

49538-2

8/5/2010

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7504P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
49538-2

Date of Issuance:

AUG 05 2010

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Phyton 27

Name and Address of Registrant (include ZIP Code):

Source Technology Biologicals, Inc.
7449 Cahill Road
Edina, MN 55439

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

Tony Kish
Product Manager 22
Fungicide Branch
Registration Division (7504P)

Date:

AUG 05 2010

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2) Per the product chemistry review, a CAS number for the active ingredient (7758-99-8) must be added to the ingredient statement and the percent metallic copper must be revised to read 5.4%.

3) Per the acute toxicity review, the First Aid statements and the statements must read:

“IF IN EYES:

Hold eye open and rinse slowly and gently with water for 15-20 minutes.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:

Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
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 by a poison control center or doctor.
Do not give anything by mouth to an unconscious person.

IF INHALED:

Move person to fresh air.
If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable mouth-to-mouth if possible.
Call a poison control center or doctor for further treatment advice.”

4) As specified in the acute toxicity review, a phone number for emergency medical treatment information should be added to the label.

5) Page 3 Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to read:

“DANGER

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if swallowed.
Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing.”

Per the acute toxicity review and the RED, the handler PPE section must be revised to read:

“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:

- Coveralls over short-sleeved shirt and short pants,
- Chemical-resistant footwear plus socks,
- Chemical-resistant gloves,
- Goggles or faceshield.”

6) Per the Copper RED label table, the text in **bold type** below must be added to the following User Safety Requirements:

“...If no such instructions for washables **exist**, use detergent and hot water...”

7) Per the RED, the User Safety Recommendations must be revised to read:

“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.

Users 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.”

8) Per the revised label table, the Environmental Hazard text must be revised to read:

“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 washwaters or rinsate.”

9) Per the product chemistry review, Physical and Chemical Hazards text must be added to the label and must read:

“Physical and Chemical Hazards:

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Do not use or store near heat or open flame.”

10) The following revisions are needed to the Agricultural Use Requirements box:

- The REI must be revised from 24 to 48 hours.
- The early entry PPE must be revised to read:

“Coveralls,
Shoes plus socks,
Chemical-resistant gloves made of any waterproof material, and
Protective eyewear.”

-Add the following:

“For at least seven days following the application of copper-containing products 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 eye flush container that is located with the decontamination supplies and
-how to operate the eye flush container or eye flush station.”

11) On page 4, Change “Storage” to “Pesticide Storage”. Update the Container disposal language to comply with PR Notice 2007-4. Delete the word “General”. On page 5, change “general directions” to “specific direction” or something similar, just can’t have the word “general” in the heading.

12) The following revisions are needed to the Non-Agricultural Use Requirements box:

-The entry restriction text currently appearing in the Non-Agricultural Use Requirements box (“Do not enter area without protective clothing until the sprays have dried”) must be revised to read:

“Do not enter or allow others to enter until sprays have dried.”

-The application restriction text (“Keep children and pets off treated area until dry”) must be deleted from this section of the label.

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13) Per the revised label table, the following spray drift text must be added to the label:

“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 stable 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.”

14) To the use directions, pages 5-14 and 19-24, an area to be treated must be added and must add these requirements and delete any conflicting text:

For Easter lilies:

The maximum application rate is 2.5 lb metallic copper per acre per application.

The maximum annual application rate is 75 lbs metallic copper per acre per year.

The minimum retreatment interval is 7 days.

Do not apply any additional copper pesticide to this land for 36 months.

For all other ornamentals:

The maximum application rate is 2.0 lb metallic copper per acre per application.

The maximum annual application rate is 20 lbs metallic copper per acre per year.

The minimum retreatment interval is 7 days.”

On page 5 and 19, delete “in the event... shortened to 3 to 5 days”. Delete “such as but not limited to” on page 6 and throughout the label, all uses must be listed.

15) Page 18 Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to read:

“DANGER

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Wear coveralls over short-sleeved shirt and short pants, chemical-resistant footwear plus socks, chemical-resistant gloves made of any waterproof material, and goggles or faceshield.”

The text “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” may remain in this section of the label.

16) The Environmental Hazards text currently on the label must be revised to read:

“This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.”

17) Update the Container Disposal instructions on page 18 to comply with PR Notice 2007-4. Delete “general” from “general directions”

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18) The application restriction text currently on the label "Do not apply this product in a way that will contact any person or pet" must be revised per the RED to read "Do not apply this product in a way that will contact adults, children, or pets, **either directly or through drift.**"

Additionally, the entry restriction text must be revised to read "Do not allow adults, children, or pets to enter the treated area until sprays have dried."

Both the entry and application restriction statements must be located in the directions for use.

19) On page 2 change "recommendations" to "directions". Add "to the extent consistent with applicable law" in front of "crop injury", "the exclusive remedy", and "the buyer".

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next round of printing must bear the new revised label. If these EPA conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these EPA Reg. conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Enclosure: Product Chemistry Review
 Acute Toxicology Review

80231



**BACTERICIDE & FUNGICIDE
MITICIDE & INSECTICIDE & NEMATICIDE**

**ACCEPTED
with COMMENTS
In EPA Letter Dated:**

AUG 05 2010

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

49538-2

ACTIVE INGREDIENT

Copper Sulphate Pentahydrate*.....21.36%

INERT INGREDIENTS.....78.64%

100.00%

*Copper as Metallic.....5.5%

Contains 2.06 lbs. Active Ingredient per gallon

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

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.)

U.S. PAT. NOS. 4,673,687 and 6,646,000 B1

E.P.A. REG. NO. 49538-2

E.P.A. EST. NO. 49538-MN-001

Source Technology Biologicals, Inc.

7449 Cahill Road

Edina, MN 55439 800-356-8733

www.sourcetechnbio.com

PHYSICAL OR CHEMICAL HAZARDS

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

FIRST AID

If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If on Skin or Clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.
- If product diluted in accordance with the directions for use gets on skin, medical attention is not required.

If Swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are unavailable, 1 or 2 glasses of water.
- 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.

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

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 recommendations 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. The exclusive remedy is the product purchase price. Phyton-27® 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. 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.

NOTE - The following language is required for the Commercial/Agricultural version of the label:

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

Precautionary Statements
 DANGER: Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if absorbed through the skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)
 Applicators and other handlers must wear:
 Coveralls over long-sleeved shirt and long pants
 Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber.
 Chemical-resistant footwear plus socks
 Protective eyewear. After product is diluted in accordance with the directions for use, protective eyewear is not required.
 Chemical-resistant headgear for overhead exposure
 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, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:
 Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
 Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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 product is toxic to fish. 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 washwaters.

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

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 24 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 over long-sleeved shirt and long pants

Chemical-resistant footwear plus socks

Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber.

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.

Keep children and pets off treated area until dry.

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

STORAGE AND DISPOSAL

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

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—Triple rinse (or equivalent). Then offer for recycling or reconditioning or dispose of in a sanitary landfill, or by incineration if allowed by state and local authorities. Do not reuse these containers.

GENERAL—Consult federal, state or local disposal authorities for approved alternative procedures such as limited open burning.

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

GENERAL 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-27® 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. Low volume applications require conversion of ounces/volume to ounces/area.
5. Phyton-27® can be used up to the time of harvest.
6. Metal piping or equipment used for application should be brass or stainless steel.
7. Compatible with most fungal and insecticidal biopesticides when applied at least 2 days before or after application of the biopesticide.
8. Do not tank mix Phyton-27® with B-NINE and do not apply Phyton-27® within seven (7) days either before or after applications of B-NINE, as burning of leaves may result.
9. Do not tank mix Phyton-27® with strongly acidic compounds such as Aliette, and do not apply Phyton-27® within 14 days either before or after applications of such products.
10. Phytotoxicity: Phyton-27® has been tested on a wide variety of herbaceous and woody ornamental plants without phytotoxicity symptoms. However, because it is not possible to test all ornamental 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.
11. Liquid equivalents: one fluid ounce = 29.5 milliliters = 6 teaspoons.

SPECIFIC DIRECTIONS for Spray Applications in Greenhouse, Field, Landscape and Interior: Annual & Perennial Bedding Plants, Potted Flowering Crops, Tropical Foliage, Cut Flower Crops & Nursery Crops

Spray for thorough foliage coverage. Re-spray rates and intervals vary with severity of disease and adversity of environmental conditions. In the event of heavy disease pressure, intervals can be shortened to 3 to 5 days. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained at the lower rates. Rates above 1.5 fl. oz. Phyton-27® per 10 gallons water may damage some tender, open blooms. Rates up to 7 fl. oz. Phyton-27® per 10 gallons water can be used for powdery mildew on roses if no blooms are open. 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.

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

Annual & Perennial Bedding Plants such as but not limited to:		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Alyssum	Botrytis	1.0 - 2.0
	Downy Mildew	1.0 - 2.0
Argyranthemum	Botrytis	1.3 - 2.0
	Erwinia	1.3 - 2.0
Begonia	Botrytis	1.3 - 2.0
	Powdery Mildew	1.5 - 3.0
	Xanthomonas	1.5 - 3.0
Chrysanthemum	Botrytis	1.5 - 2.5
	Pseudomonas	1.5 - 2.5
Daylily	Botrytis	1.3 - 2.0
	Erwinia	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Dusty Miller	Alternaria	1.5 - 2.5
	Botrytis	1.3 - 2.0
Fuchsia	Botrytis	1.3 - 2.0
	Powdery Mildew	1.3 - 2.5
Geranium	Botrytis	1.5 - 2.0
	Rust (preventive)	1.5 - 2.0
	Rust (therapeutic)	2.5 - 4.0
	Pseudomonas (preventive)	1.5 - 4.5
	Pseudomonas (therapeutic)	5.0
	Xanthomonas (preventive)	1.5 - 4.5
	Xanthomonas (therapeutic)	5.0
Hollyhock	Botrytis	1.3 - 2.0
	Powdery Mildew	1.5 - 2.5
	Rust	1.5 - 2.5
Hosta	Botrytis	1.5 - 2.0
	Erwinia	1.5 - 3.0
Impatiens	Alternaria	1.5 - 3.5
	Botrytis	1.3 - 1.5
	Powdery Mildew	1.3 - 2.5
	Pseudomonas	1.5 - 3.5
New Guinea Impatiens	Botrytis	1.3 - 1.5
	Powdery Mildew	1.3 - 2.0
Pachysandra	Botrytis	1.3 - 2.0
	Volutella	1.3 - 2.5
Pansy	Botrytis	1.3 - 2.0
	Cercospora	1.5 - 2.0
	Phytophthora	1.3 - 2.0
Periwinkle	Botrytis	1.3 - 2.0
	Phytophthora	1.5 - 2.0
Ranunculus	Bacterial Blight	1.3 - 2.0
	Botrytis	1.3 - 2.0
	Powdery Mildew	1.5 - 2.5

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

Annual & Perennial Bedding Plants continued				
Dosages in fluid ounces Phyton-27® per 10 gallons water				
CROP	PATHOGEN		RATE	
Snapdragon	Botrytis		1.3 - 2.0	
	Downy Mildew		1.3 - 2.5	
	Rust		1.3 - 2.5	
Zinnia	Botrytis		1.3 - 2.0	
	Powdery Mildew		1.3 - 2.5	
	Pseudomonas		1.3 - 2.5	
	Xanthomonas		1.3 - 2.5	
Additional Annuals and Perennials:	Botrytis		1.3 - 2.0	
	Downy Mildew		1.5 - 3.0	
	Powdery Mildew		1.5 - 2.5	
	Pseudomonas		1.5 - 2.5	
Anenome	Aster	Bacopa	Baptisia	Carnation
Coleus	Columbine	Coneflower	Coreopsis	Cuphea
Dahlia	Daisy	Dianthus	Delphinium	Echinacea
Ipomoea	Lantana	Lead Plant	Liatris	Lobelia
Lupine	Marigold	Monarda	Ornamental Grasses	Pentas
Petunia	Phlox	Poppy	Prairie Smoke	Primrose
Pulmonaria	Rudbeckia	Salvia	Scabiosa	Sedum
Silphium	Verbena	Veronica	Vinca	Viola

Tropical Foliage Crops such as but not limited to:		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Dracaena	Rust	1.5 - 2.5
Ferns	Botrytis	1.3 - 2.0
	Erwinia	1.3 - 2.0
Hibiscus	Botrytis	1.3 - 2.5
	Pseudomonas	1.5 - 2.5
	Xanthomonas	1.5 - 2.5
Ivy	Botrytis	1.3 - 2.0
	Xanthomonas	1.5 - 5.0
Palms	Botrytis	1.3 - 2.0
	Erwinia	1.3 - 2.0
	Pseudomonas	1.3 - 2.5
	Xanthomonas	1.3 - 2.5
Spathiphyllum	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 2.5
	Phytophthora	1.5 - 3.0
Tropical Foliage (general)	Botrytis	1.3 - 2.5
	Powdery Mildew	1.3 - 2.5
	Erwinia	2.0 - 5.0
	Pseudomonas	2.0 - 5.0
	Xanthomonas	2.0 - 5.0

NOTE - The following language is required for the Commercial/Agricultural version of the label:

Potted Flowering Crops such as but not limited to: Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
African Violet	Botrytis	1.3 - 1.5
	Powdery Mildew	1.3 - 1.5
Azalea	Botrytis	1.3 - 2.5
	Colletotrichum	1.5 - 2.5
	Cylindrocladium	1.5 - 3.5
Calla lily	Botrytis	1.3 - 2.0
	Erwinia	1.3 - 2.0
Chrysanthemum	Botrytis	1.5 - 2.5
	Crown Gall	1.5 - 2.5
	Erwinia	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Cineraria	Botrytis	1.3 - 2.0
Cyclamen	Botrytis	1.5 - 2.0
	Erwinia	1.5 - 2.0
Daffodil	Botrytis	1.3 - 2.0
Easter lily	Botrytis	1.3 - 2.0
Exacum	Botrytis	1.3 - 2.0
Gerbera	Botrytis	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Gloxinia	Botrytis	1.3 - 2.0
Holiday Cactus	Botrytis	1.3 - 2.5
	Erwinia	1.5 - 5.0
	Pseudomonas	1.5 - 5.0
	Xanthomonas	1.5 - 5.0
Hyacinth	Botrytis	1.3 - 2.0
Hydrangea	Botrytis	1.3 - 2.5
	Powdery Mildew	1.3 - 2.5
Iris	Botrytis	1.3 - 2.0
	Erwinia	1.5 - 2.0
Kalanchoe	Botrytis	1.5 - 2.5
	Erwinia	1.5 - 3.5
	Powdery Mildew	1.5 - 3.5
Lisianthus	Botrytis	1.3 - 2.0
Orchid	Botrytis	1.3 - 1.5
	Erwinia	1.5 - 4.0
	Pseudomonas	1.5 - 4.0
	Xanthomonas	1.5 - 4.0
Poinsettia	Botrytis	1.5 - 2.0
	Scab	2.0 - 3.5
	Powdery Mildew (preventive)	1.5 - 2.0
	Powdery Mildew (therapeutic)	2.0 - 3.5
	Erwinia (preventive)	1.5 - 2.0
	Erwinia (therapeutic)	2.0 - 3.5
	Xanthomonas (preventive)	1.5 - 2.0
Xanthomonas (therapeutic)	2.0 - 3.5	

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

Potted Flowering Crops continued		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Primula	Botrytis	1.3 - 2.0
	Erwinia	1.5 - 2.0
Rose bush	Black Spot (preventive)	1.5 - 3.0
	Black spot (therapeutic)	3.5 - 5.0
	Botrytis (preventive)	1.5 - 2.0
	Botrytis (therapeutic)	2.5 - 5.0
	Cylindrocladium (preventive)	1.5 - 2.0
	Cylindrocladium (therapeutic)	2.5 - 5.0
	Downy Mildew (preventive)	1.5 - 2.0
	Downy Mildew (therapeutic)	2.5 - 5.0
	Powdery Mildew (preventive)	1.5 - 3.0
	Powdery Mildew (therapeutic)	3.5 - 5.0
Tulip	Botrytis	1.3 - 2.0

Cut Flower Crops such as but not limited to:		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Alstromeria	Botrytis	1.3 - 1.5
Carnation	Botrytis	1.3 - 2.0
Chrysanthemum	Botrytis	1.5 - 2.5
Delphinium	Botrytis	1.3 - 1.5
Freesia	Botrytis	1.3 - 1.5
Gerbera	Botrytis	1.5 - 2.5
Gladiola	Botrytis	1.3 - 1.5
Lisianthus	Botrytis	1.3 - 2.0
Orchid	Botrytis	1.3 - 1.5
Rose	Botrytis	1.5 - 5.0
Snapdragon	Botrytis	1.3 - 2.0
Sweetpea	Botrytis	1.3 - 1.5

SPECIFIC DIRECTIONS for Post-Harvest Dip Applications on Cut Flower Crops		
Dip cut flowers/buds for a few seconds soon after cutting.		
Dosages in teaspoons Phyton-27® per 5 gallons water		
CROP	PATHOGEN	RATE
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 3/4 tsp.
Snapdragon	Botrytis	1-2 tsp.
Sweetpea	Botrytis	1-2 tsp.

NOTE - The following language is required for the Commercial/Agricultural version of the label:

Nursery Crops such as but not limited to:		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Azalea	Anthraco nose	1.5 - 2.5
	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 3.5
	Phytophthora	2.0 - 2.5
Buxus	Volutella	1.5 - 2.5
Cherry Laurel	Xanthomonas	2.0 - 3.5
Conifers	Botrytis	1.3 - 2.5
	Diplodia	1.0 - 1.3
Crape Myrtle	Botrytis	1.3 - 2.5
	Powdery Mildew	2.0 - 3.0
Dogwood	Anthraco nose	2.0 - 3.0
	Botrytis	1.3 - 2.5
	Powdery Mildew	2.0 - 3.0
Elm	Erwinia	2.0 - 4.0
Euonymus	Anthraco nose	1.5 - 3.0
	Botrytis	1.3 - 2.5
Hawthorn	Cedar Apple Rust	1.5 - 2.5
Hydrangea	Botrytis	1.3 - 2.5
	Cercospora	1.5 - 2.5
	Powdery Mildew	1.3 - 2.5
Indian Hawthorn	Botrytis	1.3 - 2.5
	Entomosporium	1.5 - 3.0
Japanese Maple	Botrytis	1.3 - 2.5
	Verticillium	1.5 - 2.5
	Pseudomonas	1.5 - 2.5
Juniper	Phomopsis	1.3 - 2.5
Leyland Cypress	Cercospora	1.3 - 2.5
Lilac	Botrytis	1.3 - 2.5
	Pseudomonas	1.3 - 2.5
	Powdery Mildew	1.5 - 2.5
Nandina	Xanthomonas	1.5 - 2.5
Oak	Anthraco nose	3.5
	Botrytis	1.3 - 2.5
Oak Trunk Spray	Phytophthora	3.0 - 4.5
Photinia	Entomosporium	1.5 - 3.0
Pinus	Dothistroma	1.5 - 2.5
Rosaceae such as: Cotoneaster, Malus, Mountain Ash, Ornamental Crabapple, Ornamental Pear, Pyracantha	Apple Scab	4.0
	Botrytis	1.3 - 2.5
	Fireblight	2.0 - 4.0
	Pseudomonas	1.5 - 3.5
Rhododendron	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 3.5
	Phytophthora	2.0 - 3.5

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

Nursery Crops continued				
Dosages in fluid ounces Phyton-27® per 10 gallons water				
CROP	PATHOGEN		RATE	
Rose	See Flowering Potted Crops for Rates			
Ruscus	Pseudomonas		1.3 - 2.5	
Sycamore	Anthracnose		3.5	
	Botrytis		1.3 - 2.5	
Viburnum	Botrytis		1.3 - 2.5	
	Cercospora		1.5 - 2.5	
	Phytophthora		2.0 - 2.5	
Additional Nursery Crops such as:	Botrytis		1.3 - 2.5	
	Powdery Mildew		2.0 - 2.5	
	Pseudomonas		1.5 - 3.5	
	Rhizoctonia		1.3 - 2.5	
<u>Shrubs/Vines</u>				
Barberry	Bougainvillea	Clematis	Cornus	Cotinus
Forsythia	Gardenia	Holly	Paeonia	Philadelphus
Physocarpus	Potentilla	Ribes	Rosa	Spirea
Weigela	Wisteria			
<u>Deciduous</u>				
Acer	Amelanchier	Betula	Celtis	Cercis
Crataegus	Ficus	Fraxinus	Ginkgo	Gleditsia
Magnolia	Malus	Populus	Prunus	Pyrus
Tilia				
<u>Conifers</u>				
Abies	Juniper	Picea	Pinus	Pittosporum
Pseudotsuga	Taxus	Thuja	Tsuga	
<u>Non-Bearing Fruit Trees and Vines</u>				
(Do not apply to trees that will bear fruit within one year)				
Apple	Pear	Grape	Citrus	

SPECIFIC DIRECTIONS for Bulb Applications		
Dip bulbs for 5 minutes, or spray bulbs to drip, then allow to dry before planting.		
Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Calla Lily	Erwinia	3.0

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

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 such as but not limited to: Dosages in fluid ounces Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
Azalea	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 3.5
Chrysanthemum	Botrytis	1.5 - 2.5
	Erwinia	1.5 - 2.5
Geranium	Botrytis	1.5 - 2.0
	Xanthomonas	1.5 - 5.0
Holiday Cactus	Botrytis	1.3 - 2.5
	Erwinia	1.5 - 2.0
Hydrangea	Botrytis	1.3 - 2.5
	Xanthomonas	1.5 - 2.5
Lavender	Botrytis	1.3 - 2.0
Mini-Rose	Botrytis	1.5 - 2.0
	Cylindrocladium	1.5 - 5.0
Poinsettia	Botrytis	1.5 - 2.0
	Erwinia	2.0 - 3.5
	Scab	2.0 - 3.5
	Xanthomonas	2.0 - 3.5
Tropical Foliage	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 2.5
	Erwinia	2.0 - 5.0

SPECIFIC DIRECTIONS: NEMATICIDE Greenhouse, Field, Landscape and Interior Dosages in fluid ounces of Phyton-27 per 10 gallons water	
	Foliar Nematodes
All hosts on this label	3.2
This dosage rate may damage open blooms. Where fungicide, bactericide dosage rate for host is lower, this higher rate may result in plant damage. Spray for thorough coverage. Make 3 applications at 2-week intervals.	

NOTE - The following language is required for the Commercial/Agricultural version of the label:

Soil Drench Applications - Greenhouse, Field, Landscape & Interior		
Dosage in fluid ounces of Phyton-27® per 10 gallons water		
CROP	PATHOGEN	RATE
African Violet	Phytophthora	1.3 - 2.0
Aster	Phytophthora	2.0 - 3.0
Azalea	Cylindrocladium	2.0 - 3.5
	Rhizoctonia	2.0 - 3.5
Calla Lily	Erwinia	1.5 - 3.0
Cyclamen	Erwinia	1.5
Ferns	Rhizoctonia	1.5 - 3.0
Geranium	Botrytis	2.0 - 3.5
Hosta	Erwinia	1.5 - 2.5
Impatiens	Phytophthora	2.0 - 3.5
Japanese Maple	Verticillium	2.5
Pansy	Phytophthora	1.5 - 2.5
	Pythium	1.5 - 2.5
Periwinkle	Phytophthora	1.5 - 2.0
Pittosporum	Rhizoctonia	1.5 - 2.0
Poinsettia	Phytophthora	1.5 - 2.5
	Rhizoctonia	2.0 - 3.5
Rhododendron	Rhizoctonia	2.0 - 3.5
Rose	Black Spot	2.0 - 3.5
	Cylindrocladium	2.0 - 3.5
Spathiphyllum	Cylindrocladium	2.0 - 3.5
	Phytophthora	2.0 - 3.5
Vinca minor	Rhizoctonia	1.5 - 2.5

SPECIFIC DIRECTIONS: MITICIDE, INSECTICIDE		
Greenhouse, Field, Landscape and Interior		
Dosages in fluid ounces of Phyton-27 per 10 gallons water		
	Two-spotted Spider Mite	White Fly Adults
All hosts on this label	2.5	2.5
This dosage rate may damage open blooms. Where fungicide, bactericide dosage rate for host is lower, this higher rate may result in plant damage. Lower rates may be effective.		

NOTE - The following language is required for the Commercial/Agricultural version of the label:

SPECIFIC DIRECTIONS for Injection Applications: Shade & Ornamental Trees
ELM, Trunk injection, **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.

Dosage by elm size (diameter at breast ht.)	Phyton-27® fl. oz.	Water gallons
12 to 19 inches dbh	2	2
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

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

OAKS, Oak Wilt and Phytophthora. Trunk injection. 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.

Dosage by tree variety and size	Fluid Ounces Phyton-27®		Water
	Red Oaks/Red Elm	Oaks	
12 to 19 inches dbh	1.0	1.5	3 gallons
20 to 26 inches dbh	1.5	2.0	4.5 gallons
27 to 33 inches dbh	2.0	3.0	6 gallons
34 to 40 inches dbh	2.5	3.5	7.5 gallons
41 to 48 inches dbh	3.0	4.5	9 gallons

OAKS and SYCAMORE, Anthracnose. Trunk injection. Follow injection directions for elm, taking care that holes are not too deep on shallow barked oaks.

Dosage by tree variety and size	Fluid ounces Phyton-27®			Water
	Red Oak	White Oak	Sycamore	
12 to 19 inches dbh	1.0	1.5	1.5	3 gallons
20 to 26 inches dbh	1.5	2.0	2.0	4.5 gallons
27 to 33 inches dbh	2.0	3.0	3.0	6 gallons
34 to 40 inches dbh	2.5	3.5	3.5	7.5 gallons
41 to 48 inches dbh	3.0	4.5	4.5	9 gallons

SHADE TREE CANKERS. **Cytospora** on GREEN ASH, PAPER BIRCH, COTTONWOOD; **Botryodiplodia** and **Cytospora** on HACKBERRY, SILVER MAPLE; **Nectria** on HONEY LOCUST. Trunk injection. Follow injection directions for elm.

Dosage by tree size	Phyton-27® fl. oz.	Water
10 inches dbh	1.3	1 gallon
20 inches dbh	2.5	2 gallons

NOTE - The following language is required for the Commercial/Agricultural version of the label:

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.

Metal piping or equipment used for application should be brass or stainless steel.

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 knowledgeable 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 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-27® application, allow foliage to drip off before beginning the application.

To optimize dilution of the pesticide in the supply tank, first add Phyton-27® 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.

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NOTE - The following language is required for the Commercial/Agricultural version of the label:

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.

NOTE - The following language is required for the Commercial/Agricultural version of the label:

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.

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NOTE - The following language is required for the Domestic/Homeowner version of the label:

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

DANGER: Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Do not get in eyes, on skin or on clothing. 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 any person or pet.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water.

STORAGE AND DISPOSAL

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

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.

DISPOSAL

IF EMPTY: Do not reuse this 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.

GENERAL DIRECTIONS for use 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-27® can be applied with any type of application equipment that gives uniform coverage of all foliage.
3. Metal equipment used for application should be brass or stainless steel.
4. Phytotoxicity: Phyton-27® has been tested on a wide variety of herbaceous and woody ornamental plants without phytotoxicity symptoms. However, because it is not possible to test all ornamental 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.

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NOTE - The following language is required for the Domestic/Homeowner version of the label:

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. In the event of heavy disease pressure, intervals can be shortened to 3 to 5 days. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained at the lower rates. Rates above 1 teaspoon Phyton-27® per 1 gallon water may damage some tender, open blooms. Applications on actively growing tissue may be more effective than applications on dormant tissue.

Tropical Foliage Plants such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water		
PLANT	TARGET DISEASE	RATE
Ferns	Botrytis	0.75 - 1.25
	Erwinia	
Hibiscus	Botrytis	0.75 - 1.5
	Pseudomonas	
	Xanthomonas	
Ivy	Botrytis	0.75 - 3.0
	Xanthomonas	
Palms	Botrytis	0.75 - 1.5
	Erwinia	
	Pseudomonas	
	Xanthomonas	
Spathiphyllum	Botrytis	0.75 - 1.75
	Cylindrocladium	
	Phytophthora	
Tropical Foliage (general)	Botrytis	0.75 - 3.0
	Powdery Mildew	
	Erwinia	
	Pseudomonas	
	Xanthomonas	

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NOTE - The following language is required for the Domestic/Homeowner version of the label:

Flowering Plants such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water		
PLANT	TARGET DISEASE	RATE
African Violet	Botrytis	0.75 - 1.0
	Powdery Mildew	
Alstromeria	Botrytis	0.75 - 1.0
Alyssum	Botrytis	0.75 - 1.25
	Downy Mildew	
Azalea	Botrytis	0.75 - 2.0
	Colletotrichum	
	Cylindrocladium	
Begonia	Botrytis	0.75 - 1.75
	Powdery Mildew	
	Xanthomonas	
Calla lily	Botrytis	0.75 - 1.25
	Erwinia	
Carnation	Botrytis	0.75 - 1.25
Chrysanthemum	Botrytis	1.0 - 1.5
	Crown Gall	
	Erwinia	
	Powdery Mildew	
	Pseudomonas	
Cineraria	Botrytis	0.75 - 1.25
Cyclamen	Botrytis	1.0 - 1.25
	Erwinia	
Daffodil	Botrytis	0.75 - 1.25
Daylily	Botrytis	0.75 - 1.5
	Erwinia	
Delphinium	Botrytis	0.75 - 1.0
Easter lily	Botrytis	0.75 - 1.25
Exacum	Botrytis	0.75 - 1.25
Freesia	Botrytis	0.75 - 1.0
Fuchsia	Botrytis	0.75 - 1.5
	Powdery Mildew	
Geranium	Botrytis	1.0 - 3.0
	Rust	
	Pseudomonas	
	Xanthomonas	
Gerbera	Botrytis	1.0 - 1.5
	Powdery Mildew	
Gloxinia	Botrytis	0.75 - 1.25
Holiday Cactus	Botrytis	0.75 - 3.0
	Erwinia	
	Pseudomonas	
	Xanthomonas	
Hollyhock	Botrytis	0.75 - 1.5
	Powdery Mildew	
	Rust	

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NOTE - The following language is required for the Domestic/Homeowner version of the label:

Flowering Plants such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water		
PLANT	TARGET DISEASE	RATE
Hosta	Botrytis	1.0 - 1.75
	Erwinia	
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	
	Powdery Mildew	
Lisianthus	Botrytis	0.75 - 1.25
New Guinea Impatiens	Botrytis	0.75 - 1.25
	Powdery Mildew	
Orchid	Botrytis	0.75 - 2.5
	Erwinia	
	Pseudomonas	
	Xanthomonas	
Pansy	Botrytis	0.75 - 1.25
	Phytophthora	
Periwinkle	Botrytis	0.75 - 1.25
	Phytophthora	
Poinsettia	Botrytis	1.0 - 2.0
	Erwinia	
	Powdery Mildew	
	Scab	
	Xanthomonas	
Primula	Botrytis	0.75 - 1.25
	Erwinia	
Roses	Black Spot	1.0 - 3.0
	Botrytis	
	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	

NOTE - The following language is required for the Domestic/Homeowner version of the label:

Flowering Plants such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water			
PLANT	TARGET DISEASE	RATE	
Additional Annuals and Perennials:	Botrytis	0.75 - 1.5	
	Downy Mildew		
	Powdery Mildew		
	Pseudomonas		
Anemone	Aster	Carnation	Coleus
Columbine	Coneflower	Coreopsis	Cuphea
Dahlia	Daisy	Dianthus	Daylily
Delphinium	Echinacea	Lantana	Liatris
Lobelia	Lupine	Marigold	Monarda
Ornamental Grasses	Pentas	Petunia	Phlox
Poppy	Primrose	Ranunculus	Rudbeckia
Salvia	Sedum	Verbena	Veronica
Vinca	Viola		

Soil Drench Applications - Dosage in teaspoons of Phyton-27® per 1 gallon water		
PLANT	TARGET DISEASE	RATE
African Violet	Phytophthora	0.75 - 1.25
Azalea	Cylindrocladium	1.25 - 2.0
	Rhizoctonia	
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	1.25 - 2.0
	Cylindrocladium	
Spathiphyllum	Cylindrocladium	1.25 - 2.0
	Phytophthora	

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NOTE - The following language is required for the Domestic/Homeowner version of the label:

Trees, Shrubs & Vines such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water		
PLANT	TARGET DISEASE	RATE
Azalea	Anthracnose	0.75 - 2.0
	Botrytis	
	Cylindrocladium	
Cherry Laurel	Xanthomonas	1.25 - 2.0
Conifers	Botrytis	0.75 - 1.5
	Diplodia	
Crape Myrtle	Botrytis	0.75 - 1.75
	Powdery Mildew	
Dogwood	Anthracnose	0.75 - 1.75
	Botrytis	
	Powdery Mildew	
Elm	Erwinia	1.25 - 2.5
Hydrangea	Botrytis	0.75 - 1.5
	Powdery Mildew	
Indian Hawthorn	Botrytis	0.75 - 1.75
	Entomosporium	
Japanese Maple	Botrytis	0.75 - 1.5
	Verticillium	
	Pseudomonas	
Lilac	Botrytis	0.75 - 1.5
	Pseudomonas	
	Powdery Mildew	
Oak	Anthracnose	0.75 - 2.0
	Botrytis	
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	0.75 - 2.5
	Botrytis	
	Fireblight	
	Pseudomonas	
Rhododendron	Botrytis	0.75 - 2.0
	Cylindrocladium	
Rose	<i>See Flowering Plants for Rates</i>	
Sycamore	Anthracnose	0.75 - 2.0
	Botrytis	

NOTE - The following language is required for the Domestic/Homeowner version of the label:

Trees, Shrubs & Vines such as but not limited to: Dosages in teaspoons Phyton-27® per 1 gallon water			
PLANT	TARGET DISEASE		RATE
Additional Plants such as:	Botrytis		0.75 - 1.5
	Powdery Mildew		
	Pseudomonas		
<u>Shrubs/Vines</u>			
Barberry	Bougainvillea	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	Pseudotsuga	Taxus	Thuja
Tsuga			
<u>Non-Bearing Fruit Trees and Vines</u>			
(Do not apply to trees that will bear fruit within one year)			
Apple	Pear	Grape	Citrus