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Institute of Food and Agricultural Sciences

# Growing Concerns

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News & Information for the Horticulture Professional

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## **The Invasion Continues!**

A LOT has happened since the last issue (April) of Growing Concerns. In that issue we introduced you to the **Pink Hibiscus Mealybug**, found in Pinellas County this past February. Even more recently **Sudden Oak Death**, a lethal disease has moved from Northern California around the country by way of Los Angeles. **Lobate Lac Scale**, another horrible pest with a wide host range is still on the horizon. It seems there's no end in site to invasive pests. And then we need to be on the lookout for - are you ready - **Giant African Land Snails**.

I know it seems early - but mark your calendar for FNATS! **Sept 30-Oct 2 The Florida Nursery and Allied Trade Show**. This is THE horticulture trade show in Florida. If you're in the industry in any way - this is your chance to be the "kid in the candy store." See the website at [www.fnga.org/fnats/general.asp](http://www.fnga.org/fnats/general.asp)

**There are two theories about arguing with women. Both of them are wrong. Mark Twain**

# Sudden Oak Death Disease (*Phytophthora ramorum*)

*From an article written by Dr John Alleyne and edited by Dave Palmer.*

On March 18 the Dept of Agriculture and Consumer Services (DACS) announced that it had **closed Florida's borders** to shipments of plant nursery stock from California. That announcement followed the discovery of Sudden Oak Death (SOD) in several large commercial nurseries in Southern California, including Monrovia Nursery. SOD is a disease, *Phytophthora ramorum*, that was first reported in 1995 in central coastal California. Since then SOD has killed **tens of thousands** of tanoaks (*Lithocarpus densiflorus*), coast live oaks (*Quercus agrifolia*) and California black oaks (*Quercus kelloggii*) in California's forests. Localized outbreaks of SOD have been reported in Oregon, Washington and Canada. California Officials felt the situation was under control until the discovery of the disease in Southern California. This disease appears to be related to *Phytophthora infestans*, the cause of Ireland's potato blight.

In early April, **DACS verified the presence of Sudden Oak Death (SOD) at 3 retail nurseries in Florida.** By the middle of April more than a dozen states had banned some or all of California's plant shipments. **(See the SOD Update on page 4)**

**The potential of Sudden Oak Death Disease to become an oak killing epidemic, comparable to American Chesnut Blight or even Dutch Elm Disease is real. Early detection will be important** if we're to have any chance for successful eradication. Sudden Oak Death disease in California affects not only oaks but also 40 other plant species, including azaleas, viburnums, rhododendrons, camellias and maples. The problem is that since the disease has not yet been in Florida, **we don't know which species of these plants may be affected.**

State agricultural regulatory officials are currently locating and regulating any plant material that may have entered the state from California. Consumers who have recently purchased SOD host plants such as camellias, viburnum or exotic azalea varieties that have the symptoms or plants that originated from Monrovia Nursery in California should contact FDACS' toll-free help line at (888) 397-1517. Monrovia Nursery prints its name on each pot and places a tag with its name on each plant. If the tag says the plant was produced at the Monrovia Nursery located in Cairo, Georgia there is no need for concern.

Sudden Oak Death Disease symptoms may on the foliage look like leaf scorch or sunburn. Lesions are brown with a bullseye effect with dark brown centers and lighter edges. The edges of the lesions are diffuse or fuzzy. In older infections, the leaf lesions can progress down the leaf petiole into the stems causing leaf-drop, stem lesions, and dieback. On oaks, cankers are formed on the stems. Cankered trees may survive for one to several years, but once crown dieback begins, leaves turn from green to pale yellow to brown within a few weeks. Black or reddish ooze often bleeds from the cankers, staining the surface of the bark and the lichens that grow on it. Bleeding ooze may be difficult to see if it has dried or has been washed off by rain, although remnant dark staining is usually present. Necrotic (dead or dying) bark tissues surrounded by black zone lines are usually present under affected bark. Canker rots, slime flux, leaf scorch, root diseases, freeze damage, herbicide injury, and other ailments may cause symptoms similar to those caused by *P. ramorum*. Oak wilt, oak decline, and oak borer damage are problems that are the most confusing. Because these symptoms can also be caused by other Phytophthora species, **laboratory tests must be done** to confirm the *P. ramorum* pathogen identity. **To view pictures of the symptoms, please visit the FDACS' website at: <http://www.doacs.state.fl.us/>**

# Lobate Lac Scale

by Kim Gabel, Monroe County Extension Agent & edited by Dave Palmer

The Lobate Lac Scale, (*Paratachardina lobata*) originates in India and Sri Lanka and was **found for the first time in Florida in 1999** on a hibiscus plant in Broward County. Currently the Lobate Lac Scale is found in both coastal and inland areas of **Broward, Collier, Hendry, Lee, Martin, Miami-Dade and Palm Beach Counties** and is spreading. This species has the potential of being the most devastating pest to trees and shrubs in the state's history because it attacks so many plant species. **More than 120 species in 44 families of woody plants** have been determined to be hosts for the Lobate Lac Scale **and the plant list is growing**. Plants species included are ornamental shrubs and trees, invasive plants, fruit trees, and 39 native plant species. For a listing of the plants known to be attacked as of October 2002 go to [Http://edis.ifas.ufl.edu/IN471](http://edis.ifas.ufl.edu/IN471)

The Lobate Lac Scale is about one-sixteenth of an inch long. **The body has two pairs of prominent lobes that look "X" shaped**. The adult has a **dark reddish brown** color, but often appears dull and black due to a coating of sooty mold. The immature scale stage is called a crawler. It is an elongated oval that has a deep red color. It can only be seen by the naked eye when placed next to the right background or by using a magnifying glass or microscope.

This scale infests woody portions of twigs under one-inch diameter and small branches. It attaches to the branch and **sucks the plant sap causing the host plant to starve from lack of food and water**. The branches start to wither and then branch dieback happens. A black colored fungus called sooty mold grows on the honeydew (waste product) produced by the scale. These secretions often cover infested and uninfested plants. Where sooty mold is thick on the leaf surface, little photosynthesis takes place.

Since the mature females are wingless, the crawler stage is dispersed by wind currents or by walking along the branches and falling off infested plants on to plants nearby. It can also be moved by birds and animals or by planting scale infested plants in your landscape. Be on the lookout for the X-shaped scale on any plant you see. Inform your local Extension office or your local Division of Plant Industries office if you find something suspicious. Because this insect attacks **both native and non-native plant species** and not only residential landscape plants, but can invade natural areas as well. This will make control difficult.

Currently, for a small infested landscape area, University of Florida researchers recommend using repeated applications of horticultural oil or products containing imidacloprid such as Merit or Bayer Advanced Garden Tree & Shrub Insect Control. This product is a systemic insecticide that should be applied as a drench to the root system. Read and follow all label instructions.

The best hope for long term control of the scale is by using biological controls. Currently, researchers at the USDA and UF are evaluating insect parasites and predators that attack the Lobate Lac Scale. If successful, biological control could keep the pest scale in check and help prevent large losses of native habitats. Hopefully these will be available by late 2004.

More information & images:

<http://www.doacs.state.fl.us/pi/enpp/ento/paratachardina.html>

[http://creatures.ifas.ufl.edu/orn/scales/lobate\\_lac.htm](http://creatures.ifas.ufl.edu/orn/scales/lobate_lac.htm)



**Note the unique shape of this scale.**

# Sudden Oak Death Update

The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA APHIS) issued an update on the Phytophthora Ramorum canker and leaf blight (Sudden Oak Death or SOD) infestation that surfaced March. **The SOD pathogen has been confirmed** in plants traced forward to **a total of 108 facilities in 13 states**. Included in these facilities are nurseries or garden centers in these states: California (34), Florida (5), Washington (6), Oregon (9), Texas (5), Colorado (1), Georgia (13), Louisiana (5), North Carolina (8), New Mexico (1), Tennessee (2) and Virginia (1). Phytophthora Ramorum has also been confirmed in Lake County, CA, which was not yet under quarantine. This brings the number of quarantined California counties to 13. Read the complete May 7, 2004 update (PDF, 16k) at <http://www.aphis.usda.gov/ppq/ispm/sod/updates/update05-07-04.pdf> Also see the USDA SOD website for more info: <http://www.aphis.usda.gov/ppq/ispm/sod/> (Source: *LM Week in Review -- May 25, 2004*)

**"It's what we think we know already that keeps us from learning." Claude Bernard**

## Disney Facts, or Did You Know...

- Disney's Pest Management Technicians release **10 ½ million beneficial insects** each year. They release lady bugs, lacewings, predatory wasps and predatory beetles.
- Disney maintains **2000 acres of turf** - at 3 mowings per week that equals 450,000 mower miles per year.
- **Total acreage** at Walt Disney World is 30,500. That equals 47 square miles or about the size of the city of San Francisco.
- Disney uses over **3 million bedding plants and annual per year**, has nearly **13,000 roses** in the landscape and maintains over **4 million shrubs**. (Source: *Disney brochure from the International Flower and Garden Festival*)



**Giant African Land Snails**

## Backyard Aliens

Federal health officials have recently seized several Giant African Land Snails from classrooms in Wisconsin and begun a national search for these creatures. Why does this remind me of a late night sci-fi movie? These snails are illegal in the US because they reproduce rapidly, destroy plants and can transmit meningitis. There are several species, some having a shell only 3-4 inches long but other can reach 10-11 inches. In 1966 a boy smuggled 3 of these snails into Miami. It took the state of Florida 10 years and \$10 million to eradicate them. If you see one of these snails please immediately report it to the DACS at 888-397-1517. The DACS press release is at <http://www.doacs.state.fl.us/press/05122004.html> For more information on invasive snail species see the following website <http://www.doacs.state.fl.us/pi/plantinsp/gals.html>

### Questions:

**If con is the opposite of pro, is Congress the opposite of progress?**

**Why is lemon juice made with artificial flavor, and dishwashing liquid made with real lemons?**

# Ag Land Use Rules for Local Landscape Contractors?

Hillsborough County's landscape contractors have for years been growing, installing and maintaining plants using their agricultural property as a base of operations, but the county has never legally recognized landscaping as a legitimate agricultural use. A proposed change to the land development code would legitimize what some 200 or more landscape contractors have been doing. Read the Tampa Tribune article by going here:

<http://www.tampatrib.com/News/MGBQXLO0QUD.html>

Read the draft proposal here: <http://prohort.ifas.ufl.edu/pubs/LscapeNsyProposal.PDF>

**ALL men see in only 16 colors, like Windows default settings. Peach, for example, is a fruit, not a color. Pumpkin is also a fruit. We have no idea what mauve is.**

## Research Says...

We all know (or should) the benefits of mulching. Likewise we all know (or should) the benefits of recycling. But when it comes to recycling used pallets, wood packing materials, or trees and tree branches, there's a lot we don't know. Did the wood pallets and packing materials come from this country? If not, do they contain potentially invasive pests or diseases? As for the trees and tree branches, were they removed because they were diseased? If we choose to recycle these pallets, packing material, tree branches and trees, will we unknowingly spread a disease?

Not much research has been done in this area. Two researchers, Koski and Jacobi, between 1998 and 2002 did some research in these areas. The research covers 6 pages in the journal listed below, so all the details can't be covered here. A specific disease was grown in the lab and several test trees inoculated. Once the disease was confirmed in the trees, the infected branches were cut off and cut into 2 1/2 inch sections and added to mulch placed around the base of the same species of trees. The balance of mulch was made of a species not infected by the specific disease. Each section of the test was subjected to a different irrigation regime, either high, medium or low. Some pieces of the diseased wood chips were placed to be in contact with the soil and some were placed to be on top of the balance of the mulch (4" above the soil). From time to time the pieces of diseased wood were collected and tested to determine if the pathogen remained viable (alive).

Results after 143 weeks showed that while the amount of viable disease recovered from the diseased had fallen by one-half, the disease was still present and able to infect trees. Significantly less of the disease was recovered from the chips on the surface of the mulch compared to the diseased chips with soil contact. This study suggests that wood chips from diseased trees may harbor pathogens and therefore should not be used as a mulch material for healthy trees of the same species. (*Source: Journal of Arboriculture 30(3) May 2004*)

## It Seemed Like a Good Idea... at the Time

**If we are what we eat, then  
I'm easy, fast, and cheap.**

For the second time since 2001, bug foggers and pilot lights combined to destroy property. A family in San Diego, living in a house infested with cockroaches and rats, set off 19 bug foggers in their 470 sq ft apartment. Just after they left, the building blew apart. Investigators believe a pilot light on a wall heater ignited the explosion. In April 2001 18 bug foggers and a pilot light destroyed another apartment in the same part of the city. Luckily, in both these cases, no one was injured. But several cockroaches survived the blast. (Now you know why everyone says READ and FOLLOW the label!) (*Source: CPCO Advantage, March 2004*)

## Hot Topics...

Details on the following stories are on the *ProHort* website at [www.prohort.net](http://www.prohort.net) then click on **Hot Topics**

- Pest control & landscape companies will be fined for using pesticides starting this September in Toronto.
- Hillsborough Community College's fall horticulture class schedule.
- After 2 years of declines, the number of rounds of golf played nationwide are up.
- The Bureau of Entomology & Pest Control issued \$16,000 in fines to 9 individuals for pest control violations.

## New or Interesting Publications

**BUZZ: The intimate Bond Between Humans and Insects** - J. Glausiusz, photos by V. Steger. The author reminds us that without bugs our world wouldn't exist. Insects pollinate our crops, feed everyone from birds to fish, recycle almost everything, and give us plenty of products - honey, silk, etc. Only 1.5% of the 9 million species of insects are harmful. Full of amazing photographs, I found this book on Amazon.com for only \$16.97

**Oleanders for Florida** - Everything you wanted to know about oleander.  
[http://edis.ifas.ufl.edu/BODY\\_MG348](http://edis.ifas.ufl.edu/BODY_MG348)

## Size Does Matter!

I recently heard about an issue between a landscaper and a customer. The landscaper had installed some plants, the customer looked at one of the containers (a 3 "gallon" container) and complained that the container couldn't hold 3 gallons. The customer felt he wasn't getting his money's worth. The word "gallon" is a standard term that has been used for many years and simply doesn't have anything to do with the volume of the container. To avoid these problems, get in the habit of referring to containers as "number 3's" or "number 1's."

### Favorite Bumper Stickers:

Watch Out For The Idiot Behind Me.

Sometimes I wake up grumpy ..... Other times I let her sleep.

## Events Calendar

**Jul 30 - Limited Comm Maint Exam Prep Class** - **CEUs**, Contact David Shibles for further information - (863) 519-8677 X 109

**Aug 7-11 - ISA's 80th Annual Tree Conference & Trade Show** - Pittsburgh PA. see the website at <http://www.isa-arbor.com/conference/default.asp> **CEUs**

**Sep 12 - 15 FTGA Show** - Tampa, with Sports Turf Program & Sports Turf Tour **CEUs**  
See the website at <http://www.ftga.org/> for more details or call 1-800-882-6721

**Sep 14 - Quarterly Pesticide Training and Testing**, Manatee County Extension, Palmetto, call 941-722-4524 for additional information **CEUs**

**Sep 30 - FNGLA Exam Prep Review Course** - Covers FCHP, FCLD, FCLT and FCLC,  
For more info call FNGLA at 1-800-375-3642

**Sept 30-Oct 2 - FNATS - Fla Nursery and Allied Trade Show** - Orlando. This is the grand-daddy of horticulture trades shows in Florida - no one in the industry should miss it. See the website at <http://www.fnga.org/tpie/general.asp>

**Oct 29 - Limited Comm Maint Exam Prep Class** - **CEUs**, Contact David Shibles for further information - (863) 519-8677 X 109

# DO YOU KNOW SOMEONE THAT MIGHT LIKE OR NEED TO READ THIS NEWSLETTER?

## Which newsletter should you subscribe to?

The **Retail Gardener** is intended for both retail garden professionals and newer employees of other horticulture service businesses. It contains horticultural news and information.

**Growing Concerns** is intended to educate commercial and municipal horticulture professionals. It contains horticultural information but also some business and pesticide information. It may be better suited for supervisors, managers and business owners than entry level employees.

**What formats can I receive the newsletter in?** Due to the increasing cost of producing and mailing a newsletter on paper, and our steadily shrinking postage budget, it has been decided to allow primarily e-mail and fax subscriptions. **If you have a special case and would still like to receive these newsletters on paper, please call Dave at 813-744-5519x103.**

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Name \_\_\_\_\_

Business Name \_\_\_\_\_

Phone Number \_\_\_\_\_ This number is my [ ]Home [ ]Work [ ]Cell

## How would you like to receive the newsletter(s)?

Fax (entire newsletter can be faxed) Fax number (\_\_\_\_\_) \_\_\_\_\_

E-mail (a hot link to the newsletter) E-mail address \_\_\_\_\_

**Which newsletter?** You may subscribe to both. (Circle the one(s) you want)

Growing Concerns                  The Retail Gardener

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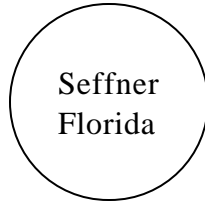
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**Which newsletter?** You may subscribe to both. (Circle the one(s) you want)

Growing Concerns                  The Retail Gardener

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