Agricultural Use

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 & pyhium 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-potas	ssium saits of Phosphore	ous Acia^	
Other Ingredients			54.29
*Contains 5.17 lbs/gallo	n of the active ingredients m	ono- and di-potassium salts of Phosp	phorous Acid.
Equivalent to 3.35 lbs P	hosphorous Acid/gallon		
	Keen Out	of Reach of Child	lren
	Noop out	ALITION	
	C	AUTION	
See Booklet for	_	ecautionary Statements and	complete Directions for Use
Batch No.:		,	☐ EPA Reg. No. 83416-1
Daton No			☐ EPA Est. 89083-FL-1
Date of Manufa	oturo:	-	☐ EPA Est. 73771-WA-1
Date of Maridia	cluie.	-	☐ EPA Est. 83416-KS-1
		-	
	7	See batch nur	mber for establishment cod
Made in the	USA		Quest Products LLC
Net Contents:			11712 230th St.
□ 1 Pint		uest	Linwood, KS 66052
□ 1 Quart	☐ 30 Gallons	Wale St	Phone: 785-542-2577
☐ 1 Gallon		Products LLC	Fax: 785-542-2531
	☐ 55 Gallons	Finding New Ways to Improve the	
☐ 2.5 Gallons	☐ 250 Gallons	Treatment of Trees and Plants.	www.questproducts.us

Agricultural Use

	First Aid
If Swallowed:	Immediately call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on Skin or Clothing:	Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For non-emergency information on product usage call 785-542-2577, Monday through Friday, 9 am to 5 pm (Central time). For medical emergencies call the National Poison Control Center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

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

Personal Protective Equipment (PPE)

Applicators, mixers, loaders and other handlers must wear:

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

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

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

User Safety Recommendations

Users should:

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

Environmental Hazards

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

DIRECTIONS FOR USE

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

Read entire label before using this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the state or tribal agency responsible for pesticide registration.

Agricultural Use Requirements

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

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

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

Non-Agricultural Use Requirements

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

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

Chemigation

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

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

Sprinkler and Drip (Trickle) Irrigation Systems:

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

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

Application Instructions

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

Mixing Instructions

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

Compatibility

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

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

Recirculating Hydroponic Systems Applications

Disease	Rate	Application Program
(Pythium and	1-2 L of Reliant in 20,000 L of nutrient solution	Apply every 4-6 weeks in the summer and every 8 weeks in the fall. Modify the application time interval depending on crop load, water quality and disease pressure.

Agricultural Applications Apples, Crab Apples, Loquats, Pears and Quince

Disease	Application Method	Rate	Application Program
Apple black spot and scab (Venturia inaequalis)	Foliar spray	3-4 pts. of Reliant in 100 gals. of water per acre 1/2 gal. of Reliant in 25-250 gals. of water per acre OR Reliant at 0.5% solution v/v concentration Example: Spray volume of 50 gals. per acre, use 2-2 1/2 pts. Reliant	Apply in combination with a mancozeb-containing product at 3 lbs./acre. Apply at 1/4-1/2 inch green tip through first cover at 7-10 day intervals or according to forecasted infection events. Continue with Reliant and mancozeb in the remaining applications. First application at open cluster. Last application at fifth cover or fruit at 2-2 1/2 inch diameter. Apply a total of 10 applications at 10-12 day intervals. Immediately apply Reliant when conditions are conducive to a black spot outbreak. Note: After 4 or 5 consecutive applications some yellowing of extension growth/leaves may be observed. If yellowing occurs use another fungicide until yellowing disappears.

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

Disease	Application Method	Rate	Application Program
Apple black spot and scab (Venturia inaequalis)	Basal bark spray	62.4 fl. oz. of Reliant + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in early spring at bud swell or silver tip stage of growth. Spray mixture on the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control.
Root rot and collar rot (<i>Phytophthora</i> <i>cactorum</i>) and Fire blight (<i>Erwinia</i> <i>amylovora</i>)	Foliar spray	1 1/4-2 1/2 qts. of Reliant in a maximum of 250 gals. of water per acre	Thorough spray coverage of plant is required. Start applications when conditions favor disease development. Apply at 1-2 month intervals between treatments. Use the low rate on the shorter interval and the high rate on the longer interval. Under high disease pressure use the higher application rate and shorter spray interval.
	Basal bark spray	62.4 fl. oz. of Reliant + 62.4 fl. oz. of water + 3 fl. oz. of Pentra-Bark	Apply in spring and fall for best results. Spray the mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. Treatment generally lasts 8-12 weeks depending on pathogen levels. Higher disease pressure will shorten the length of control.

Asparagus

Disease	Application Method	Rate	Application Program
Crown rot and Asparagus spear slime (<i>Phytophthora</i> spp.)			Apply to ferns that have 2-3 inches of new growth. Do not apply to ferns that are starting to die down (senesce). For established plantings, start applications when conditions are favorable to disease (cool, wet conditions). Ensure thorough coverage.

Avocados

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora cinnamomi)	Tree injection (Not for tree injection in New York State)	Skeletal trees 1st year: 1/4 fl. oz. of Reliant per yard of canopy diameter Other situations: 3/4 tsp. of Reliant with 1/2 fl. oz. of water per yard of canopy diameter	Inject trees at spring flush maturity. Repeat treatment in February or March. Drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with a slight downward angle. Space injector holes evenly around the trunk circumference. Suitable for use with Chemjet® tree injectors, Ag-murf® gun, Smart Shot® injector or hydraulic tree injection systems. Do not prune back trees before injection process as burning of new growth may occur. Do not inject trees in winter months. Do not cut back the canopy of injected trees. Do not add any materials, other than water and Pentra-Bark, to Reliant by trunk injection. Do not inject more liquid in a lesser number of syringes than directed.
	Foliar spray	2 qts. of Reliant in 100 gallons of water per acre	Spray to the point of runoff at 2-2 1/2 gals. of spray solution per adult tree. Start applications in spring and apply up to 4 applications a year at 2 month intervals. Ensure thorough coverage.
Canker (Phytophthora citricola)	Trunk spray	1 1/4-2 1/2 qts. of Reliant + 5 gals. of water + 6 fl. oz. of Pentra-Bark	Apply mixture to trunk lesions using sufficient spray volume to completely wet the trunk and lesions. If lesions are absent, apply to trunk from soil level up to 2 ft. up trunk. If lesions present use the higher rate.
Downy mildew	Foliar spray	3 3/4 pts. of Reliant in 100-500 gals. of water	Spray to runoff, as required for disease control.

Berries

Use on bush and cane berries such as, but not limited to, bingleberries, blackberries, black satin berries, blueberries, bysenberries, Cherokee blackberries, chesterberries, Cheyenne blackberries, coryberries, cranberries, darrowberries, dewberries, Dirksen thornless berries, elderberries, Himalayaberries, huckleberries, lavacaberries, loganberries, lowberries, lucretiaberries, mammoth blackberries, marinoberries, matheries, nectarberries, olallieberries, Oregon evergreen berries, raspberries (black, hybrids/cultivars, red) and youndperries.

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora spp.)	Foliar spray	1-3 qts. of Reliant per 100 gals. of water per acre	Completely wet foliage. New plantings: Start application when new growth is 2-3 inches long. Established plantings: Start applications when conditions (cool, wet) favor disease. West of Rocky Mountains: Autumn applications: Apply when conditions favor disease, repeat in 4 weeks. Spring applications: First application after bud break; then repeat in 4 weeks. East of Rocky Mountains: First application at spring post bud break (2-3 inches new growth) and repeat at 50-60 day intervals. Do not exceed 4 applications per crop cycle. For blueberries: First application in spring at pink bud and then on a regular application schedule at 2-3 week intervals.
General leaf and berry diseases such as those caused	Root dip	1 qt. of Reliant per 10 gals. of water (2.5% v/v solution)	Apply a pre-plant dip to roots for 2-3 minutes. Plant within 48 hours after dipping. Mix a fresh solution daily.
by Septoria spp. and suppression of Anthracnose spp., Fusicoccum canker	Chemigation overhead	1-2 qts. of Reliant in 1000 gals. of water per acre	Apply with normal irrigation schedule. Do not apply more than 4 times per crop cycle.
and Phomopsis canker	Low volume spray	2-3 qts. of Reliant in 100 gals. of water per acre	
Downy mildew	Foliar spray	1 1/2-2 qts. of Reliant in 20-100 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-3 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals. Reliant is best when used in combination with conventional registered fungicides to increase the disease control program performance.

Brassicas

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

Disease	Application Method	Rate	Application Program
Damping-off and Root rot (<i>Phytoph-thora</i> and <i>Pythium</i> spp.)	Foliar spray	1-2 qts. of Reliant in 30-100 gals. of water per acre	Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Pre-plant seedling nursery	1 qt. of Reliant in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to planting.
	Transplant and furrow	3 pts. of Reliant	Apply at planting or to newly planted seedlings by side dressing or shank application.
Bacterial diseases	Chemigation overhead	1-2 qts. of Reliant in 1000 gals. of water per acre	Apply with normal irrigation schedule. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week
	Low volume spray	2-3 qts. of Reliant in 20-100 gals. of water per acre	intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Downy mildew (Peronospora parasitica)	Foliar spray	1 1/4-2 1/2 qts. of Reliant in 25-250 gals. of water per acre	Apply at the first onset of disease, when conditions favor disease development (cool, moist weather). Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Diseases caused by Septoria, Colletotrichum and Alternaria spp.; and Powdery mildew		1-2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Cereal Grains

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

Disease	Application Method	Rate	Application Program
Damping-off and root diseases (<i>Phytophthora</i> and <i>Pythium</i> spp.)			Assure good coverage. Corn: Apply at 14-day intervals from 4-leaf stage, as needed. Other Grains: Apply at 14-21 day intervals, as needed.

Citrus-Mature Trees

Disease	Application Method	Rate	Application Program
Brown rot and root rot (<i>Phytophthora</i> spp.)	Foliar spray	2 1/2 qts. of Reliant in a maximum of 250 gals. of water per acre	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 (<i>Phytophthora</i> and <i>Nicotianae</i> spp.; and <i>Phytophthora</i> citrophthora)	Trunk spray	1 1/4-2 1/2 qts. of Reliant + a minimum of 5 gals. of water + 1 to 3 fl. oz. of Pentra-Bark	Spray trunk lesions with enough spray volume to ensure lesions are completely wet. Use higher rate when disease levels are high.
	Soil spray	2 1/2-4 qts. of Reliant in a minimum 20 gals. of water per acre	

Coconuts

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

Coffee, Okra, Papaya and Persimmon

Disease	Application Method	Rate	Application Program
Damping-off and root rot (Phytophthora and Pythium spp.)	Foliar spray	1 1/2-2 qts. of Reliant in 25-250 gals. of water per acre	Apply, as needed, at 14 day intervals after plant emergence. Assure good coverage.
Bacterial and leaf diseases such as coffee berry disease and various leaf		1-2 qts. of Reliant in 25-100 gals. of water per acre	Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week
spots (Septoria and Cercospora spp.); and suppression of	Foliar spray	1-2 qts. of Reliant in 25-100 gals. of water per acre	intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Anthracnose (Collectotrichum spp.)	Root dip	1/3 fl. oz. of Reliant with 1 gal. of water (0.25% v/v solution)	Apply as a pre-plant dip to transplants immediately prior to planting. Dip plants momentarily and plant within 48 hours. Mix a fresh solution daily.
	Chemigation overhead	2-3 qts. of Reliant in 1000 gals. of water per acre	Apply with routine irrigation schedule. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week
		2-4 qts. of Reliant in 100 gals. of water per acre	intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Transplant and furrow	3 pts. of Reliant	Apply at planting or to newly planted seedlings by side dressing or shank application.
Downy mildew and Powdery mildew	Foliar spray	1-3 qts. of Reliant in up to 100 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 week intervals
Pseudomonas garcae		2 qts. of Reliant with 100 gallons of water (0.1% v/v solution)	Apply to the point of saturation/runoff prior to the onset of disease.

Cotton

Disease	Application Method	Rate	Application Program
Damping-off Folia and root rot (Phytophthora	Foliar spray	1-2 qts. of Reliant in 30-50 gals. of water per acre	Apply at crop emergence every 21 days or during wet conditions that favor pathogen development.
and Pythium spp.)	Side dress or in furrow	1-1 1/2 qts. of Reliant per acre	Apply at planting either in furrow or side dress. May be applied with liquid row starter fertilizers after compatibility check.

Cucurbits

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

Disease	Application Method	Rate	Application Program
Sudden wilt, Root rot and fruit rot (Phytophthora spp.)	Foliar spray	1-3 qts. of Reliant per 100 gals. of water per acre	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per crop cycle.
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 crop cycle.
Downy mildew (Pseudoperonospora cubensis)			Apply within 7-10 days of infection. Repeat as necessary. Do not exceed a total of 6 applications per crop cycle.
Powdery mildew and other leaf diseases such as Alternaria leaf blight; and suppression of Anthracnose		2-2 1/2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Bottom soft rot complex		2-2 1/2 qts. of Reliant in up to 100 gals. of water per acre	Apply after fruit set and during bulking up to 3 times during the growing crop cycle.

Cucurbits-Tank Mixtures

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

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

Disease	Application Method	Rate	Application Program
Eggplant: Pythium and Phytophthora spp.; and Gummy stem blight (Mycosphaerella melonis)	Foliar spray	1 1/4 qts. of Reliant in 40 gals. of water per acre	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per crop cycle. Apply when disease is evident. Continue applications at 21 day intervals until cure is apparent.
Peppers: Late blight (Phytophthora infes- tans) and root rot Phytophthora spp.)		1 1/2-2 qts. of Reliant in 25-100 gals. of water per acre	First application at transplant or when direct seeded crops are at 2-4 true leaf, then at 1-2 week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
Tomatillos/ Tomatoes: Late blight (<i>Phytophthora</i> <i>infestans</i>) and root rot <i>Phytophthora</i> spp.)			
Damping-off and Root rot (<i>Phytophthora</i> and <i>Pythium</i> spp.)		1-2 qts. of Reliant in 30 gals. of water per acre	Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Fruiting Vegetables (cont.)

Disease	Application Method	Rate	Application Program
Bacterial diseases	Pre-plant seedling nursery	1 qt. of Reliant in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to out planting.
	Transplant and furrow	3 pts. of Reliant	Apply at planting or to newly planted seedlings by side dressing or shank application.
	Chemigation overhead	1-2 qts. of Reliant in 1000 gals. of water per acre	For control of bacterial leaf spot of tomatoes, apply the higher rate of Reliant with registered bacteriacides.
Downy mildew	Foliar spray	1-2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week
Powdery mildew and other leaf diseases such as Alternaria leaf blight; and suppression of Anthracnose		1-2 qts. of Reliant in 30 gals. of water per acre	intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Garlic, Leeks, Onions and Shallots

Disease	Application Method	Rate	Application Program
Downy mildew (Peronospora	Foliar spray	2 qts. of Reliant in 100 gals. of water	For best results, use as a regular preventative control program or when disease first appears.
destructor)		per acre	tioi program or when disease ilist appears.

Garlic, Onions and Shallots-Tank Mixtures

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

Grapes

Disease	Application Method	Rate	Application Program
Downy mildew (Plasmopara viticola) and Black rot Root rots (Phytophthora and Pythium spp.); and suppression of Armillaria	Foliar spray	Early season/small canopy: 1 1/4 qts. of Reliant in up to 100 gals. of water per acre Late season/large canopy: 2-2 1/2 qts. of Reliant in up to 100 gals. of water per acre	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 rotational fungicides such as captan, copper, mancozeb, etc. that also control black rot in combination with Reliant .
		1 1/2-2 qts. of Reliant in 50-100 gals. 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. Do not apply more than 4 times per crop cycle. Table Grapes: Begin application in the spring at the 4-6 inch shoot stage. Continue applications at 1-2 week intervals until flowering. Resume applications in the fall after harvest. Wine and Raisin Grapes: Begin applications in the spring at the 4-6 inch shoot stage. Continue applications at 1-2 week intervals through flowering.
Downy mildew		1 1/2-2 qts. of Reliant in 50 gals. of water per acre	Apply at bud break with additional applications at 7-10 day intervals in a rotational program with other registered fungicides. Use higher rate and volume based on disease severity and canopy density. Do not apply more than 6 times per crop cycle. Reliant is most effective against downy mildew when tank mixed with other registered fungicides
Powdery mildew		2-2 1/2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Grapes-Tank Mixtures

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

Herbs and Spices

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

Disease	Application Method	Rate	Application Program
Downy mildew	Foliar spray	1 1/4-2 1/2 qts. of Reliant per 100 gals. of water per acre OR 1/2-1 1/8 fl. oz. of Reliant per gal. of water	Thoroughly wet all foliage. Repeat as required at 14-21 day intervals.
Phytophthora and Pythium spp. Diseases		1-2 qts. of Reliant per 100 gals. of water per acre OR 2-4 tsp. of Reliant per gal. of water	Thoroughly wet all foliage. Repeat as required at 14-21 day intervals. Note: Do not apply more than 500 gals. of spray solution per acre.
	Soil drench	6 1/4-12 3/4 fl. oz. of Reliant per 100 gals. of water	Apply 25 gallons of solution per 100 sq. ft Follow application with irrigation. Repeat as required, but not more often than once per month.

Hops

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

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

Disease	Application Method	Rate	Application Program
Downy mildew (Bremia lactucae)	Foliar spray	1-2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Ensure spray coverage wets the entire plant. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Damping-off and root rot (<i>Phytophthora</i> and <i>Pythium</i> spp.)		1-2 qts. of Reliant in 40 gals. of water per acre	Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Pre-plant nursery	1 qt. of Reliant in 100 gals. of water	Apply to nursery plants in seedling trays 1-7 days prior to out planting.
	Chemigation overhead	1-2 qts. of Reliant in 1000 gals. of water per acre	Do not apply more than 6 times per crop cycle. Apply with routine irrigation schedule. Low Disease Pressure: Apply lower rate at 1-2 week
	Chemigation low volume	1-2 qts. of Reliant in a minimum of 100 gals. of water per acre	intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
	Transplant and furrow	3 pts. of Reliant	Apply at planting or to newly planted seedlings by side dressing or shank application.

Leafy Vegetables (cont.)

Disease	Application Method	Rate	Application Program
Powdery mildew and leaf diseases such as leaf blights (Septoria and Cercospora spp.) and bacterial rots (Erwinia spp.); and suppression of Anthracnose (Colletotrichum spp.)	, ,	1 1/2-2 qts. of Reliant in 30 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals High Disease Pressure: Apply higher rate at 7-10 day intervals.

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

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

Mangos

Disease	Application Method	Rate	Application Program
Suppression of Anthracnose (Colletotrichum gloeosporoides)	Foliar spray	3-4 pts. of Reliant per 100 gals. of water	Spray tree to the point of runoff every 14 days during blossom period, then monthly until harvest.

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

Disease	Application Method	Rate	Application Program
Damping-off and root rot (<i>Phytophthora</i> and <i>Pythium</i> spp.)		1 1/2-2 qts. of Reliant per 25-100 gals. of water per acre	Apply, as needed, at 14 day intervals after plant emergence. Assure good coverage.

Peanuts

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

Pineapples

Disease	Application Method	Rate	Application Program
Root and heart rot (Phytophthora cinnamomi and parasitica spp.)	Foliar spray	2-2 1/2 qts. of Reliant in 50-100 gals. of water per acre	Apply to tops 14 days prior to planting material harvest. Treats enough slips to plant one acre. Apply at 90 day intervals to established plantings when
	Pre-plant dip	1 1/4 qts. of Reliant in 100 gals. of water per acre	conditions favor disease. Ensure thorough coverage of plants.
	Foliar spray	2 qts. of Reliant in 100 gals. of water per acre	

Potatoes - Post-Harvest

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

Disease	Application Method	Rate	Application Program
Suppression of Late blight (<i>Phytophthora infestans</i>) and Pink	Tuber spray	16.5 fl. oz. of Reliant in 1/2 gal. of water/ton of tubers	For best results, be sure tubers are completely and evenly covered.
rot (Phytophthora erythroseptica)	Foliar spray	2-2 1/2 qts. of Reliant in 50 gals. of water per acre	Begin application after plants are established and conditions favor disease development. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals. Late blight management using Reliant requires the higher application rate and is most effective when tank mixed with other registered fungicides.
	Seed piece spray	0.3 qt. of Reliant with 2 qts. of water (0.15% v/v solution) at the rate of 2 tons of tubers per gal. of solution	Treat seed pieces with a full coverage spray.
Suppression of Powdery mildew	Foliar spray	1-3 qts. of Reliant in 50 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 4 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Root and Tuber Vegetables

Troot and Tubor Togotables			
Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot (Phytophthora cactorum)	Foliar spray	2 1/2 qts. of Reliant in 100 gals. of water per acre	In cool, wet conditions that favor <i>Phytophthora</i> , apply at 7 day intervals. Do not exceed a total of 8 applications per crop cycle.
Carrots and radishes: Damping-off and root rot: (Phytophthora and Pythium spp.)		1 1/2-2 qts. of Reliant in 25-250 gals. of water per acre	Apply, as needed, at 14 day intervals after plant emergence. Assure good coverage.
Potatoes, Sweet Potatoes and Yams: Pink rot and Pythium leak (Phytophthora erythroseptica and Pythium spp.)	In-furrow spray	2-5 qts. of Reliant in 10 gals. water per acre	Apply in a band spray directly over top of potato seed just before row is closed.
Potatoes, Sweet Potatoes and Yams: Late blight, Pink rot and Pythium leak (Phytophthora infestans, Phytophthora erythroseptica and Pythium spp.)	Foliar spray	1 1/4 qts. of Reliant in 90-375 gals. of water per acre	Apply at 5-14 day intervals subject to disease incidence.
Downy mildew		1-3 qts. of Reliant in 10-50 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Stone Fruit

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

Disease	Application Method	Rate	Application Program
Root and collar rot (<i>Phytophthora</i> spp.)	Foliar spray	2 1/2 qts. of Reliant in 250 gals. of water per acre	Three treatments are required: 1. Spring 2. Mid-summer 3. Fall, post-harvest.
	Basal bark spray	62.4 fl. oz. Reliant + 62.4 fl. oz. of water + 3.2 fl. oz. of Pentra-Bark	Apply in spring and fall. Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.
Pruning wound cankers (Phytophthora syringae)	Foliar spray	1 1/4-2 1/2 qts. of Reliant in 100 gals. of water per acre	Apply to pruning wound and surrounding area; ensure area is thoroughly wet. Use the higher application rate in high disease situations.
	Paint	50:50 solution of Reliant and water	Paint wounds with concentrated solution.
Suppression of Armillaria root rot (Armillaria luteobublina)	Basal bark spray	1 1/2-2 qts. of Reliant + 2 qts. of water + 1% Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger than 18 inches DBH (Diameter at Breast Height, 4.5 feet above the ground) that have been previously attacked by Armillaria root rot, apply in fall prior to leaf senesce and again in spring. For trees less than 18 inches DBH, apply in early spring.

Strawberries

Disease	Application Method	Rate	Application Program
Red stele, leather rot and root rot (<i>Phytophthora</i> and	Pre-planting dip	1 1/4 qts. of Reliant in 100 gals. of water	Dip planting material in solution for 30 minutes, then plant within 1 day. Mix a fresh solution daily. Use for annual and perennial varieties.
Pythium spp.	Foliar spray	1-3 qts. of Reliant in 50-100 gals. of water per acre CA Only: 1 1/4-2 1/2 qts. of Reliant in 90-200 gals. of water per acre	Annual Crops: First treatment 14-21 days post planting; repeat at 1-2 month intervals when disease is evident. Perennial Crops: First treatment during spring growth flush; repeat at 1-2 month intervals when disease is evident. For susceptible varieties, use higher rates and shorter spray intervals. Grey mold and Anthracnose suppression requires use of higher application rates and is most effective when tank mixed with other registered fungicides.
Foliar fungal and bacterial diseases (Rhizopus and Xanthomonas spp.) and red stele (Phytophthora fragararie)	Transplant and furrow	3 pts. of Reliant	Apply at planting or to newly planted seedlings by side dressing or shank application.
Leather rot (Phytophthora cactorum)	Foliar spray	1-3 qts. of Reliant in 50-100 gals. of water per acre CA Only: 1-1/4-2 1/2 qts. of Reliant in 90-200 gals. of water per acre	Apply at 10% bloom and early fruit set, then as required at 1-2 week intervals for disease control. In high disease situations use higher rates and shorter spray intervals.
Phytophthora spp.	Dip	1 qt. of Reliant in 100 gals. of water (0.25% v/v solution)	Dip runners in the solution for 1-2 minutes, then plant within 48 hours. Mix a fresh solution daily.
Suppression of Powdery mildew	Foliar spray	2-2 1/2 qts. of Reliant in 50 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.

Tree Nuts

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

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

Tree Nuts (cont.)

Application			
Disease	Application Method	Rate	Application Program
Pruning wound, crown and trunk cankers (<i>Phytophthora</i> spp.)	Trunk spray	2 qts. of Reliant + 2 qts. of water + 1% of Pentra-Bark	Apply higher rate when lesions are present. Clean wound sites and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. Apply to the trunk from the soil line to 5 feet up the trunk. Apply one time in the spring, summer and fall.
Downy mildew and Powdery mildew	Foliar spray	1-2 qts. of Reliant in 20-100 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Lower Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Tree cankers and suppression of Armillaria	Basal bark spray	1 1/2-2 qts. of Reliant + 2 qts. of water + 1% of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present. For trees larger 18 inches DBH (Diameter at Breast Height, 4.5 feet above the ground) that have been previously attacked by Armillaria root rot, apply in fall prior to leaf senesce and again in spring for best results. For trees less than 18 inches DBH, make an early spring application at or about bud swell.
Black walnut and English walnut: For prevention and control of Thousand	Foliar spray	2-2 1/2 qts. of Reliant in 50 gals. of water per acre	Spray every 60 days starting in early spring in combination with an insecticide that controls Walnut Twig Beetle (<i>Pityphthorus juglandis</i>) during insect flight times. Do not apply more than 6 times per year.
Cankers Disease (Geosmithia morbida)	Basal bark spray	32 fl. oz. of Reliant + 48 fl. oz. of water + 2 fl. oz. of Pentra-Bark per 18 inches of tree DBH	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line, including the base of the first scaffolding limbs, if present.

Commercial Applications

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

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

Disease	Application Method	Rate	Application Program
Root rot (Phytophthora spp.)	Foliar spray	1-2 qts. of Reliant per 100 gals. of water OR 2-4 tsp. of Reliant per gal. of water	Thoroughly wet all foliage. Repeat as required at 14-21 day intervals.
	Soil drench	1-2 qts. of Reliant per 100 gals. of water OR 2-4 tsp. of Reliant per gal. of water	Apply 1 gal. of solution per square yard of soil. Follow application with irrigation. Repeat as required at 14-21 day intervals.
	Bare root dip	1 qt. of Reliant per 100 gals. of water OR 2 tsp. of Reliant per gal. of water	Immediately before transplanting, dip transplants for 2 minutes; keep roots submerged and ensure root mass is thoroughly wet.
Pine pitch canker (Fusarium subglutinans	Basal bark spray	1 gal. of Reliant + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Spray mixture around the entire trunk circumference until saturation/runoff. Spray from ground level up to 5 feet above the soil line.
	Injection (Not for tree injection in New York State)	20 ml per tree of a mixture containing: 1 gal. of Reliant + 2 gals. of water + 4 fl. oz. of Pentra-Bark	Drill holes in trunk 3/16 inch (5 mm) in diameter and 1-2 inches (25-50 mm) deep with a slight downward angle. Place syringe holes in the main tree trunk and space evenly around the trunk circumference. Suitable for use with Chemjet tree injectors, Ag-murf gun or hydraulic tree injection devices. Trees must be at least 10" diameter at breast height.

Forestry, Golf Course, Landscape, Nursery and Park Applications

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

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

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

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

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

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

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

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

Disease	Application Method	Rate	Application Program
Black walnut and English walnut: Thousand Cankers Disease	Foliar spray	2-2 1/2 qts. of Reliant in 50 gals. of water per acre or a 1% solution	Start spray program in spring and treat every 60 days in combination with an insecticide program to control Walnut Twig Beetle, <i>Pityphthorus juglandis</i> , during times of insect flight. Spray to runoff.
(Geosmithia morbida)	Basal bark spray	32 fl. oz. of Reliant + 48 fl. oz. of water + 2 fl. oz. of Pentra-Bark per 18 DBH inches of tree circumference	Spray mixture, to saturation/runoff, on trunk circumference from ground level up 6 feet or to first scaffolding limbs, if present. Treat in spring at least out and fall prior to leaf senesce. Use in combination with an insecticide program to control Walnut Twig Beetle.

Grass Grown for Seed Production

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

oco on tan gradood dadnad, bat not ilmited to, bont, bonnada, blad, banalo, 1000ao, pod armaa, 170 and 2070la.			
Disease	Application Method	Rate	Application Program
Damping-off and root rot (<i>Phytophthora</i> and <i>Pythium</i> spp.)	Foliar spray	1 1/2-2 qts. of Reliant in 25-250 gals. of water per acre	Apply, as necessary, at 14-21 day intervals. Ensure thorough coverage.

Nursery and Bedding Plants

Use on bedding plants grown in/on golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, ageratum, aglaonema, algerian ivy, anthurium, aphelandra, arborvitae, artemesia, aster, azaleas, baby's breath, begonia, bougainvillea, boxwood, caladium, carnation, cattleya skinneri, 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, poinsettia, pothos, pottosporum, primrose, prostrate rosemary, rhododendron, rosemary, salvia, schefflera, sedium, sempervivum, snapdragon, spathiphyllum, taxus media, verbena, vinca, white cedar, white pine, zinnia and zygocactus; and on vegetable transplants grown in greenhouse, lath house or shade house sites.

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

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

Ornamental Applications

Use on ornamentals in golf courses, greenhouses, interiorscapes, landscapes, nurseries and parks such as, but not limited to, aglaonema, anthurium, aphelandra, arborvitae, azaleas, bougainvillea, boxwood, cattleya skinneri, ceanothus, cissus, cotoneaster, dieffenbachia, English ivy, eucalyptus, ficus, hibiscus, Japanese andromeda, Japanese holly, leather leaf fern, peperomia, philodendron, photinia, pieris, pittosporum, pothos, rhododendron, roses (container, field, landscape and mini varieties), schefflera, sedum, sempervivum, Spathiphyllum, syngonium, taxus media and zvoocactus.

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

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

Ornamental Applications (cont.)

Disease	Application Method	Rate	Application Program
Powdery mildew	Foliar spray	1 1/2-2 1/2 qts. of Reliant in 50 gals. of water per acre	Apply at the first onset of disease. Do not apply more than 6 times per crop cycle. Application amount depends upon plant type, maturity and application technique/method. Low Disease Pressure: Apply lower rate at 1-2 week intervals. High Disease Pressure: Apply higher rate at 7-10 day intervals.
Suppression of Anthracnose		2-2 1/2 qts. of Reliant in 50 gals. of water per acre	Apply prior to onset of disease. Apply spray to saturation/runoff.
Roses: Black spot		2 qts. of Reliant per 100 gals. of water OR 2 qts. of Reliant per gal. of water (0.5% solution v/v concentration)	Apply when disease is present and spray to the point of runoff.

Seed Treatment

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

Disease	Application Method	Rate
Phytophthora, Pythium and Fusarium spp.	seed treatment operations	8-24 fl. oz. of Reliant per 100 lbs. of seed or 4-10 qts. of Reliant per ton of seed, depending on the size of the seeds to be treated.

Tur

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

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

Turf-Tank Mixtures

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

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

Storage and Disposal

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

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

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

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

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

Triple rinse (or equivalent) or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Containers with a capacity greater than 5 gallons:

Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure to 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.

{Per PR Notice 2007-4 the batch code/lot number will appear on the label or container.}

Reliant® and Pentra-Bark® are registered trademarks of Quest Products, LLC Chemjet® is a registered trademark of Chemject International, Inc. Ag-murf® is a registered trademark of Ag-Murf Engineering SmartShot® is a registered trademark of Van Dorn Demag Corporation FORE WP® is a registered trademark of Rohm & Haas

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 he 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.

Agricultural Use

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 & pyhium in ornamentals, interiorscapes & bedding plants, phytophthora and fusarium in

coniters, pythium in turf, and phytophthora a (sudden oak death) and general beech declin	and pythium diseases associated with stem and canker blight ie.
Active Ingredients:	
	us Acid*
*Contains 5.17 lbs/gallon of the active ingredients mo Equivalent to 3.35 lbs Phosphorous Acid/gallon	ono- and di-potassium salts of Phosphorous Acid.
Keep Out o	of Reach of Children
	AUTION
See Booklet for First Aid, additional Pre	ecautionary Statements and complete Directions for Use
Batch No.:	☐ EPA Reg. No. 83416-1
	☐ EPA Est. 89083-FL-1
Date of Manufacture:	☐ EPA Est. 73771-WA-1
	☐ EPA Est. 83416-KS-1
	See batch number for establishment code
Made in the USA	Quest Products LLC
Net Contents:	11712 230th St.
-	Linux and I/O 000E0

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

☐ 30 Gallons

Finding New Ways to Improve the Treatment of Trees and Plants

Products LLC

Linwood, KS 66052 Phone: 785-542-2577 Fax: 785-542-2531 www.questproducts.us