

PHYTON[®] 35

Broad spectrum control

BACTERICIDE + FUNGICIDE

Systemic Bactericide and Fungicide

ACTIVE INGREDIENT

Copper Sulfate Pentahydrate *

(CAS# 7758-99-8)21.27%

OTHER INGREDIENTS.....78.73%

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.)

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.



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Minneapolis, MN 55437
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E.P.A. REG. NO. 49538-5
E.P.A. EST. NO. 49538-MN-001

P35_Spec US/CA 2015

Specimen Label

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 35 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)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

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

- Long-sleeved shirt and long pants
- Chemical resistant gloves
- 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.

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.

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.

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.

PHYTON[®] 35 Broad spectrum control

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:

- that residues in the treated area may be highly irritating to their eyes
- that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
- 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
- how to operate the eyeflush container or eye flush station

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.

PRODUCT INFORMATION

Phyton 35 is a systemic bactericide & 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 35 will not leave any visible residue when mixed and applied according to the USE DIRECTIONS listed on this label. Phyton 35 may be applied by spray, drench, dip or injection. Equipment must be properly calibrated before use.

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 $\frac{1}{4}$ 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.

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 35 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 35 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 35 with B-NINE and do not apply Phyton 35 within seven (7) days either before or after applications of B-NINE, as burning of leaves may result.
8. Do not tank mix Phyton 35 with strongly acidic compounds such as Aliette, and do not apply Phyton 35 within 14 days either before or after applications of such products.
9. Phytotoxicity: Phyton 35 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 35 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 35 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.

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: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

For groundboom application: Do not apply with a nozzle height greater than 4 feet above the crop canopy.

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 35 should be in water volumes that provide thorough coverage of plant parts.

Routine preventive programs may be maintained at the lower rates. Rates above 15 fl. oz. Phyton 35 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 2.0 lbs metallic copper/A. Do not exceed 20 lbs metallic copper/A/year. PHYTON 35 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 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
	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 (therapeutic)	50
	Xanthomonas (preventive)	15 - 45
Hollyhock *	Xanthomonas (therapeutic)	50
	Botrytis	13 - 20
	Powdery Mildew	15 - 25
Hosta	Rust	15 - 25
	Botrytis	15 - 20
	Erwinia	15 - 30
Impatiens	Alternaria	15 - 35
	Botrytis	13 - 15
	Powdery Mildew	13 - 25
	Pseudomonas	15 - 35
New Guinea Impatiens	Botrytis	13 - 15
	Powdery Mildew	13 - 20
Pachysandra *	Botrytis	13 - 20
	Volutella	13 - 25
Pansy	Botrytis	13 - 20
	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 Annuals & Perennials:	Botrytis	13 - 20
	Downy Mildew	15 - 30
	Powdery Mildew	15 - 25
	Pseudomonas	15 - 25

Anemone *	Aster *	Bacopa *	Baptisia *	Carnation *
Coleus *	Columbine *	Coneflower *	Coreopsis *	Cuphea *
Dahlia	Daisy *	Dianthus *	Delphinium *	Echinacea *
Ipomoea *	Lantana *	Lead Plant *	Liatrias *	Lobelia *
Lupine *	Marigold *	Monarda *	Ornamental Grasses *	Pentas *
Petunia *	Phlox *	Poppy *	Prairie Smoke *	Primrose *
Pulmonaria *	Rudbeckia *	Salvia *	Scabiosa *	Sedum *
Silphium *	Verbena	Veronica *	Vinca *	Viola *

* 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

POTTED FLOWERING CROPS		
CROP	PATHOGEN	RATE (fl. oz./100 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
	Pseudomonas	15 - 50
	Xanthomonas	15 - 50
Hyacinth *	Botrytis	13 - 20
Hydrangea	Botrytis	13 - 25
	Powdery Mildew	13 - 25
Iris *	Botrytis	13 - 20
	Powdery Mildew	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 (therapeutic)	20 - 35
	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 (therapeutic)	25 - 50
	Downy Mildew (preventive)	15 - 20
	Downy Mildew (therapeutic)	25 - 50
	Powdery Mildew (preventive)	15 - 30
	Powdery Mildew (therapeutic)	35 - 50
Tulip	Botrytis	13 - 20

* NOT APPROVED FOR USE IN CALIFORNIA

NURSERY CROPS		
CROP	PATHOGEN	RATE (fl. oz./100 gal)
Azalea	Anthracnose	15 - 25
	Botrytis	13 - 25
	Cylindrocladium	15 - 35
	Phytophthora	20 - 25
Buxus	Volutella	15 - 25
Cherry Laurel *	Xanthomonas	20 - 35
Conifers *	Botrytis	13 - 25
	Diplodia	10 - 13
Crape Myrtle *	Botrytis	13 - 25
	Powdery Mildew	20 - 30
Dogwood	Anthracnose	20 - 30
	Botrytis	13 - 25
	Powdery Mildew	20 - 30
Elm *	Erwinia	20 - 40
Euonymus	Anthracnose	15 - 30
	Botrytis	13 - 25
Hawthorn	Cedar Apple Rust	15 - 25
Hydrangea	Botrytis	13 - 25
	Cercospora	15 - 25
	Powdery Mildew	13 - 25
Indian Hawthorn	Botrytis	13 - 25
	Entomosporium	15 - 30
Japanese Maple	Botrytis	13 - 25
	Verticillium	15 - 25
	Pseudomonas	15 - 25
Juniper *	Phomopsis	13 - 25
Leyland Cypress *	Cercospora	13 - 25
Lilac *	Botrytis	13 - 25
	Pseudomonas	13 - 25
	Powdery Mildew	15 - 25
Nandina *	Xanthomonas	15 - 25
Oak *	Anthracnose	35
	Botrytis	13 - 25
Oak Trunk Spray *	Phytophthora	30 - 45
Photinia *	Entomosporium	15 - 30
Pinus *	Dothistroma	15 - 25
Rosaceae: *	Apple Scab	40
	Botrytis	13 - 25
	Fireblight	20 - 40
Rhododendron	Pseudomonas	15 - 35
	Botrytis	13 - 25
	Cylindrocladium	15 - 35
Rose	Phytophthora	20 - 35
	See Flowering Potted Crops for Rates	
Ruscus *	Pseudomonas	13 - 25
Sycamore *	Anthracnose	35
	Botrytis	13 - 25
Viburnum *	Botrytis	13 - 25
	Cercospora	15 - 25
	Phytophthora	20 - 25
	Botrytis	13 - 25
	Powdery Mildew	20 - 25
Additional Nursery Plants:	Pseudomonas	15 - 35
	Rhizoctonia	13 - 25

Shrubs/Vines *

Barberry	Bougainvillea	Clematis	Cornus	Cotinus
Forsythia	Gardenia	Holly	Paeonia	Philadelphus
Physocarpus	Potentilla	Ribes	Rosa	Spirea
Weigela	Wisteria			

Deciduous *

Acer	Amelanchier	Betula	Celtis	Cercis
Crataegus	Ficus	Fraxinus	Ginkgo	Gleditsia
Magnolia	Malus	Populus	Prunus	Pyrus
Tilia				

Conifers *

Abies	Juniper	Picea	Pinus	Pittosporum
Pseudotsuga	Taxus	Thuja	Tsuga	

* 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
Ivy	Botrytis	13 - 20
	Xanthomonas	15 - 50
Palm *	Botrytis	13 - 20
	Erwinia	13 - 20
	Pseudomonas	13 - 25
	Xanthomonas	13 - 25
Spathiphyllum	Botrytis	13 - 25
	Cylindrocladium	15 - 25
	Phytophthora	15 - 30
Tropical Foliage (General)	Botrytis	13 - 25
	Powdery Mildew	13 - 25
	Erwinia	20 - 50
	Pseudomonas	20 - 50
	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
	Erwinia	15 - 20
Mini-Rose	Botrytis	15 - 20
	Cylindrocladium	15 - 50
Poinsettia	Botrytis	15 - 20
	Erwinia	20 - 35
	Scab	20 - 35
	Xanthomonas	20 - 35
	Phytophthora	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	¾ - 1 tsp.
Carnation	Botrytis	2 - 3 tsp.
Chrysanthemum	Botrytis	2 - 3 tsp.
Delphinium	Botrytis	1 - 2 tsp.
Freesia	Botrytis	¾ - 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	
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	
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	
Spathiphyllum	Cylindrocladium	20 - 35
	Phytophthora	
Vinca minor	Rhizoctonia	15 - 25

FRUITS, VEGETABLES & HERBS

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

SMALL FRUITS

CROP	DISEASE	RATE (fl. oz./100 gal)	Use instructions	†Use restrictions
Blackberries, Raspberries	Anthrachnose, Leaf Spot, Pseudomonas blight	20 – 40	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 2.0 lbs metallic copper/A. Annually: Do not exceed 10.0 lbs metallic copper/A Minimum interval: 7 days
Strawberries	Angular leaf spot (Xanthomonas), Leaf spot	15 – 30	Begin application when plants are established and continue throughout the season using higher rates when conditions favor disease.	For single applications: Do not exceed 1.5 lbs metallic copper/A. Annually: Do not exceed 8.19 lbs metallic copper/A Minimum interval: 7 days

VEGETABLES & HERBS

Chives	Bacterial softrot Downy Mildew, Gray Mold, (Botrytis)	10 – 20	Begin applications when plants are established in the field. Repeat every 7 to 10 days depending on disease conditions.	For single applications: Do not exceed 0.53 lbs metallic copper/A. Annually: Do not exceed 2.65 lbs metallic copper/A Minimum interval: 7 days
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VEGETABLES & HERBS

CROP	DISEASE	RATE (fl. oz./100 gal)	Use instructions	†Use restrictions
Coriander, Mint, Rosemary	Gray Mold (Botrytis), Powdery mildew	10 – 20	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 0.53 lbs metallic copper/A. 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 (Alternaria); Black rot (Xanthomonas); Downy mildew	10 – 20	Begin applications after transplants are set in the field. Repeat every 7 days depending on disease pressure.	For single applications: Do not exceed 0.53 lbs metallic copper/A. Annually: Do not exceed 2.65 lbs metallic copper/A Minimum interval: 7 days
Cucurbits (cucumbers, cantaloupe, squash, pumpkins, zucchini, watermelon)	Alternaria leaf spot; Angular leaf spot; Anthrachnose; Downy Mildew; Gray Mold (Botrytis); Powdery Mildew	15 – 25	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 1.05 lbs metallic copper/A. Annually: Do not exceed 5.25 lbs metallic copper/A Minimum interval: 5 days
Dill	Leaf spots	10 – 20	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 0.79 lbs metallic copper/A. Annually: Do not exceed 3.95 lbs metallic copper/A Minimum interval: 7 days

†Phyton 35 contains 0.55 lbs of metallic copper per gallon of product.

VEGETABLES & HERBS				
CROP	DISEASE	RATE (fl. oz./100 gal)	Use instructions	†Use restrictions
Eggplant	Alternaria blight; Anthracnose; Gray Mold (Botrytis);	15 – 20	Begin application prior to appearance of disease symptoms. Repeat every 7 to 10 days depending on disease severity.	For single applications: Do not exceed 0.79 lbs metallic copper/A. Annually: Do not exceed 7.9 lbs metallic copper/A Minimum interval: 7 days
Parsley	Leaf scorch; Leaf spot	20 – 40	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 1.0 lbs metallic copper/A. Annually: Do not exceed 2.0 lbs metallic copper/A Minimum interval: 10 days
Pepper	Bacterial Spot (Xanthomonas); Cercospora leaf spot Gray Mold (Botrytis);	15 – 35	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 0.79 lbs metallic copper/A. Annually: Do not exceed 11.85 lbs metallic copper/A Minimum interval: 3 days
Tomato (fresh market)	Anthracnose; Bacterial Speck (Pseudomonas); Bacterial Spot (Xanthomonas); Bacterial Wilt (Ralstonia) Early blight; Gray Mold (Botrytis); Late blight; Powdery Mildew; Septoria Leaf Spot	20 – 40	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 1.6 lbs metallic copper/A. Annually: Do not exceed 8.0 lbs metallic copper/A Minimum interval: 3 days

†Phyton 35 contains 0.55 lbs of metallic copper per gallon of product.

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 non-uniform 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 35 application, allow foliage to drip off before beginning the application.

To optimize dilution of the pesticide in the supply tank, first add Phyton 35 to a small amount of water, room temperature or warmer, and mix gently until evenly dispersed.

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, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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

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

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

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

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, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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

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.

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, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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

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

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