

# OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

December 7, 2023

Georgia Anastasiou Agent for Phyton Corporation c/o Lewis & Harrison LLC Phyton Corporation P. O. Box 385370 Minneapolis, MN 55438

Subject:

 Label Amendment – Adding additional crops via cite-all approach Product Name: Phyton-016-B
 EPA Registration Number: 49538-5
 Application Date: 11/1/2022
 Case Number: 475949

Dear Georgia Anastasiou:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing 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 copy of the final printed labeling before you release the 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 the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements 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 Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2 EPA Reg. No. 49538-5 Case No. 475949

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

If you have any questions, please contact Thomas Harty at 202-566-0394 or at <u>harty.thomas@epa.gov</u>.

Sincerely,

XB

Kable Bo Davis Senior Regulatory Specialist Office of Pesticide Programs Registration Division, Immediate Office

Enclosure

COPPER	GROUP	M1	FUNGICIDE
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# Phyton-016-B

[Alternate Brand Name: Phyton 27AG] [Alternate Brand Name: Phyton 35] [Alternate Brand Name: Phyton 35 BSC] [Alternate Brand Name: INSTILL Bactericide<sup>^</sup> & Fungicide]

> SYSTEMIC **BACTERICIDE<sup>^</sup> & FUNGICIDE**

BACTERICIDE + FUNGICIDE



Broad-spectrum bactericide<sup>^</sup> & fungicide for the control of diseases in ornamental plants and food crops grown in greenhouses, interiorscapes, fields, container and forest nurseries, lath saran and shade houses, and residential and commercial landscapes.

ACTIVE INGREDIENT

Copper Sulfate Pentahydrate**(CAS# 7	758-99-8)	21.27%
OTHER INGREDIENTS.	· · · · · · · · · · · · · · · · · · ·	<u>78.73%</u>
[TOTAL		]100.00%
**Copper as Metallic	5.4%	-

Contains 2.18 lbs active ingredient and 0.55 lbs of metallic copper per gallon of product.

#### KEEP OUT OF REACH OF CHILDREN WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.)

[See (attached label brochure) (inside of booklet) for directions for use and precautionary statements] DO NOT FREEZE

> E.P.A. REG. NO. 49538-5 E.P.A. EST. NO. [Distributed by:]



**Phyton Corporation** 13505 Industrial Park Blvd Plymouth, MN 55441 800-356-8733 (Net) Contents:



and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 49538-5

^non-public health bacteria

# PHYSICAL OR CHEMICAL HAZARDS

For spills, you may contact CHEMTREC at 1-800-424-9300

#### **FIRST AID**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.

- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

- Call a poison control center or doctor for treatment advice.

#### If Swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.

- Do not give anything by mouth to an unconscious person.

#### If 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.

**Note to Physician:** Skin symptoms may be similar to copper allergic reactions and can be treated similarly, including the use of steroid-containing lotion. If swallowed, probable mucosal damage may contraindicate the use of gastric lavage.

[See side panel for additional precautionary statements.]

### NOTICE:

Our directions for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice, including but not limited to over-fertilization or senescing plant tissue. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of the manufacturer. All such risks shall be assumed by the buyer. To the extent consistent with applicable law the exclusive remedy is the product purchase price. Phyton-016-B is reported compatible with many registered pesticides. However, before adopting the use of additives and/or combinations for general applications, test for physical compatibility and noninjury under your conditions of use. To the extent consistent with applicable law the buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials as tank mix or applied separately.

#### PRECAUTIONARY STATEMENTS HAZARD TO HUMANS (& DOMESTIC ANIMALS)

WARNING: Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get into eyes or on clothing. Avoid contact with skin.

# Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear the following:

- Long-sleeved shirt and long pants
- Chemical resistant gloves (e.g., barrier laminate, butyl rubber, neoprene rubber)
- Shoes and socks
- Goggles or face shield

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls Statements:**

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

#### USER SAFETY RECOMMENDATIONS

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

- User should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

- Wash the outside of gloves before removing.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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

#### 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 may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

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

Do not allow workers to enter into treated areas during the restricted entry interval (REI) of 48 hours.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: Coveralls

Shoes plus socks

Chemical-resistant gloves made of any waterproof material.

Protective eyewear

The restricted entry interval (REI) for greenhouse use is 24 hours if the following conditions are met:

- For at least seven days following the application of copper sulfate pentahydrate in greenhouses:
  At least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products
- Workers are informed orally, in a manner they can understand:
  - a. that residues in the treated area may be highly irritating to their eyes
  - b. that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
  - c. that if they do get residues in their eyes, they should immediately flush their eyes with the eyeflush container or eye flush station that is located with the decontamination supplies and
  - d. how to operate the eyeflush container or eye flush station

[Not for use in greenhouses in California]

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses 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 or allow others to enter until the sprays have dried.

# **RESISTANCE MANAGEMENT**

For resistance management, Phyton-016-B contains a Group M01 fungicide/bactericide<sup>^</sup>. Any fungal/bacterial population may contain individuals naturally resistant to Phyton-016-B and other Group M01fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of Phyton-016-B or other Group M01 fungicides/bactericides<sup>^</sup> within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Phyton Corporation at (XXX) XXX-XXXX. You can also contact your pesticide distributor or university extension specialist to report resistance.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE**— Do not freeze or store below 45° F. Store in original container.

**PESTICIDE DISPOSAL**—Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. Open dumping is prohibited.

**CONTAINER DISPOSAL**—Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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. Then offer for recycling or reconditioning, if available, or dispose of in a sanitary landfill, or by incineration if allowed by state and local authorities. Do not reuse these containers.

# **PRODUCT INFORMATION**

Phyton-016-B is a systemic bactericide<sup>\*</sup> & fungicide that when mixed with the appropriate volume of water, provides systemic, preventive and curative activity on a broad-spectrum of bacterial and fungal diseases listed on this label. Phyton-016-B will not leave any visible residue when mixed and applied according to the USE DIRECTIONS listed on this label. Phyton-016-B may be applied by spray, drench, dip or injection. Equipment must be properly calibrated before use.

# **USE DIRECTIONS**

- 1. Shake well before mixing with water. Use within 48 hours after mixing.
- 2. Adjust pH of solution to 5.5 6.5.

3. Phyton-016-B can be applied with any type of application equipment that gives uniform coverage of all foliage, including ground, aerial, and low volume sprayers and chemigation equipment specified on this label. The volume of water needed will depend on the spray equipment and the size of the crop. Use in sufficient water to provide thorough coverage.

4. Phyton-016-B can be used up to the time of harvest.

5. Do not apply this product through any system using aluminum parts or components as damage to the system may occur.

6. Compatible with most fungal and insecticidal biopesticides when applied at least 2 days before or after application of the biopesticide.

7. Do not tank mix Phyton-016-B with B-NINE and do not apply Phyton-016-B within seven (7) days either before or after applications of B-NINE, as burning of leaves may result.

8. Do not tank mix Phyton-016-B with strongly acidic compounds such as Aliette, and do not apply Phyton-016-B within 14 days either before or after applications of such products.

9. Phytotoxicity: Phyton-016-B has been tested on a wide variety of agricultural and ornamental plants without phytotoxicity symptoms. However, because it is not possible to test all plant species, varieties and cultivars and because environmental factors and varietal stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the anticipated dosage rate and observed for 5 to 7 days to determine phytotoxicity before treating large numbers of those plants.

10. Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods.

11. Application on buds and open blooms: Phyton-016-B is not phytotoxic at the lowest dosage rates on most buds and open blooms. It is recommended to treat a small group of test plants at the anticipated dosage rate and observe to determine phytotoxicity before treating large numbers of those plants.

12. Liquid equivalents: one fluid ounce = 29.5 milliliters = 6 teaspoons.

13. Apply specified amount of Phyton-016-B in 100[-200] gallons of water per acre of affected area to be treated depending on the size of the crop, disease to treat, and application equipment.

# [SEE ATTACHED BOOKLET FOR DIRECTIONS OF USE]

#### SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and the method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Droplet Size:** Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

**Wind Speed:** Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

**Temperature Inversions:** If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or unstable atmospheric conditions.

**Other State and Local Requirements:** Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

**Equipment:** All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

### For aerial application:.

- Do not release spray at a height greater than 10 ft. above the vegetative canopy or water, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speed exceeds 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the application area.
- Do not apply during temperature inversions.
- •For groundboom application: Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

# SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS. **IMPORTANCE OF DROPLET SIZE** 

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

# Controlling Droplet Size – Ground Boom

• Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

• Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

• Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

# **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage.

For ground equipment, the boom should remain level with the crop and have minimal bounce.

# **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

# **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING **GUSTY WIND CONDITIONS.** 

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### RESTRICTIONS

- Do not mix with acidic compounds such as products containing aluminum or apply to crops within 14 days before or after application of same.
- Do not spray on cars, houses, lawn furniture, etc.
- Do not mix with pot ash.
- Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

# ORNAMENTALS

Begin application at first sign of disease, repeat applications every 7 to 14 days; use shorter intervals when severe disease conditions persist. The minimum retreatment interval is 7 days. Applications of Phyton-016-B should be in water volumes that provide throughout coverage of plant parts.

Routine preventive programs may be maintained at the lower rates. Rates above 15 fl. oz. Phyton-016-B per 100 gallons water may damage some tender, open blooms. Use of low volume equipment is effective against Botrytis and not effective against established powdery mildew and Xanthomonas infections. Applications on actively growing tissue may be more effective than applications on dormant tissue.

For a single application, do not exceed 2.0lbs metallic copper/A. Do not exceed 20 lbs metallic copper/A/year. Phyton-016-B contains 0.55 lbs of metallic copper per gallon of product.

**For a single application to Easter lilies**, do not exceed 2.5 lbs metallic copper/A. Do not exceed 75 lbs metallic copper/A/year. The minimum retreatment interval is 7 days. Do not apply any additional copper pesticide to this land for 36 months for field grown Easter lilies.

### SPECIFIC DIRECTIONS FOR FOLIAR SPRAY APPLICATIONS

Greenhouse, Field, Landscape and Interior: Annual & Perennial Bedding Plants, Potted Flowering Crops, Tropical Foliage, Cut Flower Crops & Nursery Crops.

Annual & Perennial Bedding Plants			
CROP	PATHOGEN	RATE	
		(fl. oz./100 gal)	
Alyssum	Botrytis	10 - 20	
A (1	Downy Mildew	10 - 20	
Argyranthemum	Botrytis	13 - 20	
	Erwinia	13 - 20	
Begonia	Botrytis	13 - 20	
	Powdery Mildew	15 - 30	
	Xanthomonas	15 - 30	
Chrysanthemum	Botrytis	15 - 25	
	Pseudomonas	15 - 25	
Daylily	Botrytis	13 - 20	
	Erwinia	15 - 25	
	Powdery Mildew	15 - 25	
Dusty Miller	Alternaria	15 - 25	
	Botrytis	13 - 20	
Fuchsia	Botrytis	13 - 20	
	Powdery Mildew	13 - 25	
Geranium	Botrytis	15 - 20	
	Rust (preventive)	15 - 20	
	Rust (therapeutic)	25 - 40	
	Pseudomonas (preventive)	15 - 45	
	Pseudomonas	50	
	(therapeutic)		
	Xanthomonas (preventive)	15 - 45	
	Xanthomonas (therapeutic)	50	
Hollyhock*	Botrytis	13 - 20	
-	Powdery Mildew	15 - 25	
	Rust	15 - 25	
Hosta	Botrytis	15 - 20	
	Erwinia	15 - 30	
Impatiens	Alternaria	15 - 35	
1 1	Botrytis	13 - 15	
	Powdery Mildew	13 - 25	
	Pseudomonas	15 - 35	
New Guinea	Botrytis	13 - 15	
Impatiens	Powdery Mildew	13 - 20	
Pachysandra*	Botrytis	13 - 20	
·	Douguo	Master Label/ 2022 10 1	

		Volutella			13 - 25
Pansy		Botrytis			13 - 20
i anoy		Cercospora			15 - 20
		Phytophthora			13 - 20
Periwinkle		Botrytis			13 - 20
		Phytophthora			15 - 20
Ranunculus		Bacterial Blight			13 - 20
		Botrytis			13 - 20
		Powdery Mildew			15 - 25
Snapdragon		Botrytis			13 - 20
		Downy Mildew			13 - 25
		Rust			13 - 25
Zinnia		Botrytis			13 - 20
		Powdery Mildew			13 - 25
		Pseudomonas			13 - 25
		Xanthomonas			13 - 25
Additional An	nuals &	Botrytis			13 - 20
Perennials:		Downy Mildew			15 - 30
		Powdery Mildew			15 - 25
		Pseudomonas			15 - 25
Anenome*	Aster*	Bacopa*	Baptisia*		Carnation*
Coleus*	Columbine*	Coneflower*	Coreopsis		Cuphea*
Dahlia	Daisy*	Dianthus*	Delphiniun	n*	Echinacea*
Ipomoea*	Lantana*	Lead Plant*	Liatris*		Lobelia*
Lupine*	Marigold*	Monarda*	Ornamenta	al	Pentas*
			Grasses*		
	Phlox*	Poppy*	Prairie Sm		Primrose*
	Rudbeckia*		Scabiosa*		Sedum*
	Verbena	Veronica*	Vinca*		Viola*
*Not approve	d for use in Ca	alifornia			
Potted Flow	vering Crops	5			
CROP		PATHOGEN			RATE
				(fl. c	oz./100 gal)
African Violet		Botrytis			<u>13 - 15</u>
		Powdery Mildew			13 - 15
Azalea		Botrytis			13 - 25
		Colletotrichum			15 - 25
O alla like		Cylindrocladium			15 - 35

		(II. 02./ IUU gal)
African Violet	Botrytis	13 - 15
	Powdery Mildew	13 - 15
Azalea	Botrytis	13 - 25
	Colletotrichum	15 - 25
	Cylindrocladium	15 - 35
Calla lily	Botrytis	13 - 20
	Erwinia	13 - 20
Chrysanthemum	Botrytis	15 - 25
	Crown Gall	15 - 25
	Erwinia	15 - 25
	Powdery Mildew	15 - 25
Cineraria*	Botrytis	13 - 20
Cyclamen	Botrytis	15 - 20
	Erwinia	15 - 20
Daffodil	Botrytis	13 - 20
Easter lily	Botrytis	13 - 20
Exacum*	Botrytis	13 - 20
Gerbera	Botrytis	15 - 25
	Powdery Mildew	15 - 25
Gloxinia*	Botrytis	13 - 20
Holiday Cactus*	Botrytis	13 - 25
	Erwinia	15 - 50

		45 50
	Pseudomonas	15 - 50
	Xanthomonas	15 - 50
Hyacinth*	Botrytis	13 - 20
Hydrangea	Botrytis	13 - 25
	Powdery Mildew	13 - 25
lris*	Botrytis	13 - 20
	Erwinia	15 - 20
Kalanchoe	Botrytis	15 - 25
	Erwinia	15 - 35
	Powdery Mildew	15 - 35
Lisianthus	Botrytis	13 - 20
Orchid	Botrytis	13 - 15
	Erwinia	15 - 40
	Pseudomonas	15 - 40
	Xanthomonas	15 - 40
Poinsettia	Botrytis	15 - 20
	Scab	20 - 35
	Powdery Mildew (preventive)	15 - 20
	Powdery Mildew	20 - 35
	(therapeutic)	
	Erwinia (preventive)	15 - 20
	Erwinia (therapeutic)	20 - 35
	Xanthomonas (preventive)	15 – 20
	Xanthomonas (therapeutic)	20 – 35
Primula	Botrytis	13 – 20
	Erwinia	15 – 20
Rose bush	Black Spot (preventive)	15 – 30
	Black spot (therapeutic)	35 – 50
	Botrytis (preventive)	15 – 20
	Botrytis (therapeutic)	25 – 50
	Cylindrocladium (preventive)	15 - 20
	Cylindrocladium	25 - 50
	Cylindrocladium (therapeutic)	25 - 50
	(therapeutic)	
	(therapeutic) Downy Mildew (preventive)	15 - 20
	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic)	15 - 20 25 - 50
	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive)	15 - 20
	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew	15 - 20 25 - 50 15 - 30
Tulip	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic)	15 - 20 25 - 50 15 - 30 35 - 50
Tulip *Not approved for use	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis	15 - 20 25 - 50 15 - 30
*Not approved for use	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis	15 - 20 25 - 50 15 - 30 35 - 50
I	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis	15 - 20 25 - 50 15 - 30 35 - 50
*Not approved for use Nursery Crops	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis in California	15 - 20 25 - 50 15 - 30 35 - 50
*Not approved for use	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20
*Not approved for use Nursery Crops	(therapeutic) Downy Mildew (preventive) Downy Mildew (therapeutic) Powdery Mildew (preventive) Powdery Mildew (therapeutic) Botrytis in California	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal)
*Not approved for use Nursery Crops CROP	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25
*Not approved for use Nursery Crops CROP	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25
*Not approved for use Nursery Crops CROP	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35
*Not approved for use Nursery Crops CROP Azalea	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35 20 - 25
*Not approved for use Nursery Crops CROP Azalea Buxus	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35 20 - 25 15 - 25
*Not approved for use Nursery Crops CROP Azalea Buxus Cherry Laurel*	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella      Xanthomonas	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35 20 - 25 15 - 25 20 - 35
*Not approved for use Nursery Crops CROP Azalea Buxus	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella      Xanthomonas      Botrytis	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35 20 - 25 15 - 25 20 - 35 13 - 25
*Not approved for use Nursery Crops CROP Azalea Buxus Cherry Laurel* Conifers*	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella      Xanthomonas      Botrytis      Diplodia	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 15 - 35 20 - 25 15 - 25 20 - 35 13 - 25 13 - 25 13 - 25 10 - 13
*Not approved for use Nursery Crops CROP Azalea Buxus Cherry Laurel*	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella      Xanthomonas      Botrytis      Diplodia      Botrytis	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 13 - 25 15 - 35 20 - 25 15 - 25 20 - 35 13 - 25 10 - 13 13 - 25
*Not approved for use Nursery Crops CROP Azalea Buxus Cherry Laurel* Conifers*	(therapeutic)      Downy Mildew (preventive)      Downy Mildew (therapeutic)      Powdery Mildew (preventive)      Powdery Mildew (therapeutic)      Botrytis      in California      PATHOGEN      Anthracnose      Botrytis      Cylindrocladium      Phytophthora      Volutella      Xanthomonas      Botrytis      Diplodia	15 - 20 25 - 50 15 - 30 35 - 50 13 - 20 <b>RATE</b> (fl. oz./100 gal) 15 - 25 13 - 25 15 - 35 20 - 25 15 - 25 20 - 35 13 - 25 13 - 25 13 - 25 10 - 13

Botrytis

13 - 25

Powdery Mildew20 - 3Elm*Erwinia20 - 4EuonymusAnthracnose15 - 3Botrytis13 - 2HawthornCedar Apple Rust15 - 3HydrangeaBotrytis13 - 2Cercospora15 - 3Powdery Mildew13 - 3Indian HawthornBotrytis13 - 3Entomosporium15 - 3	40 30 25 25
EuonymusAnthracnose15 - 3Botrytis13 - 2HawthornCedar Apple Rust15 - 2HydrangeaBotrytis13 - 2Cercospora15 - 2Powdery Mildew13 - 2Indian HawthornBotrytis13 - 2Entomosporium15 - 3	30 25 25
Botrytis13 - 2HawthornCedar Apple Rust15 - 2HydrangeaBotrytis13 - 2Cercospora15 - 2Powdery Mildew13 - 2Indian HawthornBotrytis13 - 2Entomosporium15 - 2	25 25
HawthornCedar Apple Rust15 - 2HydrangeaBotrytis13 - 2Cercospora15 - 2Powdery Mildew13 - 2Indian HawthornBotrytis13 - 2Entomosporium15 - 2	25
HydrangeaBotrytis13 - 2Cercospora15 - 2Powdery Mildew13 - 2Indian HawthornBotrytisEntomosporium15 - 2	
Cercospora15 - 2Powdery Mildew13 - 2Indian HawthornBotrytisEntomosporium15 - 2	25
Powdery Mildew13 - 2Indian HawthornBotrytis13 - 2Entomosporium15 - 3	
Indian HawthornBotrytis13 - 2Entomosporium15 - 3	
Entomosporium 15 - 3	
Japanese Maple Botrytis 13 - 2	
Verticillium 15 - 2	
Pseudomonas 15 - 2	
Juniper* Phomopsis 13 - 2	
Leyland Cypress*Cercospora13 - 2Lilac*Botrytis13 - 2	
Powdery Mildew15 - 2Nandina*Xanthomonas15 - 2	
Botrytis 13 - 2	
Oak Trunk Spray* Phytophthora 30 - 4	
Photinia* Entomosporium 15 - 3	
Pinus* Dothistroma 15 - 2	
Rosaceae:* Apple Scab 40	
Cotoneaster, Malus, Botrytis 13 - 2	
Mountain Ash, Fireblight 20 - 4	
Ornamental Crabapple, Pseudomonas 15 - 3 Ornamental Pear, Pyracantha	35
Rhododendron Botrytis 13 - 2	25
Cylindrocladium 15 - 3	
Phytophthora 20 - 3	
Rose See Flowering Potted Crops for Rate	
Ruscus* Pseudomonas 13 - 2	
Sycamore* Anthracnose 35	
Botrytis 13 - 2	
Viburnum* Botrytis 13 - 2	
Cercospora 15-2	
Phytophthora 20 - 2	
Additional Nursery Botrytis 13 - 2	
Plants: Powdery Mildew 20 - 2	
Pseudomonas 15 - 3	
	20
Shrubs/Vines* Barberry Bougainvillea Clematis Cornus Coti	nue
	adelphus
Physocarpus Potentilla Ribes Rosa Spir	•
Weigela Wisteria	u
Deciduous*	
Acer Amelanchier Betula Celtis Cer	cis
	ditsia
Magnolia Malus Populus Prunus Pyru Tilia	
Coniters*	oporum
Conifers* Abies Juniper Picea Pinus Pitto	osporum

*Not approved for use in California				
Cut Flower Crops				
CROP	PATHOGEN	RATE (fl. oz./100 gal)		
Alstromeria*	Botrytis	13 - 15		
Carnation*	Botrytis	13 - 20		
Chrysanthemum	Botrytis	15 - 25		
Delphinium*	Botrytis	13 - 15		
Freesia	Botrytis	13 - 15		
Gerbera	Botrytis	15 - 25		
Gladiola	Botrytis	13 - 15		
Lisianthus	Botrytis	13 - 20		
Orchid	Botrytis	13 - 15		
Rose	Botrytis	15 - 50		
Snapdragon*	Botrytis	13 - 20		
Sweetpea	Botrytis	13 - 15		
*Not approved for use	in California			

Tropical Foliage Crops			
CROP	PATHOGEN	RATE (fl. oz./100 gal)	
Dracaena*	Rust	15 - 25	
Ferns*	Botrytis	13 - 20	
	Erwinia	13 - 20	
Hibiscus	Botrytis	13 - 25	
	Pseudomonas	15 - 25	
	Xanthomonas	15 - 25	
lvy	Botrytis	13 - 20	
	Xanthomonas	15 - 50	
Palms*	Botrytis	13 - 20	
	Erwinia	13 - 20	
	Pseudomonas	13 - 25	
	Xanthomonas	13 - 25	
Spathiphyllum	Botrytis	13 - 25	
	Cylindrocladium	15 - 25	
	Phytophthora	15 - 30	
Tropical Foliage	Botrytis	13 - 25	
(general)	Powdery Mildew	13 - 25	
	Erwinia	20 - 50	
	Pseudomonas	20 - 50	
*Nist supported for use in Os	Xanthomonas	20 - 50	

\*Not approved for use in California

# SPECIFIC DIRECTIONS FOR SPRAY AND DIP APPLICATIONS DURING PROPAGATION

When harvesting cuttings on site, spray or fog stock plants 1 to 2 days prior to taking cuttings. Spray cuttings to drench again at same rate 2 to 3 days after sticking in rooting media, or dip cuttings for a few seconds prior to sticking.

When using rooted, callused, or unrooted cuttings shipped in, spray cuttings to drench 2 to 3 days after planting or sticking, or dip cuttings for a few seconds prior to sticking. Under severe disease pressure, repeat in 7 to 10 days.

Herbaceous & Woody Stock Plants and Cuttings			
CROP	PATHOGEN	RATE (fl. oz./100 gal)	
Azalea	Botrytis	13 - 25	
	Cylindrocladium	15 - 35	
Chrysanthemum	Botrytis	15 - 25	
	Erwinia	15 - 25	
Geranium	Botrytis	15 - 20	
	Xanthomonas	15 - 50	
Holiday Cactus	Botrytis	13 - 25	
	Erwinia	15 - 20	
Hydrangea	Botrytis	13 - 25	
	Xanthomonas	15 - 25	
Lavender	Botrytis	13 - 20	
Mini-Rose	Botrytis	15 - 20	
	Cylindrocladium	15 - 50	
Poinsettia	Botrytis	15 - 20	
	Erwinia	20 - 35	
	Scab	20 - 35	
	Xanthomonas	20 - 35	
Tropical Foliage	Botrytis	13 - 25	
	Cylindrocladium	15 - 25	
	Erwinia	20 - 50	

### **Post-Harvest Dip Applications on Cut Flower Crops** Dip cut flowers/buds for a few seconds soon after cutting.

CROP	PATHOGEN	RATE (teaspoons/5 gal)
Alstromeria	Botrytis	³⁄₄ -1 tsp.
Carnation	Botrytis	2-3 tsp.
Chrysanthemum	Botrytis	2-3 tsp.
Delphinium	Botrytis	1-2 tsp.
Freesia	Botrytis	³⁄₄ -1 tsp.
Gerbera	Botrytis	2-3 tsp.
Gladiola	Botrytis	1.5 -3 tsp.
Orchid	Botrytis	2-3 tsp.
Rose	Botrytis	3-3 ¾ tsp.
Snapdragon	Botrytis	1-2 tsp.
Sweetpea	Botrytis	1-2 tsp.

**Bulb Applications** Dip bulbs for 5 minutes, or spray bulbs to drip, then allow to dry before planting.

CROP	PATHOGEN	RATE (fl. oz./100 gal)
Calla Lily	Erwinia	30

SPECIFIC DIRECTIONS FOR SOIL DRENCH APPLICATIONS Greenhouse, Field, Landscape & Interior			
CROP	PATHOGEN	RATE (fl. oz./100 gal)	
African Violet	Phytophthora	13 - 20	
Aster	Phytophthora	20 - 30	
Azalea	Cylindrocladium	20 - 35	
	Rhizoctonia	20 - 35	
Calla Lily	Erwinia	15 - 30	
Cyclamen	Erwinia	15	
Ferns	Rhizoctonia	15 - 30	
Geranium	Botrytis	20 - 35	
Hosta	Erwinia	15 - 25	
Impatiens	Phytophthora	20 - 35	
Japanese Maple	Verticillium	25	
Pansy	Phytophthora	15 - 25	
	Pythium	15 - 25	
Periwinkle	Phytophthora	15 - 20	
Pittosporum	Rhizoctonia	15 - 20	
Poinsettia	Phytophthora	15 - 25	
	Rhizoctonia	20 - 35	
Rhododendron	Rhizoctonia	20 - 35	
Rose	Black Spot	20 - 35	
	Cylindrocladium	20 - 35	
Spathiphyllum	Cylindrocladium	20 - 35	
-	Phytophthora	20-35	
Vinca minor	Rhizoctonia	15 - 25	

# FRUIT, VEGETABLES, HERBS & FIELD CROPS

Spray for thorough foliage coverage. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained at the lower rates. Use of low volume equipment is effective against Botrytis and not effective against established powdery mildew and Xanthomonas infections.

# SPECIFIC DIRECTIONS FOR SPRAY APPLICATIONS

[Greenhouse, Nursery & Field.]

Vegetables and Field Crops				
CROP	DISEASE	RATE (fl. oz./100 gal)	Use instructions	<sup>†</sup> Use restrictions

Alfalfa	Cercospora Leaf	10 – 28	Apply 10 to 14 days	Spray Injury May Occur
	Spot, Leptosphaerulin a Leaf Spot	(.04 – .12 lbs. metallic copper/100 gal)	before each harvest or earlier if disease threatens.	with sensitive varieties such as Lahontan. For single applications: Do not exceed 0.24 lbs. metallic copper/A. (56 fl. oz. Phyton-016-B /A) Annually: Do not exceed 3.0 lbs. metallic copper/A Minimum re-treatment interval:
				30 days
Artichoke*	Powdery Mildew, bacterial spot, bacterial soft spot, and bottom rot.	20 – 40 (.09 – .17 lbs. metallic copper/100 gal)	For powdery mildew, plants that are very susceptible should be sprayed every 7 days during the first two weeks after emergence and weekly after that.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton-016-B /A) Annually: Do not exceed .35 lbs. metallic copper/A
				<b>Minimum re-treatment</b> interval: 7 days
Asparagus*	Rust	15 – 25 (.06 – .11 lbs. metallic copper/100 gal)	Recommended for tank mixtures with other products registered for the control of rust. For suppressions, begin applications when conditions first favor disease development and repeat at 10 day intervals.	Addition of spreader sticker is recommended. For single applications: Do not exceed 0.22 lbs. metallic copper/A. (50 fl. oz. Phyton-016-B /A) Annually: Do not exceed 5 lbs. metallic copper/A Minimum re-treatment interval: 10 days
Cacao*	Black Pod	6 – 40 (.03 – .17 lbs. metallic copper/100 gal)	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply at 14 to 21 day intervals or as needed depending on disease severity.	For drier areas, make 2 to 4 applications using 4.25 to 6.25 pints per acre according to disease incidence and planting density. For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton-016-B /A) Annually: Do not exceed 1.2 lbs. metallic copper/A Minimum re-treatment
				interval: 14 days

Carrots	Alternaria and Cercospora leaf spot	15 – 20 (.0609 lbs. metallic copper/100 gal)	Begin applications prior to usual disease occurrence and repeat every 7 to 10 days.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 5 lbs metallic copper/A Minimum interval:
Celery and Celeriac	Bacterial leaf spot; Cercospora (early) blight; Septoria (late) blight	15 – 20 (.0609 lbs. metallic copper/100 gal)	Begin applications as soon as plants are established in the field. Repeat every 7 to 10 days depending on disease severity and environmental conditions.	7 days For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 5 lbs metallic copper/A Minimum interval: 7 days
Chives	Bacterial soft rot Downy Mildew, Gray Mold, ( <i>Botrytis</i> )	10 – 20 (.0409 lbs. metallic copper/100 gal)	Begin applications when plants are established in the field. Repeat every 7 to 10 days depending on disease conditions.	For single applications: Do not 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 2.65 lbs metallic copper/A Minimum interval: 7 days
Clover*	Anthracnose, Bacterial Blight, Bacterial Leaf Spot, Cercospora Leaf Spot, Powdery Mildew	4 – 16 (.02 – .07 lbs. metallic copper/100 gal)	Begin Applications when conditions first favor disease development and repeat at 7 to 14 day intervals.	For single applications: Do not exceed 0.14 lbs. metallic copper/A. (32 fl. oz. Phyton-016-B /A) Annually: Do not exceed 2.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Coffee	Coffee Berry Disease, (Colletotrichum coffeeanum_	32-48 (.14 – .20 lbs. metallic copper/100 gal)	Apply first spray after flowering and before onset of long rains and then at 21 to 28 day intervals or as needed until picking.	Use the higher rates when conditions favor disease. For single applications: Do not exceed 0.40 lbs. metallic copper/A. (96 fl. oz. Phyton-016-B /A) Annually: Do not exceed 12.0 lbs. metallic copper/A Minimum re-treatment interval: 21 days

Coriander, Mint, Rosemary	Gray Mold ( <i>Botrytis</i> ), Powdery mildew	10 – 20 (.0409 lbs. metallic copper/100 gal)	Apply at first sign of disease or when conditions are favorable for disease development. Repeat at 10 day intervals.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 2.65 lbs metallic copper/A Minimum interval: 10 days
Crucifer crops (broccoli, brussel sprouts, cauliflower, cabbage, kale, collard greens, mustard greens, turnip greens)	Black leaf spot ( <i>Alternaria</i> ); Black rot ( <i>Xanthomonas</i> ); Downy mildew	10 – 20 (.0409 lbs. metallic copper/100 gal)	Begin applications after transplants are set in the field. Repeat every 7 days depending on disease pressure.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 2.65 lbs metallic copper/A Minimum interval: 7 days
Cucurbits (cucumbers, cantaloupe, squash, pumpkins, zucchini, watermelon, muskmelon)	Alternaria leaf spot; Angular leaf spot; Anthracnose; Downy Mildew; Gray Mold ( <i>Botrytis</i> ); Powdery Mildew	15 – 25 (.0609 lbs. metallic copper/100 gal)	Begin applications when disease is expected. Repeat every 5 to 7 days depending on conditions favorable for disease development.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (50 fl. oz. Phyton 016-B) Annually: Do not exceed 6.3 lbs metallic copper/A Minimum interval: 5 days
Dill	Leaf spots	10 – 20 (.0409 lbs. metallic copper/100 gal)	Begin applications when plants are first established in the field. Repeat every 7 to 10 days depending upon disease pressure.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 4.25 lbs metallic copper/A Minimum interval: 7days
Eggplant	Alternaria blight; Anthracnose; Gray Mold ( <i>Botrytis</i> );	15 – 20 (.0609 lbs. metallic copper/100 gal)	Begin application prior to appearance of disease symptoms. Repeat every 7 to 10 days depending on disease severity.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 4.25 lbs metallic copper/A Minimum interval: 7 days

Filberts*	Bacterial Blight Eastern Filbert Blight	30 – 60 (.13 – .26 lbs. metallic copper/100 gal)	Apply as a postharvest spray. In seasons of heavy rainfall, apply a second spray when <sup>3</sup> / <sub>4</sub> of the leaves have dropped. Use higher rates when rainfall is heavy and disease pressure is high.	For single applications: Do not exceed 0.54 lbs. metallic copper/A. (120 fl. oz. Phyton-016-B /A) Annually: Do not exceed 7.65 lbs. metallic copper/A Minimum re-treatment interval: 14 days
Garlic, Leek, Onion, Shallot	Bacterial soft rot; Downy Mildew; Gray Mold ( <i>Botrytis</i> )	10 – 20 (.0409 lbs. metallic copper/100 gal)	Apply at first sign of disease or when conditions are favorable for disease development.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 6.0 lbs metallic copper/A Minimum interval: 7 days
Ginseng	Alternaria leaf and stem blight	15 – 30 (.0613 lbs. metallic copper/100 gal)	Begin applications as soon as plants emerge in the spring. Continue applications every 7 days until plants become dormant in the fall.	For single applications: Do not exceed 0.26 lbs metallic copper/A. (60 fl. oz. Phyton 016-B). Annually: Do not exceed 5.25 lbs metallic copper/A Minimum interval: 7 days
Hops*	Downy Mildew	3 - 15 (.01 – .06 lbs. metallic copper/100 gal)	Make crown treatment after pruning but before training. After training, additional treatments will be needed at 10 day intervals.	Discontinue use 2 weeks before harvest. For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 2.8 lbs. metallic copper/A Minimum re-treatment interval: 10 days

Lettuce, Watercress	Downy mildew Gray Mold ( <i>Botrytis</i> ); Bacterial soft	15 – 20 (.0609 lbs. metallic	Apply at first sign of disease or when conditions favor disease	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl.
	Bacterial soft rot;	copper/100 gal)	disease development. Repeat every 7 to 10 days. Lower rates are advised for copper sensitive varieties. For applications made to watercress, production fields must be drained of water at least 24 hours prior to each application and water must not be reapplied to the field for a minimum of 24 hours	Metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 8.0 lbs metallic copper/A Minimum interval: 5days
			following each application. Copper must not to be applied to watercress during the aquatic production phase.	
Macadamia *	Anthracnose	30 – 60 (.13 – .26 lbs. metallic copper/100 gal)	Begin applications at the first sign of flowering and repeat on a weekly schedule until just before harvest	For single applications: Do not exceed 0.54 lbs. metallic copper/A. (120 fl. oz. Phyton-016-B /A) Annually: Do not exceed 23.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
	Phytophthora Blight (P. capsid), Raceme Blight (Botrytis cinereal)	30 – 60 (.13– .26 lbs. metallic copper/100 gal)	Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use higher rates when conditions favor disease development.	For single applications: Do not exceed 0.54 lbs. metallic copper/A. (120 fl. oz. Phyton-016-B /A) Annually: Do not exceed 23.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days

Mango*	Anthracnose	30 – 60 (.13 – .26 lbs. metallic copper/100 gal)	Apply at 7 day intervals after fruit set until harvest. Use the higher rates when rainfall is heavy and disease pressure is high.	For single applications: Do not exceed 0.54 lbs. metallic copper/A. (120 fl. oz. Phyton- 016-B /A) Annually: Do not exceed 23.0 lbs. metallic copper/A Minimum re- treatment interval: 7 days
Okra*	Anthracnose, Bacterial Leaf Spot, Leaf Spots, Pod Spot, Powdery Mildew	6 – 15 (.03 – .06 lbs. metallic copper/100 gal)	Apply when disease first appears and reapply every 5 – 7 days if needed	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016- B /A) Annually: Do not exceed 3.84 lbs. metallic copper/A Minimum re- treatment interval: 5 days
Parsley	Leaf scorch; Leaf spot	20 – 40 (.0917 lbs. metallic copper/100 gal)	Begin applications when plants are first established in the field. Repeat every 7 to 10 days depending upon disease severity and environmental conditions.	For single applications: Do not exceed 0.34 lbs metallic copper/A. (80 fl. oz. Phyton 016-B) Annually: Do not exceed 10.0 lbs metallic copper/A Minimum interval: 10days
Peanut	Cercospora Leaf Spot	12 – 20 (.05 – .08 lbs. metallic copper/100 gal)	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 10 to 14 day intervals or as needed. Reduce sprays to 7 day intervals during humid weather.	Use the higher rates when conditions favor disease. Flowable sulfur may be added. For single applications: Do not exceed 0.16 lbs. metallic copper/A. (40 fl. oz. Phyton-016- B /A) Annually: Do not exceed 3.0 lbs. metallic copper/A Minimum re- treatment interval: 7 days

Peas	Powdery Mildew	15 – 25	Apply at first sign of	For single
Beans	Fowdery Mildew	(.0611 lbs. metallic copper/100 gal)	Apply at first sign of disease or when conditions favor disease development. Repeat weekly and use higher rates when conditions are favorable for disease development.	applications: Do not exceed 0.22 lbs metallic copper/A. (50 fl. oz. Phyton 016-B) Annually: Do not exceed 3.95 lbs metallic copper/A Minimum interval: 7days
Pecans* Betel Nut*	Kernel Rot (Phytophthora Shuck Rot, Zonate Leaf Spot (Cristulariella pyramidalis)	30 – 60 (.13 – .26 lbs. metallic copper/100 gal)	For suppression, apply in sufficient water volume to ensure complete coverage at 2 – 4 week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter interval if frequent rainfall occurs.	For single applications: Do not exceed 0.52 lbs. metallic copper/A. (120 fl. oz. Phyton-016-B /A) Annually: Do not exceed 6.3 lbs. metallic copper/A Minimum re-treatment interval: 14 days
Pepper	Bacterial Spot ( <i>Xanthomonas</i> ); Cercospora leaf spot Gray Mold ( <i>Botrytis</i> );	15 – 35 (.0615 lbs. metallic copper/100 gal)	Begin applications when conditions favor disease to develop. Apply every 7 to 10 days depending on disease severity and environmental conditions. Use higher rates when conditions are favorable for disease.	For single applications: Do not exceed 0.30 lbs metallic copper/A. (70 fl. oz. Phyton 016-B) Annually: Do not exceed 11.85 lbs metallic copper/A Minimum interval: 3days

Potato	Early Blight, Late Blight	4 – 15 (.02 – .06 lbs. metallic copper/100 gal)	Apply 0.5 to 1.5 pints at 7 to 10 day intervals or as needed starting when plants are 2 to 6 inches high in locations where disease is light. Apply up to 1.5 pints per acre when disease is more severe.	Under conditions of severe disease, control with Phyton-016-B will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners. <b>For single</b> <b>applications:</b> Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A)
				Annually: Do not exceed 5.0 lbs. metallic copper/A Minimum re-treatment interval:
				7 days
Radishes,* Rutabaga,* Turnip* Kohlrabi*	Alternaria, Anthracnose, Bacterial Leaf Spot, Cercospora Leaf Spot, Downy Mildew, White Rust	2 – 6 (.01 – .03 lbs. metallic copper/100 gal)	Begin application when disease first appears or when conditions favor disease development. Repeat application every 10 days.	For single applications: Do not exceed 0.06 lbs. metallic copper/A. (12 fl. oz. Phyton-016-B /A) Annually: Do not exceed 1.2 lbs. metallic copper/A
				<b>Minimum re-treatment</b> interval: 10 days
Rhubarb*	Leaf Spot	2 – 6 (.01 – .03 lbs. metallic copper/100 gal)	When disease first appears or when conditions favor disease development. Repeat application every 7 to 10 days.	For single applications: Do not exceed 0.06 lbs. metallic copper/A. (12 fl. oz. Phyton-016-B /A) Annually: Do not exceed 1.2 lbs. metallic copper/A Minimum re-treatment interval: 7 days

Spinach	Anthracnose, Downy Mildew, White rust	15 – 20 (.0609 lbs. metallic copper/100 gal)	Apply at first sign of disease or when conditions favor disease development. Repeat at 7 to 10 day intervals.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 4.2 lbs metallic copper/A Minimum interval: 7days
Sugar Beet	Cercospora Leaf Spot	8 – 24 (.03 – .10 lbs. metallic copper/100 gal)	Begin application when conditions favor disease development and repeat at 10 to 14 day intervals or as needed.	Use the higher rates when conditions favor disease. Addition of as spreader/ sticker is recommended. For single applications: Do not exceed 0.20 lbs. metallic copper/A. (48 fl. oz. Phyton-016-B /A) Annually: Do not exceed 3.6 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Sugar Cane*	Rusts (Brown and Orange)	6 - 12 (.0305 lbs. metallic copper/100 gal)	Recommended to be tank mixed with other products registered for rust control. For suppression of rust, begin applications when conditions first favor rust disease development and repeat at 10 – 14 day intervals.	Addition of a spreader sticker is recommended. For single applications: Do not exceed 0.10 lbs. metallic copper/A. (24 fl. oz. Phyton-016-B /A) Annually: Do not exceed 2.1 lbs. metallic copper/A Minimum re-treatment interval: 10 days
Table Beets/Beet* Greens, Chard*	Cercospora Leaf Spot	6 - 15 (.0306 lbs. metallic copper/100 gal)	Begin application when conditions favor disease development and repeat at 10 to 14 day intervals or as needed. Use higher rates when conditions favor disease.	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 7.2 lbs. metallic copper/A Minimum re-treatment interval: 7 days

Tobacco Chicory	Angular leaf spot; Downy Mildew	15 – 20 (.0609 lbs. metallic copper/100 gal)	Apply at first sign of disease or when conditions favor disease development.	For single applications: Do not exceed 0.18 lbs metallic copper/A. (40 fl. oz. Phyton 016-B) Annually: Do not exceed 4 lbs metallic copper/A Minimum interval: 10 days
Tomato (processing)	Anthracnose; Bacterial Speck( <i>Pseudom</i> <i>onas</i> ); Bacterial Spot ( <i>Xanthomonas</i> ); Bacterial Wilt ( <i>Ralstonia</i> ) Early blight; Gray Mold ( <i>Botrytis</i> ); Late blight; Powdery Mildew; Septoria Leaf Spot	20 – 40 (.0917 lbs. metallic copper/100 gal)	Begin applications before first sign of disease. Use higher rates when conditions are favorable for disease development. Repeat at 7 to 10 day intervals.	For single applications: Do not exceed 0.34 lbs metallic copper/A. (80 fl. oz. Phyton 016-B) Annually: Do not exceed 12.2 lbs metallic copper/A Minimum interval: 7 days
Tomato (fresh market)	Anthracnose; Bacterial Speck( <i>Pseudom</i> onas); Bacterial Spot ( <i>Xanthomonas</i> ); Bacterial Wilt ( <i>Ralstonia</i> ) Early blight; Gray Mold ( <i>Botrytis</i> ); Late blight; Powdery Mildew; Septoria Leaf Spot	20 – 40 (.0917 lbs. metallic copper/100 gal)	Begin applications before first sign of disease. Use higher rates when conditions are favorable for disease development. Repeat at 7 to 10 day intervals.	For single applications: Do not exceed 0.34 lbs metallic copper/A. (80 fl. oz. Phyton 016-B) Annually: Do not exceed 8.16 lbs metallic copper/A Minimum interval: 7 days
Soybeans*	Alternaria Leaf Spot	8 – 15 (.0306 lbs. metallic copper/100 gal)	Apply when mechanical injury, insect damage or another disease has occurred. Continue on a 7 to 10 day schedule if weather conditions remain cool and wet.	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 6.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days

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Soybeans*	Bacterial Blight (Pseudomonas syringae), Bacterial pustule (Xanthomonas campestris)	8 – 15 (.0306 lbs. metallic copper/100 gal)	Begin applications from the first node through third node development on the main stem with fully developed leaves beginning with the unifoliate leaves (V1 - V3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7 to 10 day schedule when conditions favor disease development.	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 7.68 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Soybeans*	Brown Spot (Septoria glycines)	8 – 15 (.0306 lbs. metallic copper/100 gal)	Begin application at full bloom to when pods are 3/16" in length (R2 – R3 growth stages) or when extended periods of wet weather are favorable for disease development. Continue on a 7 to 10 day schedule when conditions are favorable for disease development.	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 7.68 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Soybeans*	Cercospora Leaf Blight (Cercospora kikuchii)	8 – 15 (.0306 lbs. metallic copper/100 gal)	Begin application when seed pods are 1/8" in length through beginning of pod maturity (R5-R7 growth stages). Continue on a 7 to 10 day schedule when conditions are cool and wet.	For single applications: Do not exceed 0.12 lbs. metallic copper/A. (30 fl. oz. Phyton-016-B /A) Annually: Do not exceed 7.68 lbs. metallic copper/A Minimum re-treatment interval: 7 days

<sup>†</sup>P-016B contains 0.55 lbs of metallic copper per gallon of product.

Other Field	Other Field Crops					
CROP	DISEASE	RATE (fl. oz./Acre)	Use instructions	<sup>†</sup> Use restrictions		
Corn* (field corn, Popcorn, Seed Corn, Sweet Corn)	Bacterial Silk Rot	4 – 24 (.0210 lbs. metallic copper/100 gal)	Begin treatment when disease first appears and repeat every 7 to 10 days. Use shorter spray intervals when conditions favor disease development	For single applications: Do not exceed 0.20 lbs. metallic copper/A. (48 fl. oz. Phyton-016-B /A) Annually: Do not exceed 6.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days		
Rice*	False Smut, Panicle Blight	8 – 24 (.0310 lbs. metallic copper/100 gal)	First application at late boot stage and repeat at 7 to 10 day intervals or as needed depending on the weather conditions until 80% heading. Use higher rate and shorter spray interval when disease pressure is high or environmental conditions are favorable for disease development.	Do not exceed 0.20lbs metallic copper/A. (48 fl. oz. Phyton 016-B) DO NOT drain the field for at least 14 days after last application. Apply in a minimum of 20 gallons per acre of spray solution. Cooper may be applied at a maximum rate of 0.20 lbs. of metallic copper per application with 2 applications per year (0.40 lbs. metallic copper annual maximum)		
*Wheat, *Barley and *Oats	Fusarium Head Blight; Helminthosporium Spot Blotch; Powdery Mildew; Stagonospora Glume; Stem Blotch; Stem Rust	8 – 24 (.0310 lbs. metallic copper/100 gal)	Make first application at early heading and follow with second spray 10 days later. Use the higher rates when conditions favor disease. For wheat, Phyton- O16-B can be applied as a foliar application for early season disease control and again at	Do not exceed 0.20lbs metallic copper/A. (48 fl. oz. Phyton 016-B) Apply in a minimum of 20 gallons per acre of spray solution. Do not apply more than 1.06 lb. copper per acre per year.		
	ns 0.55 lbs of meta		early heading and followed with another application 10 days later.			

<sup>†</sup>P-016B contains 0.55 lbs of metallic copper per gallon of product. \* Not Approved for Use in California

TREE CROP	TREE CROPS AND SMALL FRUITS					
CROP	DISEASE	RATE (fl. oz./100 gal)	Use instructions	<sup>†</sup> Use restrictions		
Almond, Apricot, Cherry, Nectarine, Peach, Plum, Prunes	Bacterial canker, Bacterial blast, Bacterial spot, Shot-hole	20 – 40 (.0917 lbs. metallic copper/100 gal)	Dormant, late dormant, up to pink bud Make first application before fall rains and a second application at late dormant stage before foliage and buds begin to swell. Higher rates should be used when conditions favor disease. Bloom/ growing season Apply during early bloom. Do not apply after full bloom or injury may occur. Use the higher rates when rainfall is heavy and disease pressure is high.	Dormant, late dormant, up to pink bud For single applications: Do not exceed Do not exceed 0.34 lbs metallic copper/A. (80 fl. oz. Phyton 016-B) Minimum interval: 7days <u>Bloom/</u> growing season For single applications: Do not exceed 1.5 lbs metallic copper/A. Minimum interval: 5days <u>Annually</u> Do not exceed 18.0 lbs metallic copper/A		
Atemoya*	Anthracnose	20 – 30 (.0913 lbs. metallic copper/100 gal)	Make initial application just before flowering and repeat every 7 days.	For single applications: Do not exceed 0.26 lbs. metallic copper/A. (60 fl. oz. Phyton-016-B /A) Annually: Do not exceed 9.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days		

Annle	Anthrachose	20 - 40	Fall late dormant	Fall late dormant
		20 - 40	rail, late uormant	rail, late uorillarit
Apple, Pear and Quince	Anthracnose; Apple scab; Blossom blast; Fire Blight ( <i>Erwinia</i> ) Shoot blast;	20 – 40 (.0917 lbs. metallic copper/100 gal)	Fall, late dormantApply as a full cover spray. Use higher rates under severe disease conditions.After harvest, apply before fall rains.Between silver- tip and green-tipFor fireblight, apply between silver-tip and green tip.Bloom, growing seasonExtended spray schedule where fruit finish is not a concern: Continued applications may be made at 5 to 7 day intervals or as needed between 1/2 inch green-tip and first cover spray. The addition of spray	Fall, late dormantFor single applications: Do not exceed Do not exceed .34 lbs. metallic copper/A. (80 fl. oz. Phyton 016-B)Only one application is permitted.Between silver-tip and green-tipFor single applications: Do not exceed .34 lbs. metallic copper/A.Only one application is permitted.For single applications: Do not exceed .34 lbs. metallic copper/A.Only one application is permitted.For single applications: Do not exceed .34 lbs. metallic copper/A.Minimum interval: 5daysAnnually Do not exceed 16.0 lbs
			oil may enhance coverage of the wood in dormant sprays.	metallic copper/A
Avocado	Algal leaf spot, Anthracnose, Scab	30 – 50 (.1321lbs. metallic copper/100 gal)	Start applications when bloom buds begin to swell. Use higher rates when conditions favor disease.	For single applications: Do not exceed 0.42 lbs. metallic copper/A. (100 fl. oz. Phyton 016-B) Annually: Do not exceed 18.9 lbs metallic copper/A Minimum interval:

Bancre*	Cinctelia (Diss)	25 25	Apply by sin in 0	Apply op a 7 44 day
Banana*	Sigatoka (Black and Yellow)	25 - 35 (.1115 bs. metallic copper/100 gal)	Apply by air in 3 gallons of water. If needed and agricultural-type spray oil may be added.	Apply on a 7-14 day schedule or as needed throughout the wet season. Apply at 21 day intervals or as need during dry periods.
				For single applications: Do not exceed 0.30 lbs. metallic copper/A. (70 fl. oz. Phyton-016-B /A) Annually: Do not exceed .6.0 lbs. metallic copper/A
				Minimum re-treatment interval: 7 days
Blackberries, Raspberries, Boysenberry, Dewberry, Loganberry	Anthracnose, Leaf Spot, Pseudomonas blight	20 – 40 (.0917 lbs. metallic copper/100 gal)	Make fall application after harvest. Apply late dormant spray after pruning/training in the spring. Apply when leaf buds begin to open and repeat when flower buds show white.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton 016-B) Annually: Do not exceed 10.0 lbs metallic copper/A Minimum interval: 7 days
Blueberries	Bacterial canker	20 – 40 (.0917 lbs. metallic copper/100 gal)	Make first application before fall rains and a second application after 4 weeks later.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton 016-B)
				Annually: Do not exceed 8.4 lbs metallic copper/A
				Minimum interval: 7 days
Cherimoya*	Anthracnose	8 – 24 (.0310 lbs. metallic copper/100 gal)	Begin applications when conditions favor disease development and repeat using a 14 day spray schedule. Apply in sufficient water for thorough coverage.	Make first application to a small area to test for phytotoxicity. For single applications: Do not exceed 0.20 lbs. metallic copper/A. (48 fl. oz. Phyton-016-B /A) Annually: Do not exceed 19.2 lbs. metallic copper/A
				Minimum re-treatment interval: 14 days

Chestnut	Leaf Spot	8 – 24 (.0310 lbs. metallic copper/100 gal)	Begin applications when conditions favor disease development Make applications to protect shoot growth throughout the season. Use lower rates where disease infection is light and use higher rates for a dormant application or where disease infection is moderate to heavy.	For single applications: Do not exceed 0.20 lbs. metallic copper/A. (48 fl. oz. Phyton-016-B /A) Annually: Do not exceed 20.0 Minimum re-treatment interval: 10 days
Cranberries*	Fruit Rot, Rose Bloom, Bacterial Stem Canker, Leaf Blight, Red Leaf Spot, Stem Blight, Tip Blight.	12 - 35 (.0515 lbs. metallic copper/100 gal)	Apply at the start of flowering and reapply every 7 to 10 days until harvest.	For single applications: Do not exceed 0.30 lbs. metallic copper/A. (70 fl. oz. Phyton-016-B /A) Annually: Do not exceed 8.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Currants*, Gooseberries	Powdery Mildew, Anthracnose, Leaf Spot	12 - 35 (.0515 lbs. metallic copper/100 gal)	Apply at the start of flowering and reapply every 7 to 10 days until 10 days before harvest.	Do not apply within 10 days of harvest. For single applications: Do not exceed 0.30 lbs. metallic copper/A. (70 fl. oz. Phyton-016-B /A) Annually: Do not exceed 24.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Douglas Fir*	Rhabdocline	16 – 48 (.0721 lbs. metallic copper/100 gal)	Begin applications at bud break and repeat at 3 to 4 week intervals. Apply in a tank mix with another registered compatible fungicide if moderate to severe disease pressure is present	For single applications: Do not exceed 0.42 lbs. metallic copper/A. (96 fl. oz. Phyton-016-B /A) Annually: Do not exceed 30.0 lbs. metallic copper/A Minimum re-treatment interval: 21 days

Guava*	Anthracnose,	2-6	Apply just before.	For single
	Red Algae	(.0103 lbs. metallic copper/100 gal)	Flowering and reapply every 7 to 14 days until harvest.	applications: Do not exceed 0.06 lbs. metallic copper/A. (12 fl. oz. Phyton-016-B /A)
				<b>Annually:</b> Do not exceed 1.2 lbs. metallic copper/A
				<b>Minimum re-treatment</b> interval: 7 days
Kiwi	Erwinia herbicola, Pseudomonas fluorescens, Pseudomonas syringae	20 – 50 (.0917 lbs. metallic copper/100 gal)	Apply in 200 gallons of water per acre. Make first application before conditions favor disease. Use higher rates for conditions that favor heavy disease pressure.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (100 fl. oz. Phyton 016-B) Annually: Do not exceed 6.3 lbs metallic copper/A. Minimum Interval: 30 days
Live Oak*	Ball Moss Spanish Moss	40 – 96 (.17 – .41 lbs. metallic copper/100 gal)	Apply in 100 gallons of water in the spring when ball moss is actively growing using 1.5 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12 months.	For single applications: Do not exceed .82 lbs. metallic copper/A. (192 fl. oz. Phyton-016-B /A) Annually: Do not exceed 5.6 lbs. metallic copper/A Minimum re-treatment interval: 12 months
Lychee*	Anthracnose	2 – 6 (.01 – .03 lbs. metallic copper/100 gal)	Apply just before. Flowering and reapply every 7 to 14 days until harvest.	For single applications: Do not exceed 0.06 lbs. metallic copper/A. (12 fl. oz. Phyton-016-B /A) Annually: Do not exceed 1.44 lbs. metallic copper/A Minimum re-treatment interval: 7 days

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Mamey Sapote*	Algal Leaf Spot, Anthracnose	12 – 20 (.05 – .09 lbs. metallic copper/100 gal)	Apply when disease first appears. Reapply every 14 – 30 days if needed.	For single applications: Do not exceed 0.18 lbs. metallic copper/A. (40 fl. oz. Phyton-016-B /A) Annually: Do not exceed 6.5 lbs. metallic copper/A Minimum re-treatment interval: 14 days
Olives	Olive knot, Peacock Spot	24 – 50 (.10 – .21 lbs. metallic copper/100 gal)	Apply before winter rains begin. Reapply in early spring if needed and continue every 30 days if needed.	For single applications: Do not exceed 0.42 lbs. metallic copper/A. (100 fl. oz. Phyton-016-B /A) Annually: Do not exceed 9.6 lbs. metallic copper/A Minimum re-treatment interval: 30 days
Papaya*	Anthracnose	8 - 35 (.0315 lbs. metallic copper/100 gal)	Apply before disease appears and reapply every 10-14 days if needed.	For single applications: Do not exceed 0.30 lbs. metallic copper/A. (70 fl. oz. Phyton-016-B /A) Annually: Do not exceed 11.5 lbs. metallic copper/A Minimum re-treatment interval: 10 days
Passion Fruit*	Anthracnose	15 – 25 (.06 – .11 lbs. metallic copper/100 gal)	Apply just before flowering and reapply every 7 days until harvest	For single applications: Do not exceed 0.22 lbs. metallic copper/A. (50 fl. oz. Phyton-016-B /A) Annually: Do not exceed 6.48 lbs. metallic copper/A Minimum re-treatment interval: 7 days

Persimmon*	Cercospora Leaf Spot	14 – 30 (.06 – .13 lbs. metallic copper/100 gal)	Begin applications in May/June at leaf flush and repeat application every 14 days depending on disease severity and environmental conditions.	For single applications: Do not exceed 0.26 lbs. metallic copper/A. (60 fl. oz. Phyton-016-B /A) Annually: Do not exceed 5.6 lbs. metallic copper/A Minimum re-treatment interval: 14 days
Pistachio	Alternaria leaf blight Septoria leaf blight	20 – 40 (.0917 lbs. metallic copper/100 gal)	Begin application at bud swell and repeat every 14 to 28 days depending on disease pressure. Use higher rates when disease conditions are severe.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton 016-B) Annually: Do not exceed 8.4 lbs metallic copper/A Minimum interval: 14 days
Sugar Apple (Annona)	Anthracnose	24 – 48 (.10 – .21 lbs. metallic copper/100 gal)	Apply just before flowering and reapply every 7 days until harvest.	For single applications: Do not exceed 0.42 lbs. metallic copper/A. (96 fl. oz. Phyton-016-B /A) Annually: Do not exceed 9.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Starfruit (Carambola)*	Anthracnose,	20 – 30 (.09 – .13 lbs. metallic copper/100 gal)	Apply at the start of flowering and reapply every 7 to 14 days.	For single applications: Do not 0.26 lbs. metallic copper/A. (60 fl. oz. Phyton-016-B /A) Annually: Do not exceed 9.0 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Strawberries	Angular leaf spot ( <i>Xanthomonas</i> ), Leaf spot	15 – 30 (.0613 lbs. metallic copper/100 gal)	Begin application when plants are established and continue throughout the season using higher rates when conditions favor disease.	For single applications: Do not exceed 0.26 lbs. metallic copper/A. (60 fl. oz. Phyton 016-B) Annually: Do not exceed 6lbs metallic copper/A Minimum interval: 7 days

Sycamore*	Anthracnose	20 – 45 (.09 – .19 lbs. metallic copper/100 gal)	Apply as a full cover spray in 100 gallons of water or sufficient volume for thorough coverage. Makes first application at bud crack and second application 7 to 10 days later at 10% leaf expansion.	For single applications: Do not exceed 0.38 lbs. metallic copper/A. (90 fl. oz. Phyton-016-B /A) Annually: Do not exceed 4.2 lbs. metallic copper/A Minimum re-treatment interval: 7 days
Walnut	Walnut blight	30 – 50 (.1321 lbs. metallic copper/100 gal)	Apply first spray at early pre-bloom prior to or when catkins are partially extended. Make additional applications during bloom and early nutlet stage if frequent rainfall occurs. For effective control, coverage of catkins, leaves and nutlets is essential.	For single applications: Do not exceed 0.42 lbs. metallic copper/A. (100 fl. oz. Phyton 016-B) Annually: Do not exceed 32.0 lbs metallic copper/A Minimum interval: 7 days

<sup>†</sup>P-016B contains 0.55 lbs of metallic copper per gallon of product.

CITRUS CROP	S			
CROPS	DISEASE	RATE (fl. oz./100 gal)	Use instructions	<sup>†</sup> Use restrictions
Grapefruit, Lemon, Kumquat, Lime, Orange, Pomelo,	Algal spot; Melanose	20 – 40 (.0917 lbs. metallic copper/100 gal)	Apply as a pre-bloom and post bloom spray. Higher rates should be used when conditions favor disease.	For single applications: Do not exceed 0.34 lbs. metallic copper/A. (80 fl. oz. Phyton 016-
Tangerine Tangelo  Alternaria  Agency    Tangelo  Alternaria  Agency    Image: Strain Stra	Apply when first flush of spring appears and each flush thereafter. Application to fruit should start after most petals have fallen and be repeated depending on rainfall and disease pressure.	B) Annually: Do not exceed 12.6 Ibs metallic copper/A		
	Black Spot		Begin applications in late spring, post-petal fall and continue once per month through early fall.	<b>Minimum interval:</b> 7 days

Citrus Canker (suppression)	Apply to flushes 7 to 14 days after shoots begin to grow. Young fruit may require additional application. Disease pressure will determine timing and number of applications. Each flush of new growth should be sprayed under heavy disease pressure.
Greasy spot	Apply in summer on expanded new flush. Repeat on subsequent flushes if conditions favor disease development. Use higher rate when disease pressure is severe.

<sup>+</sup>P-016B contains 0.55 lbs of metallic copper per gallon of product.

Grasses				
CROPS	DISEASE	RATE (fl. oz./100 gal)	Use instructions	<sup>†</sup> Use restrictions
Turf Grasses	Algae	40 – 80 (.17 – .34 lbs. metallic copper/100 gal)	May be used as a maintenance spray as needed. May be used in combination with other fungicides. Use a minimum application volume of 100 gallons of water per acre. Apply to a small area prior to large area applications to check for phytotoxicity. If phytotoxicity is present discontinue use.	For single applications: Do not exceed 0.68 lbs. metallic copper/A. (160 fl. oz. Phyton-016-B /A) Annually: Do not exceed 15.3 lbs. metallic copper/A Minimum re-treatment interval: 10 days

Timothy Grass	Brown Leaf Rust	4 – 16 (.02 – .07 lbs. metallic copper/100 gal)	Apply as a foliar treatment for early season disease control and again at early heading and then followed with another application 10 days later. Use higher rates when conditions favor disease development.	For single applications: Do not exceed 0.14 lbs. metallic copper/A. (32 fl. oz. Phyton-016-B /A) Annually: Do not exceed 3.36 lbs. metallic copper/A Minimum re-treatment interval: 10 days
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<sup>†</sup>P-016B contains 0.54 lbs of metallic copper per gallon of product.

CROPS	DISEASE	RATE (fl. oz./100 gal)	Use instructions	<sup>†</sup> Use restrictions
Grapes	Downy Mildew; Gray Mold; Powdery Mildew	15 – 25 (.0611 lbs. metallic copper/100 gal)	Begin applications at bud break with following applications throughout the season, depending on disease severity. Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette.	For single applications: Do not exceed 0.22 lbs. metallic copper/A. (50 fl. oz. Phyton 016-B) Annually: Do not exceed 20.0 lbs metallic copper/A Minimum interval: 3 days

<sup>†</sup>P-016B contains 0.55 lbs of metallic copper per gallon of product.

## Shade & Ornamental Trees

### SPECIFIC DIRECTIONS FOR TRUNK INJECTION APPLICATIONS

#### ELM: Dutch elm disease and Cankers (Botryodiplodia Cytospora Tubercularia).

Inject once during the growing season for control or prevention. Injection sites should be six inches or less above the soil line. Injection should not be done against Dutch elm disease if the elm appears more than 20% diseased or if the disease may have entered through root grafts from another diseased tree or stump. Remove dead and diseased limbs within 10 days after treatment.

#### Use the red oak dosage for red (slippery) elm.

Elm size	Phyton-016-B	Water
(diameter at breast ht.)	Rate (fl. oz.)	(gal)
12 to 19 inches dbh	2	2

Master Label/ 2023-10-17 Page 37 of 50

20 to 26 inches dbh	3	3
27 to 33 inches dbh	4	4
34 to 40 inches dbh	5	5
41 to 48 inches dbh	6	6

#### OAKS and SYCAMORE: Oak Wilt, Phytophthora, Anthracnose.

On red oak, use preventively only. Follow injection directions for elm, taking care that holes are not too deep on shallow-barked oaks. Treatment is best in the month before fall color in northern climates.

Tree size/variety	Phyton-016-I	Water	
(diameter at breast ht.)	Red Oaks, Red Elm	Oaks, Sycamore	(gal)
12 to 19 inches dbh	1.0	1.5	3
20 to 26 inches dbh	1.5	2.0	4.5
27 to 33 inches dbh	2.0	3.0	6
34 to 40 inches dbh	2.5	3.5	7.5
41 to 48 inches dbh	3.0	4.5	9

SHADE TREE CANKERS: Cytospora on GREEN ASH, PAPER BIRCH, COTTONWOOD; Botryodiplodia and Cytospora on HACKBERRY, SILVER MAPLE; Nectria on HONEY LOCUST.

Follow injection directions for elm.

Tree size (diameter at breast ht.)	Phyton-016-B Rate (fl. oz.)	Water (gal)
10 inches dbh	1.3	1 gallon
20 inches dbh	2.5	2 gallons

#### USE DIRECTIONS FOR CHEMIGATION

The following precautions must be observed when using this product in any type of irrigation system.

Apply this product only through overhead sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, big gun, solid set, or hand move; drip (trickle); or flood (basin) irrigation system(s). Do not apply this product through any other type of irrigation equipment.

Do not apply this product through any system using aluminum parts or components as damage to the system may occur.

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

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

Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide safety devices for public water systems are in place.

A person with knowledge of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Agitation in the pesticide supply tank is recommended at least once every 2 hours and may be more frequent or continuous.

The dosage rate should not be diluted by additional water applied as irrigation. Apply the prescribed rate and allow foliar surfaces to dry before irrigating. If irrigation precedes Phyton-016-B application, allow foliage to drip off before beginning the application.

To optimize dilution of the pesticide in the supply tank, first add Phyton-016-B to a small amount of water, room temperature or warmer, and mix gently until evenly dispersed.

#### POSTING

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corner of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

#### 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, backflow preventer (RPZ) 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 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 contain a functional, normally closed, solenoidoperated 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.

#### **REQUIREMENTS FOR SPRINKLER & DRIP CHEMIGATION**

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements:

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 backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

#### REQUIREMENTS FOR FLOOD CHEMIGATION

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- 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 backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

• Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

*NOTE* – *The following is optional marketing language and graphics that will be used on the Commercial/Agricultural label* 

- Broad Spectrum
- Will Not Leave Any Visible Residue
- Bactericide<sup>^</sup> & Fungicide
- Systemic

•

•



Citrus –





Vegetables-



• Fruit -



Herbs-

# Phyton-016-B

[Alternate Brand Name: Phyton 27AG] [Alternate Brand Name: Phyton 35] [Alternate Brand Name: Phyton 35 BSC] [Alternate Brand Name: PHYTON-016-B Bactericide<sup>\*</sup> & Fungicide]

#### SYSTEMIC BACTERICIDE<sup>^</sup> & FUNGICIDE

# BACTERICIDE + FUNGICIDE

Broad-spectrum bactericide<sup>\*</sup> & fungicide for the control of diseases in ornamental plants grown in and around homes, yards, gardens, residential landscapes and home greenhouses

#### 

### KEEP OUT OF REACH OF CHILDREN WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.)

E.P.A. REG. NO. 49538-5 E.P.A. EST. NO. 49538-MN-001 [Distributed by:]



P. O. Box 385370 Minneapolis, MN 55438 800-356-8733 (Net) Contents:

#### PHYSICAL OR CHEMICAL HAZARDS For spills, you may contact CHEMTREC at 1-800-424-9300

^non-public health bacteria

#### PRECAUTIONARY STATEMENTS HAZARD TO HUMANS (& DOMESTIC ANIMALS)

WARNING: Causes substantial but temporary eye injury. Do not get into eyes or on clothing. Harmful if swallowed. Harmful if absorbed through the skin. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wear protective eyewear (goggles, face shield or safety glasses), long-sleeved shirt, long pants, shoes plus socks, and chemical resistant gloves made of any waterproof material. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse. Food utensils such as teaspoons or tablespoons should not be used for food purposes after use with pesticides. Do not enter or allow children, pets or others to enter treated area until sprays have dried.

#### 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 adults, children, or pets, either directly or through drift. Do not allow adults, children, or pets to enter the treated area until sprays have dried.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. For terrestrial uses, do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE**— Store in a secure, locked area away from pets and out of the reach of children. Store only in original container and place in a locked storage area. Keep away from excessive heat. Do not freeze or store below 45° F. Open dumping is prohibited.

**PESTICIDE DISPOSAL**—Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. Open dumping is prohibited.

#### **CONTAINER DISPOSAL**

**IF EMPTY:** Non-refillable containers. Do not reuse or refill container. Place in trash or offer for recycling if available.

**IF PARTLY FILLED:** Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

# DIRECTIONS FOR USE: Ornamental Plants in and around Homes, Yards, Gardens, Residential

#### Landscapes and Home Greenhouses

Not for use on plants being grown for sale or other commercial use, for commercial seed production, or for research purposes.

- 1. Shake well before mixing with water. Use within 48 hours after mixing.
- 2. Phyton-016-B can be applied with any type of application equipment that gives uniform coverage of all foliage.

- 3. Do not apply this product through any system using aluminum parts or components as damage to the system may occur.
- 4. Phytotoxicity: Phyton-016-B has been tested on a wide variety of agricultural and ornamental plants without phytotoxicity symptoms. However, because it is not possible to test all plant species, varieties and cultivars and because environmental factors and varietal stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the anticipated dosage rate and observed for 5 to 7 days to determine phytotoxicity before treating large numbers of those plants.
- 5. Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods.
- 6. An agricultural extension agent or other qualified individual can be contacted to help identify diseases.

#### SEE ATTACHED BOOKLET FOR DIRECTIONS OF USE

#### SPECIFIC DIRECTIONS FOR SPRAY APPLICATIONS:

Annual & Perennial Bedding Plants, Flowering Plants, Tropical Foliage Plants, & Trees, Vines & Shrubs.

Spray for thorough foliage coverage. Re-spray rates and intervals vary with severity of disease and adversity of environmental conditions. Best result are obtained when applied 2 weeks prior to the time when disease usually appears or when forecasts benefit disease conditions, such as extended wet periods, or frequent rain. Alternately, begin treatment at first sign of disease, repeat every 7 to 10 days as long as needed.

Rates above 1 teaspoon Phyton-016-B per 1 gallon water may damage some tender, open blooms. Applications on actively growing tissue may be more effective than applications on dormant tissue.

For a single application, do not exceed 0.05 lbs. metallic copper/1,000 sq. ft. Do not exceed 0.46 lbs. metallic copper/1,000 sq. ft./year. Phyton-016-B contains 0.55 lbs. of metallic copper per gallon of product.

TROPICAL FOLIAGE PLANTS			
PLANT	TARGET DISEASE	RATE (teaspoons/gal)	
Ferns	Botrytis Erwinia	0.75 - 1.25	
Hibiscus	Botrytis Pseudomonas Xanthomonas	0.75 - 1.5	
lvy	Botrytis Xanthomonas	0.75 - 3.0	
Palms	Botrytis Erwinia Pseudomonas Xanthomonas	0.75 - 1.5	
Spathiphyllum	Botrytis Cylindrocladium Phytophthora	0.75 - 1.75	

<b>Tropical Foliage</b> (general)	Botrytis Powdery Mildew Erwinia Pseudomonas Xanthomonas	0.75 - 3.0

FLOWERING PLANTS	3		
PLANT	TARGET DISEASE	RATE (teaspoons/gal)	
African Violet	Botrytis Powdery Mildew	(teaspoons/gal) 0.75 - 1.0	
Alstromeria	Botrytis	0.75 - 1.0	
Alyssum	Botrytis Downy Mildew	0.75 - 1.25	
Azalea	Botrytis Colletotrichum Cylindrocladium	0.75 - 2.0	
Begonia	Botrytis Powdery Mildew Xanthomonas	0.75 - 1.75	
Calla lily	Botrytis Erwinia	0.75 - 1.25	
Carnation	Botrytis	0.75 - 1.25	
Chrysanthemum	Botrytis Crown Gall Erwinia Powdery Mildew Pseudomonas	1.0 - 1.5	
Cineraria	Botrytis	0.75 - 1.25	
Cyclamen	Botrytis Erwinia	1.0 - 1.25	
Daffodil	Botrytis	0.75 - 1.25	
Daylily	Botrytis Erwinia	0.75 - 1.5	
Delphinium	Botrytis	0.75 – 1.0	
Easter lily	Botrytis	0.75 – 1.25	
Exacum	Botrytis	0.75 – 1.25	
Freesia	Botrytis	0.75 – 1.25	
Fuchsia	Botrytis Powdery Mildew	0.75 – 1.5	
Geranium	Botrytis 1.0 – 3 Rust Pseudomonas Xanthomonas		
Gerbera	Botrytis 1.0 – 1.5 Powdery Mildew		
Gloxinia	Botrytis	0.75 – 1.25	
Holiday Cactus	Botrytis Erwinia Pseudomonas Xanthomonas	0.75 - 3.0	

	Potrutio 0.75 4		
Hollyhock	Botrytis Powdery Mildew	0.75 – 1.5	
	Rust		
Hosta	Botrytis Erwinia	1.0 - 1.75	
Hyacinth	Botrytis	0.75 - 1.25	
Hydrangea	Botrytis	0.75 - 1.5	
	Powdery Mildew		
Impatiens	Alternaria	0.75 - 2.0	
	Botrytis		
	Powdery Mildew		
	Pseudomonas		
Iris	Botrytis	0.75 - 1.25	
	Erwinia		
Kalanchoe	Botrytis	1.0 - 2.0	
	Erwinia	2.0	
	Powdery Mildew		
Lisianthus	Botrytis	0.75 - 1.25	
New Guinea	Botrytis	0.75 - 1.25	
Impatiens	Powdery Mildew	0.75 - 1.25	
•		0.75 0.5	
Orchid	Botrytis	0.75 - 2.5	
	Erwinia Pseudomonas		
	Xanthomonas		
Pansy	Botrytis	0.75 - 1.25	
	Phytophthora		
Periwinkle	Botrytis 0.75 - 1.2		
	Phytophthora		
Poinsettia	Botrytis	1.0 - 2.0	
	Erwinia		
	Powdery Mildew		
	Scab		
	Xanthomonas		
Primula	Botrytis	0.75 - 1.25	
	Erwinia	0.70 - 1.20	
Roses	Black Spot	1.0 - 3.0	
10262	Botrytis	1.0 - 3.0	
	Cylindrocladium		
	Downy Mildew		
	Powdery Mildew		
	-		
Snapdragon	Botrytis	0.75 - 1.5	
	Downy Mildew		
	Rust		
Sweet Pea	Botrytis	0.75 - 1.0	
Tulip	Botrytis	0.75 - 1.25	
Zinnia	Botrytis	0.75 - 1.25	
	Powdery Mildew		
	Pseudomonas		
	Xanthomonas		
·	•	•	

Powdery		rtis ny Mildew dery Mildew domonas	0.75 - 1.5
Anenome Columbine Dahlia Delphinium Lobelia Ornamental	Aster Coneflow Daisy Echinace Lupine Pentas	Dianthus	Coleus Cuphea Daylily Liatris Monarda Phlox
Grasses Poppy Salvia Vinca	Primrose Sedum Viola	e Ranunculus Verbena	Rudbeckia Veronica

SOIL DRENCH APPLICATIONS			
PLANT	TARGET DISEASE	RATE (teaspoons/gal)	
African Violet	Phytophthora	0.75 - 1.25	
Azalea	Cylindrocladium Rhizoctonia	1.25 - 2.0	
Cyclamen	Erwinia	1.0	
Ferns	Rhizoctonia	1.0 - 1.75	
Geranium	Botrytis	1.25 - 2.0	
Impatiens	Phytophthora	1.25 - 2.0	
Japanese Maple	Verticillium	1.5	
Periwinkle	Phytophthora	1.0 - 1.25	
Poinsettia	Rhizoctonia	1.25 - 2.0	
Rhododendron	Rhizoctonia	1.25 - 2.0	
Rose	Black Spot Cylindrocladium	1.25 - 2.0	
Spathiphyllum	Cylindrocladium Phytophthora	1.25 - 2.0	

TREES, SHRUBS AND VINES			
PLANT	TARGET DISEASE	RATE (teaspoons/gal)	
Azalea	Anthracnose Botrytis Cylindrocladium	0.75 - 2.0	
Cherry Laurel	Xanthomonas	1.25 - 2.0	
Conifers	Botrytis Diplodia	0.75 - 1.5	
Crape Myrtle	Botrytis Powdery Mildew	0.75 - 1.75	
Dogwood	Anthracnose Botrytis Powdery Mildew	0.75 - 1.75	
Elm	Erwinia	1.25 - 2.5	
Hydrangea	Botrytis Powdery Mildew	0.75 - 1.5	

Indian Hawthorn	Botrytis Entomosporium	0.75 - 1.75	
Japanese Maple	Botrytis Verticillium Pseudomonas	0.75 - 1.5	
Lilac	Botrytis Pseudomonas Powdery Mildew	0.75 - 1.5	
Oak	Anthracnose Botrytis	0.75 - 2.0	
Oak Trunk Spray	Phytophthora	1.75 - 2.75	
Photinia	Entomosporium	1.0 - 1.75	
Pinus	Dothistroma	1.0 - 1.5	
Rosaceae such as: Cotoneaster, Malus, Mountain Ash, Ornamental Crabapple, Ornamental Pear, Pyracantha	Apple Scab Botrytis Fireblight Pseudomonas	0.75 - 2.5	
Rhododendron	Botrytis Cylindrocladium	0.75 - 2.0	
Rose	See Flowering Plants for Rates		
Sycamore	Anthracnose Botrytis	0.75 - 2.0	

TREES, SHRUBS AND VINES				
PLANT		TARGET DISEASE		RATE (teaspoons/gal)
Additional Plants:		Botrytis Powdery Mildew Pseudomonas		0.75 - 1.5
Shrubs/Vines		I		1
Barberry	Bougainv	illea	Clematis	Cornus
Euonymus	Forsythia		Holly	Paeonia
Philadelphus	Physocarpus		Potentilla	Ribes
Rosa	Spirea		Viburnum	Weigela
Wisteria				
<u>Deciduous</u>				
Acer	Betula		Celtis	Cercis
Crataegus	Ficus		Fraxinus	Ginkgo
Gleditsia	Magnolia		Malus	Populus
Prunus	Pyrus		Tilia	
<u>Conifers</u>				
Abies	Juniper		Picea	Pinus
Pittosporum	Pseudots	uga	Taxus	Thuja
Tsuga				

*NOTE* – *The following is optional marketing language that will be used on the Domestic/Homeowner versions of the label* 

- Broad Spectrum
- Will Not Leave Any Visible Residue
- Bactericide<sup>\*</sup> & Fungicide
- Systemic