

Texas Phoenix Decline and Lethal Yellowing: Phytoplasmas Expand Their Territory

Important New Information on Palm Diseases

Have you seen the recent media reports about a new disease affecting Phoenix palms in the landscape? It seems the list of new pests just expands by the week! If you have not read the latest information available on the Horticultural Publications page of www.prohort.net, take a look today because these new diseases have the potential to seriously impact the crown jewels of the landscape you manage. Many new palm publications are available at this site, including nutrition info, and the latest on Fusarium Decline in Queen and Mexican Fan Palms.



Where Has It Been Found?

A new disease to Florida called Texas Phoenix Decline has recently been detected in both nursery and landscape palms and as the name suggests, has already been a problem in Texas. This new disease was first found in Florida in late 2006 infecting Canary Island Date Palms in a nursery in Ruskin, followed by confirmed cases in the landscape in several other areas in the region. Since then, Texas Phoenix Decline has been confirmed in *P. canariensis*, *P. dactylifera*, and *P. sylvestris* in addition to two nursery Queen Palms, *Syagrus romanzoffiana*.

How Does It Spread?

The majority of landscape palms affected so far are those which have been established for several years, so it is not believed that palms from an infected nursery were spread about. Instead, it is believed that this new disease is spread by an insect, as in Lethal Yellowing (LY), which Texas Phoenix Decline closely resembles. Although the insect is not known at this time, it is not believed to be the same planthopper, *Myndus crudus*, which spreads LY because *Myndus crudus* has only been found rarely in one study in Texas where Texas Phoenix Decline was actively occurring.

Phytoplasmas Expand Territory Continued on page 2

What is it Caused by?

LY and Texas Phoenix Decline are both caused by a phytoplasma, which is similar to a bacteria without a cell wall- suffice it to say, a phytoplasma is not a fungus, a bacteria, or a virus, although they behave a lot like a virus. Up until this time, Hillsborough County has enjoyed a bubble of protection from palm phytoplasmas provided by freezing temperatures, as the planthopper which is responsible for spreading LY is not believed to be able to survive over winter this far north.

Surprise! Lethal Yellowing Moves North

Although Texas Phoenix Decline has similar symptoms to LY, LY itself has not been found in Hillsborough County. However as of May 2007, LY has been confirmed in Sarasota County, one county north of its previous range.

What's the Difference between Them?

The difference between LY and Texas Phoenix Decline comes down to genetics. DNA analysis is performed to confirm or rule out both of these pathogens. They behave very similarly, but their fingerprints are different.

What Do the Symptoms Look Like?

The Symptoms for both LY and Texas Phoenix Decline are very similar. Symptoms begin with fruit drop and death of flowering parts if the palm is infected during flowering or fruiting, which may be one way to recognize the beginning symptoms. Of course, if the palm has been pruned to remove the flowers, or it is not the season for active flowering, none of this will be noticed.

What you are more likely to notice is the premature death of the lower foliage. The foliage is affected from the lower leaves up, and from the tips of the leaves towards the

base of the palm. Fronds brown and die prematurely, they may hang down towards the trunk rather than holding their place. There is not significant yellowing or spotting associated with these diseases, although yellowing or spotting from nutritional deficiencies may also be occurring at the same time. The process of disease development happens over months, rather than days or weeks, and if the lower fronds are consistently pruned off, it may appear that the palm is suddenly dying when it has actually been showing symptoms which were pruned off over a longer period of time.

When less than 1/3 of the canopy has been affected, the spear leaf dies, although this may be difficult to detect because of the architecture of the palm canopy (it's hard to see from the ground between all the other fronds). Of course, once the spear dies the palms days are numbered, although some fronds may remain green for weeks, the palm will eventually die. Palms infected with Texas Phoenix Decline will also have rotting roots and may easily rock back and forth when pushed on, a symptom which is not associated with LY.

How do you Sample for these Diseases?

Since the presence of the phytoplasma is detected using DNA analysis from trunk tissue, the process for sampling is not as simple as submitting a leaf sample. It requires a drill to extract material from within the trunk of the palm. The process must be done using a blow torch to sterilize and remove any excess DNA from the drill bit, which could affect the lab results. Once the material is extracted, it is dropped from the bit to a sample freezer bag to send in to the lab. The trunk material should not be touched, but go directly from the bit into the bag. Touching sample materials or the bit may affect the accuracy of lab results.

Where to Send Samples?

Anyone considering sampling should contact Monica Elliott, University of Florida Palm Pathology Specialist at the UF Ft. Lauderdale Research and Education Center. Sample analysis costs \$75 per sample at this time.

What Does the Future Hold?

It's really just too early to say. It is believed that the phytoplasma and the insect which is likely spreading it have been in Florida for some time, probably before the active hurricane seasons of 2004 and 2005, in order to have enough time to reach a noticeable population. Once you have seen the symptoms of this disease, it's easy to look at many palms and think they are likely infected; it may be that we are likely to see an increase in the confirmation of this disease, but at this time we really just don't know.

What Can be Done About It?

There is only one EPA approved treatment for LY and it is assumed that this will also be effective for Texas Phoenix Decline. The treatment involves preventative injections of an antibiotic, which may also be effective in the early stages of infection. This treatment will not be of any help after the spear leaf of a palm has died, and it's important to note, that DNA analysis may not always detect the early stages of Texas Phoenix Decline. Once the spear leaf of the palm has died it should be removed because it will not produce new growth and can serve as a source of infection for other palms. Check out the only source of the EPA registered treatment at www.palmtreesaver.com . ■



Above: *Phoenix sylvestris* Can you see a dead spear leaf? Not likely- it's already broken off.

Below: *Phoenix canariensis* showing the final results of Texas Phoenix Decline.



Thanks for Your Response!

Thank you to everyone out there who responded to continue to receive ProHort mailings. Over 3,000 newsletters were sent out last newsletter, and we are still counting the responses! Remember you must respond again next year to remain on the list! If you are debating between mail or email notification, take note: many more notices are sent out by email than mail. ■

New Faculty to Welcome

Geoff Denny, GCREC Commercial Landscape Management

The industry has another resource added to it's arsenal in the new Commercial Landscape Management Specialist right here in Balm at the Gulf Coast Research and Education Center.

Geoff hails from Texas, where he earned his Ph.D. in horticulture at Texas A&M. The focus of his work until now has been in plant selection and response to stress. His desert upbringing will be a great resource for the work he plans to pursue in his new position, which includes drought and salt tolerance topics. Geoff is committed to environmental stewardship and hopes to explore cultural practices to reduce the use of resources needed to maintain commercial landscapes. Geoff's favorite color is blue or green depending on the day (or maybe the phases of the moon?).

Meet Geoff at the upcoming BMP training October 12, and 17, where he will present irrigation BMP information. ■

Upcoming BMP Training

GREEN INDUSTRY BEST MANAGEMENT PRACTICES
TRAINING AND CERTIFICATION

HILLSBOROUGH COUNTY EXTENSION
OCTOBER 12 AND/OR 17
SEE INSERT FOR REGISTRATION INFO

Changes to the CEU website

Have you recently logged on to www.safepesticideuse.com and been bewildered looking for CEUs or pesticide licensing information? You are not alone! The state has made significant changes to the database searches available on their website at <http://www.safepesticideuse.com/complimonitoring/index.html> .

In order to use the database searches you must now download the JInitiator program available at the address above. You may be tempted to go straight to the database searches, but beware you will not get anywhere without installing the program! It's easy to miss on the screen, but the link to download it and instructions are there above the database search options.

At the time of this writing, the process of using the database searches is very clunky and unpredictable, so if you are experiencing problems using it, take heart, it's probably not you. Obviously DCAS will be spending many long hours fixing the site and making sure each function is working properly. Patience is an important learned skill and this is a great time to practice using it!

Need to get a hold of some CEUs in a hurry?
www.ornamentaloutlook.com
http://pested.ifas.ufl.edu/ceu_modules.html ■

"Perception is reality- as far as your customer is concerned."

No Chairs Make for Short Meetings

Reaching Higher: Certifications

I have had quite a few calls on certifications available lately. It seems many of you out there are interested in enriching your depth and knowledge of horticulture and it makes me very proud to work with you!

Certifications are an important way to show you care about your profession, you take it seriously, and you are willing and able to do what it takes to pass an exam. In short certifications matter!

Certifications matter when a customer considers who they want to give their business to. Having certifications to place on your card and promotional materials tells your potential customer they are looking at a professional who has proven what they know to their peers. Even if you weren't naturally wired to sit down and study, the time put in to learn the material, and gain the certification matters and the emblem of certification matters even more to your potential customers.

Certifications available

The list of possible certifications is long, and really varies with your particular application. Certifications are available for landscape architecture, pesticide applications, irrigation, pest management, horticulture, landscape technicians, certified arborists, and the list goes on.....

A couple of programs in particular you may be interested in, which are oriented to the straight landscape maintenance field, are available from FNGLA, and soon from LMA. You may already be aware of FNGLA (formerly FNGA), an important trade organization, which organizes the FNATS trade show in Orlando, and funds the Economic Impacts of the Florida Environmental Horticulture Industry study among many other things.

In the past few years, this organization has recognized the vast importance of the landscape industry, and is actively seeking out landscape members to join the organization, hence the change in name.

FNGLA has a developed set of certification programs for the "horticulture professional", designer, and contractor, and these programs have been available for several years.

Recently they have added the "Landscape Technician" certification, which includes field exams to more closely represent skills and knowledge needed in hands-on landscape professions. Much more info could be included on these certifications. Check them out for yourself at

<http://www.fn gla.org/certification/certify.asp> .

Another certification on the horizon is one from the Landscape Maintenance Association. This professional organization has had a rise and fall in membership, but strives to represent the landscape maintenance industry exclusively. You can consider the benefits and challenges of the organization for yourself, but you should be aware that UF Extension Agents and specialists are busy putting together a program to accurately represent and instruct the information that maintenance professionals need to know. The target date for release is later this year. Check out LMA at <http://www.floridalma.org> .

Other Certifications

For the tree climbing types out there: ISA certification classes and exam will be held at Hillsborough County Extension beginning September 20, 2007

Contact Rob Northrop at (813) 744-5519 x106 or Northrop@ufl.edu

See more on certifications on the industry certifications page of www.prohort.net . ■

Lightening Safety

You may have heard recently that two people were killed after being struck by lightening this July, one on Treasure Island Beach, and one near Ft. Lauderdale, while yet another was struck but not killed in a Brandon parking lot. You may not be surprised to hear that Florida is the lightening capitol of the country, but did you know there are actual statistics on who and when lightening strikes most? In preparing materials for the safety chapter of the LMA certification program (See certifications pg 5 for more information), I have recently learned that there are in fact such statistics, and as you may have guessed, it doesn't bode well for landscape professionals.

Who is most often struck?

According to the National Weather Service, teenage boys are more often victims, followed by people in their thirties.

When and Where?

Nationally, the month of July is particularly deadly. Near water is the most common place to be struck by lightening, followed by near or under a tree. Employment related activities have been the most common activity of those struck by lightening.

From the Melbourne National Weather service site:

http://www.srh.noaa.gov/mlb/ltgcenter/ltg_proj_ltg_stats.html#FLA%20ltg%20deaths/inj

“The following table shows the days on which people were killed by lightning in the state of Florida. Not surprising, most people were killed in the months of May through September. What is quite surprising though, is a majority of people are killed on Wednesdays (as compared to other days). Also, the weekends did not show that much of a difference from the rest of the days in the week.”



Months and Days of Deaths Due to Lightning Strikes

from the Melbourne National Weather Service site at

http://www.srh.noaa.gov/mlb/ltgcenter/ltg_proj_ltg_stats.html#FLA%20ltg%20deaths/inj

Day/ Month	SUN	MON	TUE	WED	THU	FRI	SAT	Totals
JAN	0	0	0	0	0	0	0	0
FEB	0	0	0	0	0	0	1	1
MAR	1	0	0	0	3	0	0	4
APR	0	1	0	1	0	1	1	4
MAY	4	3	3	9	5	1	4	29
JUN	9	11	13	10	9	7	11	70
JUL	15	11	13	22	10	12	10	93
AUG	12	16	10	24	14	2	16	94
SEP	11	5	4	4	3	3	4	34
OCT	0	0	1	1	0	0	3	5
NOV	0	0	0	0	0	0	0	0
DEC	0	0	0	0	1	0	1	2
Totals	52	47	44	71	45	26	51	336

What's the Plan?

Since lightning is a common threat in the landscape, professionals should talk about how to handle the emergency. A plan for the situation can cut down on reaction time and may save your life or the life of a coworker. Consider how long it will take to pick up equipment safely before the storm when deciding when to pack up. Remember that most lightning deaths occur before or after a storm.

How to avoid it: The 30-30 Rule

The 30-30 Rule is a rule of thumb for making decisions about lightning safety.

- If there are less than thirty seconds from the time you see lightning until the time you hear thunder, you are close enough to the storm to be hit by lightning.
- For every five seconds counted, lightning is one mile away. Get to shelter immediately.
- Wait 30 minutes after hearing the last thunder to leave shelter.

How to React

It's important to know that it is safe to touch someone who has been struck by lightning. They are no longer electrified, and do not pose a risk of electrocution. If someone is struck by lightning they will need immediate medical attention. Lightning deaths are usually caused by cardiac arrest so if a crew member knows CPR there is a good chance for survival. According to the National Weather Service, only about 10% of lightning strikes are deadly. Consider how to handle the situation if someone is struck by lightning.

- Call 911.
- If possible move the victim from a lightning prone area (under trees, near water) to prevent anyone else from being struck.
- Start mouth to mouth resuscitation if victim isn't breathing.

- If no pulse for 20-30 seconds, and a crew member has been trained in CPR, begin CPR.

See statistics on lightning at:

http://www.srh.noaa.gov/mlb/ltgcenter/ltg_proj_ltg_stats.html#FLA%20ltg%20deaths/inj

Check out lightning videos here:

<http://www.lightning.ece.ufl.edu/>

Resources for Safety Training Materials

Lightning training:

<http://www.lightningsafety.noaa.gov/teachers.htm>

Florida Agricultural Safety Program:

<http://www.flagsafe.ufl.edu/>

OSHA: <http://www.osha.gov/>

USF Safety Florida Consultation Program:

<http://www.usfsafetyflorida.com/index.aspx?tabid=10> ■

2007 Horticulture Events Calendar

Looking for online CEUs? A searchable listing of approved CEUs, including online opportunities, is available at <http://www.safepesticideuse.com/complimonitoring/index.html>

Looking for events throughout the state? Check out the Statewide Extension Web Page calendar at <http://calendar.ifas.ufl.edu>

SEPTEMBER [CLICK ON THE LINKS AT WWW.PROHORT.NET](http://WWW.PROHORT.NET)

Date	Place	Info
Sept. 10	Polk Map	Pesticide Testing 9:00 a.m. (863) 519-8677 ext. 102
Sept. 11	Manatee Map	2007 CORE/General Standards Pesticide Applicator Training - CEU's Exam administered immediately following training. Call (941) 722-4524.
Sept. 11	Hillsborough Map	Pesticide exam - <i>Testing starts promptly at 9 AM (813) 744-5519 x 103</i>
Sept 11-17	Orlando	FTGA 5th Annual Turfgrass and Trade Show - see the webpage for details
Sept 15	Seminole County Map	Limited Certification Licenses Review & Testing see flyer for details
Sept. 19	Pinellas Map	Pesticide exam - <i>Testing starts promptly (doors lock) at 9 AM.</i> http://pinellas.ifas.ufl.edu/green_pros/lic_test_ceu.shtml

Sept. 21	Hillsborough Map	Limited Commercial Maintenance Exam Prep, testing & CEU's See flyer
Sept 26	Hillsborough Map	Tree Identification – Learn how to identify native trees and shrubs found in the Tampa Bay metropolitan region. 7 – 9 p.m. Cost: free. For further info call 813-744-5519

OCTOBER [CLICK ON THE LINKS AT WWW.PROHORT.NET](http://WWW.PROHORT.NET)

Date	Place	Info
Oct. 1	Polk Map	Pesticide Testing - 9:00 a.m. (863) 519-8677 ext. 102
Oct. 2	Pinellas Map	Limited Commercial Landscape Maintenance Training and Testing Pinellas County Extension Details CEU
Oct. 4-6	Orange County Map	FNATS Florida Nurseryman and Allied Trades Show - http://www.fnla.org/fnats/general.asp
Oct. 9	Hillsborough Map	Pesticide exam - Testing starts promptly at 9 AM (813) 744-5519 x 103
Oct 11-12	Orlando	The Legends of Turfgrass and Ornamentals CEUs: ISA, FNGLA, CCA, LA (law) and Pesticide Applicators. For more information call: 727-781-1212
Oct 12	Hillsborough Map	Green Industries Best Management Practices Certification Program - Up to 5 CEU's , see flyer for details
Oct. 16-18	Panama City, Bay County Map	"Right-of-Way & Aquatic Pesticide Applicator Training , October 16-18, 2007, Edgewater Beach Resort, Panama City Beach, FL Details CEU - Up to 12 CEUs in Right-of-Way, Aquatic, and Natural Areas http://conference.ifas.ufl.edu/applicator/ Contact Jhanna Crutchfield at jhanna@ufl.edu or 352-392-5930.
Oct 17	Hillsborough Map	Green Industries Best Management Practices Certification Program - Up to 5 CEU's , see flyer for details

NOVEMBER [CLICK ON THE LINKS AT WWW.PROHORT.NET](http://WWW.PROHORT.NET)

Date	Place	Info
Nov. 5	Polk Map	Pesticide Testing 9:00 a.m. (863) 519-8677 ext. 102
Nov 8	Osceola County Map	CEU Days and Worker Protection Standards Train the Trainer see flyer
Nov. 13	Hillsborough Map	Pesticide exam - Testing starts promptly at 9 AM (813) 744-5519 x 103
Nov 15-16	Hillsborough Map	The Legends of Turfgrass and Ornamentals CEUs: ISA, FNGLA, CCA, LA (law) and Pesticide Applicators. For more information call: 727-781-1212
Nov. 21	Pinellas Map	Pesticide exam - Testing starts promptly (doors lock) at 9 AM. http://pinellas.ifas.ufl.edu/green_pros/lic_test_ceu.shtml
Nov 28	Hillsborough Map	Common Insects and Diseases of Urban Trees in the Tampa Bay metropolitan region. 7-9 pm Cost: free. For further info call 813-744-5519
Nov 29-30	Gainesville Map	2007 Great Southern Tree Conference - at the UF Hilton http://www.fnla.org/gstree/gen-info.asp or call 1- 800-375-3642

Growing Concerns

Mary Beth Henry

Hillsborough Extension Service
5339 County Road 579
Seffner, FL 33584-3334

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**Heard about changes in
Sarasota fertilizer
ordinances? Be prepared
for any coming
regulation! Get BMP
Certified. See insert to
register for upcoming
training!**

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ProHort Upcoming Training

Several upcoming training opportunities offered by Hillsborough County Extension are listed here all on one form. See the newsletter calendar for other training opportunities offered, but which have a separate process for registration. All classes take place at Hillsborough County Extension, unless otherwise noted.

Register for these programs using the form on the back of this page. Be sure to include the name of the training and the dates you wish to attend in your response. To attend multiple sessions, copy this form and reply with a separate form for each program. Companies registering multiple participants may attach a list of those attending. Individual program flyers with more detailed information may be found on the calendar page of www.prohort.net. See form on the back for details.

September

International Society of Arboriculture Certification Preparation Series and Exam
Begins September 20, Fee: \$50 for series includes 10 CEUs, cost of exam
separate, contact Rob Northrop at (813) 744-5519 x 106

Limited Commercial Landscape Maintenance Training and Exam
September 21, Fee: \$25

October

Green Industries Best Management Practices Training and Certification
October 12 or 17, Fee: \$20

International Society of Arboriculture Certification Exam
October 27, contact www.floridaisa.org or Rob Northrop at (813) 744-5519 x 106

PCO ID Cardholder Training in Spanish (Core CEUs)
October 30, Fee: \$20

November

Other opportunities, separate registration process
See newsletter calendar or website calendar at www.prohort.net

Aquatic Exam Math Help Session
November 19, 9-11 a.m., Free

December

4 Hours of Core
December 14, Fee: \$20

There will be a fee per participant, please write your name on the registration form or attach a list of all your employees that you are registering for this training program. To attend multiple sessions, please copy this form and fill out separately for each program. Individual program flyers may be found on the calendar page of www.prohort.net. Please make your check payable to: "Tree and Landscape Advisory Committee". Please note credit cards can not be accepted.

Please send or fax to:

Hillsborough County Extension Office
Mary Beth Henry
5339 County Road 579
Phone: 813-744-5519 x 103
FAX: 813-744-5776

**REGISTRATION FORM
Upcoming Training Fall 2007**

Name of Program: _____

Date attending: _____

Fee: _____

NAME _____

BUSINESS _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE (____) _____

FAX _____

EMAIL _____

Please check one the following for the Limited Commercial Maintenance Training and Exam:

I have submitted an application to the Bureau of Entomology and Pest Control. Bring your letter of acceptance to the training to take the exam.

I have not submitted an application to the Bureau of Entomology and Pest Control. This must be completed and sent to the Bureau in advance of this class. Bring your letter of acceptance to the training to take the exam.

From the South:

Go North on I-75 to I-4. Go East on I-4, take Exit #10 County Road 579 (the next exit). Turn right (South) on CR 579 about 3/4 of a mile. Extension Service will be on the left – a low off-white building with dark brown trim.

From the North:

Go South on either I-75 or I-95. Go East on I-4 to County Road 579 (Exit #10). Turn right (Go South) on CR 579 about 3/4 of a mile. The Extension Service will be on the left – a low off-white building with dark brown trim.

From the East:

Go West on I-4 to County Road 579 (Exit #10). Turn left (Go South on CR 579 about 3/4 of a mile. The Extension Service will be on the left – a low off-white building with dark brown trim.

From the West:

Go East on I-4 past Tampa to County Road 579 (Exit #10). Turn right (Go South) on CR 579 about 3/4 of a mile. The Extension Service will be on the left – a low off-white building with dark brown trim.

For persons with disabilities requiring special accommodations, please contact Mary Beth at least five working days prior to the program so that proper consideration may be given to your request.

**Mary Beth Henry
Hillsborough County Extension Service
5339 County Road 579
Seffner, FL 33584-3334
(813)744-5519 x 103
(813)744-5776 fax**