

POTTED FLOWERING CROPS TECHNICAL BULLETIN

Phyton[®]
27
BACTERICIDE & FUNGICIDE

Savvy Growers Rely on Phyton-27[®]



Anthracnose

Azalea

The *Colletotrichum azaleae* fungus causes leaf spotting and defoliation on azalea. Warm, moist conditions favor infection and spread of anthracnose on azalea.

Control - Apply 1.5 to 2.5 fluid ounces Phyton-27® per 10 gallons water as a foliar spray. Removing infected leaves and leaf debris from the growing area may help control anthracnose by lowering the inoculum concentration.

Botrytis

All Flowering Potted Crops

Botrytis, commonly referred to as gray mold, is found virtually everywhere plants are grown causing leaf spot and blight. The spores persist in crop debris and readily attack fading flower parts and damaged plant tissue. Cool, humid conditions are favorable for disease development and spread.

Control - For optimal control of Botrytis, combine applications of Phyton-27® with good sanitation and environmental controls to reduce humidity and free moisture on the plant surfaces.

Resistance Management - Control of Botrytis has been complicated by the appearance of resistant strains. Phyton-27® is an invaluable tool for control of Botrytis without inducing resistance. Use Phyton-27® by itself or in rotation with other fungicides for effective resistance management in a broad-spectrum disease control program.

Post-Harvest Protection - Botrytis is a serious threat to plants before and after harvest. An application of Phyton-27® prior to cooling, boxing/sleeving, or shipping protects plants from post-harvest infection and insures clean, top-quality plants and flowers.

Cylindrocladium

Azalea & Roses

The *Cylindrocladium* fungus causes a cutting rot and wilt that hampers production of florist azalea and miniature rose. When conditions are very moist and warm, the disease develops rapidly and spores of the fungus can splash onto the leaves resulting in leaf spots.

Control - Apply Phyton-27® as a foliar spray or soil drench. Remove visibly infected cuttings prior to treatment. See the label for crop specific rates.

Powdery Mildew

African Violet, Chrysanthemum, Gerbera, Hydrangea, Kalanchoe, Poinsettia, & Roses

Powdery mildew infection is favored by high relative humidity with no free moisture on the plant surfaces.

Control - Apply Phyton-27® as a wet foliar spray to control powdery mildew. Use of low volume equipment is effective for preventive applications but may not be effective against established powdery mildew infections. See label for specific rates on various crops.

Phytophthora African Violet & Poinsettia

Phytophthora causes root, crown and foliar blights on a variety of flowering potted crops. Losses can be severe in production areas where there is ample water and high temperatures which favor disease development. Phytophthora can be very difficult to control because plants can be infected, but not exhibit any obvious symptoms until the disease is well established.

On African Violet, look for drooping older leaves and stunted younger leaves. Roots are killed rapidly and appear brown. On Poinsettia, look for lesions at the soil-line, black streaks along the stem and brown canker and discoloration within the stem.

Control - Apply Phyton-27® as a drench to the growing media. Reapply in 4 weeks if conditions remain conducive for disease development.

Rhizoctonia

Azalea & Poinsettia

Rhizoctonia causes damping-off, root rot, crown rot and stem rot on azalea and poinsettia. Web blight, occurs under warm, humid conditions where the mycelial growth of the fungus covers the foliage with a cobweb appearance. Poinsettia are most susceptible just before and after rooting and again as the plant reaches maturity.

Control - Apply 2.0 to 3.5 fluid ounces Phyton-27® per 10 gallons water as a soil drench, saturating the growing media thoroughly.

Crown Gall

Chrysanthemum

Crown gall on chrysanthemum is caused by the soilborne bacterium *Agrobacterium tumefaciens*. Galls usually form at the crown of the plant but occasionally occur on roots or on a stem or branch. The bacterium enters the plant through wounds on the root or at the crown just under the soil surface.

Erwinia

Calla Lily, Chrysanthemum, Cyclamen, Holiday Cactus, Iris, Orchid, Poinsettia, & Primula

The soft rotting *Erwinia* bacteria are fast growing, opportunistic bacteria capable of causing serious losses within a few days. *Erwinia* can infect and rot cuttings, crowns, corms (or other fleshy storage organs), and cause vascular infections.

Pseudomonas Holiday Cactus & Orchid

Pseudomonas sp. cause leaf spots on a variety of potted flowering crops. These bacteria prefer warm, moist conditions for infection and spread.

Xanthomonas

Holiday Cactus, Orchid, & Poinsettia

The *Xanthomonas* bacterium causes leaf spot and blight on a wide range of potted flowering crops.

Bacterial Disease Control

Apply Phyton-27[®] as a wet foliar spray. Use of low volume equipment is effective for preventive applications but may not be effective against established bacterial infections. See label for specific rates on various crops.

Partner in Propagation

A clean start in propagation is the first step towards a healthy crop. Whether it's cuttings from stock plants, seedlings, or tissue culture, Phyton-27[®] is an ideal partner in propagation.

- Keep stock plants clean
- Gentle on seedlings, cuttings and microcuttings coming out of tissue culture
- Systemic - absorbed by the plant within hours so it won't be washed off by mist, irrigation or rain

Invisible

Phyton-27[®] leaves no residue to mar the beauty of flowering potted plants, including poinsettia bracts in color and ready to ship.

Gentle & Effective

Phyton-27[®] is gentle and effective from start to finish. Use it on cuttings, stock plants and finished material heading out the door. Open flowers can be sprayed without damage (with the exception of gloxinia), but should be trialed first. Older or diseased flowers are likely to be desiccated.

Crop-Specific Directions

Additional Technical Bulletins are available for disease control on Calla Lily, Chrysanthemum, Orchid, Poinsettia and Roses. See the Phyton-27[®] label for crop-specific and disease-specific rates.

See the following page for additional application guidelines.

Application Guidelines

For foliar applications, spray for thorough coverage; for soil drench applications, saturate growing media thoroughly.

Adjust rates and re-spray intervals according to susceptibility of plant variety and adversity of environmental conditions. In the event of heavy disease pressure, intervals can be shortened to 3-5 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.

Open flowers can be sprayed without damage (with the exception of gloxinia), but should be trialed first. Older or diseased blooms are likely to be desiccated.

Use of low volume equipment is effective against Botrytis but may not be effective against established Powdery Mildew and bacterial infections.

Adjust the pH of the spray, drench or dip solution to 5.5 to 6.5 for optimal plant safety and efficacy.

For additional information, please contact Phyton Corporation's Technical Service at 1-800-356-8733 or info@phytoncorp.com

Read and follow all label directions.

For technical information, contact the manufacturer:

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Many but not all US EPA labeled uses for Phyton-27® are registered with the California EPA.

California residents should consult the current California Phyton-27® label for registered uses.



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