



Winter 2009
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These are not normal cones on a bald cypress, they are caused by the cypress twig gall midge, *Taxodiomyia cupressiananassa*. [Find out more here.](#)



These are the same insect: the Oleander Caterpillar, *Syntomeida epilais*, as an adult and a caterpillar. It will defoliate your oleander and more. [Click here to find out more.](#)

Upcoming Educational Programs

For more information and links to most programs and agendas go to: <http://cfextension.ifas.ufl.edu> or under Central FL Events Page

Green Industries Best Management Practices. Sept. 19, 2009. Orange County Extension Office, Orlando. Beginning January 1, 2014, any person applying commercial fertilizer to an urban landscape must be certified through this program. Contact Celeste White at (407) 254-9200.

Green Industries Best Management Practices. Sept. 22, 2009. Lake County Extension Office, Tavares. Beginning January 1, 2014, any person applying commercial fertilizer to an urban landscape must be certified through this program. The BMPs cover proper fertilization, pest control, irrigation, and cultural practices for landscape and pest control professionals. Contact Maggie Jarrell at (352) 343-4101 or go to <http://cfextension.ifas.ufl.edu/documents/BMPforGI.pdf>

Expanding Your Plant Palette. Oct. 13, 2009. A plant materials workshop at Leu Gardens, in Orlando. Find out about drought tolerant plants, native plants, site assessment, new and interesting choices for trees, palms, antique roses, magnolias, camellias and plant trends. Contact Maggie Jarrell (352) 343-4101 or go to <http://cfextension.ifas.ufl.edu/documents/EYPP2009.pdf>

Financial Program for Nurseries & Greenhouse. October 14, 2009. Being held at the MREC in Apopka. Contact Lelan Parker for more information at (407) 254-9200.

Limited Certification Pesticide Applicator Training and Exams. Landscape Maintenance License. **Oct. 15, 2009.** Osceola County Extension, Kissimmee. Contact Jennifer Welshans at (321) 697-3000.

Nursery Best Management Practices. Oct. 20, 2009 at Lake County Extension, Tavares. Learn what is required to sign on to BMPs and how to do leachate monitoring and irrigation uniformity in a hands-on workshop. Contact Maggie Jarrell at (352) 343-4101.

Farm Safety Day. Oct. 30, 2009. Lake County Extension Office, Ta-

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vares. Contact Maggie Jarrell at (352) 343-4101.

CEU Day. Nov. 5, 2009. Osceola County Extension Office, Kissimmee. Contact Jennifer Welshans at (321) 697-3000.

Georgia/Florida Green Industry Update Video Conference Nov. 17, 2009, MREC, Apopka. Contact Maggie Jarrell at (352) 343-4101.

Private Applicator & Ornamental /Turf Pesticide License training & exam. Dec. 9, 2009. Orange County Extension Office, Orlando. Contact Celeste White at (407) 254-9200.

Nursery and Greenhouse IPM Scout Training. Dec. 9, 10 and 11 2009. MREC, Apopka.



Websites to Checkout



MREC Plant Clinic every Tuesday Afternoon

For all the Plant Clinic diagnoses:

http://cfextension.ifas.ufl.edu/agriculture/plant_clinic/index.shtml



Redbay Ambrosia beetle/Laurel Wilt on avocado and related trees in urban and rural landscapes. See size of ambrosia beetle in relation to penny and the strings of sawdust pushed out of trunk bore on left.

http://miami-dade.ifas.ufl.edu/agriculture/tropical_fruit.shtml

Under Fact Sheets the first article is on Laurel Wilt

<http://okeechobee.ifas.ufl.edu/News%20columns/Red.Bay.htm>



Black thread scale, *Ischnaspis longirostris*. 4-page illustrated fact sheet describes one of the most serious armored scale pests worldwide, attacking over 50 families of host plants — its distribution, field characteristics, life cycle, hosts, plant damage and economic importance, and management. Photo of infestation to left.

<http://edis.ifas.ufl.edu/IN822>

◆ **Production Times** is brought to you by:

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Research Summaries

Summaries of research published in HortScience

Reducing Water Use:

Daily Water Use (DWU) is the amount of water lost daily from the leaves of the plant and the soil of the pot. It is calculated by weighing plants daily and thought to be the amount of water a grower should replace in the pot the next day to maintain growth. Researchers in Michigan wanted to test to see if they could supply less water and still get good growth. They tested ten different container grown plants using overhead irrigation applied at a rate of 3/4 inch per application (common practice), 100 % replacement of Daily Water Use, 100% alternated with 75% Daily Water Use and one irrigated on a pattern of 100% Daily Water Use followed by two 75% Daily Water Use applications. Irrigations were at least 24 hours apart. The three treatments using DWU reduced total irrigation applied 6% to 75% compared with the control depending on treatment and species. Final growth measurements of all DWU treatments was greater than or equal to the control for all plants tested.

To calculate your plant's daily water use, measure the weight of a plant 1 hour and 24 hours after irrigation. The difference is the amount of water that plant and the potting mix lost during the day.

Knowledge Gained:

1. **Irrigating a set amount every time is probably wasteful of water**
2. **You do not have to replace all the water lost every day to maintain satisfactory growth**

Parboiled Rice Hulls

Parboiled rice hulls are being used more and more as a cheaper and more sustainable replacement for perlite. They provide drainage and air-filled pore space necessary for good root growth. Kansas State University and the University of Illinois were concerned that rice hulls might be more attractive to Fungus Gnats, so they set out to test the attractiveness of potting media made with rice hulls to that of perlite. They found that moisture content was more important to the fungus gnats than rice hulls or perlite.

Knowledge Gained:

1. **Parboiled rice hulls do not attract fungus gnats.**

Hot Water vs Chemicals to Control Rhizoctonia

Azalea stem cuttings are often infested with *Rhizoctonia* spp. before cutting, and die in propagation with web blight. Researchers in Mississippi decided to test disinfectants (sodium hypochlorite, hydrogen dioxide, and quaternary ammonium chloride), fungicides (chlorothalonil + thiophanate-methyl and flutolanil) and hot water baths to kill off *Rhizoctonia* in leafless stem sections of azalea 'Gumpo White'. Stem sections were inoculated with *Rhizoctonia*, treated and then tested for the presence of *Rhizoctonia*. Disinfectants and fungicides applied at, below and above labeled rates did not eliminate *Rhizoctonia* from the cuttings. A water bath in 113°F did not eliminate *Rhizoctonia*, but 122°F water did. Higher temperatures hurt the azalea cuttings. Submerging cuttings in 122°F water for 21 minutes eliminated *Rhizoctonia* without causing severe leaf damage.

Knowledge Gained:

1. **Hot water can be used to control *Rhizoctonia* in cuttings when disinfectants and fungicides have been ineffective.**

Organic Mulches and Weed Control

Common landscape mulches (cypress, recycled pallets, hardwood fines and pine bark) were compared for their effect on soil moisture, soil pH, weed control, and growth of landscape shrubs. In addition, no mulch and no weed control and no mulch with weed control were compared to the mulched plots. Growth of eight different plants under these treatments was measured by researchers at Michigan State. They found all mulches increased soil moisture compared with no mulch with weed control. All had similar effects on soil pH and foliar nitrogen. All mulches except cypress mulch increased plant growth of most shrubs compared to no mulch without weed control. Photosynthesis of the shrubs was reduced by cypress mulch and no mulch.

Knowledge Gained:

1. **Organic mulches tested (except cypress) are equally effective in improving growth of landscape plants.**

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2. **Cypress mulch reduced shrub growth and may have some allelopathic chemicals that stunt plant growth.**

Irrigation Frequency Affects Plant Establishment

Many water management districts in Florida restrict increased irrigation for establishment to the first 60 days after planting although many woody plants may need 6 to 12 months to become established. University of Florida researchers tested Burford holly and variegated pittosporum in north and central Florida at 8 planting dates over two years. Plants from #3 containers were watered every 2, 4, or 8 days with 3/4 gallon of water. Irrigation stopped when the roots grew to the canopy edge (12-22 weeks after planting).

Plant growth was evaluated weekly until 104 weeks after planting.

Knowledge Gained:

1. **Irrigation frequency did not affect shrub survival or aesthetic quality at either location.**
2. **Irrigation every 2 days during establishment resulted in greater plant growth in central Florida.**
3. **Both species tested survived and grew on natural rainfall alone provided they were irrigated during establishment with 3/4 gallon every 4-8 days until roots reached the canopy edge (about 22 weeks after planting). Extra irrigation was only needed in the following 18 months when plants showed visible signs of drought stress (occurred when no measurable rainfall for 30 consecutive days).**



Sustainable Practices? Why Not?

By Juanita Popenoe

Why don't more growers adopt Nursery Best Management Practices (BMPs)? Florida has a lot of imperiled (polluted) waters. Once a water basin is deemed imperiled, a Basin Management Plan (BMAP) and Total Maximum Daily Load (TMDL) are developed by the Dept. of Environmental Protection. Based on these, they are required to get a certain percent of growers to adopt BMPs. BMPs are still voluntary, but if not enough growers volunteer, they may become mandatory.

A recent study from Purdue University tried to determine why more growers don't adopt sustainable practices. Although 65% of respondents thought sustainability was very important to the environment and 63% were using sustainable practices, concerns about implementation and perceived risk were keeping them from adopting more sustainable practices. The stringency of state regulations did

not affect the adoption of sustainable practices.

What can the extension service do to help make BMPs easier to adopt? If you are interested in finding out more about Nursery BMPs and what is required, come to the hands-on Nursery BMP workshop October 20 at the Lake County Extension office in Tavares. We will show you how:

1. To tell how much water your potting mix can hold (so you know how much you can irrigate)
2. To measure the soluble salts in the potting media solution so you can make sure you are not fertilizing too much or too little.
3. To tell if your irrigation system is uniform and efficient. If your nursery is in Lake

County, this can be done annually for you by the Mobile Irrigation Lab.

Come and talk to a person who does BMP assessments to find out what is involved. Signing on to BMPs will mean that you are assumed compliant with all water quality requirements. Bring a plant in a pot and a pot with just your potting media to really get involved. Come prepared to get wet and dirty!



Collecting irrigation water to determine uniformity of application