

Citrus Notes

**Polk County Extension Service**

PO Box 9005, Drawer HS03 • Bartow, FL 33831-9005
(863) 519-8677, Ext. 108 • wcoswalt@ufl.edu

Hillsborough County Extension Service

5339 County Road 579 • Seffner, FL 33584-3334
(813) 744-5519, Ext. 131

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Our first Citrus Roundtable Growers Meeting will be held this month in Seffner. Don't forget the Citrus Packinghouse Day and the Postharvest Workshop also this month. The Division of Forestry will be holding their annual Citrus Spot Burner Program on September 17, 2008. If you were lucky enough to get rain from tropical storm Fay, it may be beneficial to read the article on citrus brown rot. Excessive rainfall this time of the year can result in the appearance of citrus brown rot in your grove. In some recent field visits the initial symptoms of citrus greening are starting to appear. We have included a brief description of what we have seen in the last couple of weeks. We have the hurricane update from NOAA and the Pesticide News and Information section.

Enjoy the issue,

Chris Oswalt
Citrus Extension Agent
Polk/Hillsborough Counties
863-519-8677 extension 108
P.O. Box 9005, Drawer HS03
Bartow, FL 33831-9005



***September
Citrus
Roundtable***



We will begin this year's bimonthly Citrus Roundtable Meetings in Hillsborough County on Wednesday, September 3, 2008. The Citrus Roundtable will begin at 10:00 a.m. at the Hillsborough County Cooperative Extension Service Office at 5339 S. CR 579 in Seffner.

The topic for discussion will be the effect of citrus greening on fruit size and yield of Valencia orange trees. This study was completed this spring and quantitatively describes differences in fruit size distribution on apparently healthy and on citrus greening symptomatic trees. So make plans to join us for donuts, OJ and coffee in Seffner on Wednesday, September 3, 2008.

Citrus Packinghouse Day

Mark your calendars for Citrus Packinghouse Day on September 11th at the Citrus Research and Education Center in Lake Alfred, and the Indian River Postharvest Workshop on September 16th at the Indian River Research and Education Center in Ft. Pierce.

This year's programs will not only include presentations updating the latest information on citrus canker related to fresh citrus, but also on the development of new fresh citrus varieties, national efforts to create commodity specific GAPs, changes in the maximum residue limits for important export markets, practices to reduce peel breakdown on fresh grapefruit, and research into the possible use of laser labeling on citrus. For more information, contact Mark Ritenour at 772-

468-3922, ext. 167 or visit
<http://postharvest.ifas.ufl.edu>.

Citrus Spot Burner Program

The Division of Forestry, Lakeland District, is hosting its annual "Citrus Spot Burner Program" workshop/enrollment at the **Stuart Conference Center in Bartow at 9:00 a.m. September 17, 2008**. The workshop is intended to aid grove managers by allowing certified citrus pile burns during high fire danger weather conditions.

To take advantage of the program, you must attend the workshop. Topics of discussion are smoke management practices, recent changes in burning rules and regulations, and a discussion of owner/burner concerns. A site inspection for certifying the burn sites may be arranged after the meeting.

The following is a review of the requirements of the Citrus Spot Burner Program:

- 1) Complete *Citrus Spot Burner Application*.
- 2) Map of grove with Section, Township and Range supplied to D.O.F. on 8½ x 11 inch paper (several maps can be used to cover larger areas)
- 3) All pre-approved burn sites must be interior grove and at least 400 feet from any wooded areas and identified with latitude and longitude coordinates.
- 4) Once a year, attend a workshop on the Citrus Spot Burner Program.

The Division of Forestry encourages your participation in the program. The benefit to you, the grove owner, is it provides you the opportunity to burn on high fire occurrence days when you otherwise may not be able to

obtain a burn authorization. Remember, you must attend this once a year workshop in order to qualify. Please feel free to call, Rick Britt at 863-635-7801 or Ned Waters at 863-648-3160, should you have any questions.



Citrus Brown Rot

With the recent stalling of tropical storm Fay over the Florida peninsula, some citrus production areas of the state received an excessive amount of rainfall. Under these conditions growers should be aware of the potential for the development of citrus brown rot disease. Citrus brown rot will infect fruit this time of the year and, if severe, can cause a significant amount of this infected fruit to drop. For this reason groves with a history of brown rot in areas that recently received a significant amount of rainfall, may consider an application of an effective fungicide for the control of citrus brown rot.

Citrus brown rot is caused by *phytophthora nicotianae* and *phytophthora palmivora*, the same fungus that causes foot rot. Early maturing sweet orange varieties (like Hamlin) are the most susceptible. Brown rot can be problematic from mid-August to October and is usually associated with poor drainage and/or limited air movement under the tree canopy. *Phytophthora nicotianae* infects fruit in the lower third of the tree canopy, while *phytophthora palmivora* infects fruit throughout the tree canopy. At this point growers with brown rot couldn't care less what species of phytophthora they have, but rather how to stop the fruit drop.

It is extremely important to correctly diagnose brown rot from other causes of citrus fruit drop. During the past season some fruit drop has been attributed to scale insects feeding on the fruit calyx. Excessive rainfall in the late fall and early winter could lead to fruit splitting and fruit drop. In the fall plant bugs can also cause a certain amount of fruit drop on tangerine varieties. However, brown rot symptoms are unique and include fruit drop in late summer and early fall, the peel will appear leathery with an olive brown discoloration and the fruit will have a distinct rancid odor.

Current recommendations in the 2008 Florida Citrus Pest Management Guide call for the application of an effective fungicide. Copper, Alliette, Phostrol and ProPhyt are currently recommended for controlling brown rot. In general, a single application of a systemic fungicide prior to the onset of visual symptoms in late July will control the disease. Alliette, Phostrol and ProPhyt are systemic fungicides and will provide protection of fruit through the normal infection period (60 to 90 days). If you missed that application or have the onset of symptoms, then copper applied in August will provide protection for 45 to 60 days. If the fall is particularly problematic (continued wet) for brown rot, then a follow-up application of one of the systemic fungicides at one-half labeled rate, or copper at the full rate, can be applied in October.

Remember to read and follow all fungicide label instructions, it's the law.

Scouting for Citrus Greening



The following observations are an effort to bring you up-to-date on symptom development in some of the local blocks with known citrus greening finds. It appears that in the last couple of weeks the initial seasonal symptoms of citrus greening have begun to develop. This coincides with about the same time period as last year.



Initial fall symptoms of citrus greening

The most common newly appearing symptom is the raised yellow veins. Over the next few weeks some of these types of symptoms will develop into blotchy mottle. Affected young trees may now appear to have a noticeable overall reduction in growth. This can now be easily seen with symptomatic trees appearing to have very little new growth when compared to healthy trees in the same block.



Foliage symptoms of citrus greening observed in August

NOAA 2008 Hurricane Forecast Update

(Credit: NOAA, 8/7/2008)



Strong Start Increases NOAA's Confidence for Above-Normal Atlantic Hurricane Season

In the August update to the Atlantic hurricane season outlook, [NOAA's Climate Prediction Center](#) has increased the likelihood of an above-normal hurricane season and has raised the total number of named storms and hurricanes that may form. Forecasters attribute this adjustment to atmospheric and oceanic conditions across the Atlantic Basin that favor storm development - combined with the strong early season activity.

NOAA now projects an 85 percent probability of an above-normal season – up from 65 percent in May. The updated outlook includes a 67 percent chance of 14 to 18 named storms, of which 7 to 10 are expected to become hurricanes, including 3 to 6 major hurricanes of Category 3 strength or higher on the Saffir-Simpson Scale. These ranges encompass the entire season, which ends November 30th, and include the 5 storms that have formed thus far.

In May, the outlook called for 12 to 16 named storms, including 6 to 9 hurricanes and 2 to 5 major hurricanes. An average Atlantic hurricane season has 11 named storms, including 6 hurricanes and 2 major hurricanes.



“Leading indicators for an above-normal season during 2008 include the continuing multi-decadal signal – atmospheric and oceanic conditions that have spawned increased hurricane activity since 1995 – and the lingering effects of La Niña,” said Gerry Bell, Ph.D., lead seasonal hurricane forecaster at NOAA’s Climate Prediction Center. “Some of these

conditions include reduced wind shear, weaker trade winds, an active West African monsoon system, the winds coming off of Africa and warmer-than-average water in the Atlantic Ocean.”

Another indicator favoring an above-normal hurricane season is a very active July, the third most active since 1886. Even so, there is still a 10 percent chance of a near normal season and a 5 percent chance of a below normal season.

NOAA’s hurricane outlook is a general guide to the expected level of hurricane activity for the entire season. NOAA does not make seasonal landfall predictions since hurricane landfalls are largely determined by the weather patterns in place as a hurricane approaches.

Five named storms have formed already this season. Tropical Storm Arthur affected the Yucatan Peninsula in late May and early June. Bertha was a major hurricane and the longest-lived July storm (July 3-20) on record. Tropical Storm Cristobal skirted the North Carolina coastline. Dolly made landfall as a Category 2 hurricane at South Padre Island, Texas on July 23rd. And on August 5th, Tropical Storm Edouard struck the upper Texas coast.

“It is critical that everyone know the risk for your area, and have a plan to protect yourself, your family and your property, or to evacuate if requested by local emergency managers. Be prepared throughout the remainder of the hurricane season,” Bell said. “Even people who live inland should be prepared for severe weather and flooding from a tropical storm or a hurricane.”

The Atlantic hurricane season includes activity over the Atlantic Ocean, Caribbean Sea and Gulf of Mexico. The peak months of the season are August through October.

NOAA understands and predicts changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and conserves and manages our coastal and marine resources.



Pesticide News and Information

Spinosyn Products Restricted From Certain Florida Counties

On August 12th, Dow AgroSciences announced that it is voluntarily suspending the sale and use of multiple spinosyn insecticides in Broward County and a portion of Palm Beach County in Florida. This action has been taken in response to evidence that western flower thrips have developed resistance to a product with the active ingredient spinosad. “Florida’s uniquely long growing season, combined with the rapid reproduction cycle of thrips, creates an environment that is conducive to developing insecticide resistance. This suspension is necessary to preserve the viability of this important family of insecticides,” says Mark Urbanowski, Senior Marketing Specialist for Dow AgroSciences turf and ornamental products.

The suspension of all spinosyn products in these two counties is through Federal Insecticide,



Fungicide and Rodenticide Act (FIFRA) Section 24(c) Special Local Need labeling in Florida. Products affected by this suspension are Conserve® SC turf and ornamental insect control, Delegate® WG insecticide, Entrust®,

Radiant® SC, and SpinTor®. In Florida these products are used in the nursery and greenhouse, lawn care, landscape, golf course and fruit and vegetable markets. “Although this is a temporary suspension for a minimum of 12 months, Dow AgroSciences is committed to bringing these products back to the market as soon as possible,” Urbanowski said. “To that end, we’re working with the University of Florida and the Florida Department of Agriculture and Consumer Services to develop an educational program to help spinosyn users learn more about the necessity of proper product rotation and Integrated Pest Management (IPM).”

The continuous application of any class of insecticides over an extended period of time, without proper rotation with other chemistries, can lead to resistance development. Thus, in cooperation with governmental agencies, pest management consultants and university experts, Dow AgroSciences has developed a series of educational management seminars for key audiences within Florida, as well as the website www.ThripsManagement.com. “Dow AgroSciences is providing resources to help reinforce the importance for growers and other professional applicators to follow label directions. We also are working together to reinforce the proper use and rotation of products as recommended in IPM programs,” says Joe Funderburk, Professor of Entomology, University of Florida. The thrips management website will help assist in the education of growers and aid in preventing resistance from expanding into other areas. The site is intended to serve as a one-stop resource for growers to access multiple university and government IPM. (Dow AgroSciences Press Release, 8/12/08).

My take: I think this clearly demonstrates the importance of the rotation of insecti-

cides with different modes of action to prevent insect resistance.

Movento® Labeled for Florida Citrus

Based on a request by Bayer CropScience, the EPA has approved tolerances for the insecticide spirotetramat (Movento®) and its related metabolites. This is a spirocyclic phenyl-substituted tetrionic acid compound that is specific for aphids, whiteflies, scales, and mealybugs. Tolerances of importance in Florida include head and stem brassica (subgroup 5A), leafy brassica (subgroup 5B), citrus, small fruit vine climbing (subgroup 13-07F), strawberry, cucurbit vegetable (group 9), fruiting vegetable (group 8), leafy vegetable except brassica (group 4), and tuberous and corm vegetable (subgroup 1C). (Federal Register, 7/9/08).

Restricted Use Pesticide License Fees to Increase

The FDACS Bureau of Compliance Monitoring has announced that license fees will be increasing as of the first of September, 2008. The cost of Private or Public Applicator licenses will go from \$60 to \$100. Commercial licenses will increase from \$160 to \$250.