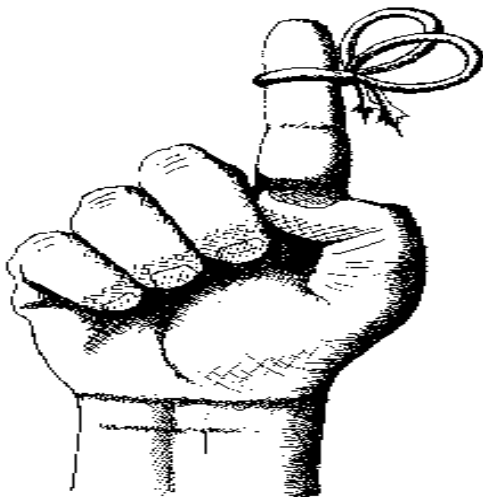


Where Oh Where Has my Newsletter Gone?

Renew your newsletter each year!

Are you receiving this newsletter for the first time and not sure why? We have recently acquired a list of occupational licenses for those working in the tree and landscape maintenance fields, and are reaching out to showcase the educational programming available to those working in that field. If you are not familiar with Extension, read on and find out about information and resources available to you in your professional life and otherwise through Hillsborough County Extension. If you are interested in continuing to receive this newsletter, you must respond to this notice. If you do not respond, you will no longer receive this newsletter.

If this is not the first time you are receiving this newsletter, listen up for information on how you can continue to receive this valuable source of information.



Required mailing list purge

As a part of services available through government funding, including the USDA, Extension Agents are required to purge their mailing lists each year. What does this mean to you? This means that everyone receiving this newsletter by mail must respond once a year indicating that they would like to continue to receive ProHort mailings from our office. If no response is given, it is assumed the person receiving the newsletter does not want to continue to receive the mailings or has moved, etc. Sending unwanted mailings, duplicate mailings, or mailings to the wrong address, is a waste of taxpayers' money, and we are required to make the effort to purge our mailing lists each year. This is particularly important at this time, in that postage rates have recently increased. If you do not respond by June 30, you will not receive the next newsletter, or any other mailings from the ProHort mailing list.

What If I Receive My Newsletter By Email?

Email lists are another ball game. Emailing to over 3000 people would not cost anywhere near the costs involved with sending a newsletter through the mail. The same restrictions are not in place with email, and you are not required to respond if you are receiving this newsletter by email.

Where Oh Where has my Newsletter Gone continued on page 2

Update your info

Though you do not have to respond if you receive Growing Concerns by email, now is a good time to update your information with us, to be sure you continue to receive the newsletter and other notices. Have you recently changed your address or email address? Have you changed companies, or phone numbers? Keeping us up to date with this information means that you will continue to receive accurate research-based information from the University of Florida, in addition to notices about upcoming training.

Do you need to receive this by mail?

There are still many out there who are not familiar with using email, they are afraid of computers, or just have never had the time to sit down and learn this new skill. Here's hoping you find the time and patience to do something about learning how to use the valuable tool of technology! Until then, you are welcome to continue to receive Growing Concerns by mail if you respond to this notice, but do you really need it by mail? The newsletter can also be faxed to your office. Faxing is less expensive for us, and you will receive your newsletter faster than by the postal service.

Why are we asking for racial information?

Believe it or not, in order to comply with affirmative action requirements our mailing lists need to indicate the race and sex of the person receiving our mailings. By complying with these requirements, we can show that our programs are indeed open to people of any race or gender, and that in fact we serve a diverse and representative audience. While calling attention to racial information may seem to be the opposite of avoiding discrimination, in order to demonstrate the openness of Extension programs to any race, we must show that we do reach people of all races in proportion to the population.

What do I do now?

Like anything else, if you put off doing it you are likely to forget to respond to say you would like to continue to receive the newsletter, so please respond today! If you do not respond by June 30, you will not receive the next newsletter or any other mailings from the ProHort mailing list. If you've been waiting for that to happen anyway, well, it's your lucky day!

Your Turn!

To continue to receive the ProHort mailings you must respond in one of these ways:

- Visit the newsletter page of www.prohort.net and sign up.
- Call our new secretary Amy at (813) 744-5519 x 104 and leave a message with your detailed information.
- Use the enclosed contact page to respond. Please include as much information as possible including the method by which you would like to receive notices, the next newsletter, or any other mailings from the ProHort mailing list. ■

" There are no secrets to success. It is the result of preparation, hard work, and learning from failure."

Colin Powell

www.brainyquote.com

Limited Commercial Landscape Maintenance Renewal Info:

You have options!

Several calls have come in lately from people in a panic to attend a “renewal” session for their Limited Commercial Landscape Maintenance license. There seems to be a misunderstanding of what is required to renew this license, so let's review a few of the basics.

How often do I need to renew?

Every year

How can I renew?

Retesting (not a popular option) or 4 CEUs. These CEUs can be in either the Limited Commercial Maintenance Category or the Core Category in any combination, i.e. 2 Core 2 Limited Commercial; or 4 Core; or 4 Limited Commercial, etc.

Do I have to attend a “renewal” session?

You are free to earn these CEUs online or at any educational event. You don't have to attend a “renewal” session only. You can earn the CEUs any way that works for you. ■

How to find out about CEUs

You have resources!

Many calls come in about how to get a hold of some CEUs in a hurry, or what is available coming up. Growing Concerns is a great way to keep up on what classes are planned in our area, but the www.prohort.net calendar is an even better way. The website calendar is updated as information becomes available and will often show CEU opportunities that have come up since the printed newsletter went out.

The calendar page of www.prohort.net also features links to the statewide Extension calendar of events and the DACS database of

approved CEUs at http://www.safepesticideuse.com/search/ceus_earch.asp . ■

Online CEUs

What could be easier?

There are many ways to earn CEUs beyond attending a scheduled educational session. Online CEUs are a good way to get that last CEU in. To find out about online CEUs click on the above link. Enter a date range and the categories of CEUs you are interested in. Highlight “online” in the location menu. You can highlight more than one selection in the menus by holding down the control key and then clicking on the item. Click on search and take your pick of available classes.

It's important to note here that if you do not enter a date range you may get results back which include classes that are no longer available. In order to use the CEUs it must say available in the class status column and Florida in the state column.

Ornamental Outlook magazine is another great way to earn CEUs without attending an educational event. Each month this magazine features an article approved for one Core CEU. It works like this:

1. Go to www.ornamentaloutlook.com. Click on the link to the CEU series.
2. Read one article and send your answers to the question set to the author.
3. Score at least 70% and you have earned yourself a CEU. The author will return the signed CEU form with your information included. ■

“Look it Up”

Searching for EDIS publications

If you have been to any of the ProHort educational events held at our office in Seffner lately, you have probably noticed a “Look it Up” station at the back of the room. Learning how to find information on the internet quickly is an important skill you can develop with a few tips and a little experience.

Finding good information fast can help to make informed decisions on important issues, but with so many different sources of information available on the internet, who can you trust?

Check out this easy way to search the UF publications using Google advanced search:

1. Go to www.google.com and enter a topic of interest. Press enter to perform the search. This will give you information from all over the internet.
2. Click on advanced search, next to the search button where you entered your topic. This will lead you to screen where you can enter various specifics about the search you would like to do.
3. Look for the Domain field, the tenth option down on the screen. Enter **edis.ifas.ufl.edu** in the field for this option. In this step you are giving specific instructions to search only the University of Florida online publications. Press enter to perform the search.

Give it a try and see! ■

Urban Forestry Upcoming Training

Workshops – Arborist Training- Hurricanes

Rob Northrop, our Urban Forester has a series of Wednesday night workshops planned for homeowners and homeowner’s associations. Rob is also planning training for arborists this fall. Also just in:

TREES AND HURRICANES: PREVENTION, RESPONSE AND RECOVERY

AUGUST 8, 2007 (ADDITIONAL DATES AROUND THE STATE)

HILLSBOROUGH COUNTY EXTENSION

Contact Florida ISA at (941) 342-0153 or floridaisa@aol.com

Check out Rob’s calendar and website at: http://urbanforestry.ifas.ufl.edu/workshop_calendar.htm . ■

Upcoming Training in Spanish

Although there are many Spanish speaking pesticide applicators working out there in the landscape, it seems to be a real challenge to get a group together for training.

If you or your company are interested in being specially notified about upcoming training in Spanish contact our new secretary Amy at (813) 744-5519 x 104 ■

PCO ID CARDHOLDER TRAINING IN SPANISH

OCTOBER 26, 2007

HILLSBOROUGH COUNTY EXTENSION

Contact Mary Beth Henry at (813) 744-5519 x 103 or

for Spanish Contact Cesar Asjaue at (561) 233-1727

2007 Tree and Landscape Short Course

Another successful year!

Wow! Over 450 Tree and Landscape professionals turned out for the 2007 Tree and Landscape Short Course, February 23 at the Florida State Fairgrounds featuring local and state experts in important and challenging tree and landscape topics!

If you missed the Short Course you missed:

- **Chinch Bug Resistance to Insecticides**
Dr. Eileen Buss
- **Selection of Street Trees**
Steve Graham, Natural Resource Superintendent City of Tampa
- **The Sudden Death of Trees**
Dr. Ed Barnard, State of Florida Forest Pathologist, (a definite favorite of the audience)
- **Citrus Diseases**
UF Extension Agent, Chris Oswalt
- **Landscape Pest Update**
Doug Caldwell, Ph.D., Entomologist Collier Extension
- **The Affects of Fertilizer on Water Quality**
Amy Shoher, Assistant Professor, Gulf Coast Research and Education Center.

Thank you to our sponsors!

SWFWMD, TECO, Nanak's Landscaping, Environmental Turf Inc., Westenberger Tree Service, Cleary, and Harrell's Inc.

Their commitment to education in the industry was seen by all, and helped to make this year's event an enormous success!

If you or your company are interested in sponsoring the 2008 Short Course, contact me at (813) 744-5519 x 103 or mbhenry@ufl.edu. Sponsorship terms are quite flexible, if you have an idea, I'd love to hear it! To find out more about this year's Short Course click on <http://prohort.ifas.ufl.edu/T&LSC.htm>. ■

Green Industries BMP Training

Great turnout!

We had a great turnout March 28th for the Green Industries Best Management Practices. Over 50 industry professionals turned out for this voluntary training and certification. The training featured UF Turfgrass Specialist, Dr. Laurie Trenholm presenting on turfgrass management and fertilization and Michael Perkins, President of the Florida Irrigation Society on irrigation BMPs. The training also featured an exhibit booth with UF Plant City campus' Martin Whartman, to connect professionals with college credit courses available locally.

Participants were challenged with which products require a pesticide license to apply and calculating how much nitrogen commonly used products actually supply in addition to pacing out 1000 ft² for estimating fertilizer application area. Over 90% of the participants achieved certification, and a great time was had by all!

If you couldn't make the Hillsborough County BMP training but would still like to be certified, check the UF Turfgrass website at <http://turfpath.ifas.ufl.edu/turfgrass> or keep tabs on the calendar page of www.prohort.net. There are no additional training sessions scheduled at this time. ■

Fact is Stranger than Fiction

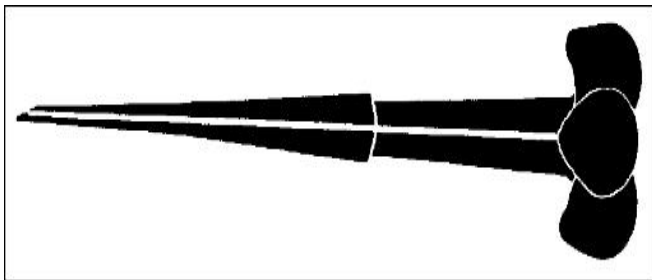
Nematodes

Recently, I've received a few calls on nematodes after a diagnosis has been made from samples sent in to the University of Florida lab in Gainesville. I've also suggested sampling for nematodes lately, when there doesn't seem to be any other good explanation for plant decline in the landscape. Along the way, I've met a few people who have never heard of nematodes so let's start at the beginning and take a look at them.

What are they?

Nematodes are microscopic unsegmented roundworms that live in the soil and can also take up residence inside, or just feed on other living things. If your dog has ever had to be treated for worms, then you can count yourself as having had an experience with nematodes.

There are many kinds of nematodes, and not all of them are damaging to plants. In fact, there are beneficial nematodes, like *Steinernema scapterisci*, which is used as a parasitic biological control of mole crickets. The problem comes in when your lovely landscape plants or your perfect carpet of turf happens to be affected by the not so beneficial nematodes.



The needle-like mouthparts of plant parasitic nematodes

The likely suspects in turf

Although there are many kinds of nematodes, and some of them beneficial, the slimy little worms we're most likely to be interested in are those that interfere with the healthy growth of our plants. The kind of nematode we're bothered by depends on what kind of plant, or turf we have growing in the landscape and the level of the nematode populations.

To see this principle in action, take a look at the following table edited from UF Assistant Professor in Nematology, Dr. Billy Crow's publication, *Nematode Management in Residential Lawns*, revised this March. The damage you can expect from certain nematodes depends on which kind of grass you're growing. As an example of this take a look at the last nematode in the chart, the cyst nematode. Only 10 of these can put St. Augustine at moderate risk of damage, but any level of the cyst nematode is not believed to cause risk of damage on the three other kinds of grass included in this chart!

Gold Dust Crotons have been found resistant to root-knot nematodes.



Table 1. Risk Levels for Warm-Season Turfgrasses used by the University of Florida Nematode Assay Laboratory.

	Bermuda		Zoysia		St. Augustine	
	M	H	M	H	M	H
Root-knot (Meloidogyne)	80	300	80	300	80	300
Sting (Belonolaimus)	10	25	10	25	25	50
Lance (Hoplolaimus)	40	120	40	120	40	120
Stubby-root (Paratrichodorus)	150	300	150	300	40	120
Stubby-root (Trichodorus)	40	120	40	120	40	120
Spiral (Peltamigratus)	150	300	150	300	150	300
Sheath (Hemicycliophora)	150	300	150	300	150	300
Awl (Dolichodorus)	10	25	10	25	10	25
Cyst (Heterodera)	---	---	---	---	10	40

Key:

--- = not believed to cause significant damage.

M = Turf is considered at moderate risk of damage. Damage may become evident if the turf is placed under stress conditions.

H = Turf is considered at high risk of damage. Root systems are likely damaged and turf quality may be declining.

* These risk levels are based upon numbers per 100 cc of soil extracted using a sugar-flotation with centrifugation method.

** While bahiagrass is a host for many of these nematodes, it is very tolerant to them and seldom is damaged. Therefore, no risk levels are given.

*** Other nematodes such as dagger, lesion, stunt, etc. may damage turf in Florida, but damage from these is very rare so risk levels are not listed.

**** These risk levels are based upon nematodes, grasses, and conditions in Florida only. They may not apply in other states.

Again, check out the thresholds for damage to St. Augustine from the sting nematode vs. one of the spiral nematodes. Only 25 sting nematodes can cause moderate risk of damage to St. Augustine, while 150 of the Peltamigratus kind of spiral nematode are likely to cause moderate damage.

You can use a specific relationship to your advantage

If you know for example, you have a high cyst nematode population, and you have a choice of which grass to install, choosing another grass such as Zoysia may help reduce the stress and aggravation of managing nematodes. Zoysia has management requirements similar to St. Augustine, and may avoid the problem of managing cyst nematodes. Also notice the notes at the bottom of the chart: bahiagrass hosts many of these nematodes, but is usually not damaged by them. If trying to manage nematodes is costing you time, money, and sanity, maybe bahiagrass should be considered.

What about landscape plants?

Again the same principles are in effect. The damage likely to occur from nematodes depends on the kind of plant, the kind of nematode, and the levels of nematodes. Take a look at the following charts as an example.

Table 2. Woody Landscape plants commonly damaged by root-knot nematodes in Florida as diagnosed by the University of Florida Nematode Assay Lab.

Common Name	Scientific Name
Boxwood	<i>Buxus</i> spp.
Butterfly bush	<i>Buddleia</i> spp.
Hibiscus	<i>Hibiscus rosa-sinensis</i>
Gardenia	<i>Gardenia</i> spp.
Bottlebrush	<i>Callistemon</i> spp.
Pittosporum	<i>Pittosporum tobira</i>
Japanese Holly	<i>Ilex crenata</i>
Rose	<i>Rosa</i> spp.
Lantana	<i>Lantana</i> spp.
Ixora	<i>Ixora coccinea</i>

Firespike has been found resistant to root-knot nematodes.



Table 3. Susceptibility of some popular woody ornamentals to four common nematodes at the NCSU Central Crops Research Station, Clayton, NC.* Key to ratings: HS - Plants highly susceptible (severe stunting, branch die-back and death), S - Plants susceptible (some stunting but plants will grow satisfactorily), T - Plants will grow satisfactorily, O - Untested.

Host Plant	Nematode Reaction			
	Root-knot	Stunt	Lesion	Ring
Azalea	T	S	O	T
<i>Aucuba japonica</i>	HS	S	O	S
Japanese Boxwood	HS	O	O	O
American Boxwood	O	T	HS	O
<i>Camellia japonica</i>	T	T	O	O
<i>Camellia sasanqua</i>	T	T	O	O
<i>Gardenia jasminoides</i>	S	T	T	T
<i>Gardenia radicans</i>	HS	T	O	T
<i>Ilex cornuta</i> (Chinese Holly)				
cv. <i>Burfordi</i>	T	T	O	T
cv. <i>Rotunda</i>	S	S	O	S
<i>Ilex crenata</i> (Japanese Holly)				
cv. <i>Compacta</i>	HS	T	O	S
cv. <i>Convexa</i>	HS	T	O	S
cv. <i>Helleri</i>	HS	S	O	S
cv. <i>Rotundifolia</i>	HS	S	O	S
<i>Ilex vomitoria nana</i>	T	T	O	T
<i>Juniper</i> sp.				
- Blue rug	T	T	HS	T
- Shore juniper	T	T	O	T
- Spiney Greek	T	T	S	T
<i>Ligustrum</i>	T	T	O	T

How to use this info:

Based on diagnoses by the UF Nematode Assay Lab, common landscape plants such as boxwood, bottlebrush, and ixora are commonly damaged by root-knot nematodes. You can use this morsel of information to your advantage in a few ways. If you sample for nematodes before installing and find moderate populations of root-knot nematodes, plant something else that has been found resistant to these nematodes, such as firespike, or gold dust croton. If you have plants declining due to root-knot nematodes, again replace them with something resistant. Unfortunately, at this time, there is limited information as to nematode resistant landscape varieties available beyond these suggestions, and work is underway to explore the possibilities. At the very least you can use the information to avoid plants with known susceptibility to root-knot nematode.

Also included is a similar chart with known information on the susceptibility of landscape plants to a few different nematodes tested in North Carolina. It's important to note that this information is from research done in North Carolina, and many of these plants may be more susceptible to root-knot nematodes in Florida than shown in this chart.

How do you know you have them?

The only reliable way to know if nematodes are the problem is to send a sample to a lab for diagnosis. The University of Florida Nematode Assay Laboratory inspects samples for plant feeding nematodes and returns an analysis which includes an ID and count of nematodes in the sample, including the risk of damage from this population level.

When should you send in a sample?

It's a good idea to try and rule out any other potential problems before jumping to the

conclusion of nematodes. Symptoms of a nematode problem often resemble other common potential problems surrounding root health, nutrient deficiencies, or watering issues.

You may also consider sampling suspect areas on new account properties, to indicate and document any pre-existing problems caused by nematodes - not your management practices. Having a baseline profile of the potential problems on the property can help with documenting that the problem was pre-existing, and can also help in communicating to manage your customers' expectations of the area. i.e. if nematodes are the problem, there is not much you can do about it, and they were there before you took on the account!

Sampling for nematodes before planting may help determine what to install, but consider this: some nematodes are not likely to be present in high populations before they have their food source available. In other words, you may find lower levels when sampling before installation than you would after the juicy roots are in the soil providing food for the nematode populations.

What do the symptoms look like?

Since many nematodes damage plant roots with their feeding, the symptoms of nematode damage appear as other root health issues, or nutrient deficiencies. Drought or high temperatures are likely to bring out symptoms of nematode damage, which would otherwise be masked by rainfall or irrigation. Unlike typical drought stress, where the majority of plants are affected, nematodes tend to be unevenly distributed in the soil, so that even after checking that all irrigation equipment is functioning and evenly distributing water, a particular area still seems to be affected.

Symptoms include:

- Galls or “knots” on roots - usually not on grasses
- Smaller, stunted plants
- Yellowing
- Drought like symptoms
- Wilting
- Browning
- Sparse vegetation
- Death

OK. So It’s Nematodes. Now What?

It would be nice to go into a long explanation of products and techniques to use to manage nematodes. Unfortunately, there are no products available at this time for use in residential situations. Soil amendments and other techniques to encourage a healthy root system are about the extent of management practices in these conditions. It’s also important to note that excessive use of fertilizer encourages pests such as

nematodes, as the flush of growth makes for good feeding grounds. Using good sanitation practices, such as rinsing shovels with a 10% bleach solution, can help prevent the spread of pests, including nematodes to other areas in the landscape.

Check out these references:

If you need info on management in golf course situations, or just want to know more:

Lab Form:

<http://edis.ifas.ufl.edu/SR023>

Sampling procedures:

<http://edis.ifas.ufl.edu/SR011>

Non-residential lawns:

<http://edis.ifas.ufl.edu/IN126>

Perennial Landscape Plants:

<http://edis.ifas.ufl.edu/IN469>

Golf Courses

<http://edis.ifas.ufl.edu/IN124>

Residential Lawns:

<http://edis.ifas.ufl.edu/NG039> ■

Programming Available Through Extension

What goes on around here?

This next article is from our Vegetable Crops Agent, Alicia Whidden reporting on updates in Florida's minimum wage. Alicia can be contacted at (813) 744-5519 x 134 or via email at awhidden@ufl.edu ■

New Florida Minimum Wage

By, Alicia Whidden Hillsborough County Extension Agent

On January 1, 2007 a new minimum wage went into effect for Florida. The minimum wage is now \$6.67/hour, which is a 27¢ increase from the 2006 rate. Employers are required by law (Section 448.109 of the Florida Statutes) to post a notice of the new minimum wage where workers can see it. This is another poster for your Central Posting location. A copy of the poster can be downloaded from the Agency for Workforce Innovation at <http://www.floridajobs.org/resources/Poster%20-%20FL%20Min%20Wage%202007.doc>. Also remember the federal minimum wage poster must also be displayed even though the rate is \$5.15/hr. It can be downloaded from the U. S. Department of Labor website at: <http://www.dol.gov/esa/regs/compliance/posters/flsa.htm>.

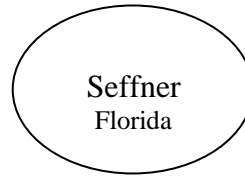
2007 Horticulture Events Calendar

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

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

JUNE CLICK ON THE LINKS AT WWW.PROHORT.NET

Date	Place	Info
June 12	Manatee Ext.	2007 CORE/General Standards Pesticide Applicator Training and Exam Training is from 9:00am - 11:00am @ the Manatee County Extension Office. For additional information call (941) 722-4524.
June 20	Jay, FL	Gulf Coast Turfgrass Expo & Field Day UF-IFAS Jay Research & Education Center 8:00 - 3:30 pm http://wfrec.ifas.ufl.edu/events/index.html
June 21	Jay, FL	Florida Lawn Field Day UF-IFAS Jay Research & Education Center 8:00 - 3:30 pm http://wfrec.ifas.ufl.edu/events/index.html



Growing Concerns

Mary Beth Henry

Hillsborough Extension Service
5339 S. County Road 579
Seffner, Fl., 33584-3334

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You must respond to this newsletter to continue to receive ProHort mailings!!



Don't Forget! Respond today!

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