ProductionTimes
Greenhouse Edition

UF UNIVERSITY of FLORIDA
IFAS Extension

LAST HARD COPY ISSUE - SEND US YOUR EMAIL

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Production Times is brought to you by:

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See the newsletter in color at:
http://cfextension.ifas.ufl.edu

NEWS FLASH: PLANT CLINIC CHARGES & CHANGES!

Due to budget cuts at the University of Florida the Commercial Plant Diagnostic Clinic at the Mid-Florida Research & Education Center (MREC) in Apopka will no longer be held on Thursday afternoons or be free of charge for disease diagnosis. The new time will be Tuesday from 1:00 p.m. to 4:00 p.m. beginning July 1, 2009 and a fee of **$40.00** per sample will be needed for disease analysis and shipping to Gainesville. MREC will no longer be accepting samples for laboratory disease analysis, however insect questions and others that may be answered without laboratory testing will remain free of charge.

Websites to Check Out

On the University of Florida's Central Florida Extension Webpage you can view videos and download information on some of our recent programs that you may have missed this year.
http://cfextension.ifas.ufl.edu/agriculture/nursery_production/index.shtml

The Virginia Cooperative Extension has updated the Nursery & Greenhouse resources page.
http://pubs.ext.vt.edu/category/nursery-greenhouse.html

There are publications on Pest Management and Plant Growth Regulators.

Hillsborough County Extension has a fact sheet on increasing plant sells via the internet.
http://hillsborough.extension.ufl.edu/Ag/AgOrnProd/A-ZPublications/WebBasedClassifieds.pdf

PEST ALERT! Orchid Mealybug, *Pseudococcus dendrobiorum* Williams (Hemiptera: Pseudococcidae) The University of Florida collected this specimen in March of this year in Gainesville. It is the first finding in Florida and the Western Hemisphere. Adults and immatures are grayish-pink in color. Wax filaments are present around the entire body with two or three pairs of filaments at the tip of the abdomen which are slightly longer than the rest. Usually a patch of white waxy secretion is present on orchid roots surrounding the mealybug. This mealybug lives on the roots of orchids and attacks *Ascoglossum* sp., *Cymbidium* sp., *Dendrobium* sp., *Phalaenopsis* sp., *Pholidota* sp. and *Promatocalpum* species. Heavy infestations could cause death of host plants as well as dieback. For more information go to:
http://www.doacs.state.fl.us/pi/pest_alerts/pseudococcus_dendrobiorum.html

Photo by Lyle Buss (University of Florida) Adult/Female

Mesophyll Cell Collapse of Orchids

By Lelan D. Parker

Mesophyll cell collapse is a physiological disorder that affects many different types of orchids. Initial symptoms show up as sunken yellow areas which later may turn dry and necrotic; damage is permanent to the leaf. Injured leaves may become colonized with fungi that feeds on dead matter which causes many growers to believe the disorder is fungal leading them to spray with unnecessary chemicals. This disorder can be caused by plant exposure to low water or air temperatures, which damages mesophyll cells in the leaf. Just like freeze damage, mesophyll cell collapse may take a significant length of time (6-8 weeks) for symptoms to appear. Thus, the condition is hard to identify and many growers mistake it for a fungus and apply chemicals unnecessarily. The severity of symptoms is related to factors such as temperature, length of exposure to low temperature and the age of the leaves. Mature leaves appear to be resistant while younger leaves appear to be more susceptible to injury. Mesophyll cell collapse occurs frequently in *Phalaenopsis* orchids because of the thick, fleshy leaves. *Phalaeonopsis insigne* has relatively thin leaves and may not be as prone to mesophyll cell collapse. A detailed history of growing conditions is needed for proper diagnosis. For areas that are prone to drafts or lower temperatures, thermometers can be placed in the greenhouse to record temperature variance. In some cases records of growing conditions may not be available and a deeper examination of the plant to rule out pathogens as a cause of damage may be required. If there are no viral, bacterial or fungal pathogens present then environmental stresses may be the cause of the damage.

For more information go to: http://edis.ifas.ufl.edu/pdffiles/PP/PP26500.pdf

Pulp Mill Ash for Marigold Production

By Lelan D. Parker

The Mississippi State University experiment station conducted a trial evaluating the potential of pulp mill boiler ash as an alternative substrate component for greenhouse production. Marigolds were used as a test plant. Pulp mill boiler ash is a widely available industrial waste byproduct produced when the paper industry burns tree residues and other materials to fuel paper mill boilers. Currently, the majority of this boiler ash is put into landfills, whereas some is applied to forest and agricultural land. This study illustrated that there was no significant difference in N, K, and S concentration in shoots from plants grown in peat-based substrates with ash content. Plants grown in all substrates containing ash had lower Mg, Zn, and Cu concentration in shoots; and plants grown in 20% to 50% ash had lower Mn concentrations. Increasing ash additions also led to lower Mn, Zn, and B concentrations in shoots. It appears that paper mill boiler ash has the potential to be used as an ingredient in peat-based substrates rather than as a sole substrate component. Proper testing must be conducted before incorporating paper mill boiler ash into growing substrates.
For more detailed information on this study refer to: Use of Pulp Mill Ash as a Substrate Component for Greenhouse Production of Marigold by G. Bi, W. B. Evans, and G. B. Fain. HortScience 44(1): 183-187.

New Cultivar: 'Emerald Bay' *Aglaonema*

'Golden Bay' *Aglaonema* was developed through the Foliage Plant Breeding Program at the U. F. Mid-Florida Research & Education Center (MREC). 'Emerald Bay' *Aglaonema* originated as a mutation from tissue cultured 'Golden Bay' *Aglaonema* plants. 'Emerald Bay' was selected because it lacked the yellow background coloration present in normal 'Golden Bay' leaves and petioles. 'Emerald Bay' cuttings reach marketable size in 9 months. It readily adapts and performs well under low light and humidity levels that are encountered in the interiorscape. Prior to installation in an interior setting the plant does not require post production. 'Emerald Bay' is intended for commercial producers growing finished plants in 6 or 8 inch pots. Plant patent rights have been assigned to the Florida Foundation Seed Producers.

'Golden Bay' ***Aglaonema***

'Emerald Bay' ***Aglaonema***

For more info go to: http://edis.ifas.ufl.edu/pdffiles/EP/EP35500.pdf

Plant Clinic Problem: Abiotic Disorders

Over the past quarter many of the plant clinic diagnoses have resulted in "no pathogen present". Abiotic factors are the main cause of this result. Abiotic disorders are nonbiological factors that are associated with the plant's environment. Environmental factors include soil pH, air quality, light, temperature, moisture and nutrition. Abiotic disorders may also be caused by human contact, such as fertilizer and pesticide applications. Environmental problems are more likely to affect most plants in the environmental unit uniformly. Taking abiotic causes into consideration first may make the identification process less time-consuming.

Liriope-Injury

***Aglaonema*-Burn**

Bird's Nest Fern-Iron deficiency

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

Upcoming Programs

July

25 - Limited Pesticide License Certification Review and Exam. Tavares, FL See flyer inside to register. Contact: Maggie Jarrell 352-343-4101.

August

1, 2 - Small Farms Alternative Enterprises Conference. Kissimmee, FL. http://smallfarms.ifas.ufl.edu

4 - Spanish IPM Nursery Scout Training. MREC Apopka, FL. Contact: Maggie Jarrell 352-343-4101.

19 - Review and Exams for Restricted Use Ornamental/Turf or Private Agriculture Applicator Pesticide Licenses. Tavares, FL. See flyer inside to register. Contact: Maggie Jarrell 352-343-4101.

September

18 - Green Industries Best Management Practices. Orlando, FL at Orange County Extension. To register contact: Yamira Donato 407-254-9200.

Production Times is going green! Refer to form attached for details.