



# Commercial Clippings

FOR THE NORTHEAST FLORIDA GREEN INDUSTRY  
*Serving Clay, Duval, and Nassau County*

**UF** | **IFAS Extension**  
UNIVERSITY of FLORIDA

June/July 2015

Page 1

## Inside this issue:

Viburnum Decline	1
Summer Classes	2-3
Citrus Greening	4-5
Site Security	6-7
New Publications	5, 7
Contact Us	8



<http://duval.ifas.ufl.edu>



## Causes of Viburnum Decline this Spring in North Florida

By Erin Harlow, Commercial Horticulture Agent

We have been receiving a lot of phone calls, photos, and samples of viburnums in decline recently, so we are going to discuss the top most likely reasons the plants may be in decline. Remember, if you aren't sure, you should send a disease sample to the Plant Disease Clinic for diagnosis. For information visit <http://plantpath.ifas.ufl.edu/clinic/>.

### Bacterial Leaf Spot

Bacterial leaf spot is common during this time of year and appears as a water-soaked area. It usually begins as round spots and become sunken areas. It can also distort leaves and cause tip dieback. This can easily be confused with fungal leaf spots, however, fungicides will not treat this disease. For treatment, use copper or streptomycin which are effective for preventing bacterial diseases. Also remove tissue and increase air circulation between plants.

### Fungal Leaf Spot

Anthraxnose is one of the most common fungal leaf spots that can be found during the spring. It can be confused with several other leaf spots, but anthracnose generally starts near the edge of the leaf margin and then necrotic spots develop. Leaves may turn reddish-brown before falling and may become distorted. Spores spread by water and raking-up leaves may help reduce spread. Many fungal leaf spots begin on the lower leaves first, such as cercospora leaf spot. Fungicides with chlorothalonil, thiophanate-methyl, or myclobutanil are recommended.



Anthracnose on Viburnum.  
Photo credit Stephen Lee, UF/IFAS.

### Stem Cankers

If you are having problems on multiple plants with the leaf tips dying back and losing leaves then you might want to look for botryosphaeria as the possible culprit. This stem canker disease enters the plant through wounds and can be spread by pruning shears. The disease can be noticed by swelling or cracking bark at the ends of the branches. If a cross-section is made the cambium tissue is dark inside. For treatment, cut below until you find clean, green wood. Pruning tools should be disinfected between plants and ideally between cuts. Botryosphaeria is not the only stem canker that can affect these plants, but most are treated the same way.

**July 1, 2015**  
**August 5, 2015**  
**Sept 9, 2015**  
**Wednesday**  
**(Duval)**

### **Pesticide Testing**

9:15 am and 11:30 am

Please pre-register at <https://aesecomm.freshfromflorida.com> for restricted-use (commercial, public, or private) and limited exams. For public health exams please call 904-255-7450 or email Erin Harlow at [erine@coj.net](mailto:erine@coj.net).

**June 10, 2015**  
**Wednesday**  
**(Yulee)**  
 904-530-6353

### **Limited Commercial Landscape Maintenance Workshop**

8:15 am - 3:00 pm - Full Day; 8:15 am – 12:00 pm - Half Day  
 \$30.00 for either full or half day

6 CEUs Total: 3 CORE & 3 LCLM, 3 LL&O, or 3 L&O

Lunch included, textbooks not included

Optional LCLM or LL&O Exam at 3:00 pm

You must have all required paperwork to take the exam.

**August 20, 2015**  
**Thursday**  
**(Clay)**  
 904-284-6355

To register, download the brochure, or for more information about the exam or books, please visit: <http://duval.ifas.ufl.edu/LCLM2012.shtml>.

This class is designed for people who do not have their license yet. If you are re-certifying your LCLM or LL&O you should consider attending a different class that offers those CEUs. There are many to choose from throughout the year.

**June 18, 2015**  
**Thursday**  
**(Gainesville)**  
 352-955-2402 to register

### **Best Management Practices for the Protection of Water Resources by the Green Industries (GI-BMPs)**

8:30 am – 3:30 pm

\$25.00

4 CEUs: 2 CORE & 2 L&O, 2 LCLM, 2 LL&O, 2 O&T or 2 Pvt, 4 LA CEUs, Technician

Training hours also available.

To register, download the brochure, or for more information about the workshop, please visit: <http://duval.ifas.ufl.edu/GI-BMPs.shtml>.

This is the pre-requisite class for the Urban Fertilizer License. Everyone who works with fertilizers for-hire is required to have this license by Jan 1, 2014, even if you are licensed in another category including pest control operators. You will complete your GI-BMP test the day of the class, if you pass, you can then apply to get your Limited Urban Fertilizer License through the State of Florida.

**July 6 - 31, 2015**  
 (online - SPANISH and ENGLISH)

### **Greenhouse 101: Plant Science for Commercial Production**

\$200 per employee, 4 week course online in Spanish and English; each new module is available weekly and takes about 4 hours to complete. Coursework includes streaming videos, readings, and assignments. This class does not count toward a university degree. Individuals will receive a certificate of completion at the end. The typical participant is a section grower who has practical experience and is responsible for planting, spraying, pinching, irrigation and fertilizing ornamental crops in containers. Register at <https://reg.distance.ufl.edu/reg/Activity/Details/ADBA0CA59995465B90E46255B7D5E01B>.



## All classes require pre-registration

Unless stated will be held at the  
Duval County Extension Office, 1010 N McDuff Ave, Jacksonville, FL 32254  
To register visit us at <http://duval.ifas.ufl.edu> and click Commercial Horticulture/Calendar  
or call 904-255-7450

**July 22, 2015  
Wednesday  
(Clay)**

### The Great IFAS CEU Round-Up

Presented by UF and the Florida Turfgrass Association

8:30 am - 4:00 pm, Industry \$50 pre-registered, \$75 at door; Municipal \$30 pre-registered, \$45 at the door

For more information or to register visit <http://www.ftga.org/ceu-round-up/>.

**Up to 6 CEUs in aerial, Ag row, Ag Tree, Aquatic, L&O, D&R, Forestry, LCLM, LL&O, LUF, Natural Areas, O&T, Private, Regulatory, ROW**

Plus CEUs for GCSAA, ISA, and CCA.

8:30 – 9:00	Registration	
9:00—9:50	Factors to Consider When Developing A Weed Management Program	Dr. Greg MacDonald
9:50—10:00	Break	
10:00 – 10:50	How Herbicides Work & Where They Go	Dr. Fred Fishel
10:50—11:00	Break	
11:00—11:50	Preventing Herbicide Failures	Dr. Stephen Enloe
11:50—1:00	Lunch (provided)	
1:00—1:50	Understanding Adjuvants	Dr. Jay Ferrell
1:50—2:00	Break	
2:00—2:50	BMP in Urban, Aquatic & Natural Systems	Susan Haddock
2:50—3:00	Break	
3:00—3:50	Identification & Integrated Management of Invasive Grasses	Dr. Lyn Gettys
3:50 – 4:00	Closing & CEU Distribution	

**July 6-10, 2015  
Monday-Friday  
(Blue Cypress  
Community Center,  
Duval)**



### Discover Florida 4-H Summer Camp

Ages 11-15, 8:30 am-4:30 pm  
Located at the Blue Cypress Community Center  
\$80.00 for the week

4-H and non 4-H youth welcome! Youth will experience the outdoors while being taught by Extension Agents and other professionals. Topics will include insects, plants, water, and wildlife. The week ends with a fun kayak trip to further explore Florida's great outdoors.

To register visit: <http://www.eventbrite.com/e/discover-florida-4-h-camp-tickets-15952439175?ref=ebtnebreg>



<https://www.facebook.com/DuvalCountyAgriculture>

## Is it Citrus Greening?

by Larry Figart , Urban Forestry Extension Agent

I am not sure what you call it, but perhaps instead of a hypochondriac we could call it a “phyto”-chondriac. What I am talking about is the notion that something is wrong with a client’s citrus tree and they are convinced that it is Citrus Greening. While we have Citrus Greening in Northeast Florida, I have seen a lot more Greasy Spot, Melanose, and Citrus Scab than I have seen Citrus Greening. There are a lot of maladies impacting dooryard citrus. In the next few paragraphs I will attempt to sort them out and hopefully make it easier to identify on your client’s tree.

- Citrus Greening:** Right now, Citrus Greening is the biggest threat to a healthy vibrant citrus industry in the state. We do not have any economical way to control it and it is estimated that as many as 50% of commercial citrus trees are infected with Citrus Greening. The first noticeable symptom is called blotchy mottle. Blotchy mottle is the best diagnostic symptom and the earliest leaf symptom. Blotchy Mottle is a random pattern of yellowing (chlorosis) on leaves that is not the same on the right and left sides of the leaf. It can be confused with a nutrient deficiency, but the asymmetrical pattern is a good clue. In addition to blotchy mottle, infected leaves may be thicker and leathery and have raised corky veins. As the disease progresses, the entire tree will be affected, and symptoms will become more prominent. Fruit symptoms would include the fruit being lopsided, misshapen, smaller, and remaining mostly green. Also, the fruit would taste salty and bitter.

Blotchy Mottle



Yellow Veins



Corky Veins



- Greasy Spot:** Greasy Spot is a leaf and fruit disease that is very common. The first things that people usually notice is that the tree starts losing a lot of leaves in January and February. The leaves may or may not have spots on the undersides that start out yellow and then goes from brown to black.. Usually, after the diseased leaf falls to the ground the spot starts to take on a dark, greasy appearance. While the disease shows up in the winter, the leaves are actually infected by the fungus in the early summer. It is then that most of the spores produced on the fallen leaves get dispersed onto the new flush of tender green leaves. It is for that reason that fungicidal control is applied to the new growth flush in the early summer, not in the winter when the worst symptoms appear.
- Melanose:** This disease is very similar to greasy spot in that it can affect fruit and leaves. When the disease appears on the fruit it is a blemish that does not affect the fruit quality other than it causes the fruit to look unappealing. The sign of melanose on the fruit is called mudcaking.



Greasy Spot on a Leaf

*(Continued on page 5)*

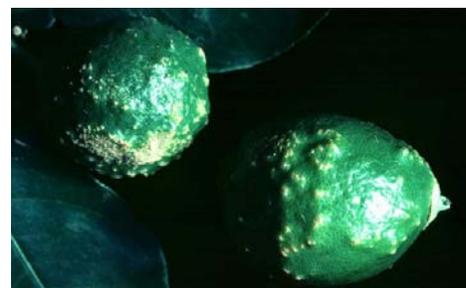
## Is it Citrus Greening? (Continued from Page 4)

- Melanose (continued):** The blemish is formed as the fungal spores are washed over the fruit with irrigation or rainfall. On the foliage, melanose symptoms start as tiny water-soaked specks that become depressed in the center and surrounded by a translucent, yellow area that is not depressed. Later, the leaf cuticle ruptures and a gummy substance is exuded which turns brown and hardens. The yellowish margin disappears and the hardened gummed areas will have a sandpaper-like texture. Control of melanose uses a two-pronged method of attack. If melanose was bad the year before, fungicide application should be started at petal fall continuing until it becomes resistant in late June or early July. Also, melanose over-winters in dead twigs. Any deadwood in the tree should be pruned out in order to reduce inoculum.



Melanose signs on fruit

- Citrus Scab:** Citrus scab is a disease that definitely looks and sounds worse than it is. Citrus scab affects the fruit, leaves, and twigs of susceptible varieties of citrus. The good news is that like melanose, scab infected citrus is fine to consume. The primary method of the transmission of scab spores is



Citrus Scab on Fruit

water. In citrus trees that have a history of scab it is advisable to eliminate overhead irrigation.

For further information on citrus diseases go to: [http://www.crec.ifas.ufl.edu/extension/plant\\_pathology/](http://www.crec.ifas.ufl.edu/extension/plant_pathology/)

## New/Recent UF/IFAS Publications

### LANDSCAPE

Not All Landscape Palm Fertilizers are Created Equal - <http://edis.ifas.ufl.edu/ep516>

*Butia odorata*: Pindo Palm - <http://edis.ifas.ufl.edu/st105>

Lemon bacopa: *Bacopa caroliniana* - <http://edis.ifas.ufl.edu/ag392>

Olives for Your Florida Landscape - <http://edis.ifas.ufl.edu/ep515>

### PESTICIDES

Pesticide Storage: Keep It in the Container - <http://edis.ifas.ufl.edu/pi255>

### PUBLIC PERCEPTION

Florida Consumer Perceptions of Local versus Organic Ornamental Plants - <http://edis.ifas.ufl.edu/fe964>

Encouraging Landscape Water-Conservation Behaviors: Information Seeking Preferences of Florida Residents Who Use Irrigation in the Home Landscape - <http://edis.ifas.ufl.edu/wc204>

## Site Safety: Thinking Beyond the Job

By Amy Morie, Clay County Horticulture Agent

Maintaining a safe job site is probably right up there as one of your top concerns for your clients, employees and co-workers. When it comes to worker safety, you've got it covered – from PPEs to equipment maintenance to training and more. It's a routine part of business – but there's more to think about for site safety than meets the eye! Crime Prevention Through Environmental Design (CPTED) was developed as a field of study by examining failures of existing spaces. Combined with knowledge of people's behaviors, perceptions and preferences, and crime prevention and law enforcement principles, landscape design and maintenance can use CPTED principles to help deter crime *before* it happens.

So, how does CPTED impact you on the job? Here's the top three ways you can help clients by thinking beyond the job to what happens on-site after you leave:

1. **Light the way:** Notice the position of landscape lighting, or report any accidental moving of landscape lights. Lighting is part of a site's natural surveillance, and may be the hardest to imagine if you're only on the ground during the day. A misdirected light may cause a blind spot – one that be the difference in getting inside or navigating safely. Misdirected lights can also blind drivers and pedestrians, so be sure to check out – or check in with – any accidental movement of landscape lighting in the field. Ideally, landscape lighting will light faces, entrances, and pathways without blinding, leaving criminals exposed instead of letting them hide in the shadows.
2. **Plant a thorny solution:** Plants can be a great deterrent, providing natural access control for spaces. Thorns in particular can be a great natural deterrent and look far better than barbed wire! Use low thorny species like soap aloe or dwarf Crown of Thorn under windows to discourage would-be intruders and peepers. For fences, try thorny climbers like blackberry, coral bean, or bougainvillea. Keep maintenance in mind when suggesting thorny plants for CPTED strategies, and make sure that plants are selected and spaced properly.



3. **Plant by the 3' – 8' rule:** Does your client have an unknown safety issue with their current planting? Planted entrances and paths of travel can create unwitting hazards if they make it easy for crime to occur. Plants can make perfect hiding spots near entrances, driveways, and similar areas – just where people are distracted with keys, phones, and other belongings. This can make a space more tempting to criminals by providing access and easy targets. For plantings in these areas, natural surveillance is critical. Sightlines should be kept clear between 3' and 8' off the ground. This means bedding material should be selected from two types of plant materials:

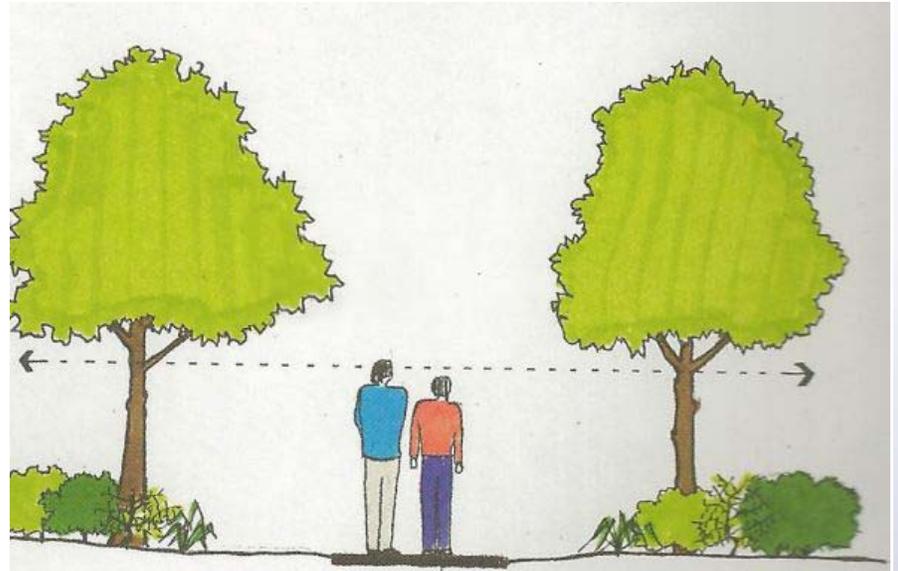


Image credit: North Harbor Business Association  
<http://www.nhba.org.nz/media/52b27a94b35e9.jpg>

- Short specimens that are less than 3' tall fully grown
- Tree specimens in 'standard' form that have 8' or more clear trunk

Make sure the species you suggest for replacement won't rely on pruning/shearing to keep height in check, and avoid tree species that sucker at the base such as Crape Myrtles.

Next time you're on-site, take a look for potential safety concerns the client may be unaware of. Looking out for them by thinking beyond the job when it comes to safety is a proactive approach your clients will appreciate.

Reference:

"CPTED Design Guidelines" [http://www.cptedsecurity.com/cpted\\_design\\_guidelines.htm](http://www.cptedsecurity.com/cpted_design_guidelines.htm)

"Crime Prevention Through Environmental Design." C. Ray Jeffery, 1977.

"Defensible Space: - Crime Prevention through Urban Design" Oscar Newman, 1972.

"International CPTED Association." <http://www.cpted.net/>

## New/Recent UF/IFAS Publications

### ORNAMENTAL & HOUSEHOLD PESTS

Western Flower Thrips (*Frankliniella occidentalis* [Pergande]) - <http://edis.ifas.ufl.edu/in1089>

Sting Nematode *Belonolaimus longicaudatus* Rau (Nematoda: Tylenchida: Belonolaimidae) - <http://edis.ifas.ufl.edu/in1080>

Zombie Fly (suggested common name) *Apocephalus borealis* Brues (Insecta: Diptera: Phoridae) - <http://edis.ifas.ufl.edu/in1063>

Chicken Mite (other common names: poultry red mite, roost mite) *Dermanyssus gallinae* (De Geer) (Arachnida: Acari: Dermanyssidae) - <http://edis.ifas.ufl.edu/in1070>

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For individuals requiring special accommodations, please contact our office (904/255-7450) within a minimum of 5 working days of the program. For persons with hearing or speech impairments, when contacting our office, please use the Florida Relay Service at 1-800-955-8771 (TDD). Your comments and input are necessary for this to be a useful tool for all of us.

Extension Programs are open to all regardless of race, creed, color, sex, sexual orientation, marital status, age, disability, religion, national origin, political opinions or affiliations.