root rot) and Pythium spp. (damping off) diseases of BEDDING PLANTS outdoors and in interiorscapes. Apply RELIANT® to plants such as, but not limited to, Ageratum, Aglaonema, Algerian Ivy, Anthurium, Aphelandra, Arborvite, Artemesia, Aster, Azaleas, Begonia, Baby's Breath, Bougainvillea, Boxwood, Caladium, Carnation, Cattelya Skinneri, Ceanothus, Cissus, Chrysanthemum, Columbine, Coleus, Cotoneaster, Daisy, Delphinium, Dieffenbachia, Dogwood, Easter Lily, English Ivy, Ficus, Foxglove, Gaillardia, Geranium, Gloxinia, Hibiscus, Impatiens, Japanese Holly, Juniper, Lavender, Leather Leaf Fern, Marigold, Moterey Pink, Pieris, Peperomia, Petunia, Philodendron, Pansy, Phlox, Pinks, Pittosporum, Poinsettia, Pothos, Primrose, Prostrate Rosemary, Rosemary, Salvia, Schefflera, Sedium, Sempervivum, Snapdragon, Spathiphyllum, Taxus Media, Verbena, Vinca, Verbena, White Cedar, White Pine, Zinnia, and Zygocactus. RELIANT may also be used for Vegetable Transplants grown in Greenhouse, Lathouse, or Shade house sites.

Make applications to outdoor or indoor plants before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed. When applying to indoor plants do not overspray and use care to apply only to target plants. If meeting these conditions is not possible, remove plants to an outdoor location for treatment and drying before bringing back indoors.

Disease	Application Method	Rate	Application Program
Downy Mildew	Foliar Spray	1/2 to 1 1/8 fl. oz. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
Phytophthora spp. (Root rot) and Pythium spp. (damping off)	Foliar Spray	2 to 4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required. Note: Do not apply more than 500 gallons of spray solution per acre.
	Soil drench	1/8 tsp. RELIANT per gallon of water	Apply each gallon of solution to an area of 4 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.
Phytophthora spp.* (root rot)	Foliar spray	1/2 tsp. RELIANT per acre 100 sq. ft.	Apply spray in 20-60 gallons. 1 pint of water per acre 100 sq. ft.
Phytophthora spp.* (root rot)	Hand gun	2 quarts RELIANT per 100 gallons of water	Apply spray to thoroughly wet all foliage.

* Lavender applications.

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Specimen Label

CONIFERS

Apply RELIANT® in conjunction with good cultural management practices for effective control of root rot (Phytophthora spp.) in CONIFERS including, but not limited to, Pines, Spruce and Douglas Fir. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to CONIFERS that are moisture or heat stressed.

Disease	Application Method	Rate	Application Program
Phytophthora spp.	Foliar spray	2 to 4 tsp. RELIANT per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Soil drench	2 to 4 tsp. RELIANT per gallon of water	Apply one gallon of solution per sq yd. Follow application with irrigation. Application intervals: 14 to 21 days. Repeat as required.
	Bare root dipping at transplanting	2 tsp. RELIANT per gallon of water	Immediately before transplanting, dip transplants for two minutes; keep roots submerged and ensure root mass is thoroughly wet.
Fusarium subglutinans (Pine Pitch Canker)	Basal bark spray apply any time active growth occurs	16 fl. oz. RELIANT® + 32 fl.oz. of water + 0.5 fl. oz. of Penra-Bark™ Bark Penetrating Surfactant	Apply uniformly to 6-9 feet of trunk circumference. Spray from top down to ground level from either first branch or from as high as possible without exposing applicator to drift. Spray to saturation/runoff. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, and backpack sprayers.
Fusarium subglutinans (Pine Pitch Canker)	Injection	20 ml per tree of a 16 fl. oz. RELIANT® + 32 fl.oz. of water + .05 fl. oz. of Penra-Bark™ Bark Penetrating Surfactant solution.	Drill holes 3/16 inch (5 mm) in diameter and 1 inch (25 mm) to 2 inches (50 mm) deep with slight downward angle in trunk. Place syringes in the main trunk of the tree and space evenly around the circumference of the trunk. Suitable for use with Chemjet tree injectors, Ag-murf gun, or hydraulic tree injection. Trees should be at least 10" diameter at breast height.

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TURF AND/OR HOME LAWNS

Use RELIANT® for the effective control of Rhizoctonia, Pythium and damping-off diseases, and for suppression of Anthracnose of turf or lawn grasses. When conditions favor disease, begin preventive applications and repeat at indicated intervals. Use higher rate of application when disease pressure is severe.

Disease	Application Method	Rate	Application Program
Pythium	Foliar spray	5 to 10 fl. oz. RELIANT per 1000 sq. ft.	Apply indicated quantity of product in 1 to 5 gal. of water per 1000 sq. ft. Ensure foliage is thoroughly wet. Application intervals: 14 – 21 days. Repeat as required. Do not irrigate or mow treated areas until spray has completely dried.
Suppression of Anthracnose	Foliar spray	5 to 10 fl. oz. RELIANT per 1000 sq. ft.	Apply indicated quantity of RELIANT® in 5 gallons of water per 1000 sq. ft. Ensure foliage is thoroughly wet. Apply prior to onset of disease. Apply every 7 to 14 days in a fungicide rotational program. Do not irrigate or mow treated areas until spray has completely dried.
Rhizoctonia	Foliar spray	5 to 10 fl. oz. RELIANT per 1000 sq. ft.	Apply prior to onset of disease. Apply every 7 to 14 days.

Do not graze animals on treated areas of turf lawn. Do not feed treated turf lawn clippings to poultry or livestock.

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. Do not store 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.

CONTAINER DISPOSAL:

Non Refillable container. Do use or refill this container. Offer for recycling if available. If partly filled: Call your local solid waste agency or 1-800-CLEANUP (1-800-253-2687) for disposal instructions. Never place unused product down any indoor or outdoor drain.

WARRANTY AND DISCLAIMER

To the extent permitted by applicable law, all conditions and warranties and statutory or other rights of action which buyer or any other user may have against Quest Products LLC. are hereby excluded. To the extent permitted by applicable law, Quest Products LLC. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by Quest Products LLC. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. To the extent permitted by applicable law, Quest Products LLC's liability shall in all circumstances be limited to replacement of product or a refund of the purchase price thereof.

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Specimen Label