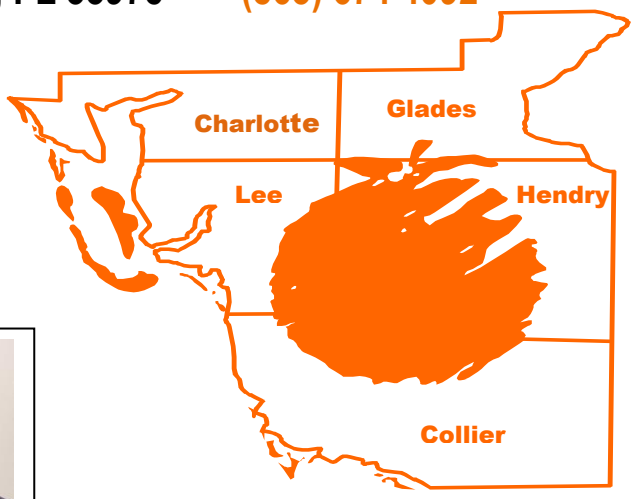
UF UNIVERSITY of FLORIDA
IFAS Extension

EXTENSION

Institute of Food and Agricultural Sciences

Hendry County Extension, P.O. Box 68, LaBelle, FL 33975 (863) 674 4092

Flatwoods Citrus



Have a Happy Holiday Season and a Productive New Year!!!

Vol. 13, No. 1 **January 2010**

Dr. Mongi Zekri
Multi-County Citrus Agent, SW Florida

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U P C O M I N G E V E N T S

WEATHER, CLIMATE, & DORMANT SPRAY FOR PSYLLID CONTROL

Location: **Immokalee IFAS Center**

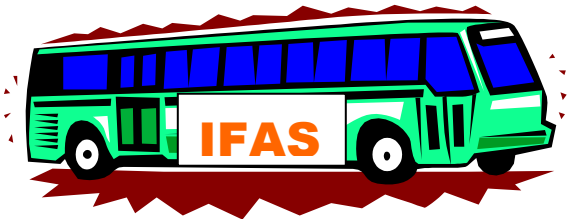
Date: Thursday, January 7, 2010, Time: **9:00 AM** – 12:00 Noon

1 CEU for Pesticide License Renewal, 3 CEUs for Certified Crop Advisors

- **Dormant Spray for Psyllid Control - Dr. Phil Stansly**
- **Winter Weather Watch for Citrus Growers - Chris Oswalt**
- **FAWN Tools for Freeze Protection - Rick Lusher**
- **Climate, Cold Hardiness, and Freeze Protection - Dr. Larry Parsons**

No registration fee and lunch is free Thanks to **Sarah Markle with Valent USA**, but **RSVP is required** for planning purposes. Please call 863 674 4092 or send an e-mail to maz@ufl.edu

HENDRY COUNTY EXTENSION AG TOUR



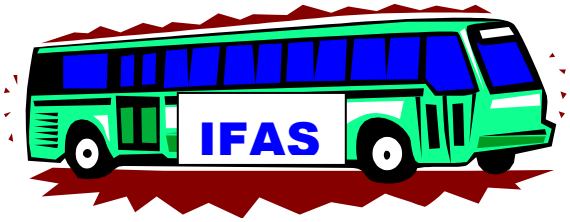
Saturday, 6 February 2010
For more information or to sign up,
call Debra at 863 674 4092

FLORIDA CITRUS SHOW

January 27-28, 2010, Ft. Pierce, Florida

Register at: http://www.citrusshow.com/?page=reg

COLLIER COUNTY EXTENSION AG TOUR



Wednesday, 10 March 2010
For more information or to sign up, call
Robert D. Halman at 239-353-4244

CERTIFIED PILE BURNER Training, 7 April 2010, Immokalee IFAS Center (see enclosed important details).

Class size is limited to the first 50 people.

Special Thanks to the following sponsors (on pages on pages 3, 4, and 5) of the Flatwoods Citrus Newsletter for their generous contribution and support. If you would like to be among them, please contact me at 863 674 4092 or maz@ifas.ufl.edu

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fmccrop.com

Magna-Bon Agricultural Control Solutions
Canker Suppressant, Canker Wash Solutions, Line Cleaner
Nextel 158*17*10066
Phone: 800 845 1357
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SCOUTING FOR PESTS

Florida citrus industry uses sustainable production practices. Florida citrus growers help preserve environmental quality by using many sound cultural practices including integrated pest management (IPM) strategies. IPM depends on grove scouting and close observations to determine the need and timing for pesticide applications as well as modification of cultural practices to minimize damage. Scouting for early warnings of pests and diseases is becoming very important in citrus operation. Scouting not only helps growers control pests more efficiently, but also lowers the use of pesticides and the chances of pesticide resistance.

In most cases, there is no way to predict on a seasonal basis the incidence and severity of pests. However, based on grove history and frequent observations, many situations can be reasonably assessed. With most citrus pests, the pressure must be high before economic damage levels on the processing fruit crop are experienced. Pest populations should be suppressed only when high levels of infestation threaten tree vigor and productivity. There are several techniques and procedures for scouting and there are many things to know before scouting.

To learn more, you need to attend the workshop on scouting for citrus pests in **February 2010**.

CURRENT FLOWER BUD INDUCTION ADVISORY #4 for 2009-2010-12/14/09

http://www.crec.ifas.ufl.edu/extension/flowerbud/index.htm

Please review Advisory #1 for this year if you have not done so. Besides background, it provides web sites to run the Flowering Monitor System on-line and other related links for weather data

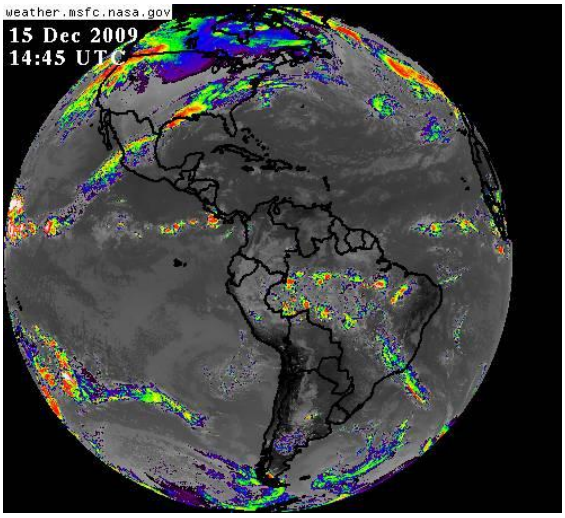
Current status for 2008-09 fall-winter – Cool weather accumulation continued at a slow pace this pass week with the more northern locations now at 721 hours (Avalon) and 760 hours (Umatilla), with 600 hours in Central Florida and 475 and 340 hours in Immokalee and Ft. Pierce, respectively. The southern areas are still at half or less of the desired hours for induction of flower buds. An additional 60 to 100 hours will be accumulated in the next 7 days. This will bring the northern areas into the acceptable level induction, but the Central areas will need another two weeks of suitable temperatures and the Southern areas will need longer than that to reach suitable levels. At least the next 10 days appear to be ok with a cool front coming to lower temperatures into next week.

Regarding freeze risk, the Jet Stream pattern is favorable for minimal risk. All air flow is west to east with a slight upward movement in the southern area so that the Jet Stream is pulling moist air out of the Gulf into Florida. This may account for the extended period of humid, wet conditions (**http://www.wunderground.com/US/Region/US/JetStream.html**). It has been impossible to dry out the soil so we need to hope for continued moderate temperatures until we can accumulate enough cool weather for good flower bud induction.

There are two useful Websites to follow weather forecasts. The Florida Agricultural Weather Network (FAWN) now has an easy access function to the NOAA 4 day forecast, just type location and click. Alternative, an 8 day forecast can be viewed by going to www.crec.ifas.ufl.edu and click on resources> weather> 8-day forecast. Remember during the critical freeze period to view FAWN, use the on-line monitor site provided in the first advisory and the NOAA 8 day forecast and watch the Jet Stream pattern.

In order to prevent or delay bud growth now that trees are at a moderate level of induction, trees should be slightly stressed if a warm period (5-7 days with maximum temperatures above 80 degrees F.) is predicted. Hopefully, we will dry out after the next front so that soil moisture can be controlled through the Christmas-New Year's Holiday period.

If you have further questions, please contact me albrigo@ufl.edu or phone 863 956 1151.



El Niño & the Winter of 2009-10

Larry Parsons, ***Citrus Research & Education Center, University of Florida / IFAS***

"An updated presentation of the article published in the FL Grower in December 2009"

According to the National Oceanic and Atmospheric Administration (NOAA), El Niño will be a dominant climate factor that will affect U. S. weather this winter. El Niño occurs when the sea surface temperature in the central and eastern Pacific Ocean near the equator is warmer than normal. This occurs periodically, about every 2 to 7 years. This El Niño is expected to strengthen to a moderate level and impact the Northern Hemisphere during the winter of 2009-2010. El Niño changes the strength and position of the jet stream over the Pacific Ocean and the U. S.

El Niño has already influenced Florida by reducing the number of hurricanes that hit the state in 2009. Florida was not impacted by any hurricanes in September, which is usually the peak month in terms of hurricane activity in the Atlantic Basin. El Niño creates a vertical shear over the hurricane forming regions in the Atlantic. This shear tends to break up potential hurricanes before they form. This pattern also tends to increase the number of winter storms.

La Niña, the opposite of El Niño, occurs when cooler water occurs near the equator in the Pacific. Because of fewer shearing winds, La Niña tends to allow more hurricanes to form.

NOAA and the Southeast Climate Consortium predict that the Southeast will have a wetter, stormier, and cooler winter than normal because of El Niño. While not all the winter storms will create tornadoes, there is the possibility of more tornado activity in the Gulf Coast area this winter. Bart Hagemeyer, Meteorologist-in-Charge of the NOAA Melbourne office, pointed out that the top two deadliest tornado events in Florida occurred during El Niño winters. One tornado killed 42 people in the Kissimmee area in February 1998 during a strong El Niño, and another tornado killed 21 people in central Florida during a weaker El Niño in February 2007.

A strong sub-tropical jet stream is often associated with El Niños, and this leads to a higher probability of a wetter winter in Florida, Texas, and California. In contrast, it is expected to be drier than normal this winter in the Pacific Northwest and the Ohio and Tennessee River Valleys.

The Southeast is expected to be cooler than average from December through April. Cooler areas will range from the Texas gulf coast through Florida and the mid-Atlantic up to southern Pennsylvania. At the same time, much of the western and central U. S. will be warmer than normal, particularly in the north-central states from eastern Washington to Wisconsin. Periodic cold air outbreaks are possible even though this area is likely to be warmer than average.

According to David Zierden, state climatologist with the Florida Climate Center, the cause of the cooler temperatures in the southeast is probably due to the increased cloudiness and rainfall. Interestingly, the lower temperature is more related to a decrease in the afternoon high temperature rather than the overnight low temperature. While Florida needs additional rainfall to make up for the recent spring droughts, excessive rainfall caused by El Niños in past winters led to flooding. Localized flooding was particularly noticeable during the strong El Niño of 1997-98.

The cooler winter temperatures can help oranges develop better peel color. It can also increase the number of chill hours and benefit other crops in Florida such as blueberries, strawberries, and peaches.

Even though this upcoming winter is predicted to be cooler and wetter, the probability of a severe freeze is lower than normal. The risk of severe freezes in Florida is as much as three times greater during neutral conditions (i.e. periods when there is neither an El Niño nor a La Niña). Growers were reminded of that in the neutral winter of 2008-2009 when freezes hit in January and February 2009. These freeze events were some of the coldest temperatures in central Florida since the tree-killing freeze of December 1989. In fact, with the exception of one weak El Niño winter, none of the severe freezes in Florida since 1975 have occurred during El Niños.

Since the past can not always predict the future, growers still need to check their microsprinkler systems and be prepared for a freeze. While the probability of a severe freeze is lower than normal, growers still need to be ready.

IMPORTANCE OF FERTILIZERS

Meeting the world's escalating food needs cannot be achieved without fertilizer input. Without fertilizer, the world would produce only about half as much food and more forested lands would have to be put into production. Inorganic commercial fertilizer plays a critical role in the world's food security and is important from both yield and food quality perspectives. Intensification of production and increasing yield on limited arable land is clearly important in securing an adequate food supply, and the role of fertilizer in this is very critical.

Intensification of production will be increasingly essential to the challenge of meeting future food demands. However, this intensification must be done so as to minimize environmental impacts. The Nutrient Stewardship Framework (right fertilizer source, right rate, right time, and right place) is therefore very important.

Let's talk about **Sulfur (S).**

Since S is associated with the formation of proteins and chlorophyll, deficiency symptoms resemble those of N, but they first appear on the new growth. Plants are stunted and pale green to yellow in color. Such chlorosis in citrus is worse on new growth because S does not move readily from old to young leaves like N. Sulfur deficiency occurs most commonly with high N fertilizer rates. If the supply of N is not supplemented with adequate S, the N available for crop use may be excessive in relation to S. Under high N and low S conditions, plant growth processes are disrupted and plants develop symptoms of S deficiency. Sometimes, total growth is reduced by fertilization with N alone, whereas combined applications of N and S have provided normal growth and yield.
In the past, many traditional citrus fertilizers like ordinary superphosphate contained S as part of the mixture. In addition, elemental S was often used as a summer miticide. However, the use of fertilizers that are essentially S-free like ammonium nitrate, potassium nitrate, urea, and concentrated superphosphate have become increasingly popular. The use of these fertilizers can indirectly induce S deficiency. Sulfur deficiency in citrus can easily be corrected by soil application of S-containing fertilizers like ammonium sulfate, potassium sulfate, magnesium sulfate, or Tiger-Sul products. Applying gypsum is an inexpensive option that can also correct S deficiency.

Florida Department of Agriculture and Consumer Services

Florida Citrus Producers Approve Research Order In Referendum

TALLAHASSEE –Florida Agriculture Commissioner Charles H. Bronson today announced the Florida citrus industry has overwhelmingly voted to continue funding a self-imposed tax to conduct important research for another six years. Consensus was reached through a statewide referendum that concluded today.

The citrus research order continuation was also amended to increase the industry's self-imposed tax to a maximum of 3 cents per box, and to establish the Citrus Research and Development Foundation as the research advisory council to the Florida Department of Agriculture and Consumer Services. The department circulated ballots in late November to citrus producers statewide.

"The response was unprecedented," Bronson said. "Almost twice as many growers participated in this vote than in 2004. I believe this clearly demonstrates the industry's concern and commitment to combating citrus diseases."

Under Chapter 573, Florida Statutes, a referendum must win approval of 65 percent of those voting, and represent 51 percent of the voting acreage. The actual results markedly surpassed the requirements.

Since 1992, the box tax has generated more than $25 million for research aimed at eradicating citrus pests and diseases, and improving varieties and management practices.

The results of the referendum are as follows:

Number of growers voting YES:	1,166
Number of growers voting NO:	363
Percentage of growers voting YES:	76 percent
Percentage of growers voting NO:	24 percent
Acreage represented by YES vote:	363,094
Acreage represented by NO vote:	53,577
Percentage of acreage represented by YES vote:	87 percent
Percentage of acreage represented by NO vote:	13 percent

UF researchers find lone culprit behind greening

GAINESVILLE, Fla. — University of Florida researchers have shown that the disease that threatens to devastate the world's citrus crop is almost certainly the result of a lone species of bacteria, and not that of a combination of bacterial or viral pathogens as some have feared.

Using three types of next-generation genetic analysis, researchers from UF's Institute of Food and Agricultural Sciences examined inner bark from Florida citrus trees infected with citrus greening.

While the team conclusively found the genetic fingerprint of the bacteria commonly suspected to be behind the disease, Candidatus Liberibacter asiaticus, the analysis showed no other DNA of suspect viral or bacterial pathogens.

The research, published in the December issue of the journal Molecular Plant-Microbe Interactions, is important because the disease has been especially difficult to analyze, said Eric Triplett, chairman of UF's department of microbiology and cell sciences and lead researcher on the study.

Normally, researchers would prove that the bacteria is behind the disease by capturing a sample of the bacteria, growing it in a petri dish, and then inserting it into a healthy tree to see if it causes the disease. However, scientists have not yet found a way to get the bacteria to grow in a petri dish. This means that scientists are having trouble using their normal approaches to researching the pathogen.

This genetic analysis is just one of the innovative ways UF researchers have dealt with the irksome bacteria. For example, researchers have developed complex 3-D computer models of the bacteria in infected tree tissue, while other efforts have focused on stopping the insects that spread the pathogen.

"This research tells us that our work, much of which has been focused on Liberibacter, is dead-on, on-target," said Jacqueline Burns, director of the UF/IFAS Citrus Research and Education Center at Lake Alfred. "And it gives us confidence to move on with research that helps target this pathogen."

Along with potential treatments, the genetic analysis could help lead to new quick and inexpensive testing methods that can be early indicators of disease. Greening slowly weakens and kills all types of citrus trees, while making their fruit malformed and discolored. However, one of the most problematic issues with greening is that infected trees often go years before showing any of these symptoms.

This gives the disease plenty of time to spread without detection. Since there is currently no cure for greening, the only solution is to destroy infected and possibly infected trees.
So far, greening has devastated citrus crops in Asia, Africa, the Arabian Peninsula and Brazil.

In the U.S., it has been sporadically found through Louisiana, Georgia and South Carolina. The biggest presence, however, is in Florida. Since its presence was first confirmed in Florida in 2005, it has been found in 34 counties — making it a major threat to the state's $9.1 billion citrus industry.

UF releases first citrus cultivar; Sugar Belle

GAINESVILLE, Fla. — Sugar Belle — a bold mandarin orange hybrid that ripens in time for the winter holiday market — will be the first University of Florida-created citrus variety intended for commercial production.

The mandarin hybrid — a mix of the sweet Clementine and the colorful, bell-shaped Minneola — has a rich taste and strong aroma, said UF Institute of Food and Agricultural Sciences plant breeder Fred Gmitter.

The new sweet-tart fruit may be best described as a mandarin with a tangy punch.

"Many old-timers in citrus have said this is the best-tasting citrus they've ever had," Gmitter said.

The fruit, which has a patent pending and is also known as LB8-9, has been in the works since 1985.

Mark McLellan, IFAS' dean for research, said he believes the time that went into breeding this variety will be worthwhile.

"Sugar Belle is positioned in a unique market window, and its flavor characteristics are expected to make this variety a consumer favorite," he said. "We're very excited to offer it on behalf of the university."

Recently, Florida Foundation Seed Producers Inc., a direct support organization of UF, awarded an exclusive U.S. license to the New Varieties Development and Management Corporation.

Funded by the Florida Citrus Commission, the not-for-profit corporation was set up in 2005 to help assure Florida growers access to new patented citrus varieties, manage new varieties and direct resources to citrus breeding research.

The corporation was granted the exclusive license for the fruit through the university's Invitation to Negotiate process, designed to benefit everyone from IFAS to citrus growers.

"It's becoming more common for grower-backed organizations to help monitor the markets for growers and ensure that everyone has a chance to be successful," said John Beuttenmuller, the intellectual property and licensing director for Florida Foundation Seed Producers, which led the ITN process.

In that process, a company is selected to deliver new cultivars to the public. In return, the company pays royalties back to the Florida Foundation Seed Producers and the Florida Agricultural Experiment Station, to be reinvested in breeding and development programs.

Sugar Belle is a unique variety, said the corporation's executive director, Peter Chaires. He believes it will make a big splash in the $52 million specialty citrus market.

Chaires describes its flavor almost like one would describe a fine wine.

"It has a flavor that takes it to the top of the show wherever it goes. It's got a very, very deep flavor," he said. "I don't want to say it's rich, but it's a very deep, complex flavor."

Despite strong ties to the citrus industry, UF has never before released a citrus cultivar developed solely by its scientists — likely because citrus breeding is an excruciatingly slow endeavor. The average time for new citrus — from creation to its commercial release — can be up to 20 years.

And in this case, what became the UF's inaugural citrus variety could just as easily have been plowed under.

Gmitter, who arrived at UF's Citrus Research and Education Center in Lake Alfred as an assistant professor in 1985, was a young plant breeder desperate for citrus trees to work with. After locating a small tract of trees left by a retired professor, Gmitter went for a look.

"I went out in early November of my first year … This one tree had beautiful, bright orange fruit. The best citrus I'd ever eaten in my life," Gmitter said. Those trees were used to create his new cultivar.

UF officials hope Sugar Belle will be as lucky when it comes to reaching consumers — which could be as early as this year, in some markets.

The fruit matures early, so it should be a good fit for the December holiday market, Chaires said. It can be grown in a manner to produce low-seeded fruit. And with his organization keeping tabs on how the fruit fares in groves and the economics of the citrus market, he believes the new fruit has the potential to be a big hit.

"Every time we've tested it with different groups, it's been wildly popular," he said.

Fresh Fruit Shipment Procedures Effective October 22, 2009

INTERSTATE SHIPMENTS

The interstate movement of fresh citrus from Florida to domestic markets is currently governed by the Code of Federal Regulation, CFR 301.75 Subpart-Citrus Canker. This subpart establishes a citrus canker quarantine throughout the State of Florida, and outlines requirements for fruit shipped from a quarantine area to other US states and territories.

Shipment Now Permitted to All US States and Territories

Citrus fruit from Florida is now permitted to be shipped to all US states and territories, including AZ, CA, HI, LA, TX and American Samoa, Guam, Northern Mariana Islands, Puerto Rico and Virgin Islands of the United States.

Citrus fruit may be shipped interstate from a quarantine area under a Federal Certificate provided the fruit:

- Is packed in a commercial packinghouse whose owner or operator has entered into a compliance agreement with APHIS
- Is treated according to 7 CFR 301.75-11
- Is free of leaves, twigs and other plant parts, except stems that are less than 1 inch long and are attached to the fruit
- Is accompanied by a Federal Certificate.

The previous requirement that fruit be inspected and found free of citrus canker by APHIS has been eliminated for fruit destined to the interstate market. That requirement remains in effect for fruit destined to some foreign markets. In addition, the requirement that fruit originate in a grove inspected and found free of canker remains in effect for shipments to the European Union. Export shipments, including those to the EU, are addressed later in this document.

Compliance Agreement

Fruit may only be shipped interstate from packinghouses that operate under a signed APHIS Packinghouse Compliance Agreement. All packers will be asked to sign a new compliance agreement modified to reflect the requirements of the new fruit rule.

Harvesting Permit

A fresh fruit Harvesting Permit is not required for interstate movement, but continues to be required for shipments destined to the European Union

See International Shipments and more details at:

http://www.doacs.state.fl.us/pi/chrp/documents/Fresh%20Fruit%20Shipment%20Procedures%2010-22-09%20Ver%202%200.pdf

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Citrus Health Response Program

Shipping Home Grown Citrus Fruit from Florida
2009 – 2010 Season

The US Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) has quarantined the entire State of Florida for citrus canker, a serious bacterial disease not found in any other citrus-producing areas of the United States or its territories. Scientific studies have now shown that citrus fruit commercially disinfected, processed and packed poses minimal risk of spreading citrus canker. USDA regulations (7 CFR 301.75) therefore allow citrus fruit to be shipped out of the citrus canker quarantine area to all states if packed by a licensed commercial packinghouse operating under a USDA compliance agreement, regardless of whether the fruit was produced in a commercial grove or homeowner yard. During the commercial packing process, fruit is removed of plant debris, washed, disinfected, graded and packed into shipping containers marked with a USDA-APHIS-PPQ-CHRP Certificate. Citrus trees, leaves and other citrus plant parts continue to pose a high risk of spreading citrus canker, and therefore cannot be moved to other States.

The following packinghouses have indicated they will pack home grown citrus fruit. This list is subject to change. Packinghouses are under no obligation to provide this service, and the USDA offers no guarantee of customer satisfaction. Listed packinghouses merely meet the minimum USDA requirements necessary to provide this service. Please contact the Citrus Health Response Program hotline at 1-800-282-5153 for future changes.

Packinghouses Accepting Home Grown Fruit

A.W. Crisafulli Groves
5515 N Courtenay Pkwy
Merritt Island FL 32953-7223
321-452-8110, 800-683-6700
Details: Minimum of 1/2 bushel (4 gallons)

May Groves
1885 US Hwy 1 North
Titusville, FL 32796
Phone: 321-745-8575, Contact: Barry Gainer

Neukom Groves, Inc.
5409 Gall Blvd, Zephyrhills, FL 33542-3929
813-782-5596, fax 813-788-2048

Poinsettia Groves
1481 U.S. Hwy 1, Vero Beach FL 32960
772-562 -3356, Contact: Jeb Hudson

The Mail Center
3206 S Hopkins Ave, Titusville FL 32780
321-268-2255

The Orange Shop
PO Box 125, Citra, FL 32113-0125
800-672-6439, email:
info@floridaorangeshop.com

Hendry County Extension Office
Post Office Box 68
LaBelle, FL 33975-0068
Tel. (863) 674-4092
Cell: (239) 595-5494

Information for the next Certified Pile Burners Course:

The Florida Division of Forestry and University of Florida Cooperative Extension Service will be conducting a Certified Pile Burners Course on Wednesday **7 April 2010**. This course will show you how to burn piles ***legally, safely and efficiently***. Most importantly, it could save a life. If you burn piles regularly, don't put off registering for this training. When the weather is dry, certified pile burners will receive priority for authorization to burn. Also, certified pile burners are allowed to burn up to two hours longer per day and get multiple day authorizations. Don't wait. The number of trainings offered and attendance at each training is LIMITED. This training will be held from 8:30 am till 4:30 pm at the South West Florida Research and Education Center located in Immokalee, Florida. Included are a registration form and program agenda. See **http://www.imok.ufl.edu/map.htm** for directions to facility.

Registration is required to attend and class size is limited. To attend please send the following information (see form on next page):

1. Your full name (as wanted on your pile burning certificate).
2. Your mailing address (where you want the certificate mailed).
3. Your Division of Forestry Customer Number (It is the number that you are required to give the DOF when you call in for your burn permits. If you do not know it please call the local DOF office and ask them for it).
4. Your email address (if you have one) and/or contact phone number.
5. A check for **$50.00** made out to **Hendry County 4-H.**

The first fifty individuals to provide these five requirements will be registered; there will be a 7-day non refundable fee limit. If you do not make the training and did not contact our office at least one week before the class, you will not receive a refund. There will be a test at the end of the session. You must receive a grade of 70% or higher on the exam and demonstrate a proper pile burn with your local DOF office to become certified. Once you are certified it will be noted with your customer number, thus it is important for us to have the proper number. If you do not have a customer number the DOF office will set one up for you. Fill out the registration form on the next page and return as directed.

Sincerely,

Dr. Mongi Zekri
Multi County Citrus Agent
Phone: 863 674 4092
Fax: 863 674 4636
maz@ifas.ufl.edu

Registration Form

Florida's Certified Pile Burner Program

April 7th, 2010

c/o Dr. Mongi Zekri

UF-IFAS Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975-0068

Please send this form and a check for $50.00, payable to Hendry County 4-H to:

Dr. Mongi Zekri
University of Florida, IFAS
Hendry County Extension Office
P.O. Box 68
LaBelle, FL 33975-0068

Name

Mailing address

Email address

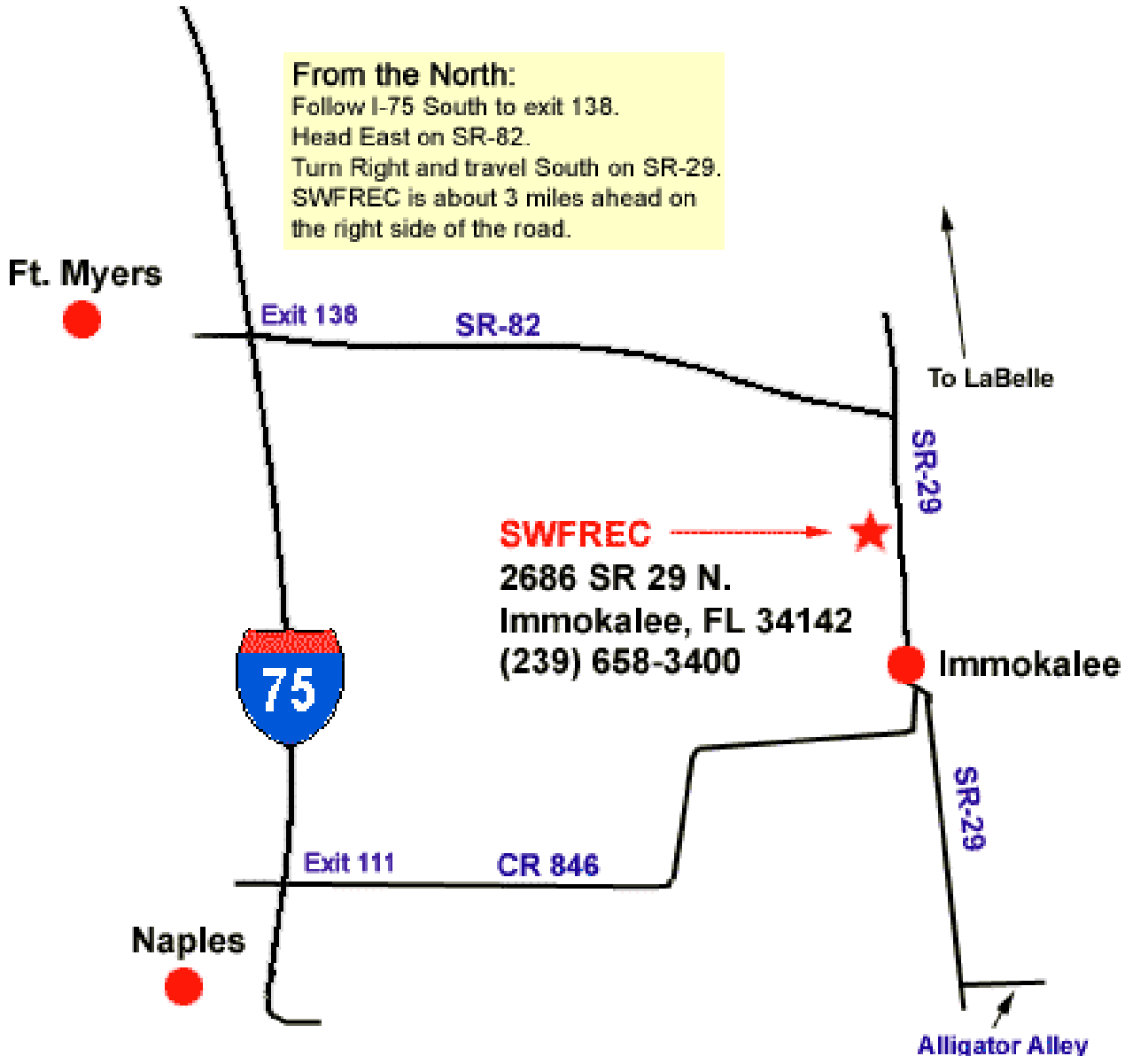
Phone Number

DOF Customer Number

Florida's Certified Pile Burner Training
April 7th, 2009
UF-IFAS Southwest Florida Research and Education Center
2686 SR 29, Immokalee, FL 34142
See: http://swfrec.ifas.ufl.edu/map.htm for directions

1. Opening Comments and Introduction	08:30 – 09:10
2. Fire Weather	09:10 – 09:50
3. BREAK	09:50 – 10:00
4. Smoke Management	10:00 – 11:20
5. Planning and Implementation	11:20 – 12:15
6. LUNCH (provided)	12:15 – 01:15
7. Open Burning Regulations	01:15 – 02:30
8. Safety	02:30 – 03:10
9. BREAK	03:10 – 03:20
10. Public Relations	03:20 – 04:00
11. Wrap Up & Test	04:00 – 04:30

Please bring a Pencil for the Exam!



From Naples:
From I-75, take exit 111 (CR 846) East.
Turn left onto SR-29 and travel through Immokalee, staying on SR-29.
SWFREC is about 2 mile North of Immokalee on the left.

From the East:
Head West on I-75 (Alligator Alley).
Exit on SR-29 (Exit 80) and head North.
Pass through Immokalee, staying on SR-29.
SWFREC is about 2 miles North of Immokalee on the left.

Florida's Certified Pile Burner Training
Frequently Asked Questions

Q: Why should I be a certified pile burner?

A: Certified pile burners are trained to burn piles ***legally, safely and efficiently***. Most importantly, it could save a life. Also, when the weather is dry, certified pile burners will receive priority for authorization to burn by the Florida Division of Forestry (DOF). Also, certified pile burners are allowed to burn up to two hours longer per day and get multiple day authorizations.

Q: What is a Pile Burner Customer Number?

A: When you call the DOF for an authorization to burn, you will be assigned a personal customer number. This number references your information so it doesn't need to be gathered each time you call for an authorization. You must have your individual DOF customer number in order to be certified.

Q: Is there a test?

A: Yes, the test is 20 questions and open-book. You must receive a score of at least 70% to pass.

Q: What if I don't pass?

A: Very few people fail the test but if you do, you will be provided another opportunity to take the test at a later date. If you fail the second time, you must re-register and take the training again.

Q: Why do you ask for my email on the application form?

A: Email is the fastest and most convenient method to inform registrants of their registration status. If no email address is provided then all correspondence will be sent through the federal mail. This can take several days to relay messages and this may not be practical if changes are made to the course schedule or for last minute registrations.

Q: How much does it cost to register for the training?

A: Registration for the training is $50 per person and includes lunch, training materials and testing.

Q: How long does my certification last?

A: As long as the person with the certification uses their number at least 5 times in a period of 5 years their certification will not expire under the current program.

Q: Will certified burners be notified if their certification expires?

A: Yes, notification will be sent out to them to let them know of their upcoming certification expiration date.

Q: Will I be certified at the end of the one day training?

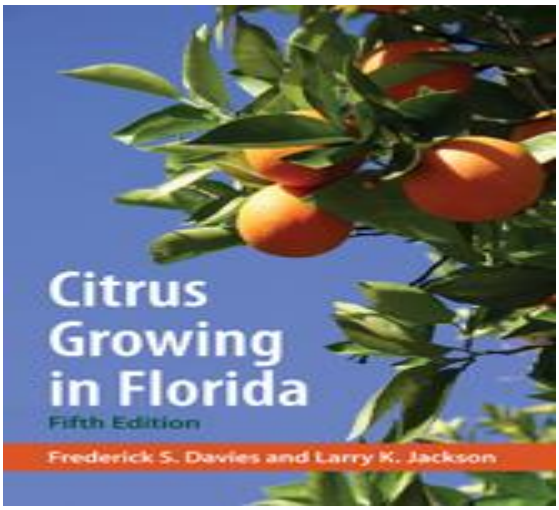
A: No, you will need to follow the written instructions that you will receive from the Division to become certified. You will need to complete a simple burn plan, have it reviewed and approved locally by the DOF and also have the burn itself reviewed and approved by the DOF. From that point, the local DOF office will send the expected documentation to Tallahassee to recommend certification for you.

Q: Is there a minimum age to be a certified pile burner?

A: Yes, you must be at least 18 years old to take the test and be a certified pile burner.

Citrus Growing in Florida

By F S Davies and L K Jackson



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This concise, comprehensive guide combines the practical aspects of day-to-day citrus production with its underlying horticultural principles in a clear, easy-to-read style. Citrus Growing in Florida makes citrus cultivation accessible to commercial growers, students, and home gardeners. The book covers planting, production, grove management, fertilization, spraying, and harvesting. For students of horticulture, it discusses the history of the crop, its varieties, propagation, and areas of production. For the homeowner, it provides practical advice on growing everything from tart lemons and tangy limes to the sweet oranges and thick juicy grapefruit that define the flavor of Florida. Changes in the Florida citrus industry since publication of the forth edition in 1999 make this revised work indispensable. **Expanded and updated**, this edition addresses new regulations, invasions from exotic insects and diseases, and increasing foreign competition. The appendix provides detailed information on citrus costs of production in various areas of the state. New chapters deal with global production, methods of marketing and selling fruit, and the importance of fruit quality for success in local and worldwide markets. **Price: $30.00**
Frederick S. Davies is professor of horticulture at the University of Florida. Larry K. Jackson is professor emeritus of horticultural sciences at the University of Florida.

To order the book: contact:

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December 16, 2009

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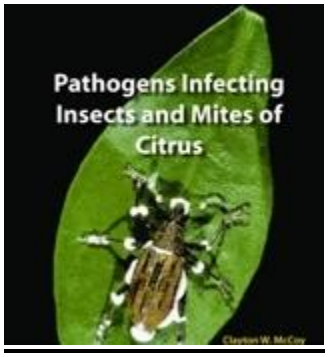

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Welcome to Insectpathogens.com

Insectpathogens or "entomopathogens' are viruses, bacteria, rickettsia, fungi, protozoans and nematodes that are capable of inflicting disease on insects. Many entomopathogens can be isolated from their host, offering scientists the opportunity to study the mechanisms that promote disease. Ecologically speaking, these entomopathogens function as biotic factors along with parasites and predators in the natural regulation (control) of injurious pests of humans and their crops. Populations of virtually all citrus insects and mites experience disease in the citrus ecosystem. A number of citrus insects and mites experience disease in the citrus ecosystem, sometimes as epizootic diseases that result in mass host mortality; other times, as subtle microbes, working as a member of the team in the constant suppression of a phytophagous host.

"Pathogens Infecting Insects and Mites of Citrus" is a pictorial guide to the entomopathogens of phytophagous insects and mites found on all plant parts of a citrus tree whether they are grown as a vast monoculture using contemporary high technological methods or as a few scattered trees grown on a hill side or in a homeowners backyard. It includes illustrations of healthy citrus insects and mites and their feeding injury. Although emphasis is on Florida, citrus growers and other interested people will find the images helpful in identifying arthropods and their diseases.

The purpose of this book is to present a comprehensive overview of the pathogens that cause disease of the various citrus arthropods, emphasizing: 1) visual recognition of a diseased host based on gross pathology, 2) identification via diagnostic characters of the pathogen, 3) visual recognition of healthy citrus pests and alternative ornamental hosts, and 4) direct injury to the plant and 4) direct injury to the plant.

For more information:

Friends of Microbes, LLC.
2841 Prince John Rd.
Winter Park, FL 32792

Tel: 321-206-6449
lkmccoy@cfl.rr.com

http://insectpathogens.com/index.html

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Pathogens Infecting Insects & Mites of Citrus

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LOW VOLUME SPRAYER CONTRACTORS
for Florida Citrus Growers

Updated December 16, 2009

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A-DAB, LLC (Wauchula)
Contact: David Terrell
863-781-0536

Beck Brothers Citrus, Inc. (Windermere)
Contact: Glenn Beck
407-760-7270

Benny Albritton Grove Service (Wauchula)
Contact: David Mackey
863-773-6280

Blue Goose Growers (Ft. Pierce)
Contact: Walt Spaulding
772-216-9988

Carter Grove Care, Inc. (Lake Wales)
Contact: Matthew Carter
863-528-3213

Citrus Solutions, LLC (Zolfo Springs)
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863-990-0071

CGC Agri-Management, Inc. (Zolfo Springs)
Contact: Clay Chancey
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863-445-4400 (cell)

Conley Grove Service (Wauchula)
Contact: Roger Conley
863-773-6619 (office)
863-445-5505 (cell)

Florida Grove Foggers (Lake Placid)
Contact: Frank Youngman
863-699-9850

Krause Grove Service (Wauchula)
Contact: Darren Hughes
863-735-1286

Lennon Grove Service (Orlando)
Contact: Bill Lennon
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407-719-5496 (cell)

Standard Citrus Scouting (Dundee)
Contact: Todd Holtsberry
407-729-9068

Updike Citrus (Alturaus)
Contact: Clint Updike
863-559-8970

For more information about low volume spraying, please contact your local multi-county extension agent, http://citrusagents.ifas.ufl.edu or visit www.crec.ifas.ufl.edu

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