

Production Times

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Greenhouse Edition

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Worker Protection Standard

By Lelan D. Parker

Production Times is brought
to you by:

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The Worker Protection Standard has been in place since 1995. It was designed to protect agricultural workers and pesticide. Employers must make sure that workers are notified where pesticide applications are being implemented or where restricted-entry intervals are in effect. Employers have the choice of warning workers orally or written. If pesticide labels do not include language that require the use of posted signs warning workers then an oral warning is all that is needed. However, some pesticides require that you notify workers orally or with signage posted at entrances of treated areas. Warnings are in effect for workers who are or will be within a quarter of a mile of the treated area.

Notifications in Greenhouses

You must post all treated areas in greenhouses, with exceptions of those below:

Oral warnings need not be given to:

- ◆ Any worker in your greenhouse who will not be in the treated area or walk $\frac{1}{4}$ mile of a treated area, during the pesticide application or while the restricted-entry interval is in effect.
- ◆ Any worker who will not be in your greenhouse during a pesticide application or while a restricted entry level is in effect.
- ◆ Any worker who applied (or supervised) the application and is aware of all of the information required to be given in the oral warning.

Treated area posting is not required if:

- ◆ No workers in your greenhouse who will not be in the treated area or walk $\frac{1}{4}$ mile of a treated area, during the pesticide application or while the restricted-entry interval is in effect.
- ◆ No workers will be in the greenhouse during the pesticide application or while the restricted-entry interval is in effect there.

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PEST ALERT! New Exotic Soft Scale Insect on Croton in South Florida (Hemiptera: Coccoidea: Coccidae) The Division of Plant Industry collected this new-to-science record at a nursery last year in Monroe County, FL. The host plant was croton (*Codiaeum variegatum* (L.) Blume). No natural enemies have been found at this time. For more information go to: http://www.doacs.state.fl.us/pi/enpp/ento/coccoidea_coccidae.html

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- ◆ The only workers for whom you need to post applied (or supervised) the application the pesticide and are aware of all the information required to be given in the oral warning.

Posted Warning Signs

Use WPS-design signs when you post warnings at entrances in treated areas. If posting fumigant applications, use fumigant warning signs as shown below:



Timing and visibility of warning signs:

Post signs 24 hours or less before the scheduled application of the pesticide.

- ◆ Keep signs posted during application and throughout the restricted-entry interval (if any).
- ◆ Remove the signs within 3 days after the end of the restricted-entry interval. If there is no restricted-entry interval for that application, remove the signs within 3 days after the end of the application.
- ◆ Keep workers out during the entire time the signs are posted (except for trained and equipped early-entry workers entering as permitted under WPS).
- ◆ Keep signs visible and legible while they are posted.

Oral warnings must include:

- ◆ Location and description of treated area,
- ◆ Time during which entry is restricted, and
- ◆ Instructions not to enter the treated area until the restricted-entry interval has expired.

For more information go to:
<http://edis.ifas.ufl.edu/pdffiles/PI/PI14400.pdf>



Chilling Damage in *Spathiphyllum*

By Lelan D. Parker



Spathiphyllum is one of the most popular ornamental foliage plants. However, like most plants with tropical origin it is very sensitive to chilling temperatures. A chilling temperature is one that is cold enough to cause injury to a plant but not cold enough to freeze the plant. Usually chilling temperature ranges from just above 32°F to 59°F. A large cause of losses in foliage plant production, transportation, and interiorscaping has been due to chilling injury. Chilling injury also makes plants more susceptible to disease pathogens. The picture

below shows a *Spathiphyllum* that was vulnerable from cold temperatures which led to the infection of Anthracnose.

Symptoms of chilling injury in *Spathiphyllum* usually begin from the leaf tips and edges and progresses inward with injured leaf areas becoming necrotic, turning black and finally dying. Usually visual signs appear when plants are exposed to 38°F or 45°F for 5 days. Generally, mature leaves are more sensitive to chilling than young leaves. Therefore, chilling injury can be lessened if preventative measures are taken to reduce the severity of the duration of chilling or both. Depending upon temperatures, chilling injury can be either visible or invisible. The delay in plant growth is an indication of invisible injury when *Spathiphyllum* is exposed to 50°F.

For more information go to:

<http://edis.ifas.ufl.edu/pdf/EP/EP10100.pdf>



Troubleshooting for Unrooted Cuttings

- 1) Leaves appear yellow in propagation within first week.
 - A. Postharvest period was too long or too warm.
 - B. Cuttings were dehydrated after sticking.
- 2) Leaves or cuttings are mushy upon arrival.
 - A. Freeze damage.
- 3) Leaves or cuttings are mushy shortly after sticking.
 - A. *Erwinia* may be present.
 - B. Postharvest period too long or too warm.
- 4) Leaves are discolored upon arrival or shortly thereafter.
 - A. Physical damage.
 - B. Cold damage.



Erwinia on *Spathiphyllum*



Plant Clinic Problem: Cold Damage

With the recent cold weather a few months ago many growers are seeing the effects of cold damage to plants. Two of the crops hardest hit were spathiphyllum and orchids. Cold damage symptoms may appear at any time. Leaves may be scorched because cold severely dehydrates plant tissue. Symptoms may also appear as foliage and flowers turning reddish, brown or black at the leaf base and margins. Moreover, plants become less resistant to disease pathogens once affected by cold temperatures. Entire plants may be killed. Remember to scout your greenhouse for cold damage symptoms.



Cold damaged orchid

For all plant clinic diagnosis go to:
http://cfextension.ifas.ufl.edu/agriculture/plant_clinic/index.shtml



Upcoming Programs

April

- 29 ***Horticulture Best Management Practices for Water Conservation & Treatment***
Location/Time: Wimauma, FL 10 am - 4 pm
Registration: http://Hillsborough.extension.ufl.edu/Ag/AgPubs/Tampa_Program.pdf
- 30 ***BMPs in English and Spanish***
Location/Time: Orange County Extension, Orlando
Registration: Contact Yamira Donato at 407-254-9214 or visit <http://landscape.ifas.ufl.edu>

May

- 13 ***Greenhouse BMPs***
Location/Time: Mercer Botanicals, Zellwood, FL from 10 am -12 pm
Registration: Contact Lelan Parker at 407-254-9200

June

- 7-9 ***Florida State Horticultural Society Annual Meeting***
Location/Time: Wyndham Riverwalk in Jacksonville, FL
Registration: <http://www.fshs.org/meetings.htm>