

# PhytonNews

## Growers rely on Phyton27®

### Poinsettia: Disease Control Calendar

How do you keep a perfect poinsettia crop perfect? How do you turn around a crop that is less than perfect, disease-wise? Phyton-27® original formulation and New Dimension deliver broad-spectrum disease prevention and control with excellent plant safety and no residue to keep your crop flawless for a fantastic finish.

#### October

Poinsettia plants remain active throughout October. This is the time to begin preventive treatments for root, stem and foliar diseases. Preventive treatments are critical if diseases such as Powdery Mildew, scab, Phytophthora crown and stem rot or Rhizoctonia root rot have been a problem in the past or if conditions are favorable for disease development.

#### November

Weather conditions tend to deteriorate toward the end of the poinsettia crop and plants tend to be crowded and more susceptible to Powdery Mildew, Botrytis, Pythium and Rhizoctonia. Pay close attention to irrigation practices, airflow and humidity management to make the growing environment more conducive to healthy plants and less attractive to the fungi. Maintain a preventive spray program if your growing operation has a history of disease problems or if the weather is ripe for disease outbreaks.

#### December

December is time to package, ship and sell. Before you breath a sigh of relief, make a final Phyton-27® application before the plants are cooled, sleeved, boxed and/or shipped to keep the plants clean of any latent Botrytis and Powdery Mildew.

Phyton-27® doubles your protection with contact activity to shield your healthy plants, plus systemic activity to seek out and destroy active infections.

#### Poinsettia Problem Primer

Botrytis - brown spots, fluffy, gray mycelium on leaves, bracts and stems; pay close attention to senescing or damaged tissue

Powdery Mildew - white, fluffy fungal patches on leaves and bracts; spots are most obvious on red and pinks, but white varieties are just as susceptible and can harbor camouflaged infections

Scab - scabby, raised spots on stems and leaves, abnormally long branches

Phytophthora - gray stem lesions near soil line, or black streaks on stem

Rhizoctonia - stem cankers, near soil line, wilting, yellow lower leaves

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### POINSETTIA DISEASES

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## POST-HARVEST PROTECTION

### During Shipping and Storage

Phyton-27® gives your flowering holiday crops the protection they need going into the cooler for storage, the truck for shipping, or at the retailer awaiting sale. With no residue plus safety on most open blooms. Phyton-27® ensures a clean, top-quality holiday crop.

## GERANIUM STOCK PLANTS

Phyton-27® protects your cuttings from hitchhiking pathogens, such as *Xanthomonas* bacterial blight, *Pseudomonas* leaf spot and rust as well as the always present and threatening *Botrytis*. Apply as a pre-plant dip or post-plant spray on incoming cuttings. The bactericidal/fungicidal activity of Phyton-27® even inhibits germination of rust spores, and the systemic activity stays with the cuttings as they root and grow.

Xanthomonas bacterial blight - Systemic wilt of the leaves, with root systems appearing healthy. Yellow-to-brown, v-shaped lesions on the leaves, brown water soaked leaf spots and black stem lesions. On cuttings, look for failure to root and slow rot from the base upwards.

Pseudomonas leaf spot - Look for sunken, round lesions with tan centers, dark margins and yellow halos. Spots will coalesce and leaves will yellow within a few days. Severely affected leaves will die and drop from the plant.

Rust - Look for small, yellow spots on the leaf undersurface that eventually turn rust brown in color and covered with a mass of rusty spores. Yellow spots may be seen on the upper leaf surface.

Botrytis - Look for brown, lesions covered with the characteristic fluffy, gray-brown mycelium and spores. On cuttings, look for light-to-dark brown rotted areas covered with the gray-brown spores.

## Late Season Poinsettia Applications

While good pesticide coverage is important for optimal disease control, sometimes you can get too much of a good thing. Case in point, poinsettias and heavy applications to the underside of the leaves.

A few years back, a poinsettia grower from New York reported unusual yellowing and defoliation of his poinsettia crop after a heavy application directed at the underside of the leaves. Trials conducted by Margery Daughtrey at Cornell University, Dr. Steve Nameth at the Ohio State University, and Dr. Harvey Lang at Fischer USA, show that there does appear to be a risk associated with Phyton-27® heavy applications directed at the undersurface of poinsettia leaves.

How can you avoid this risk? Margery Daughtrey's advice was to "caution poinsettia growers not to spray up into baskets...a bench level injury seems improbable with ordinary application technique. If this were a common problem you would know it already!"

### Spray Early in the day

To avoid occasional leaf yellowing during dark, damp, short-day conditions of fall and winter, spray in the morning, preferably on a sunny day, so that the Phyton-27® dries promptly. Avoid Phyton-27® wettened leaf surfaces during the night. This yellowing generally appears 3 to 5 days after spraying, as a mottled yellowing on the middle leaves. The yellowing is not uniform and seems to be varietal in nature.

## Holiday Crops & Holiday Hazards

Phyton-27® delivers broad-spectrum control of the fungal and bacterial holiday hazards that wait to attack your crops and steal your profits. The unique combination of tough disease control, gentleness on plants, and no residue make Phyton-27® the choice plant protectant for all your holiday crops including azalea, chrysanthemum, cyclamen, holiday cactus, kalanchoe and miniature roses.

**Botrytis** - Look for brown spots and fluffy, gray mycelium on foliage and flowers. Prevent and control *Botrytis* with well-timed sprays of Phyton-27®, environmental changes and good sanitation.

**Powdery Mildew** - Look for fluffy, white patches of mycelium on the foliage. Use Phyton-27® as a preventive or curative application against powdery mildew. When treating active infections, remove infected leaves before treatment to reduce inoculum potential. Apply Phyton-27® at labeled rates using a wet spray for thorough coverage.

**Downy Mildew** - Look for pale green-to-yellow spots on the upper sides of the leaves and white-to-grayish patches of spores on the underside of the leaves. Combine Phyton-27® applications with production practices to minimize leaf wetness.

## Deciphering the Alphabet Soup of WPS

The Worker Protection Standard (WPS), has been with us for over twenty years. But sometimes it still may seem that you are swimming in alphabet soup when it comes to understanding and complying with the WPS. Here is a quick primer on decoding the acronyms, staying legal/compliant and maximizing the productivity of your operation.

## What is WPS?

WPS refers to the set of regulations implemented by the Environmental Protection Agency (EPA) in 1992. The purpose of WPS is to protect agricultural employees, including general workers, early-entry workers, and pesticide handlers, from pesticide exposure and ensure their health and safety. It covers pesticide usage on production of agricultural plants on farms, nurseries, and greenhouses.

## What is PPE?

PPE stands for Personal Protective Equipment and includes the apparel and devices worn to protect the body from contact with pesticides or pesticide residues, including coveralls, chemical-resistant suits, gloves, footwear, aprons, and headgear, protective eyewear, and respirators.

## What is REI?

REI is the Restricted-Entry Interval. This is the period of time immediately after a pesticide application when employees may not enter a treated area without protective clothing. The REI for any given pesticide can be found on the label under the heading "Agricultural Use Requirements".

## What is the "Treated Area" and the "Restricted Area"?

The "Treated Area" refers to the plants or block of plants that have been treated. The actual Restricted Area after treatment varies with the type of application, the type of pesticide applied and where the application is made (greenhouse or nursery).

### IN THE GREENHOUSE

When a pesticide is applied as a:	Restricted Area During Application:	Restricted Area Post Application During REI
1) smoke, mist, fog or aerosol	entire enclosed area	entire enclosed area
2) other application method with pesticides requiring the a respirator	entire enclosed area	treated area, once ventilation is done
Other than in 1 or 2, from greater than 12 in. from the planting medium or as a fine spray or using spray pressure greater than 40 p.s.i.	treated area plus 25 feet in all directions	treated area
In any other manner	treated area	treated area

### IN THE NURSERY

When a pesticide is applied as a:	Restricted Area During Application:	Restricted Area Post Application During REI
smoke, mist, fog or aerosol applied aerially or in upward direction, using spray pressure >150 psi	treated area plus 100 feet in all directions	treated area
Applied in downward, less than 12 in. from the planting medium or as a fine spray, spray pressure greater than 40 psi, but less than 150 psi pesticide that requires a respirator	treated area plus 25 feet in all directions	treated area
In any other manner	treated area.	treated area

## Phyton-27®

### Working with the REI

The REI for Phyton-27® is 24 hours. No early entry is permitted for 4 hours after any pesticide application in a greenhouse. After this 4 hour period, there are options for early entry:

#### No Contact - No Restriction

Any trained worker can go into an REI-posted area to carryout activities where there is no contact with treated surfaces (plant or soil). Workers can work with plants that have not been treated and are not in the treated area, carryout irrigation work, and make repairs or install equipment. No PPE is needed for this entry.

#### Limited Contact - With Protection

Any trained worker can go into an REI-posted area for 1 hour in any 24 hour period for any reason. They must receive special training, and they must wear the required PPE.

#### Non-Agricultural Use Sites -

Growing areas that are not within the scope of the WPS, such as botanical gardens and landscape plantings, are covered under the "Non-Agricultural Use Requirements" section of the label. The requirements are to keep children and pets off the treated area until dry and no entry into the treated area without protective clothing until dry.

### DO NOT FREEZE!

Phyton-27® must be shipped and stored above 45 degrees F. Check your storage facilities to guard against unexpected cold damage. If a bottle of Phyton-27® has been exposed to cold temperatures, give us a call to discuss plant safety issues and possible disposal or soil drench use of damaged product.

**Phyton®**  
**27**  
BACTERICIDE & FUNGICIDE

October 2006 Floriculture

# It Works!

Phyton-27® delivers exceptional bacterial and fungal disease control on a wide range of ornamental crops. Preventively and therapeutically, from propagation to post-harvest, it just works!

**Savvy growers rely on Phyton-27®!**



**Phyton**  
**27**  
BACTERICIDE & FUNGICIDE

## 2007 WINTER SHOW SCHEDULE

<b>MANTS</b> Baltimore, MD	Jan. 10-12 Booth #737
<b>MidAm</b> Chicago, IL	Jan. 17-19 Booth #2438
<b>TPIE</b> Ft. Lauderdale, FL	Jan. 18-20 Booth #2102
<b>NCAN</b> Greensboro, NC	Jan. 18-20
<b>Gulf States Hort Expo</b> Mobile, AL	Feb. 2-3 Booth #1233
<b>New England Grows</b> Boston, MA	Feb. 6-8



Phyton Corporation  
7440 West 78th St, Bloomington, MN 55439  
[www.phytoncorp.com](http://www.phytoncorp.com)

800-356-8733  
952-944-9779  
Fax 952-944-7755  
[info@phytoncorp.com](mailto:info@phytoncorp.com)