

## Commercial Landscape Horticulture Ornamentals and Turf News



### BUGS and SHRUBS BUZZ

See 2008 classes, CEU  
opportunities inside!

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#### A New Lethal Yellowing Disease of Cabbage, Phoenix species and Queen Palms on Florida's Central West Coast

Substantial numbers of dying cabbage palms (sabal palm, *Sabal palmetto*) have been reported in Manatee and Hillsborough counties. The preliminary analysis indicates the phytoplasma pathogen which causes Texas Phoenix palm decline (TPPD) may be responsible for the death of our state tree. See <http://edis.ifas.ufl.edu/PP163> for more details about TPPD. The palm hosts for the phytoplasma are Canary Island date palm (*Phoenix canariensis*), date palms (*Phoenix dactylifera*), wild date palm (*Phoenix sylvestris*) and queen palm (*Syagrus romanzoffiana*). A July 10 personal communication with Dr. Elliott reinforces there is still more lab work needed to confirm which phytoplasma is involved.

Tests such as DNA analyses by immunocapture and polymerase-chain-reaction sequencing are being conducted. But it looks as if cabbage palm may be added to the TPPD host list.



A dead cabbage palm(left) and a symptomatic cabbage palm; possibly due to the new phytoplasma wilt disease in Hillsborough Co. Photo by Rob Northrop (UF/IFAS).

The newly identified cabbage palm disease was first confirmed in **Manatee County** by observations and laboratory analysis. Photos received from **Hillsborough County** suggest the disease is present in this county also.

To date, TPPD has been confirmed (in mid-2007) in Phoenix species from southern Sarasota County to Pinellas and northern Hillsborough counties and eastward to Polk County (confirmed in Lakeland). [Note: TPPD has **not** been reported in Charlotte, Lee nor Collier counties].

Based on limited observations, field diagnosis of this new disease is very difficult, especially on over-trimmed palms. We believe it will be much easier to detect in natural areas or on landscape palms with a relatively large canopy.

The **first clue** is an excessive amount of dead lower leaves, more than what is normally seen with aging (senescence) or nutrient deficiencies. The second clue is **death of the spear leaf**, prior to death of all other leaves in the canopy. Eventually, the palm canopy will collapse around the trunk as the bud decays.

As cabbage palms die (for various reasons), the leaves typically appear to have a bronze or reddish-brown appearance. Later, these discolored leaves become more gray-brown in color. Since palms infected with the phytoplasma have leaves that are often dying prematurely, the overall effect on a full, untrimmed cabbage palm canopy is as follows: The oldest leaves will appear to be a grayish-brown in color, then an **unusually large number of leaves in the middle of the canopy will be a reddish-brown or bronze color** with a few young, green leaves in the upper canopy, along with a dead or dying spear leaf (desiccated, off-color, etc.). Other symptoms are death of the inflorescence (flowers) and fruits and early drop of large quantities of green or ripe fruit. However, this symptom is only speculation with cabbage palms, as we have not yet closely observed this disease on this palm species during the flowering and fruiting season. Currently, the insect vector of the phytoplasma is unknown.

Samples will be sent to the lab for molecular diagnosis only if the following two criteria are met: 1) someone has palm's maintenance history (i.e., if they have been monitoring it for some time and know if and what types of fertilizer or pesticide applications were made) and 2) samples must be from a palm with a dead spear leaf.

Laboratory diagnosis to confirm this new disease is the same as for other palm species infected with phytoplasmas and requires drilling into the trunk to obtain internal trunk tissue. See, <http://flrec.ifas.ufl.edu/pdfs/LY-TPPD-Trunk-Sampling.pdf> for sample procedures and lab addresses. We will process a limited number of lab samples at no cost, but do not have the resources to continue free analysis once the disease has been confirmed in a county.

**What to do:** Management options (removal of infected palms and inoculation of nearby palms three to four times per year with OTC antibiotic) are geared to suppress the spread of the disease as outlined in the Extension document listed above. There will be few, if any, management options for natural areas at this time, especially without knowledge of the vector.

Remember: Cabbage palms die or appear unhealthy from a variety of problems: lightning, nutrient deficiencies, over-trimming, deep planting, insects, herbicides (roadside vegetation management), fires, and other diseases such as ganoderma butt rot. Only palms with the previously described above symptoms should be sampled for lab analysis of this new pathogen. If suspect diseased cabbage palms are found, please contact Doug Caldwell at the Collier County Extension office (see below).

[ Original report by Drs. Nigel A. Harrison and Monica L. Elliott; University of Florida – IFAS, Fort Lauderdale Research and Ed. Cntr. Modified by the editor. Original web posting was July 2008 at:

[http://flrec.ifas.ufl.edu/palm\\_prod/pdfs/Sabal-palmetto-Infected-with-Phytoplasma-in-Florida.pdf](http://flrec.ifas.ufl.edu/palm_prod/pdfs/Sabal-palmetto-Infected-with-Phytoplasma-in-Florida.pdf) ]



### **Palm Lethal Yellowing Disease (PLY):**

The suppression program in Collier County has been discontinued due to budget constraints. Marco Island still has an active ordinance, call Nancy Richie (389-5003). Please report suspect palms (susceptible species!) that are outside of the Naples city limits, to me. If the palm is inside the city limits, call Joe Boscaglia or Heather Shields at 213-7123. See pictures of LY symptoms and download fact sheets at: <http://collier.ifas.ufl.edu/CommHort/LethalYellowing.shtml>

Check <http://edis.ifas.ufl.edu/> for Dr. Elliott's pending publication, **Palm Problems: Field and Laboratory Diagnosis**. Also see: [http://flrec.ifas.ufl.edu/palm\\_prod/palm\\_problems.shtml](http://flrec.ifas.ufl.edu/palm_prod/palm_problems.shtml)



**Hurricane Season is here: Consider tree cabling to reduce damage, see:**

[http://collier.ifas.ufl.edu/CommHort/CommHortPubs/Storm\\_Damage2CABLING.pdf](http://collier.ifas.ufl.edu/CommHort/CommHortPubs/Storm_Damage2CABLING.pdf)



**A must have: Assessing Damage and Restoring Trees after a Hurricane** (16

pages, color) by Gilman and other UF/IFAS, <http://edis.ifas.ufl.edu/pdf/EP/EP29100.pdf>

## Ficus Trees Under Attack!

Doug Caldwell

Both the Cuban-laurel (*Ficus microcarpa* [or *retusa*]) and the weeping fig (*Ficus benjamina*) have separate, new insect pests that may cause some defoliation. In late February and early March 2008, about 90% of these two main ficus hedge species were infested with two recent additions to our insect pest populations. I observed about 70 to 80% of the new foliage distorted by the **weeping ficus thrips** (*Gynaikothrips uzeli*), **pictures 1 and 2**, on weeping ficus hedges and the Cuban-laurel hedges were infested with the **blister (banyan) leaf gall wasp** (*Josephiella microcarpa*), **picture 3**. These new pests could cause significant leaf-drop and twig dieback because they have repeating generations and don't go away after a few months.

The **blister leaf gall wasp**, **picture 3**, arrived for the first time in Florida, in Naples of course, in early 2007 and attacks only the Cuban-laurel. It is caused by a small wasp about 1.5 mm long. The galls consist of a series of bumps that may run together and distort the foliage. The female wasp "stings" the foliage and inserts eggs. Larvae hatch from the eggs. These are tiny and almost transparent and grow as the plant tissue swells around each larva and provides nourishment. Information is lacking on the biology of this pest. There was an abundance of leaf drop in mid-May due to the severe number of galled leaves. This leaf drop may have been worse because of our dry weather. California reported this pest about ten years ago. However, entomologists David Kellum (San Diego Co.) and Nick Nisson (Orange Co.) report (June 2008) it is not a significant landscape pest now.

Most landscapers are familiar with the common leaf distortion on Cuban-laurel caused by a little black thrips (*Gynaikothrips ficorum*) from southeast Asia. The leaf responds to the sucking type feeding of these thrips by folding upward along the mid-vein and resembles a pea pod. Because this gall hasn't normally been very abundant, it is usually of little concern.

Our ever-abundant weeping fig isn't attacked by the Cuban-laurel thrips. But, in 2003, another species of thrips arrived from southeast Asia, *Gynaikothrips uzeli*, **pictures 1 and 2**. This thrips makes a similar leaf-fold distortion, but only on the weeping fig leaves. In my June 2007, Naples Daily Newspaper column, I stated, "This damage hardly affects these vigorous ficus trees." But now, from the looks of the large number of attacked leaves this spring, there could be more damage than usual, perhaps due to our earlier, extended drier weather.

The lobate lac scale (*Paratachardina pseudolobata*), **picture 4**, also attacks ficus trees as well as wax myrtle, cocoplum and over 300 plus other plant species! Another scale insect causing ficus defoliation in the Miami area is the **fig wax scale** (*Ceroplastes rusci*), **picture 5**, which has a broad host range. I have seen it damaging Simpson's-stopper (*Myrcianthes fragrans*) hedges in Collier County.



## Ficus Trees Under Attack! (con't, page 2 of 2)

The newest insect, the **eye-spot midge** (*Horidiplosis ficifolii*), **picture 6**, is a rather inconspicuous fly in the Cecidomyiidae family. The tiny, orange-rose colored larva (in red circle in pic. 6) initially causes a light colored, slightly elevated swelling (some literature refers to this as a “blister”, but I say it is too small!) about 4 mm in diameter. With time, dark brown blotches develop resembling a stain or some fungal leaf spot disease. I prefer to call this an “eye-spot” gall. This occurs only on Cuban-laurel ficus and has only been reported in Collier County. Thanks to DPI Specialist, Scott Krueger, who discovered the pest in early January 2008. It is difficult to tell how damaging the eye-spot gall is, as the blister wasp galls are also found deforming the same leaves as the eye-spot galls.

The **figus whitefly** (*Singhiella simplex*), **pictures 7 and 8** (photos by Adrian Hunsberger, UF/IFAS), will be a major pest when it arrives on our coast. In late November 2007, it was causing defoliation and dieback of various ficus trees and hedges including the "banyans" and strangler figs in the Miami and Homestead areas. For more on these pests, go to: <http://creatures.ifas.ufl.edu/> and <http://www.doacs.state.fl.us/pi/enpp/pi-pest-alert.html> .

**What To Do:** Because the gall insects and thrips are protected by the plant tissue they are feeding on, the wasp larvae inside a fleshy gall and the thrips feed inside the folded leaf, most types of foliar applications won't affect these insects. A product with acephate, which is mildly systemic may reduce numbers, but certain formulations of this insecticide can have a strong sulfur odor (I'm being polite here!).

Foliar applications of products with spinosad may help reduce thrips numbers. Foliar or soil applications of products with imidacloprid or dinotefuran should help with the thrips and whitefly. However, little is known about these products on fly or wasp types of insects causing the eye-spot and blister galls, respectively. The soil treatments will be pricey, but should provide longer results, say 6 months, instead of 10 to 14 days with foliar applications.

Stay tuned until we learn more about these pests. Hopefully, we will have some natural predator or parasitic insects that will enter into the picture and minimize the damage these pests are causing. There is a predator, the minute pirate bug, which you may also find inside the thrips' leaf-folds. If you see the minute pirate bugs in 5 of 10 leaf fold galls, you may back-off the pesticides and see if the good guys can slow the thrips populations. See this link for pictures of this predator:

[http://creatures.ifas.ufl.edu/orn/thrips/Cuban\\_laurel\\_thrips.htm](http://creatures.ifas.ufl.edu/orn/thrips/Cuban_laurel_thrips.htm)



## **Naples City Fertilizer and Lawn and Landscape Professional Certification Ordinance**

(Chapter 52 article VII -passed on March 5, 2008 and the BMP Certification requirements will become effective on September 5). The Naples Council adopted an ordinance regulating the use of landscape fertilizer. Guidelines were drawn up with the direction of Dr. Mike Bauer, Naples Natural Resource Director. Some highlights:

- Fertilizers containing N or P (phosphorous) cannot be applied during the rainy season (June 1 through September 30).
- The N content of landscape fertilizer must be at least 50% slow release nitrogen (SRN).
- Fertilizer shall not contain more than 2% P.
- Fertilizer application rates cannot exceed 1 pound N per 1000 sq. ft.
- Only FOUR applications are allowed per year.
- Shall not be applied within 10 feet of any water-body; deflector shields are required when making application near water or impervious surfaces.
- Fertilizer retailers will post a notice to inform customers of the new fertilizer limitations and provide a city-supplied brochure on groundwater protection.



*The white hand points to the deflector shield.*

Landscape maintenance companies and private enterprises (referred to as “institutional applicators”) need to follow these guidelines. Lawn and landscape maintenance shall be performed only by businesses with at least one supervisor and a minimum of 10 percent of their field staff certified by the city as lawn and landscape professionals. At least one licensed Naples Lawn and Landscape certified professional shall be present where maintenance is taking place. See the entire ordinance at <http://collier.ifas.ufl.edu> and type in search box “Naples fertilizer ordinance second reading”.

In 2007 through January 2008, there were 332 participants in 11 classes. Attendees consisted of city employees and technicians from 187 landscape maintenance companies. Eighty-nine percent (89%) of these landscape workers passed the certification test at the end of the six hour class. Currently, 100 companies are city certified. The registration cost for the class is \$25 and a City of Naples, one-time fee of \$175. The annual renewal fee is \$75 and a 3 hour (CEUs) refresher course is required every year. **The next certification classes (on Thursdays at Rookery Bay, 300 Tower Rd., Naples) will be: Aug. 28 (Spanish) and Sept. 25.** For information on the certification training classes see: <http://www.rookerybay.org/CTP-BMP.html>. The contact is Alberto Chavez at 239-417-6310 x231.

## **Educational Opportunities**



**Friday September 5: ISA Certification exam prep** is being planned by UF/IFAS extension educator, Stephen Brown, in Lee Co. for Call Stephen at: 239-533-7513.

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 **What is the Florida Yards and Neighborhoods Program? Have a**

**beautiful “Florida-friendly” yard and save money.** Find out with UF/IFAS educators Cathy Feser and Mike Malloy call 353-4244 for details:

**Sat. Aug. 9:** FYN program 9-11 a.m and rain barrel demo 11- noon.

**Sat. Sept. 13:** FYN program 9-11 a.m. and rain barrel demo 11-noon.

**Sat. Oct. 4:** FYN program 9-11a.m.



### **2008 Classes at the Extension Office**

Pre-registration is required for each class! Make a COPY of this page (with your registration details) and mail it to us; you keep original.

**Where:** Classes will be held in the Collier County University of Florida Extension Education and Training Center at **14700 Immokalee Road; Naples, Florida**. To attend you must register (see form below) **3 days** before the class. Call (239) 353-4244, if any questions. FAX (239) 353-7127.

Not sure which pesticide category you need? Visit <http://prohort.ifas.ufl.edu/Pesticide.htm>

**Pesticide Training.** : Spanish classes are taught by Cesar Asuaje (U.F. Palm Beach Co. Extension): (561)-233-1727.

**Ornamental & Turf Test Preparation** is for individuals applying or supervising the application of restricted use pesticides at county and city parks, golf courses and cemeteries. No CEU's due to specific nature of this training. This category requires two tests: Core and O&T category. Exams are in English only. **The Limited L&O private & gov't** is for those who want to apply landscape pesticides (this includes herbicides) on their business property or near school and government buildings.



**1a. Thursday September 4 - Core** (Standards) Personal and Environmental Safety in **Spanish** Class and Exam (in English only). 8 a.m. to 5 p.m. The exam is given about 2:30 p.m. You must take the Core exam and the O&T exam if you want the O&T certificate.

**1b. The Core English prep & exam will be held Fri. October 10, 1 – 5 p.m.**

**2a. Friday September 5 - Ornamental and Turf and Limited Lawn & Ornamental & Spanish Class & Exam** (the exam is in English only).

**2b. The English O&T and LL&O class & exams will be Friday Oct. 17 from 1:00 to 5:00.**

**3. Friday October 31, 8 a.m. to 5 p.m. - In Spanish, Commercial Limited Landscape ("Roundup") Certificate Training.** For professional landscape maintenance employees needing to apply pesticides (only to ornamental beds- no turf applications). Call the Bureau of Entomology and Pest Control office to get the test application packets, 850-921-4177 or call us as we have some packets and the LMA exam study guides (in English). The test may be taken later, within one year of taking the 6 hour required class. CEU's are pending.

**REGISTRATION FORM:** For group participation, please submit a **separate registration** form for **each** training class. This will make it easier for us to track who wants which class! Check which training session you want and complete the requested information below . **Please print!**

**PARTICIPANT NAME** \_\_\_\_\_  
**COMPANY NAME (if applicable)** \_\_\_\_\_  
**COMPANY ADDRESS** \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_  
**BUSINESS/CELL PHONE** \_\_\_\_\_ **E-MAIL** \_\_\_\_\_

**Names of additional participants:**

\_\_\_\_\_  
\_\_\_\_\_

If taking the Limited Commercial Landscape ("Roundup") class. will you take test same day? YES or NO  
TOTAL number of participants: \_\_\_\_\_

## Looking for CEUs or training hours?



Earn CEU's on-line or order do-it-at-home diskettes for O&T CEU's:

👉 **Ornamental Outlook** <http://www.ornamentaloutlook.com/ceu/index.html#july> .  
Free monthly CEU opps; go to web site and subscribe free or call: 1-800-572-7740

👉 **2 Core CEU's:** <http://pesticide.ifas.ufl.edu/courses/environment08.htm>

👉 **Lots of categories** and CEU's here: <http://pests.ifas.ufl.edu/software/FL-ceu.htm>

👉 Find out who has their pesticide certificates and where classes are being offered around the state: <http://www.flaes.org/complimonitoring/pesticidecertification.html>

👉 **BMP or Naples Lawn and Landscape Professional Certification** Classes. Earn 5 pesticide CEU's and 4 FNGLA CEUs. See: <http://www.rookerybay.org/CTP-BMP.html>

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## Support your professional organizations for fun and knowledge!

**CPCO:** *Certified Pest Control Operators of SW Florid.* Nick Libretto, 239-597-1234;  
[ABC123PESTCONTROL@aol.com](mailto:ABC123PESTCONTROL@aol.com), <http://www.cpcofflorida.org/> .

**EGCSA:** *Everglades Golf Course Superintendents Association.* (239) 352-0050. Alberto Quevedo  
[aquevedo@hideoutgolfclub.com](mailto:aquevedo@hideoutgolfclub.com); <http://www.evergladesgcsa.com> .

**FNGLA:** *Florida Nursery, Growers and Landscape Association.* Become a Florida Certified Horticultural Professional or Landscape Contractor or Technician or Designer, contact: in Orlando, 800-375-3642 or [mmott@fn gla.org](mailto:mmott@fn gla.org). Our local Royal Palm Chapter president is Bill Demott, 239-455-5151 <http://www.fn gla.org>

**FTGA:** *Florida Turfgrass Association.* 407-291-9415 or 800-882-6721; [info@ftga.org](mailto:info@ftga.org); <http://www.ftga.org>

**ISA:** *International Society of Arboriculture.* Become a certified arborist: **Florida Chapter ISA**, 941 342-0153, [floridaisa@comcast.net](mailto:floridaisa@comcast.net), <http://www.floridaisa.org> .

**LMA:** *Landscape Maintenance Association.* call 941-714-0459; Tom Burish, Executive Director, at: [lmaflorida@aol.com](mailto:lmaflorida@aol.com); [www.floridalma.org](http://www.floridalma.org)

**PLANET:** *Professional Landcare Network.* an association formed by the merger of PLCAA, the Professional Lawn Care Association of America and ALCA, the Associated Landscape Contractors of America; 800-395-2522; [www.landcarenetwork.org](http://www.landcarenetwork.org)

**THANKS** to Jeff Michel with Bayer CropScience for supporting this newsletter and 1) a local pine bark beetle test and 2) lethal yellow disease test with Dr. A.D. Ali (Davey Tree Expert Co.) and UF/IFAS Collier Co. Extension.



**Collier County University Extension**

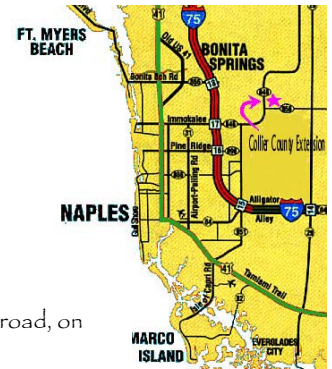
14700 Immokalee Road  
Naples, FL 34120-1468

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The Collier County Extension office is at 14700 Immokalee Rd. (11 miles east of 75, on the same road, on 39th Ave NE, but west of the County Fairgrounds – just north of the Waterways Community.

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**If you would like to receive future  
'Bugs & Shrubs Buzz' by e-mail, send me an e-mail request at: [dougbug@ufl.edu](mailto:dougbug@ufl.edu)**



*A new scale has been found on croton in Lee and Collier counties .  
Note the large adults and yellowish immature stages. Photo by Dr. Lyle Buss UF/IFAS. See:  
[http://www.doacs.state.fl.us:80/pi/enpp/ento/coccoidea\\_coccidae.html](http://www.doacs.state.fl.us:80/pi/enpp/ento/coccoidea_coccidae.html)*

**2008 REMINDER: Southwest Florida Home and Garden Show** on October 25 & 26, at the Collier County Extension Horticulture Learning Center Gardens, 14700 Immokalee Rd., Naples. Contact Cathy Feser if you would like to have a display booth.