

#### OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

May 09, 2025

Carrie Daniels cdaniels@exponent.com VERDESIAN LIFE SCIENCES U.S., LLC

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Revisions to the

Directions for Use, updates to the application and/or dilution rates, and crop groups.

Product Name: FUNGI-PHITE Admin Number: 73771-5 EPA Receipt Date: 10/16/2024 Action Case Number: 00637806

#### Dear Carrie Daniels:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Michael Piombino via email at piombino.michael@epa.gov. Sincerely,

James Parker

James Parker, Team Leader

BPB, BPPD
Office of Pesticide Programs

ACCEPTED

May 09, 2025

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under FPA Reg. No. ———————

EPA Reg. No. 73771-5

GROUP 33 FUNGICIDE

# **FUNGI-PHITE®**

**Fungicide** 

(ABNs: FUNGI-PHITE<sup>®</sup> Cereals, FUNGI-PHITE<sup>®</sup> T&O, FUNGI-PHITE<sup>®</sup> PH, Fresh-Phite<sup>®</sup>)

[A Fungicide for the Suppression and Control of Phytophthora, Pythium and Downy Mildew]

[A Fungicide for the Suppression\*\* and Control of Phytophthora, Pythium and Downy Mildew for Potatoes, Sweet Potatoes, Yams and other Tuber Crops, Citrus and Citrus Hybrids, Avocado, Carrots, Pome fruit, Stone fruit, Banana and Plantains, Mango, Papaya, Pineapple, Lychee, Mangosteen, Wax Apple, Longan, Carambola, Guava and certain Cut Flowers]

[Agricultural Uses, Turf and Ornamental Uses, and Agricultural Uses - Post-Harvest Applications]

[Agricultural Uses: For use on the following crops and groups, including: Asparagus, Avocado, Bananas and Plantains, Berries, Bulb Vegetables, Brassica Crops, Cereal Grains, Citrus and Citrus Hybrids, Coconut, Cucurbit Crops, Fruiting Vegetables, Grapes, Herb and Spices, Hops, Leafy Vegetables, Legume Vegetables, Oilseed Crops, Peanuts, Pineapple, Pome Fruit, Potatoes, Sweet Potatoes, Yams and other Root and Tuber Vegetables, Stone Fruit, Strawberry, Tobacco, Kiwi, Olives, Tree Nuts, and other Miscellaneous crops such as Cacao, Carambola, Coffee, Guava, Longan, Okra, Papaya, Lychee, Persimmons, Purslane, and Wax apple.]

<u>[Turf and Ornamental Uses:</u> For use on Roses, Other Ornamentals such as Annual and Perennial Flowers, Cut Flowers, Bedding Plants, Foliage Plants, Ground Covers, Deciduous and Evergreen Trees and Shrubs in the Field, Container and Conifer Nursery, Lath or Shade House, and Use in Greenhouse and Conifers in Commercial Nurseries, Landscape Trees, Plantations, and Forests, and Turf]

[Agricultural Uses-Post Harvest Applications: For use on Potatoes, Sweet Potatoes, Yams and other Tuber Crops, Citrus and Citrus Hybrids, Avocado, Carrots, Pome fruit, Stone fruit, Banana and Plantains, Mango, Papaya, Pineapple, Lychee, Mangosteen, Wax Apple, Longan, Carambola, Guava and certain Cut Flowers]

#### **ACTIVE INGREDIENTS:**

Mono- and di-potassium salts of Phosphorous Acid*	45.5%
OTHER INGREDIENTS	
TOTAL	

<sup>\*</sup>Contains 5.41 lbs/gal of the active ingredients of Mono- and di-potassium salts of Phosphorous Acid \*Equivalent to 3.38 lbs/gal Phosphorous Acid

#### KEEP OUT OF REACH OF CHILDREN

## CAUTION

FIRST AID			
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		

[Note to Reviewer: Bracketed text is optional language]

If on skin or clothing	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.		
Hotline Number			

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the International Poison Center at 1-888-740-8712 for emergency medical treatment information.

[See [Back Panel] [Side Panel] [Inside Booklet] for Precautionary Statements [and Directions For Use]]

EPA Reg. No. 73771-5

EPA Est. No. 73771-WA-1

Manufactured [By:] [For:] Verdesian Life Sciences, U.S., LLC 1001 Winstead Drive, Suite 480, Cary, NC 27513

**NET CONTENTS:** (various) 1 gallon, 2.5 gallon, 5 gallons

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Harmful if absorbed through skin. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks
- protective eyewear

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

## **USER SAFETY RECOMMENDATIONS**

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing
- Users should 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**

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

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers are to be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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, notifications, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 4 hours.

For early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil, or water, wear coveralls, waterproof gloves, shoes and socks, and protective eyewear.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of the 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:** Apply this product only through the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, hand move, fanjet or microsprinkler; or drip (trickle) and hydroponic solutions. Do not apply this product through any other type of irrigation system.

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

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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.

#### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS:

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone (RPZ) backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break

(air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

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 or, in cases where there is no water pump, 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.

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

Use a pesticide supply tank that is equipped with a means for continuous agitation either by recirculation or a mechanical agitator. Charge the supply tank with the appropriate amount of water and add the pesticide slowly followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all directions, cautions and limitations on the label of the product(s) being mixed.

For fixed position irrigation systems, apply the pesticide towards the end of the irrigation period. Exact timing will depend on the desired pesticide application rate and calibration of the system. Apply the pesticide continuously through irrigation systems that move and do not irrigate the same or fixed area during the irrigation cycle.

Complete the pesticide injection in sufficient time to allow the pesticide to be completely flushed out of the irrigation system before the system is shut down.

**SPRINKLER CHEMIGATION:** The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

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 system interlock.

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

Use a pesticide supply tank that is equipped with a means for continuous agitation either by recirculation or a mechanical agitator. Charge the supply tank with the appropriate amount of water and add the pesticide slowly followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all directions, cautions and limitations on the label of the product(s) being mixed.

For fixed position irrigation systems, apply the pesticide towards the end of the irrigation period. Exact timing will depend on the desired pesticide application rate and calibration of the system. Apply the pesticide continuously through irrigation systems that move and do not irrigate the same (fixed) area during the irrigation cycle.

Complete the pesticide injection in sufficient time to allow the pesticide to be completely flushed out of the irrigation system before the system is shut down.

**DRIP (TRICKLE) CHEMIGATION:** The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

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.

System 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.

Use a pesticide supply tank that is equipped with a means for continuous agitation either by recirculation or a mechanical agitator. Charge the supply tank with the appropriate amount of water and add the pesticide slowly followed by any sticker-spreaders, insecticides, nutrients, etc. Observe all directions, cautions and limitations on the label of the product(s) being mixed.

Apply the pesticide towards the end of the irrigation period. Exact timing will depend on the desired pesticide application rate and calibration of the system.

Complete the pesticide injection in sufficient time to allow the pesticide to be completely flushed out of the irrigation system before the system is shut down.

[†]GENERAL HYDROPONIC APPLICATION

General Root	For use with	Add 1-2 liters Fungi-Phite® per	Repeat every 4-6 weeks in summer and
Rots ( <i>Pythium</i> ,	plants grown in	20,000 L nutrient solution.	every eight weeks in winter. Depending on
Phytophthora)	recirculating		crop load and the water quality, the
, ,	hydroponic		application time interval may be reduced.
	systems to aid in		, ,
	the control of		
	pathogens.		

[†Not registered for use by CA.]

Note: For Recirculating (i.e. closed systems) use only. Do not remove reservoir water prior to harvest. Apply solid residue as fertilizer only at Fungi-Phite® concentrations at or below those approved on this label for direct application.

#### **AGRICULTURAL USE INSTRUCTIONS**

#### **GENERAL APPLICATION INSTRUCTIONS**

Apply this product by various application methods, including foliar spray (aerial and ground), soil drench, soil incorporation and bare root dip. For foliar sprays, apply this product with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage.

Make applications prior to disease development in conjunction with good cultural management practices. Do not exceed the use rates or apply more frequently than the specified interval or plant injury can occur. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not make foliar applications to plants treated with copper-based compounds at less than 20 day intervals unless instructed to do so by your crop consultant. Allow foliage to dry completely after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

#### MIXING INSTRUCTIONS

- 1. Fill the spray tank with  $\frac{1}{2}$  to  $\frac{3}{4}$  of the required volume of water before adding the product.
- 2. Add the product slowly to the tank and agitate by hydraulic or mechanical means.
- 3. Continue to fill the tank with water to the desired volume while agitating.
- 4. Continue agitation when applying.

In preparing tank mixes with fungicides registered for use on cereals, add the Fungi-Phite to water first

and then add the tank mix partner with agitation

#### **COMPATIBILITY**

When using Fungi-Phite in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix product label. No label dosage rate must be exceeded, and the most restrictive label precautions and limitations must be followed.

This product must not be mixed with any product that prohibits such mixing. Tank mixtures or other applications of products are permitted only in those states in which the products are registered.

This product is compatible with most products used in agriculture. However, crop sensitivity to these mixtures may vary. If these combinations or others have not been previously used, do not tank mix without first testing the mixture's compatibility nor apply it without assessing its safety to the crop (phytotoxicity).

The use of spray adjuvants (i.e. stickers, spreaders, wetting agents) will enhance this products performance. If an adjuvant is used with this product, test before use for compatibility. Do not use strongly acidifying compatibility agents.

To determine the compatibility of this product with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container, thoroughly mix, then let stand for 3-5 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

To determine if a combination is phytotoxic to a specific crop, spray a few plants/trees/vines, then evaluate 3-7 days later for visual effects.

## **ASPARAGUS:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and	Foliar Spray		Begin application after plants are established and
Pythium spp.	Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a	conditions favor disease development.
[†]Suppression** of Bacterial and Leaf		minimum of 5 gallons/acre (48 L/ha) of water.	Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more
Diseases such as Coffee Berry Disease,	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	than 6 times per crop cycle. <b>Disease Control/High Pressure Program*:</b> Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
(Colletotrichum spp.), Anthracnose (Colletotrichum	Root Dip	Mix a 0.25% v/v solution (1/3 fl oz/1 gallon of water or 2.5 ml/L of water).	Apply as pre-plant dip to transplants immediately prior to planting. Dip plants momentarily and plant within 48 hours. Mix a fresh solution daily.
spp.), and Various Leaf Spots (Septoria and Cercospora spp.)	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	

## **AVOCADO:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Canker (Phytophthora citricola)	Trunk Spray	Mix 1-2 quarts (1-2 L) in 5 gallons (20 L) of water. Add 0.25% wetting agent to the solution.	Apply to trunk lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, apply to the trunk from the soil line to about two feet up the trunk. Use the higher rate when lesions are present. Apply one time in the Spring, Summer and Fall.
Root Rot (Phytophthora cinnamomi)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Apply up to 6 applications per year at 4-8 week intervals at the start of the growing season.
	Ground:	Apply 2 quarts/acre (5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Chemigation Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply one time in the Spring, Summer and Fall.
	Trunk Injection	Mix a 15% v/v solution (20 fl oz/gallon or 150 ml/liter).	Inject (according to injection equipment instructions) 0.5 fl oz (15 ml) of the diluted Fungi-Phite® solution into one injection hole.
			Dosage: One injection (1) per yard (or meter) of canopy diameter at the drip line. (i.e. a tree with 6 yards (or meters) of canopy diameter will require 6 injections via 6 separate injection holes).
			Curative: Inject 2 times per year in the Spring and Fall. Preventative: Inject 1 time in the Spring.
[†]Suppression** of Powdery Mildew	Foliar Spray Ground:	Apply 1.5 quarts/acre (3.5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply at the first onset of the disease and repeat at 7-10 day intervals until disease abatement.
Downy Mildew	Foliar Spray Ground:	Apply 1.5 quarts/acre (3.5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply at the first onset of the disease and repeat at 7-10 day intervals until disease abatement.

# [†]BANANA:

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Suppression** of Root Rot Complex and Sigatoka	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2.5-5 L/ha). At the low rate, use 3 gallons/acre (25 L/ha) of water and at the high rate, use 6 gallons/acre (20 L/ha) of water.	Apply every 4 weeks as needed.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 15 gallons/acre (140 L/ha) of water.	
	Trunk Injection	Mix a 3.75% v/v solution (1.5 quarts/10 gallons of water or 3.75 L/100 L of water).	Inject 40 ml of the diluted product (according to injection equipment instructions) into the pseudostem, 1-1.5 m above the ground, Timing: Inject at the onset of flowering into the mother plant. And again into the primary sucker when or close to the mother plant is harvested.
	Chemigation	Apply 2-3 quarts/acre (5-7 L/ha) in at least 100 gallons/acre (1,000 L/ha) of water.	Apply 4 times per year.
Suppression** of Bunch Diseases	Foliar Spray	Mix a 0.3% v/v spray solution (4 fl oz/10 gallons of water or 300 ml/L of water).	Apply a full cover spray to the fruit bunches when the flower rachis are fully expanded (approximately at bunch cover) and again 14 days later.

## **BERRIES GROUP:**

All members of Crop Group 13-07, Subgroups A, B and C. Caneberry subgroup (Blackberry; loganberry; raspberry, red and black; wild raspberry; cultivars, varieties, and/or hybrids of these. Bushberry subgroup (Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; currant, black; currant, red; elderberry; European, barberry; gooseberry; cranberry, highbush; honeysuckle, edible; huckleberry; jostaberry; Juneberry; lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these. Large shrub/tree berry subgroup (Bayberry; buffaloberry; che; chokecherry; elderberry; Juneberry; mountain pepper berries; mulberry; phalsa; pincherry; riberry; salal; serviceberry; cultivars, varieties, and/or hybrids of these).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Begin applications in the Spring after bud break (1-3 inches of new growth) and when conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 2-3 week intervals. Do not apply more
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	than 6 times per crop cycle.  Disease Control/High Pressure Program*: Apply higher rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Root Dip	Mix a 2.50% v/v solution (1.5 quarts/10 gallons of water or 2.5 L/100 L 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:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 4 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Low 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.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	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.
Suppression** of General Leaf and Berry Diseases such as those caused by Septoria spp and	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
Anthracnose spp.	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
			Ideally Fungi-Phite® is best used in combination with conventional registered fungicides to increase the performance of the disease control program.

## **BULB VEGETABLE GROUP:**

All members of Crop Group 3-07, Subgroups A and B: Onion, bulb, subgroup (Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these). Onion, green, subgroup (Chive, fresh leaves; chive, Chinese, fresh leaves; elegans hosta; fritillaria, leaves; kurrat; lady's leek; leek, wild; Onion, Beltsville bunching; onion, fresh; onion, green; onion, macrostem; onion, tree, tops; onion, Welsh, tops; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.  [†]Suppression** of Bacterial Diseases	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin applications after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	<b>Disease Control/High Pressure Program*:</b> Apply higher rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low Disease Pressure*: Apply lower rate at the first onset of the disease. Repeat applications at 10-14 day intervals. Do not apply more than 6 times per crop cycle.  High Disease Pressure*: Apply higher rate at the first
This registered for	Ground:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **BRASSICA (COLE) LEAFY VEGETABLES:**

All members of Crop Group 5, Subgroups A and B: Head and stem *Brassica* subgroup (Broccoli; broccoli; Chinese; brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard (gai choy); cauliflower; cavalo broccolo; kohlrabi). Leafy *Brassica* greens subgroup (Broccoli raab; cabbage, Chinese (bok choy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rots and Damping Off (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin applications after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre Plant Seedling Nursery treatment	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
[†]Suppression** of Bacterial Diseases	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
Suppression** of Leaf Diseases caused by Septoria, Colletotrichum, Alternaria and	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
[†]Powdery Mildew	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **CEREAL GRAIN GROUP:**

All members of Crop Group 15, commodities including: Cereal Grains such as barley; buckwheat; corn; millet, pearl; millet, proso; oats; popcorn; rice; rye; sorghum (milo); teosinte; triticale; wheat; and wild rice

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 -10 gallons/acre (48-95 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 2-4 week
[†]Suppression** of Rhizoctonia spp.,	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	intervals. Do not apply more than 6 times per crop cycle.  Disease Control/High Pressure Program*:  Apply higher rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Chemigation Overhead:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow Disease Programs* as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 gallons/acre (48 L/ha) of water.	Low Disease Pressure*: Apply lower rate at the first onset of the disease. Repeat applications at 1-2 week intervals. Do not
	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	apply more than 6 times per crop cycle. <b>High Disease Pressure*:</b> 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.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 gallons/acre (48 L/ha) of water.	Low 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.
	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	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.

## **FORAGE AND FIBER CROPS:**

Commodities including cotton and all members of Crop Group 18 (Nongrass Animals Feeds, (Forage, Fodder, Straw, and Hay): Alfalfa; Bean, velvet; Clover; Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Vetch, crown; Vetch, milk

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 -10 gallons/acre (48-95 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure  Program*: Apply lower rate at 2-4 week
[†]Suppression** of Rhizoctonia spp.,	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	intervals. Do not apply more than 6 times per crop cycle.  Disease Control/High Pressure Program*:  Apply higher rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Chemigation Overhead:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 gallons/acre (48 L/ha) of water.	Low 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.
	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	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.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5 gallons/acre (48 L/ha) of water.	Low 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.
	Ground:	Apply 0.5-2 quarts/acre (1-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	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.

# Suppression of Fusarium and Its Associated Mycotoxin, Deoxynivalenol (DON), in Barley, Oats, Rye, and Wheat\*\*:

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
[†]Suppression** of Fusarium spp. Head Diseases and the associated mycotoxin, Deoxynivalenol (DON)	Foliar Spray Aerial: Ground:	Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in 5-10 gallons/acre (48-95 L/ha) of water in a program including a registered fungicide labeled for Fusarium head blight control.  Apply 0.5-1.5 quarts/acre (1-3.5 L/ha) in a minimum of 5-15 gallons/acre (48-140 L/ha) of water in a program including a registered fungicide labeled for Fusarium head blight control.	Make a preventative application when wheat and barley heads on the main stem are fully emerged (in Feekes growth stage 10.5 (barley) or 10.5.1 (oats, rye, and wheat)).  Reapply using the lower rate at 2-4 week intervals when low disease pressure is predicted.  Reapply using the higher rate at 1-2 week intervals when high disease pressure is predicted
	Chemigation Overhead:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water in a program including a registered fungicide labeled for Fusarium head blight control.	Do not apply more than 6 times per crop cycle.

When head blight is a concern, growers should manage this disease with fungicides that are labeled for and effective in managing this disease and with cultural practices like crop rotation and plowing to reduce crop residues that serve as an inoculum source. Spray equipment must be set to provide good coverage to wheat and barley heads. Deoxynivalenol (DON) is a mycotoxin that may be produced in barley, oat, rye, and wheat grain affected by Fusarium head blight. The occurrence of Fusarium Head Blight does not automatically correlate to the presence of the deoxynivalenol (DON) in barley, oat, rye, and wheat grain, but occurrence may lessen following Fungi-Phite® application to suppress Fusarium Head Blight.

## **CITRUS FRUIT GROUP:**

All members of Crop Group 10, commodities including: Citrus Fruits such as calamondin; citrus citron; citrus hybrids; grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; and satsuma mandarin.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root, Trunk and Crown Rots ( <i>Phytophthora</i> spp.)	Foliar Spray Aerial:	Apply 2 quarts/acre (5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	Apply 3-4 times per year during the Spring, Summer, and Fall when conditions favor disease development.
	Ground:	Apply 2 quarts/acre (5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	
	Chemigation Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply with normal irrigation schedule. Follow Foliar Spray <b>APPLICATION PROGRAM</b> as stated above. Do not apply more than 4 times per crop cycle.
	Trunk and Scaffold Branches Spray	Mix 1-2 quarts (1-2 L) in 5 gallons (20 L) of water and apply with a wetting agent or adjuvant on and around the affected area.	Use higher rates when lesions are present. Clean the wound site and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, use the lower rate and apply to the trunk from the soil line to 2 feet up the trunk. Apply in Spring, Summer, and Fall.
[†]Suppression** of Pre-Harvest Blue and Green Mold & Brown Rot (Phytophthora citricola)	Ground:	Apply 2 quarts/acre (5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	Apply 2-4 weeks prior to harvest. Ensure that fruit is thoroughly covered by the spray application.

[†Not registered for use by CA.]

## **COCONUTS:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Bud Rot, Trunk Cankers and Root Rot (Phytophthora and Pythium spp).	Soil Drench:	Apply 100 ml of a 3% v/v solution in a 1 foot (0.3 M) swath around the base of each tree.	Curative: Apply every 3 months  Preventative: Apply once per year.
	Stem Injection:	Mix a 15% v/v solution (20 fl oz/gallon or 150 ml/liter).	Inject (according to injection equipment instructions) 0.5 fl oz (15 ml) of the diluted Fungi-Phite® solution into the tree trunk
			Curative: Inject 2 times per year in the Spring and Fall.
			Preventative: Inject 1 time in the Spring.

## **CUCURBIT VEGETABLES:**

All members of Crop Group 9, commodities including: Cucurbit vegetables such as chayote; Chinese waxgourd; citron melon; cucumber; gherkin; gourd (edible); *Momordica* spp.; muskmelon (including cantaloupe); pumpkin; squash (summer and winter); and watermelon.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rots and Damping Off (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin applications after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Seedling Nursery Application	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	titali o times per crop cycle.
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
		Fungi-Phite® is most effectively applied to control downy mildew when tank mixed with other registered fungicides.	
[†]Suppression**of Powdery Mildew and other Leaf Diseases such as Anthracnose and	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.
Alternaria Leaf Blight	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	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.

# FRUITING VEGETABLES (EXCEPT CUCURBITS):

All members of Crop Group 8, commodities including: Fruiting Vegetables such as eggplant; groundcherry; pepino; pepper (bell, chili, cooking, pimento, and sweet); tomatillo; and tomato.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Damping Off and Root Rots ( <i>Phytophthora</i> and <i>Pythium</i> spp.)	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin applications after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-2.5 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Seedling Nursery Application	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	For control of Bacterial leaf spot of Tomato, apply the high rate of Fungi-Phite® with registered bactericides.
[†]Suppression** of Bacterial Diseases	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
[†]Suppression** of Powdery Mildew and other Leaf Diseases such as Anthracnose and	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
Alternaria Leaf Blight	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **GRAPES AND SMALL FRUIT VINES:**

All members of Crop Group 13-07, Subgroup D: Small fruit vine climbing subgroup (Amur river grape; gooseberry; grape; kiwifruit, fuzzy; kiwifruit, hardy; Maypop; schisandra berry; cultivars, varieties, and/or hybrids of these).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rots (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 15 gallons/acre (140 L/ha) 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.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 25 gallons/acre (235 L/ha) of water.	Table Grapes: Begin applications 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. Do not apply more than 4 times per crop cycle.  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. Do not apply more than 4 times per crop cycle.
	Chemigation Low Volume:	Apply 2 quarts/acre (5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply 4-6 times per crop cycle.
Downy Mildew	Foliar Spray Aerial:	Apply 1.5-2 quarts/acre (2-3.5 L/ha) in a minimum of 15 gallons/acre (140 L/ha) of water.	Begin applications at bud break with additional applications made at 7-10 day intervals in rotational programs with other labeled fungicides. Use higher rates and volumes based on disease severity and density of canopy. Do not apply more than 6 times per
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 25 gallons/acre (235 L/ha) of water.	crop cycle.
		Fungi-Phite® is most effectively applied to control downy mildew when tank mixed with other registered fungicides.	
[†]Suppression** of Powdery Mildew.	Foliar Spray Aerial:	Apply1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Low 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.
[+Not registered fo	Ground:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 30 gallons/acre (280 L/ha) of water.	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.

#### **HERBS AND SPICES GROUP:**

All members of Crop Group 19: Herbs such as Angelica; balm; basil; borage; burnet; camomile; catnip; chervil (dried); chive; chive, Chinese, clary; coriander (leaf); costmary; culantro (leaf); curry (leaf); dillweed; horehound; hyssop; lavender; lemongrass; lovage (leaf); marigold; marjoram (*Origanum* spp.); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay; tarragon; thyme; wintergreen; woodruff; and wormwood. Spices such as Allspice; anise (seed); anise, star; annatto (seed); caper (buds); caraway; caraway, black; cardamom; cassia (buds); celery (seed); cinnamon; clove (buds); coriander (seed); culantro (seed); cumin; dill (seed); fennel, common; fennel, Florence (seed); fenugreek; grains of paradise; juniper (berry); lovage (seed); mace; mustard (seed); nutmeg; pepper, black; pepper, white; poppy (seed); saffron; and vanilla.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rots and Damping Off (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Nursery Treatment	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
[†]Suppression** of Fusarium spp.and Rhizoctonia spp.	Transplant and Furrow Application.	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	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.
[†]Suppression**of Powdery Mildew	Foliar Spray Aerial:	Apply1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

# [†]HOPS:

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Downy Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Make applications during favorable disease development conditions; 1) when shoots are 6-12 inches high; 2) after training when vines are 5-6 feet tall; 3) about 3 weeks after the second application; and
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 25 gallons/acre (235 L/ha) of water.	4) during bloom.  During periods of high disease pressure, apply at 7-10 day intervals until disease abatement. Do not apply more than 6 applications per season.

## **LEAFY VEGETABLE GROUP:**

All members of Crop Group 4-16, Subgroups A and B: Leafy greens (Amaranth, Chinese; amaranth, leafy; aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad; cosmos; dandelion, leaves; dang-gwi, leaves; dillweed; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; Good King Henry; huauzontle; jute, leaves; lettuce, bitter; lettuce, head; lettuce, leaf; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane, garden; purslane, winter; radicchio; spinach; spinach, Malabar; spinach, New Zealand; spinach, tanier; Swiss chard; violet, Chinese, leaves; cultivars, varieties, and/or hybrids of these commodities). Brassica Leafy Greens (Arugula; broccoli, Chinese; broccoli raab; cabbage, abyssinian; cabbage, Chinese, bok choy; cabbage, seakale; collards; cress, garden; cress, upland; hanover salad; kale; maca, leaves; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress; cultivars, varieties, and/or hybrids of these commodities).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Damping Off and Root Rots (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Nursery Application	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Transplant and Furrow Application	Apply 3 pints at planting.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
[†]Suppression** of Powdery Mildew and Leaf Diseases such as	Foliar Spray Aerial:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.
Anthracnose (Colletotrichum spp.), Leaf Blights (Septoria & Cercospora spp.) and Bacterial Rots (Erwinia spp.)	Ground:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	<b>High Disease Pressure*:</b> 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.

## LEGUME VEGETABLES (SUCCULENT OR DRIED):

All members of Crop Group 6: Edible podded legume vegetables (Bean (*Phaseolus* spp.) (includes runner bean, snap bean, wax bean); bean (*Vigna* spp.) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean); jackbean; pea (*Pisum* spp.) (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean).

Succulent shelled pea and beans (Bean (*Phaseolus* spp.) (includes lima bean (green)); broad bean (succulent); bean (*Vigna* spp.) (includes blackeyed pea, cowpea, southern pea); pea (*Pisum* spp.) (includes English pea, garden pea, green pea); pigeon pea).

Dried shelled pea and beans (except soybeans) (Dried cultivars of bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean; tepary bean; bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (*Pisum* spp.) (includes field pea); pigeon pea).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin applications after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
[†]Suppression** Fusarium spp. and Rhizoctonia spp.	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of10 gallons/acre (95 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Nursery Application	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Transplant and Furrow Application	Apply 3 pints at planting.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
[†]Suppression** of Powdery Mildew and Leaf Diseases such as Anthracnose (Colletotrichum spp.), Leaf Blights (Septoria & Cercospora spp.) and Bacterial Rots (Erwinia spp.)	Foliar Spray Aerial: Ground:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.  Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Low 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.  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.

## **MISCELLANEOUS FOOD CROPS:**

Miscellaneous food crops such as: Cacao; coffee;guava; carambola; lychee; longan; wax apple; okra; papaya; and persimmons.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.  [†]Suppression** of Bacterial and Leaf	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
Diseases such as Coffee Berry Disease,	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	<b>Disease Control/High Pressure Program*:</b> Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
(Colletotrichum spp.), Anthracnose (Colletotrichum	Root Dip	Mix a 0.25% v/v solution (1/3 fl oz/1 gallon of water or 2.5 ml/L of water).	Apply as pre-plant dip to transplants immediately prior to planting. Dip plants momentarily and plant within 48 hours. Mix a fresh solution daily.
spp.), and Various Leaf Spots (Septoria and Cercospora spp.)	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
Pruning Wound and Trunk Canker (Phytophthora spp.)	Trunk Spray	Mix 1-2 quarts with 5 gallons of water (3-5 L with 50 L water).	Use higher rates when lesions are present. Clean the wound site and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, use the lower rate and apply to the trunk from the soil line to 2 feet up the trunk. Apply in Spring, Summer, and Fall.
Downy Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
[†] Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
[+Not registered for	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **OILSEED GROUP:**

All members of Crop Group 20: Rapeseed (Borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed; sesame; sweet rocket cultivars, varieties, and/or hybrids of these). Sunflower (Calendula; castor oil plant; chinese tallowtree; euphorbia; evening primrose; jojoba; niger seed; rose hip; safflower; stokes aster; sunflower; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these). Cottonseed (Cottonseed; cultivars, varieties, and/or hybrids of these).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.	Foliar Spray Aerial:	Apply 0.5-1 quart/acre (1-2 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply
[†]Suppression** of Bacterial and Leaf Diseases such as,	Ground:	water.  Apply 0.5-2 quarts/acre (1-5 L/ha) in a	lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.  Disease Control/High Pressure Program*: Apply
Anthracnose (Colletotrichum		minimum of 10 gallons/acre (95 L/ha) of water.	higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
spp.), and Various Leaf Spots (Septoria and Cercospora spp.)	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **PEANUTS:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rots, Pod Rots, Damping Off, Wilt,	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 5 gallons/acre (48 L/ha) of	Begin application after plants are established and conditions favor disease development.
( <i>Phytophthora</i> and <i>Pythium</i> spp.)	Foliar Spray Ground:	water.	<b>Disease Prevention/Low Pressure Program*:</b> Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
[†]Suppression** of Leaf and Crown Diseases, Anthracnose (Colletotrichum spp.)	Transplant and Furrow Application:	Apply 1-2.5 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.  Apply 3 pints at planting or to newly planted seedlings by side/top dressing or shank application.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

[†Not registered for use by CA.]

# [†]PINEAPPLE:

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Heart Rot and Root Rot (Phytophthora spp.)	Dip	Mix a 0.5% v/v solution (2 quart/100 gallons of water or 2 L/400 L of water).	Immerse planting material in solution for 1 minute prior to planting.
	Foliar Spray Aerial:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a	Preventative: Apply every 4-6 months.
		minimum of 15 gallons/acre (140 L/ha) of water.	Curative: Apply every 2-3 months.
	Ground:	Apply 1.5-2 quarts/acre (3.5-5 L/ha) in a minimum of 200 gallons/acre (1,870 L/ha) of water.	
	Chemigation Low Volume:	Apply 2.5 quarts/acre (7 L/ha) in a minimum of 500 gallons/acre (4,650 L/ha) of water.	Apply 4 times per year during the Spring, Summer and Fall.

## **POME FRUIT GROUP:**

All members of Crop Group 11 including: Apple; crabapple; loquat; mayhaw; pear; asian Pear; and quince

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rot, Collar rot, Foot Rot and Trunk Cankers (Phytophthora and	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 7 gallons/acre (67 L/ha) of water.	Begin application after plants are established and from first lead flush when conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply
Pythium spp.)	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	lower rate at 2-4 week intervals. Do not apply more than 4 times per crop cycle.  Disease Control/High Pressure Program*: Apply
[†]Suppression** of Fire Blight, Blister			higher rate at 1-3 week intervals. Do not apply more than 4 times per crop cycle.
Spot, Blue and Green Mold, Alternaria Blotch, Blister Spot and	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
Pear Black Spot	Foliar Spray	Apply 1-2.5 quarts/acre (3-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 days intervals. Do not apply more than 6 times per crop cycle.
			Apply during active plant growth. Commence from flowering for Fire blight suppression in combination with registered antibiotics.
	Trunk Spray	Mix 1-2 quarts with (1-2 L) in 5 gallons (20 L) of water.	Use higher rates when lesions are present. Clean the wound site and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, use the lower rate and apply to the trunk from the soil line to 2 feet up the trunk. Apply one time in the Spring, Summer, and Fall.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 7 gallons/acre (67 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	onset of the disease. Repeat applications at 7-10 days intervals. Do not apply more than 6 times per crop cycle.

## **POTATOES:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Pink Rot, Pythium Leak ( <i>Phytophthora</i> infestans, <i>Phytophthora</i>	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 7-10 gallons/acre (67-95 L/ha) of water.	Begin application after plants are established and conditions favor disease development.
erythroseptica and Pythium spp.)	Ground:	Apply 1-2.5 quarts/acre (2-7 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
Suppression** of Late Blight		Water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
			**Late Blight management using Fungi-Phite® requires the high application rate and is most effectively applied when tank mixed with other registered fungicides.
	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 4 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
	Seed Piece Spray:	Mix a 15% v/v solution (0.3 quart/2 quarts of water or 0.3 L/2 L of water).  Treat 2 tons of tubers with 1 gallon of solution.	Treat seed pieces with a full coverage spray.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 7-10 gallons/acre (67-95 L/ha) of water.	Low Disease Pressure*: Apply lower rate at the first onset of the disease. Repeat applications at 1-2 week intervals. Do not apply more than 4 times per crop cycle.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 4 times per crop cycle.

## **ROOT AND TUBER VEGETABLES (EXCEPT POTATO):**

All members of Crop Subgroups 1A, 1B, and 1D: Beet, garden; beet, sugar; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip, beet, garden; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip, tuberous and corm vegetables (except potato) (Arracacha, arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen; ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp.  [†]Suppression** of Foliar and Bacterial	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 1-2 week intervals. Do not apply more than 6 times per crop cycle.
Diseases	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 30 gallons/acre (280 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 7-10 day intervals. Do not apply more than 6 times per crop cycle.
	Pre-Plant Nursery Seedling Application	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
	Root and Tuber Dip	Mix a 0.5% v/v solution (2 quarts/100 gallons of water or 0.5 L/100 L of water).	Apply as pre-plant dip to the roots for 2 minutes. Plant within 48 hours after dipping. Mix a fresh solution daily.
	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule beginning at the 4-6 true leaf stage. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	System.
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	
Downy Mildew	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
[+Not registered for	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 30 gallons/acre (280 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

## **STONE FRUITS GROUP:**

All members of Crop Group 12: Apricot; Cherry, sweet; cherry, tart; nectarine; peach; plum; plum, chickasaw; plum, damson; plum, Japanese; plumcot; and prune (fresh).

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rot, Crown rot, Collar Rot and Foot Rot (Phytophthora and Pythium spp.)	Trunk and Scaffold Branches Spray	Mix 1-2 quarts (1-2 L) in 5 gallons (20 L) of water and apply with a wetting agent or adjuvant on and around the affected area.	Use higher rates when lesions are present. Clean the wound site and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, use the lower rate and apply to the trunk from the soil line to 2 feet up the trunk. Apply in Spring, Summer, and Fall.
	Root Dip	Mix a 0.25% v/v solution (1 quart/100 gallons of water or 0.25 L/100 L of water).	Apply as pre-plant dip to the roots for 10 seconds. Plant within 48 hours after dipping. Mix a fresh solution daily.
	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 4 times per crop cycle.
	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply during the active growing season a maximum of 4 times.
[†]Suppression** of Powdery Mildew and other Fungal and Bacterial Diseases such as	Foliar Spray Aerial:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 10 gallons/acre (95L/ha) of water.	Low Disease Pressure*: Apply lower rate at the first onset of the disease. Repeat applications at 1-3 week intervals. Do not apply more than 4 times per crop cycle.
Fire Blight, ( <i>Erwinia</i> spp.) Scab ( <i>Venturia</i> spp.) and Blister Spot ( <i>Xanthomonas</i> spp.)	Ground:	Apply 1-3 quarts/acre (2-7 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	<b>High Disease Pressure*:</b> Apply higher rate at the first onset of the disease. Repeat applications at 1-3 week intervals. Do not apply more than 4 times per crop cycle.

## **STRAWBERRY:**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Red Stele, Leather Rot and Root Rot (Phytophthora and Pythium spp.)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 15 gallons/acre (150 L/ha) of water.	Begin application during active plant growth. Repeat on a 2-4 week interval when conditions favor disease development.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of water.	Perennial planting: Start Spring applications when the plants start active growth. Repeat application at 2-4 week interval if disease conditions persist or reoccur.
[†]Suppression** of Foliar Fungal and Bacterial Diseases (Anthracnose and	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	If using Red Stele susceptible varieties or if disease pressure is severe, use higher rates, shortest application time and maximum number of applications. Do not apply more than 6 times per crop cycle.
Rhizopus spp.)	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Grey mold and Anthracnose suppression using Fungi- Phite® requires the use of the high application rates and is most effectively applied when tank mixed with
	Transplant and Furrow Application	Apply 3 pints at planting or to newly planted seedling by side dressing or shank application.	other registered fungicides.
[†]Phytophthora spp.	Dip	Mix a 0.25% v/v solution (1 quart/100 gallons of water or 0.25 L/100 L of water).	Dip runners in the solution for 1-2 minutes. Plant within 48 hours. Mix a fresh solution daily.
Leather Rot (Phytophthora cactorum)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Start application at 10% bloom and early fruit set. Continue applications on a 7-14 day interval when conditions favor disease development. Under heavy disease pressure, use the higher rate and apply on a 7 day interval. Do not apply more than 6 times per crop
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	cycle.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	onset of the disease. Repeat applications at 7-10 day intervals. Do not apply more than 6 times per crop cycle.

# [†]TOBACCO:

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Phytophthora and Pythium spp. Root Rot and Damping Off	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Begin application after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply lower rate at 4 week intervals. Do not apply more than 4 times per crop cycle.
Blue Mold (Peronospora tabacina)	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Disease Control/High Pressure Program*: Apply higher rate at 2 week intervals. Do not apply more than 4 times per crop cycle.
Black Shank ( <i>P. parasitica</i> ) and Root Declines	Pre-Plant Nursery Seedling Application.	Apply 1 qt/100 gallons water to nursery plants in seedling trays 1-7 days prior to out planting.	
	Chemigation Overhead:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 4 times per crop cycle.
	Low Volume:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	

[†Not registered for use by CA.]

# **OLIVES AND TREE NUTS:**

Olives, Pistachios, and All members of Crop Group 14: Almonds; beech nut; brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; and Walnut, black and english.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root rots, Crown rots ( <i>Phytophthora</i> and <i>Pythium</i> spp.) Trunk Cankers, Foliar Blights).	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 7 gallons/acre (67 L/ha) of water.	Begin application during active plant growth after plants are established and conditions favor disease development.  Disease Prevention/Low Pressure Program*: Apply
[†]Suppression** of Foliar Bacterial and Fungal Diseases Anthracnose (Colletotrichum),	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 25 gallons/acre (235L/ha) of water.	lower rate at 3 monthly intervals. Do not apply more than 4 times per crop cycle.  Disease Control/High Pressure Program*: Apply higher rate at monthly intervals. Do not apply more than 4 times per crop cycle.
Hull rot ( <i>Monolia</i> spp.), Flower diseases	Root Dip	Mix a 0.5% v/v solution (2 quarts/100 gallons of water or 5 L/1000 L of water).	Apply as pre-plant dip to the roots for 30 seconds. Plant within 48 hours after dipping. Mix a fresh solution daily.
(Cladosporium spp.), Alternaria leaf Spots (Alternaria spp.), Raceme	Chemigation Overhead:	Apply 2-3 quarts/acre (5-7 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.	Apply with normal irrigation schedule. Follow <b>Disease Programs*</b> as stated above. Do not apply more than 6 times per crop cycle.
Blight ( <i>Phytophthora</i> ) in Macadamia.	Low Volume:	Apply 2-4 quarts/acre (5-9 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	
Pruning Wound, Crown and Trunk Canker (Phytophthora spp.)	Trunk Spray	Mix 1-2 quarts with (1-2 L) in 5 gallons (20 L) of water.	Use higher rates when lesions are present. Clean the wound site and apply on and around the lesions using enough spray volume to thoroughly wet the lesions. In the absence of lesions, use the lower rate and apply to the trunk from the soil line to 2 feet up the trunk. Apply one time in the Spring, Summer, and Fall.
Suppression** of Powdery Mildew	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Low 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.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of water.	High Disease Pressure*: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 days intervals. Do not apply more than 6 times per crop cycle.
Downy Mildew ( <i>Peronospora</i> spp.) Phytophthora	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 10 gallons/acre (95 L/ha) of water.	Low 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.
	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of water.	High Disease Pressure*: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 days intervals. Do not apply more than 6 times per crop cycle.
†Scab (Fusicladium effusum)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Apply in a preventative spray program beginning at bud break, directing the spray to all parts of the tree at 7-10 day intervals.
†Downy spot (Mycosphaerella	Ground:	For best control, apply 2-4 quarts/acre (5-9	Alternate with a fungicide registered for scab/downy

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
caryigena)		L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Use the lower rate in anticipation of low disease pressure and the higher rate if conditions favor higher disease pressure.*
			Do not apply more than 6 times per crop cycle.

[†Not registered for use by CA.]

### APPLICATION INSTRUCTIONS FOR ORNAMENTAL PLANTS, CONIFERS, AND TURF

#### **GENERAL APPLICATION INSTRUCTIONS**

Apply this product by various application methods, including foliar spray (aerial and ground), soil drench, soil incorporation and bare root dip. For foliar sprays, apply this product with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage.

Make applications prior to disease development in conjunction with good cultural management practices. Do not exceed the use rates or apply more frequently than the specified interval or plant injury can occur. Do not apply to plants that are dormant or heat or moisture stressed. To avoid undesirable copper phytotoxicity, do not make foliar applications to plants treated with copper-based compounds at less than 20-day intervals unless instructed to do so by your crop consultant. Allow foliage to dry completely after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

#### MIXING INSTRUCTIONS

- 1. Fill the spray tank with  $\frac{1}{2}$  to  $\frac{3}{4}$  of the required volume of water before adding the product.
- 2. Add the product slowly to the tank and agitate by hydraulic or mechanical means.
- 3. Continue to fill the tank with water to the desired volume while agitating.
- 4. Continue agitation when applying.

#### COMPATIBILITY

This product is compatible with most products used in agriculture. However, crop sensitivity to these mixtures may vary. If these combinations or others have not been previously used, do not tank mix without first testing the mixture's compatibility nor apply it without assessing its safety to the crop (phytotoxicity).

The use of spray adjuvants (i.e. stickers, spreaders, wetting agents) will enhance this products performance. If an adjuvant is used with this product, test before use for compatibility. Do not use strongly acidifying compatibility agents.

To determine the compatibility of this product with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container, thoroughly mix, then let stand for 3-5 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

<sup>\*</sup>Check with your local Extension Agent or Crop Consultant if you are unsure about disease prevention, control or severity/pressure.

<sup>\*\*</sup>Suppression: Fungi-Phite® has suppressive properties on diseases caused by certain bacteria or fungi. When applying Fungi-Phite® for disease suppression, use it in combination with another registered bactericide or fungicide registered for the same crops listed on this label.

To determine if a combination is phytotoxic to a specific crop, spray a few plants/trees/vines, then evaluate 3-7 days later for visual effects.

## **ROSES**

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rot and Cankers (Phytophthora and Pythium spp.) Downy Mildew, Bacterial Blight, Xanthomonas	Foliar Spray	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply at 2-4 week intervals and repeat as needed. Application rates depend upon plant type, maturity and spray technique/method. Do not apply more than 6 times per crop cycle.
[†]Suppression** of Foliar Diseases Black Spot (Diplocarpon spp.),	Soil Drench:  Soil Incorporation:	Mix 1-2 quarts (1-2 L) in 100 gallons (380 L) of water.  Mix 4-16 fl oz/cubic yard (150-700 ml/m³) of soil media.	Apply using hand held, mechanical, or motorized spray equipment, or as a chemigation drench or directed spray using applicable sprinkler or low volume irrigation systems to propagation beds, containers, pots, trays, or nursery or landscape beds at a rate to thoroughly soak the growing media through the root zone. A general guide is 1-2 quarts/sq ft (5-10 L/m²) of the diluted mixture depending on the media type and depth (about 3 fl oz/3 inch pot or 6 fl oz/6 inch pot or about 80 ml/10 cm pot and 120 ml/15 cm pot).  Mix product with soil media immediately before potting. If conditions are favorable for disease development, applications as a foliar spray or soil drench will enhance protection.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial: Ground:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.  Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 75 gallons/acre (700 L/ha) of water.	Low 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.  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.

[†Not registered for use by CA.]

#### **ORNAMENTALS:**

Ornamentals such as: Annual and Perennial Flowers; Bedding Plants; Foliage Plants; Ground Covers; Deciduous and Evergreen Trees and Shrubs in the Field, Container, and Conifer Nurseries, Lath or Shade Houses, Greenhouses, Residential, Commercial and Municipal Landscapes. Use in Greenhouses.

Ornamentals and bedding plants including: Ageratum, Aglaonema, Algerian Ivy, Anthurium, Aphelandra, Arborvitae, Artemisia, Aster, Azaleas, Baby's Breath, Begonia, Bougainvillea, Boxwood, Caladium, Carnation, Cattelya Skinneri, Ceanothus, Chrysanthemum, Cissus, Coleus, Columbine, Cotoneaster, Daisy, Delphinium, Dieffenbachia, Dogwood, Easter Lily, English Ivy, Ficus, Foxglove, Gaillardia, Geranium, Gloxinia, Hibiscus, Impatiens, Japanese Holly Juniper, Leather-Leaf Fern, Marigold, Monterey Pine, Pansy, Peperomia, Petunia, Philodendron, Phlox, Photinia, Pieris, Pinks, Pittosporum, Poinsettia, Pothos, Primrose, Prostrate Rosemary, Rhododendron, Salvia, Schefflera, Sedum, Sempervivum, Snapdragon, Spathiphyllum, Taxus Media, Verbena, Vinca, White Cedar, White Pine, Zinnia, Zygocactus

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root and Crown Rots, Stem Cankers and Foliar Blight. (Phytophthora and Pythium spp.)  [†]Suppression** of Foliar Diseases	Foliar Spray Aerial: Ground:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.  Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of	Apply at 2-3 week intervals and repeat as needed. Use the lower rate on sensitive plants. For greenhouse applications, do not exceed the lower rate (1 quart/100 gallons/acre of water or 2 L/950 L/ha of water). Do not apply more than 6 times per crop cycle.
	Soil Drench	water.  Mix 6-13 fl oz (180-390 ml) in 100 gallons (380 L) of water.	Apply 25 gallons of solution per 100 square feet. Irrigate to distribute solution through soil. Repeat as required. Limit to one application per month.
	Soil Incorporation	Mix 1-2 pints/cubic yard (600-1200 ml/m³) of soil.	Mix immediately before potting. If conditions are favorable for disease development, a foliar spray or soil drench application will enhance protection.
	Root Dip	Mix a 0.25% v/v solution (1 quart/100 gallons of water or 1 L/400 L of water).	Dip transplants into diluted mixture keeping roots submerged for 20-30 seconds. Plant within 48 hours. Make a fresh solution daily.
	Chemigation Overhead: Low Volume:	Apply 2 quarts/acre (5 L/ha) in a minimum of 1,000 gallons/acre (9,350 L/ha) of water.  Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 100 gallons/acre (950 L/ha) of water.	Apply with normal irrigation schedule. Follow Foliar Spray APPLICATION PROGRAM as stated above. Do not apply more than 6 times per crop cycle.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Downy Mildew	Foliar Spray Aerial: Ground:	Apply 0.5-1 quart/acre (1-2 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.  Apply 1-2.5 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of water.	Low 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.  High Disease Pressure*: Apply higher rate at the first onset of the disease. Repeat applications at 7-10 days intervals. Do not apply more than 6 times per crop cycle.  Application amount depends upon plant type, maturity and application technique/method.
[†]Suppression** of Powdery Mildew	Foliar Spray Aerial: Ground:	Apply 1-1.5 quarts/acre (2-3.5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.  Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 50 gallons/acre (475 L/ha) of water.	Low 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.  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.

[†Not registered for use by CA.]

# CONIFERS IN COMMERCIAL NURSERIES, LANDSCAPE TREES, PLANTATIONS, FORESTRY AND PARK APPLICATIONS<sup>1</sup>:

Conifers including: Christmas Tree Varieties, Firs, Spruces, Ash, Pines, Beech, Cedar, Chestnut, Crab Apple, Dogwood, Elm, Fir, Hawthorn, Juniper, Linden, Oaks, Birch, Eucalyptus and Willow.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Root Rot and Trunk Cankers ( <i>Phytophthora</i> <i>Pythium</i> spp.)	Foliar Spray Aerial:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 20 gallons/acre (190 L/ha) of water.	Apply as a light cover spray to foliage. Apply at 2-4 week intervals and repeat as needed. Final application amounts depend on plant type, maturity, and application technique/method. Do not apply more than 4 times per crop cycle.
[†]Suppression** of Foliar Diseases	Ground:	Apply 1-2 quarts/acre (2-5 L/ha) in a minimum of 40 gallons/acre (380 L/ha) of water.	
[†]Enhancement of Mycorrhization	Soil Drench	Mix 1-2 quarts (1-2 L) in 100 gallons (380 L) of water.	Apply 0.25-0.5 pints/sq ft (4-8 L/m³) of the diluted mixture. Irrigate sufficiently to wet active root zone. Apply at a 2-4 week interval and repeat as needed. Do not apply more than 4 times per crop cycle.
	Root Dip	Mix a 0.25% v/v solution (1 quart/100 gallons of water or 1 L/400 L of water).	Dip transplants into diluted mixture keeping roots submerged for 1 to 2 minutes. Plant within 48 hours. Make a fresh solution daily.
Christmas Trees	Soil Drench	1 gallon/acre immediately after transplanting then 2 qt/acre every 30 days for 3 applications in the active growing season.	·
Stem and Canker Blight (Phytophthora ramorum) i.e. Sudden Oak Death <sup>1</sup>	Trunk Injection	Make up a 15% v/v solution of Fungi-Phite® (20 fl oz/gallon of water or 150 ml/L of water).	Inject (according to injection equipment instructions) 0.5 fl oz (15 ml) of the diluted Fungi-Phite® solution into one injection hole.  Dosage: One (1) injection per yard (or meter) of canopy diameter at the drip line. (i.e. a tree with 6 yards (or meters) of canopy diameter will require 6 injections via 6 separate injection holes).  Curative: Inject 2 times per year in the Spring and Fall.
			Preventative: Inject 1 time in the Spring.
	[†]Bark Applications	Mix Fungi-Phite® and water in a 1:1 ratio (i.e. 1 gallon of Fungi-Phite® plus 1 gallon of water). Add to this 3 oz (100 ml) of a silicon based surfactant.	Apply the Fungi-Phite® solution from the base of the tree to approximately 5 feet (1.5 M) above ground, ensuring complete bark coverage. Spray over active lesions if they are accessible.

[†Not registered for use by CA.]

<sup>1</sup>Use in California is limited to Oaks (Coastal, live, Shreve, Black, and Canyon), Tan Oaks and other tree species that are host to *P. ramorum*. Applications limited to injection and basal bark spray of pines, apples and cranberries, and injection of Sycamores for control of Sycamore anthracnose. Do not apply to any other tree species without consulting the list of *P. ramorum* host species as provided by your local agronomist or as listed by USDA: APHIS Lists of Proven Hosts of and Plants Associated with Phytophthora ramorum (usda.gov).

# TURF (Warm & Cool season)\*\*\*:

Turf including: Golf Courses, Athletic Fields, Sod Farms, Residential, Amenity, Commercial and Municipal Lawns.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
[†]Pythium spp. and Phytophthora	Foliar Spray	Mix 3.5-5 fl oz (100-150 ml) in 1-2 gallons (4-8 L) of water.	Begin preventative applications when conditions first favor disease. Apply 1-2 gallons of diluted mixture/1,000 sq ft (4-8 L/100 m²) as a light cover spray. Apply at a 1-4 week interval as needed. Do not mow or irrigate treated area until sprays have completely dried
Pythium Blight		5 fl oz/1000 sq. ft.	Apply at 7 day intervals
Suppression** of Brown Patch (Rhizoctonia spp.)		5 fl oz/1000 sq. ft. Apply at 1.5 gallons per 1000 sq. ft.	Apply at 7 day intervals.
and Anthracnose (Colletotrichum)			Turf disease management is significantly improved when Fungi-Phite® is used at the high labeled rate and is most effectively used when tank mixed with other registered fungicides.

[†Not registered for use by CA.]

#### **TURF TANK MIXTURES\*\*\*:**

For **Suppression\*\*** or control of summer stress diseases caused by a complex of *Pythium* spp, *Colletotrichum* spp. and *Rhizoctonia* spp. Also for improvement of existing fungicide programs and the minimization of resistance development in pathogenic fungi. Tank mix this product with fungicides from the classes of Fungicides as listed below in accordance with the most restrictive label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibiting against any such mixing. To determine the compatibility of this fungicide with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to a clean container. Thoroughly mix and let stand for 3-5 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

DISEASE	APPLICATION METHOD	APPLICATION RATE	APPLICATION PROGRAM
Complex of Pythium spp., Colletotrichum spp. and Rhizoctonia spp.	Tank mix with a registered fungicide for these turf declines such as a dithiocarbanate, a Triazole, a benzimidazole, a strobilurin or a Chloronitrile fungicide.	Follow product label.	Follow the most restrictive product label.

<sup>\*</sup>Check with your local Extension Agent or Crop Consultant if you are unsure about disease prevention, control or severity/pressure.

<sup>\*\*</sup>Suppression: Fungi-Phite® has suppressive properties on diseases caused by certain bacteria or fungi. When applying Fungi-Phite® for disease suppression, use it in combination with another registered bactericide or fungicide registered for the same crops listed on this label.

<sup>\*\*\*</sup>Do not graze livestock or poultry in treated turf areas. Do not feed forage or clippings from treated turf areas to livestock or poultry.

#### APPLICATION INSTRUCTIONS FOR POST HARVEST APPLICATIONS

General Instructions: Fungi-Phite Fungicide can be applied in any aqueous application such as bin washers, dump tanks, soak tanks and pressure washers. When diluted per label mixing instructions, Fungi-Phite is compatible with most post-harvest chemicals. For Suppression of: Brown Rot (*Phytophthora* spp.), *Pythium* Storage Rots (*Pythium* spp.), Sour Rot (*Geotrichum candidum*), Bitter Rot (*Glomularia* spp.), Blue Mold (*Penicillium italicum*), Green Mold (*Penicillium digitatum*), Anthracnose (*Colletotrichum gloeosporioides*), Late Blight (*Phytophthora infestans*) and Pink Rot (*Phytophthora erythroseptica*) particularly when used in combination with other post harvest fungicides.

Fungi-Phite® is especially effective in preventing the development of tolerant or resistant strains of fungi when tank mixed with a registered fungicide of a different class of chemistry or when registered chemicals require alternating with a different chemical class.

Use a suitable non-ionic surfactant in all post-harvest applications.

# [†]POTATOES, SWEET POTATOES AND YAMS AND OTHER TUBER CROPS:

DISEASE	APPLICATION RATE	APPLICATION PROGRAM
Suppression** of Late Blight (Phytophthora infestans) and Pink Rot (Phytophthora erythroseptica)	Tuber low volume spray: Apply 1-1.5 pints of Fungi-Phite® per ton of tubers in 0.5-1 gallon of water as a spray.	Ensure complete and even coverage. If dipping, ensure that potato tubers are immersed in solution for at least 30 seconds.
	Dipping: Make up a 1% v/v solution of Fungi-Phite®.	

[†Not registered for use by CA. ]

### **CITRUS GROUP:**

**Citrus including: Grapefruit**; lemons; limes; oranges (sour and sweet); tangelos; tangerines; citrus Citron; citrus hybrids (mandarin lime, calamondin); clementines; kumquat; pummelo; and satsuma mandarin.

DISEASE	APPLICATION RATE	APPLICATION PROGRAM
Suppression** of Brown rot (Phytophthora spp)., Green Mold (Penicillium digitatum) and Blue Mold (Penicillium italicum) & Sour Rot (Geotrichum candidum)	Make up a 2% v/v solution of Fungi-Phite® in water. Use approximately 100 gallons of diluted solution per 30 bins# of fruit. For applications to aqueous sprays prior to washing, apply 3 pints per 25 gallons spray mixture.	Ensure complete and even coverage and that fruit is drenched for at least 60 seconds.

\*Note: Average Bin Weight = 800 lbs or 30 bins weigh 12 Tons

# [†]DRENCH TANK OR SPRAY:

For use on Avocado, Pome Fruit (Apples, Pears, Loquat, Mayhaw, Quince), Stone Fruit (Apricots, Cherry (sour and sweet), Nectarine, Peach, Plum, Plumcot, Prune), Banana, Plantain, Mango, Papaya, Pineapple, Guava, Lychee, Longan, Mangosteen, Carambola, Wax Apple, and Carrots.

CROP	DISEASE	APPLICATION RATE	APPLICATION PROGRAM
Avocado	Suppression** of Anthracnose (Colletotrichum spp.) Dithiorella and Cercospora spp.	Apply 4-6 quarts Fungi- Phite® per 100 gallons of water. Use approximately 100 gallons of diluted solution per 30 bins# of fruit.	Ensure complete and even coverage. Replace solution every 30 bins of fruit.
Pome Fruit	Suppression** of Brown Rot (Phytophthora spp.) Blue Mold (Penicillium spp.)Bitter Rot (Glomularia spp.) and Monolinia spp.	Apply 2-3 quarts Fungi- Phite® per 1000 gallons of water. Use approximately 100 gallons of diluted solution per 30 bins# of fruit.	Ensure complete and even coverage. Replace solution every 30 bins of fruit.
Stone Fruit	Suppression** of Brown Rot (Phytophthora spp.) (Monolinia spp) Grey Mold (Botrytis) and Blue Mold (Penicillium spp.)	Apply 4 quarts Fungi- Phite® per 100 gallons of water. Use approximately 100 gallons of diluted solution per 30 bins# of fruit.	Ensure complete and even coverage. Replace solution every 30 bins of fruit.
Bananas & Plantains	Suppression** of: Crown Rot (Fusarium spp.), Anthracnose (Colletotrichum spp.) Speckle, Freckle and Finger Rot	Dehanding Tank: Apply 2-3 gallons Fungi- Phite® per 200 gallons of water. Replenish every 2 days.	Apply to dehanded fruit after fruit has passed through the delatexing tank. Apply as a part of the post-harvest fungicide treatment.
		Fungicide Application: Apply as a spray mix with other fungicides at 1-2 pints Fungi-Phite® per 25 gallons of water	
Mangos, Papayas, Pineapple, Lychee, Longan, Carambola, Wax Apple, Mangosteen, and Guava	Suppression** of Anthracnose spp., Black Spot, Chocolate Spot, Cercospora, Alternaria, Botryodiplodia, Phomopsis, Cladosporium	Fruit Dip: Make up a 2% v/v solution of Fungi- Phite® in water. Use one gallon of the diluted mix per 4,000 lbs. of fruit.	Ensure complete and even coverage. Apply with other fungicides in hot or cold water.
Carrots	Suppression** of Cavity Spot, Fusarium Rot, Phytophthora Rot, Grey Mold (Botrytis cineria) Crown Rot and Black Rot	Apply 3 pints Fungi-Phite® per 75 gallons of water. Use one gallon of the diluted mix per 6,000 lbs. of carrots	Immerse carrots for 5-10 seconds prior to storage. Replace solution when it appears dirty.

[†Not registered for use by CA.]

\*Note: Average Bin Weight = 800 lbs or 30 bins weigh 12 Tons

## [†]CUT FLOWERS, ROSES and CHRYSANTHEMUMS:

CROP	DISEASE	APPLICATION RATE	APPLICATION PROGRAM
Roses, Chrysanthemums, Carnations and Other Cut flowers	For the Suppression** of post-harvest storage rots, including Botrytis, Anthracnose, vascular wilts and soft rots	Apply 0.5-1.5 pints Fungi-Phite® per 100 gallons in the hydrating solution.  Use the lower rate (0.5 pints/100 gallons) when low pest pressure is present.  Use the higher rate (1.5 pints/100 gallons) when high pest pressure is present	Ensure complete and even coverage of cut flower stems when immersing. Do not immerse the flower heads.

[†Not registered for use by CA.]

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry place.

**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 (five gallons or less):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean 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.

**Nonrefillable Container (greater than five gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean 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 container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Refillable Container:** Refillable container. Refill this container with Mono- and di-potassium salts of Phosphorous Acid only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

[FOR CHEMICAL EMERGENCY ONLY (SPILL, LEAK, OR FIRE), CALL [CHEMTREC AT 1-800-424-9300].]

<sup>\*\*</sup>Suppression: Fungi-Phite® has suppressive properties on diseases caused by certain bacteria or fungi. When applying Fungi-Phite® for disease suppression, use it in combination with another registered bactericide or fungicide registered for the same crops listed on this label.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions for use of this product are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of VERDESIAN LIFE SCIENCES (VERDESIAN). To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

VERDESIAN warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, VERDESIAN makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. To the extent consistent with applicable law, VERDESIAN disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. No agent of VERDESIAN is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at VERDESIAN's election, the replacement of product.

[Label version 10/09/2024]