Citruslines

The Mission of UF/IFAS is to develop knowledge in agricultural, human and natural resources and to make that knowledge accessible to sustain and enhance the quality of human life.

Fall 2008

October, November, and December

UF UNIVERSITY of FLORIDA
IFAS Extension
Lake County Extension

Upcoming Events
http://cfextension.ifas.ufl.edu/calendar.shtml

Field Day	**S. Florida**	**Oct. 10th**
Farm Safety Day	**Tavares**	**Oct. 31st**
CEU Day	**Orlando**	**Nov. 6th**
Field Day	**Ft. Pierce**	**Nov. 14th**
International HLB Conference	**Orlando**	**Dec. 1-5th**
Pesticide Review and License	**Tavares**	**Dec. 9th**
OJ Meeting	**Tavares**	**Dec. 16th**

Dear growers,

It has been three years since HLB was detected in Florida. So far, we in the northern area of citrus production have been blessed with low infection rates. However, the disease is becoming more prevalent in our area and surveying and removal of symptomatic trees should be a priority during the fall/winter months when the symptoms are most easily detected. Our infection rates are low and we hopefully have an opportunity to keep them that way by utilizing proper production practices of vector control, scouting, and removal of diseased trees.

S. Africa Trip Report

I had the opportunity to lead a Florida citrus industry group to South Africa this past month on a tour the South African citrus industry. My contacts in South Africa were Drs. Hennie le Roux and Graham Barry. They were wonderful hosts giving of their time and energy to expose us to as much of the South African citrus industry as possible within our time constraints. Of particular interest were two topics; how they dealt with their greening disease problem and their irrigation system often referred to as open hydroponic system (OHS).

Pictured above: Ben McLean, Kelly Morgan, Skip Miller, Steve Futch, Lee Jones, and Larry Parsons take notes as Hennie le Roux explains the challenges of producing citrus in South Africa.

South African Greening Disease

It is first important to understand that what they call greening disease and what we call greening disease is different. Here in Florida we have the Asian strain of HLB, in South Africa they have the African strain of HLB. The South Africans are the first to admit that their strain of the bacteria that causes "greening" is much milder (causes a much slower decline) than the Asian strain found in Florida. In fact, by the end of the trip we were referring to their disease as greening (they were the first to coin the term) and our disease as HLB, hence forth I will refer to their disease as African greening and ours as HLB. South Africa has had African greening since the 1930's. The vector for African greening is the African citrus psyllid not the Asian citrus psyllid as is common in Florida. Both the African citrus psyllid and African greening are temperature sensitive

Pictured above: A "typical" African greening infected tree showing yellow veining.

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and do not survive in warm climates (all stages of psyllids killed above 90 degrees F). So it is the cooler areas of South Africa where the disease and vector occur.

The South African citrus industry is geographically separated by large distances across the country. To travel from one growing area to another may take several hours, over distinct geographic separations such as mountain passes. These remote separated areas are obviously very different from Florida. In Florida one can find citrus contiguously up and down the state. African greening is the number one problem in a few areas of South Africa. In the past African greening has taken out complete growing regions that have never been replanted. However, the general consensus among South African is that currently African greening is manageable.

There were three periods of historic significance; the first in the 1930's in the northwestern province, the second around 1960's, and the third encompasses more current production. During the 1960's 38% of all South African citrus trees were infected with African greening, this was largely due to infected nursery stock. Some growers experimented with antibiotics during this time period but found it only suppressed the disease not killed the bacteria. Today, during the 3rd period growers are "living with South African greening". The keys to their African greening production practices are very similar to IFAS recommendations for HLB.

Pictured above: A trunk pesticide applicator used in South Africa for African citrus psyllid control. Trunk application during a drought are not done as they will stress or girdle tress.

They first started by removing diseased groves entirely. They also moved to nurseries with screens that produce "certified" and clean nursery stock. Another key for South African growers was learning to properly control the vector. They use systemic insecticides applied to the trunk of trees that give control for up to 52 days in young trees. Some of these pesticides have been banned in the U.S. and we are not able to use them. They also use Imidacloprid drenches which give them up to 110 days control of African citrus psyllids. They attributed vector control as the number one reason as to why African greening is not as big of an

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issue as it once was. That being said, we had a difficult time finding damaged leaves caused by the psyllid feeding and we did not see one psyllid during the ten day trip. The vector population is extremely low compared with Asian citrus psyllid in Florida. Also, climatic conditions are such that they have a more regular flushing pattern than in Florida, allowing for easier timing of applications for vector control.

Once a tree is infected with African greening growers tend to prune out infected limbs (this practice is not recommended by their scientists and extension personnel). The South African growers do this to try and keep productivity of the citrus trees as long as possible. We were told that trees showing visible African greening symptoms can remain productive for up to ten years. This differs with what is being observed in Brazil with HLB, usually trees become unproductive within three years. In South Africa if trees start to show more visible greening symptoms after the first year of pruning, then the entire tree is removed. Once the grove is deemed unproductive (economic decision) the grove is pushed out and replanted entirely.

High Densities and OHS

Most South African growers are replanting at higher densities and many are utilizing drip irrigation systems. Water is a very limited resource and drip irrigation has become a standard practice as it conserves water resources by forty percent. Many of the soils located in the Northeast part of the country, which is the area where African greening is mostly located, are composed of 15-20% clay. At these levels, the water holding capacity of the soils is increased. However, in the Citrusdale growing area (Southwest S. Africa) we observed drip irrigation systems on sandy soils with as little as 2% clay, typically our ridge soils have less than 1% clay. Freezes are not a concern in South Africa, so they have no issue of losing cold protection capabilities.

Pictured left is a grove that was planted in an old river bottom. The grower had to dig a hole and bring soil in from a different location to fill the hole. Trees are then managed using pulse fertigation. We observed 4 year old healthy trees with a crop at this same location.

Also notice the use of Australian pine for windbreaks in the background. Wind scarring was this growers biggest problem.

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Pulse fertigation is the application of water and fertilizer thru a drip system multiple times a day (number of times a day depends on environmental conditions and time of year). OHS (open hydroponic system) is a coined term for a pulse fertigation system. Some of the South African growers reported converting to pulse fertigation improved their production by 25%, even in sandy soils. Converting irrigation systems is expensive but growers reported return on investment as soon as eighteen months. Also, South African growers stated that the poorer the site for citrus production the more effective the OHS system operated. It was stated that it was a tool "to overcome poor soils". The OHS system did have some naysayers as well, a few growers felt that micro sprinklers did a better job and were preferred. It struck me that growers who did a very good job managing their irrigation systems and fertilization practices were the most satisfied with their move to a intensive pulse fertigation system. Even though the OHS systems are all operated by computers and required little in terms of operation labor, they do require daily attention, to adjust the irrigation scheduling of pulses to the demand of the trees. IFAS researchers are currently evaluating these techniques around the state and we should have a good idea in the next few years if a type of advanced fertigation system using drip irrigation will benefit Florida citrus production. If you are interested in learning more about this sys-

Pictured above a drip emitter used for pulse fertigation. As you can see the root systems are very responsive to this technique in South Africa.

Pictured above is a Nadorcott (we call the variety W. Murcott) grove that utilizes the OHS irrigation and high density planting.

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tem in Florida conditions please see the information on our Field Day scheduled for November 14th.

Higher density plantings at spacing of 18' x 6' are common. Growers moved to higher densities plantings to maximize yield at an earlier age and as a response to African greening. The idea is to maximize fruit production after planting between years three thru seven, decreasing the time it takes to get a return on investment. A crop loss during this time period would make higher density planting less attractive. Thus economic analysis for an individuals particular situation (cost of trees, income on variety grown, production costs) is important to make sure that higher densities are worth pursuing.

South African citrus and opportunities

The use of pulse fertigation coupled with the earlier production due to the higher density plantings are some of the practices that have led to the growth of the South African citrus industry. Currently the South African citrus industry is the twelve largest in the world. They are the second largest exporter with 65% of their fruit going to Europe and the Middle East. They have approximately 150,000 acres of citrus planted, 1400 citrus growers, 75 packing houses, and 100 exporters (although 10 large exporters). Fresh fruit production is S. Africa's citrus industry. In Florida we are and have historically been an orange juice industry. However, I believe that in Central Florida there exist the opportunity to increase our zipper skin (tangerine) fresh fruit plantings. It is a sentiment that John Jackson also had while in my position. In my opinion the potential to share information between S. Africa and Florida citrus industries is tremendous. The fact that they produce fruit during the opposite times of the year (southern Hemisphere) to Florida means that we do not compete against one another in the market place and can in fact compliment each other. If we successfully grow and market the same varieties then the marketing window to consumers can be year around.

Pictured above is a Nadorcott (W. Murcott) which is the most profitable fruit in South Africa currently.

The one thing that resonates from the trip was that the S. African citrus industry when facing a major threat changed their production practice in response to that threat. Of course that is what we in Florida citrus industry are currently challenged to accomplish. In areas were HLB infection rates are low (such as Central Florida) we must be proactive in first controlling the vector to the best of our abilities, scouting and removing infected trees, and make sure we reset or replant with certified nursery stock. Will these be enough to overcome HLB

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in Florida? No one knows that answer for sure, but we are learning, as an example we have a much better understanding of Asian citrus psyllid control techniques from just two years ago. In Florida there is on going research in many arenas that will pay dividends in knowledge over the next few years. Some may ask, how will we be able to afford our new production practices? We must also become more productive, it maybe that advanced fertigation and higher density plantings may play a role.

This article was just a general overview of this trip. Other accomplishments of this trip include new relationships being made, knowledge being shared between the South African and Florida participants, and new research ideas being formed. As much as I learned from spending time with the South African growers, I also learned from the time spent with Florida growers, extension personnel, and researchers. I would highly encourage you to participate in traveling to meet other growers in different parts of the country or world if presented with the opportunity. I believe that these opportunities pay dividends in new ideas for Florida citrus production.

Pictured above: Ben McLean observes a demonstration of how girdling is conducted on a five year old tree. Girdling is a tool that some South African growers are utilizing to help set fruit at younger ages.

How can Ryan travel when IFAS is under a budget crisis? This trip was made possible by grower donations to my University of Florida Foundation SHARE account. If you think that this experience and the information provided from these types of experiences are beneficial and would like lend your support. I encourage you to donate to my SHARE account, checks can be made out to the UF Foundation Inc., with a reference to the Central Florida Citrus Extension Program and mailed to:

Office of Development-SHARE
P. O. Box 110170
Gainesville, FL 32611.

I appreciate your support and am striving to be the best extension agent I possibly can be!

S. Florida field day Fri. Oct. 10th McKinnon Corp & Smoak Groves Visit

As requested by the Central Florida Citrus Advisory Committee on October 22nd we will be traveling to South Florida to take a second look at two groves with greening that we have been monitoring over the past two years. The first stop will be in Felda to look at McKinnon Corp.'s grove. McKinnon Corp.'s grove has been infected with greening for the past two years. The decision was made not to remove infected trees due to high infection rates. Instead a foliar nutrition program as been utilized with the hopes of maintaining tree health and productivity. The second stop will be in Lake Placid to look at Smoak family's grove. This grove has also had greening for the past two years. They have been actively surveying and removing greening infected trees. Both groves have been aggressively managing psyllid population levels.

7AM	Leave extension office in Tavares
10:30AM	Meet at McKinnon Corp Grove
12:30PM	Lunch at Hendry Co. extension office
2:30PM	Meet at Smoak's grove
4:00PM	Leave for home
6:15PM	Back at Lake Co. extension office

I am planning on driving the county van and can accommodate 9 passengers. If you plan on attending (please let us know for food planning purposes) or would like a ride please call Maggie Jarrell at 352-343-4101 to reserve a spot. There is a $15.00 cost per person, payable to Lake County Citrus Extension Program.

Farm Safety Day Fri. Oct 31st Lake County Extension Office

We will be holding our annual Farm Safety Day on Friday October 31st at the Lake County Extension office. Attendees will receive a certificate of completion. The cost of attending is $15 per person. Please register with Maggie Jarrell at 352-343-4101 or email at mjarrell@ufl.edu. Please send checks payable to Lake County Citrus Extension Program.

8:15-8:30 Sign In

8:35-9:20	Tractor and Equipment Safety -Martha Thomas
9:20-10:10	Pesticide Safety and Activity -Ryan Atwood
10:10-10:25	Break
10:25-11:05	Equipment Calibration -Dr. Richard Tyson
11:05-11:35	Farm Safety Jeopardy
11:35-12:00	Heat Stress and Skin Cancer Awareness –Julie England

CEU Day Thursday Nov. 6th Orange County Extension Office

If you have a pesticide license and are in need of some CEU's for renewal. I highly recommend our CEU day where you can obtain them all at once. We hold two CEU days a year and rotate between four counties, the next CEU Day will be held at Orange Co. Extension office. Registration forms can be downloaded from our website at http://cfextension.ifas.ufl.edu/documents/CEUDAY-NOV2008.pdf. You can also register by phone by calling the Orange Co. extension at 407-254-9200.

Field Day Fri. Nov. 14th Arapaho Citrus & USDA Horticultural Research Laboratory

On November 14th we will be traveling to St. Lucie County to see Arapaho Citrus's Advanced fertigation grove. The grove utilizes pulse fertigation thru a drip system to grow trees and produce fruit more quickly than traditional systems. Also the grove was planted at higher densities (using different scion and rootstock combinations) to come into full production sooner. This grove is experimental in nature but may prove to be a model for future citrus production. While in the Fort Pierce area Dr. Calvin Arnold will lead us on a tour of the USDA Horticultural Research Laboratory. We will have the opportunity to get an update on the USDA's HLB's research efforts and get a close up look at the research facility.

7:30 AM	Leave extension office in Tavares
10:15AM	Meet at Arapaho Citrus
12:00PM	Lunch at St. Lucie Co. extension
1:00PM	Tour of USDA Research Lab.
3:00PM	Leave for home
5:30	Back at Lake Co. extension office

I am planning on driving the county van and can accommodate 9 passengers. If you plan on attending or would like a ride please call Maggie Jarrell at 352-343-4101 to let us know (for food ordering purposes) or reserve a spot on the van. There is a $10 cost per person, payable to the Lake County Citrus Extension Program.

International HLB Conference Orlando Dec. 1-5th

http://www.doacs.state.fl.us/pi/hlb_conference/overview.html

From the website:

The mission of this conference is to assemble the greatest number possible from the international research community, plus regulatory agency representatives, and commercial industry leaders with specific expertise on HLB for the express purpose to exchange the latest information, knowledge, ideas and concepts relative to HLB. We also want to provide a venue for increased international collaboration as well to deal with a disease that does not respect the political or physical boundaries of states or countries. Invited scientists and participants will be asked to reach beyond current information, thinking, scientific disciplines, and dogma in an attempt to broaden our global knowledge, provide new researchable goals and horizons and foster progress toward new and innovative solutions to HLB.

The theme of this International Research Conference on Huanglongbing is ***Reaching Beyond Boundaries***, indicating our determination and need to reach beyond political, scientific and national boundaries in an attempt to find commercially feasible solutions to this devastating disease.

If you are interested in registering for this conference you can do so on the website or by contacting Ms. Penny McCurry, mccurrp@doacs.state.fl.us.

Pesticide Applicator Review and Exam Lake County Extension Dec. 9th

A pesticide license is required by any persons who apply or supervise the application of restricted use pesticides for agricultural production. This certification requires a passing grade of 70% on the General Standards and Private exam. This certification must be renewed ever 4 years either by testing or by 8 CEU's.

There will be a review and exam in Tavares on December 9th. The review starts at 8:30 AM. There is a $20 charge for the class.

It is advisable to purchase the "Applying pesticides correctly" and "The private applicator training manual" from the IFAS bookstore online at www.ifasbooks.ufl.edu or by calling 800-226-1764.

The private agricultural license itself costs $60 which does not have to be paid until after you pass the exam. To register please call or email Maggie Jarrell at 352-343-4101 or mjarrell@ufl.edu.

OJ Meeting Dec. 16th 5-7PM Lake Co. Extension Office

Please plan on joining us in Tavares at the Agricultural Center on December 16th from 5 PM to 7 PM. The program will focus the upcoming winter season and cold protection. A free dinner will be provided. Please call Maggie by December 12th to register at 352-343-4101. It is important that you let us know if you are going to attend so that we know how much food to order! Its never too early to call.

5:00-5:45	Dinner
5:45-6:25	Cold Protection, FAWN, Weather Watch —Ryan Atwood
6:25-6:55	Winter Weather Prediction based On ENSO —Dr. Clyde Fraisse

A cooperative effort of Central Florida citrus growers for aerial application of a dormant spray for psyllid control

The Central Florida Citrus Advisory Committee asked me to look into the possibilities of coordinating an area wide psyllid control program. Researchers have shown that the most important pesticide application to reduce psyllid population levels is the dormant spray (Feb.). Researchers have also shown the benefit of area wide applications for reducing psyllid population levels. One of the limiting factors for aerial application of pesticides is that large acreages are required to make it cost effective. By unifying our efforts we can potentially attract aerial applicators at a reasonable price to apply area wide dormant sprays in Central Florida (some locations maybe to close to homes to participate). I have contacted a number of aerial applicators for pricing. However, first I must know the amount of acreage and location in order to get accurate estimate. The are also a number of other factors to consider such as location of groves to local airstrips. I order to proceed further with this effort I need to know who would be interested in participating. If you are interested please contact me via email or office phone with your name, phone number, email address and grove(s) location (street and city and/or TRS).

Citrus Health Response Program
2008 DPI Grower Services

Survey Inspections

Supplemental Survey: Grower-requested pest and disease scouting provided once a season on a first-come, first-served basis (may be available more frequently when time and resources permit as determined by the local DPI/CHRP field office supervisor).

Fresh Fruit Survey: Inspection of grove blocks and immediate vicinity as necessary to meet current requirements for shipment of fresh fruit into the European Union.

Nursery Environs Survey: Annual survey, as required, for citrus pests and diseases in support of CHRP guidelines.

Training Services

Disease Recognition: citrus canker, huanglongbing, citrus variegated chlorosis and citrus leprosies

Self-Survey: Provide training and documentation methods to growers so they may complete systematic grower surveys.

Decontamination Training: Provide information on proper mixtures and application of decontaminants. Train and certify grower trainers.

Train the Trainer: Work one-on-one with grower-designated trainers to customize and improve a grower's program.

Grower Outreach Program

Local DPI/CHRP office supervisors will increase visits with regional grower associations and promote increased field office communication with growers.

Provide assistance in developing business plans.

To request information on these services call 1-800-282-5153

www.doacs.state.fl.us/pi

Fresh Florida. Protection through Detection

Division of PLANT INDUSTRY

Florida Department of Agriculture & Consumer Services

Charles H. Bronson, Commissioner

List of insecticides and miticides recommended for use in the Florida Citrus Pest Management Guide and their effects on citrus pests and their natural enemies

Pesticide active ingredient	Target pest								Effects on natural enemies
	Mode of Action[1]	Psyllid	Leafminer	Rust Mites	Spider Mites	Root Weevil Adults	Scale Insects	Mealybugs	
Abamectin + oil	6	++	+++,R	+++,R	+	+ (oil)	+(oil)	+ (oil)	medium
Acetamiprid	4	-	+++,R	-	-	?	+	++	medium
Aldicarb	1A	+++,R	-	+++,R	+++	-	-	-	low
Carbaryl	1A	+++,R	-	+	?	+++,R	+++,R	+	high
Chlorpyrifos	1B	+++,R	+	+	-	+	+++,R	+++,R	high
Diflubenzuron	15	++	+++,R	+++,R	-	+++,R	-	-	low
Dimethoate	1B	+++	-	-	-	?	+++,R	+	high
Fenbutatin oxide	12	-	-	+++,R	+++,R	-	-	-	low
Fenpropathrin	3	+++,R	-	+	+	+++,R	-	+	high
Imidacloprid (soil application, nonbearing)	4	+++,R	+++,R	-	-	+	++	+	low
Imidacloprid (foliar application)	4	+++,R	+	-	-	-	++	+	medium
Petroleum oil	NR	+	++,R	++,R	++	+(eggs)	++,R	+	low
Phosmet	1B	+++	-	+	?	+++,R	?	?	medium/high
Pyridaben	21	-	?	+++,R	+++,R	-	-	-	high
Spinosad	5	-	+++,R	-	-	-	-	-	low
Spinetoram	5	+++	+++,R	-	?	?	?	?	low
Spirodiclofen	23	-	-	+++,R	+++,R	?	-	-	low
Sulfur	NR	-	-	+++,R	+++	-	?	?	high (short term)

[1]Mode of action class for citrus pesticides from the Insecticide Resistance Action Committee; NR = no resistance potential

(R) = product recommended for control of pest in Florida Citrus Pest Management Guide

(+++) = good control of pest

(++) = short-term control of pest

(+) = low levels of pest suppression

(-) = no observed control of pest

(?) = insufficient data available

UF UNIVERSITY of FLORIDA IFAS Extension

For more information, contact the University of Florida, IFAS, Citrus Research and Education Center 863-956-1151, www.crec.ifas.ufl.edu, or your local county citrus extension agent.

Created by: Michael E. Rogers, revised August 2008

Photo Credit: University of Florida

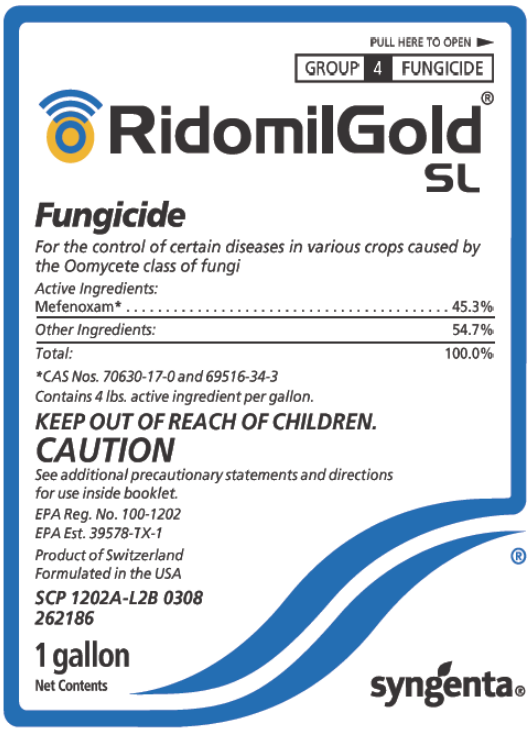
Imidacloprid soil drench rates for solid plantings on nonbearing citrus

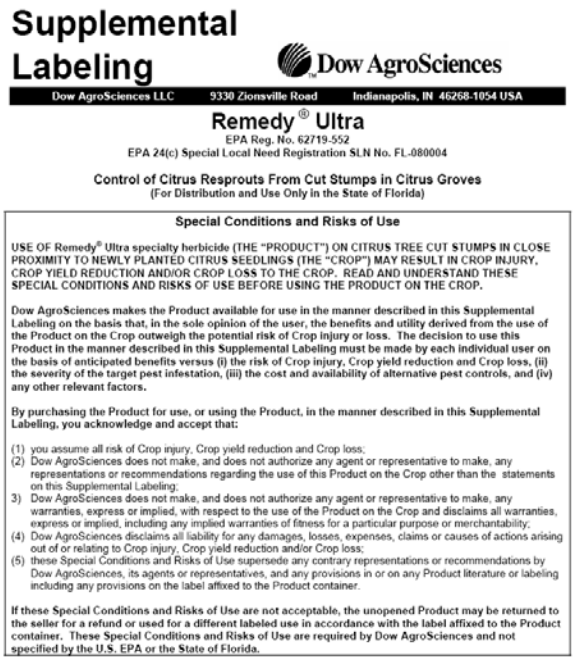
Tree Height	Rate Product/A*	Applications per season	Ounces per tree	Trees per ounce
Imidacloprid 2F				
2 ft – 4 ft	8 fl oz	4	0.057 fl oz	17.5 trees
4 ft – 6 ft	16 fl oz	2	0.114 fl oz	8.77 trees
Imidacloprid 4.6F (Admire PRO)				
2 ft – 4 ft	3.5 fl oz	4	0.025 fl oz	40 trees
4 ft – 6 ft	7 fl oz	2	0.05 fl oz	20 trees
**Rates based on 140 trees per acre*				

Restricted Entry Interval (REI) and Pre-Harvest Interval (PHI) for products listed on front page

Active Ingredient	Restricted entry interval (REI)	Pre-harvest interval (PHI)
Abamectin	12 hours	7 days
Acetamiprid	12 hours	7 days
Aldicarb	48 hours	0; 30 days lemons
Carbaryl	12 hours	5 days
Chlorpyrifos	5 days	21 days
Diflubenzuron	12 hours	21 days
Dimethoate	48 hours	15 days
Fenbutatin oxide	48 hours	7 days
Fenpropathrin	24 hours	1 day
Imidacloprid	12 hours	0
Phosmet	24 hours	7 days
Pyridaben	12 hours	7 days
Spinosad	4 hours	1 day
Spinetoram	4 hours	1 day
Spirodiclofen	12 hours	7 days
Sulfur	12 hours	0
Use pesticides safely. Read and follow directions on the manufacturer's label.		

Additional citrus pest management information can be found in the Florida Citrus Pest Management Guide available online at http://www.crec.ifas.ufl.edu/extension/pest/index.htm





Supplemental Labeling

Dow AgroSciences

Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1054 USA

Remedy® Ultra

EPA Reg. No. 62719-552

EPA 24(c) Special Local Need Registration SLN No. FL-080004

Control of Citrus Resprouts From Cut Stumps in Citrus Groves

(For Distribution and Use Only in the State of Florida)

Special Conditions and Risks of Use

USE OF Remedy® Ultra specialty herbicide (THE "PRODUCT") ON CITRUS TREE CUT STUMPS IN CLOSE PROXIMITY TO NEWLY PLANTED CITRUS SEEDLINGS (THE "CROP") MAY RESULT IN CROP INJURY, CROP YIELD REDUCTION AND/OR CROP LOSS TO THE CROP. READ AND UNDERSTAND THESE SPECIAL CONDITIONS AND RISKS OF USE BEFORE USING THE PRODUCT ON THE CROP.

Dow AgroSciences makes the Product available for use in the manner described in this Supplemental Labeling on the basis that, in the sole opinion of the user, the benefits and utility derived from the use of the Product on the Crop outweigh the potential risk of Crop injury or loss. The decision to use this Product in the manner described in this Supplemental Labeling must be made by each individual user on the basis of anticipated benefits versus (i) the risk of Crop injury, Crop yield reduction and Crop loss, (ii) the severity of the target pest infestation, (iii) the cost and availability of alternative pest controls, and (iv) any other relevant factors.

By purchasing the Product for use, or using the Product, in the manner described in this Supplemental Labeling, you acknowledge and accept that:

(1) you assume all risk of Crop injury, Crop yield reduction and Crop loss;
(2) Dow AgroSciences does not make, and does not authorize any agent or representative to make, any representations or recommendations regarding the use of this Product on the Crop other than the statements on this Supplemental Labeling;
3) Dow AgroSciences does not make, and does not authorize any agent or representative to make, any warranties, express or implied, with respect to the use of the Product on the Crop and disclaims all warranties, express or implied, including any implied warranties of fitness for a particular purpose or merchantability;
(4) Dow AgroSciences disclaims all liability for any damages, losses, expenses, claims or causes of actions arising out of or relating to Crop injury, Crop yield reduction and/or Crop loss;
(5) these Special Conditions and Risks of Use supersede any contrary representations or recommendations by Dow AgroSciences, its agents or representatives, and any provisions in or on any Product literature or labeling including any provisions on the label affixed to the Product container.

If these Special Conditions and Risks of Use are not acceptable, the unopened Product may be returned to the seller for a refund or used for a different labeled use in accordance with the label affixed to the Product container. These Special Conditions and Risks of Use are required by Dow AgroSciences and not specified by the U.S. EPA or the State of Florida.

Ridomil Gold SL label changes to allow for tank mixing for young resets.

Ridomil Gold SL label was recently modified at the request of Florida growers. The new label provides and permits the specific use directions for individual tree treatment for resets/new plantings. In addition this label permits growers to tank mix apply Ridomil Gold SL with other pesticides approved for Florida citrus production. Most common use is a tank mix with Imidacloprid (used for psyllid control). Precaution is required when mixing Ridomil with residual herbicides on trees less than 3 years of age, as injury may result.

Remedy SLN label more clearly allows for use on citrus tree stumps.

As of this past August Remedy has a supplemental label for use in treating citrus tree stumps to prevent sprouting. Dr. Steve Futch has run trials at citrus groves in South Florida and has reported success in limiting sprouts from greening infected citrus trees that were removed from the grove. Dr. Futch recommends the use of dye while using the product to aid in the proper placement of the applied materials by workers. Delayed application of material or rain events can limit the effectiveness of this material.

Weather Watch 2008-2009 Sign Up Underway

We will be starting up the Weather Watch program on November 12th. For those that have not participated in the past the Weather Watch program has been in operation for the past 37 years. The program gives the general weather outlook during warm periods and gives three to four daily updates during freeze events. Fred Crosby brings 40+ years of agricultural weather forecast experience to our advisories. The outlook can be accessed 24/7 with dedicated phone lines. John Jackson has also agreed to continue to assist during freeze events. The cost of this program is $100.00 for the season. If you would like to sign up please fill out the flyer in the back of the newsletter and fax or mail it to the Lake County Extension office.

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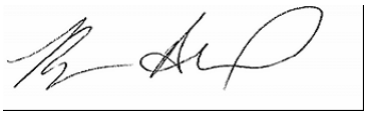
http://cfextension.ifas.ufl.edu/agriculture/citrus
http://citrusagents.ifas.ufl.edu

The Vision for the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) is to increase and strengthen the knowledge base and technology for:

- Expanding the profitability of global competitiveness and sustainability of the food, fiber, and agricultural industries of Florida.
- Protecting and sustaining natural resource and environmental systems.
- Enhancing the development of human resources.
- Improving the quality of human life.



REMINDER—Mini Greening Summit

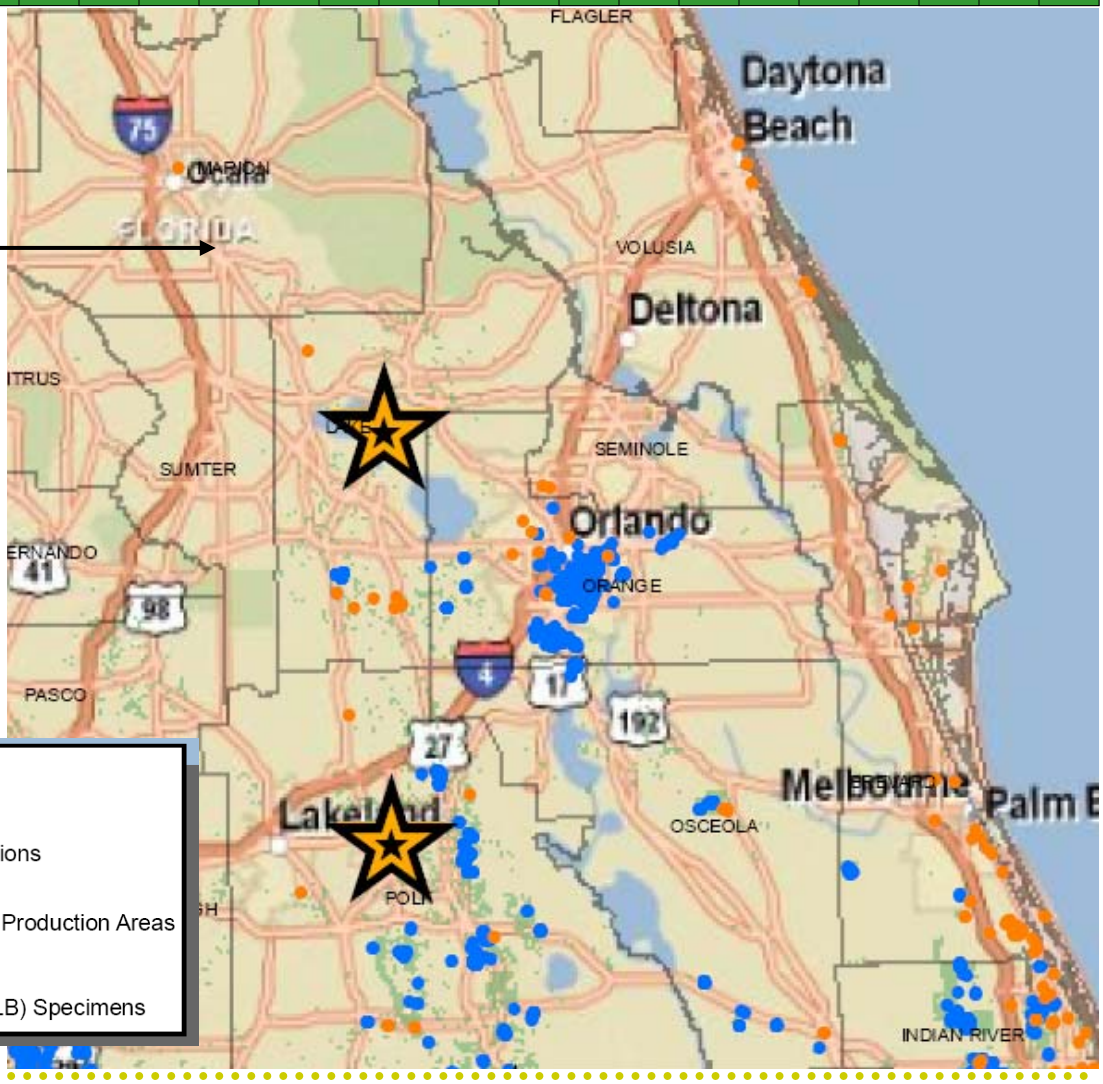
Lake County Ag Center in Tavares September 30th from 9:45 to Noon

Topics include: everything related to HLB and canker. Pesticide CEU's and CCA's available

A free lunch will be provided after the program. Please call ASAP to let us know if you are planning on coming so that we can make sure to have a enough food.

This is the latest DPI map on reported canker and greening finds throughout Central Florida as of 9/5/2008.

Photo credits are due to Ian Jackson, a biological scientist from the CREC. Ian's pictures of Trece traps with psyllids was included on page 2 of the last issue of Citruslines. Thanks for your help Ian!



Weather Watch 2008-2009

Grower _____
(Company/Individual)

Locations of interest _____

Complete Address _____

_____

Phone number _____

Fax Number _____

Nextel Direct Connect # * _____

Email Address * _____

*for those with this service we will have an alert

I would like to subscribe to the Central Florida Weather Watch service and understand that I am **NOT** to release the unlisted telephone number to anyone.

Enclosed is my check in the amount of $100 made payable to:

Weather Watch
1951 Woodlea Rd.
Tavares, FL 32778

The unlisted number will be sent prior to commencement of the service. We will begin November 10, 2008, and run until the threat of cold has passed (generally early to mid April).