

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

# Flatwoods Citrus



**Vol. 15, No. 4**

**April 2012**

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Multi-County Citrus Agent, SW Florida



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**Previous issues of the Flatwoods Citrus newsletter can be found at:**

<http://citrusagents.ifas.ufl.edu/agents/zekri/index.htm>

<http://irrec.ifas.ufl.edu/flcitrus/>

# IMPORTANT   EVEN T S

-- [Workshop](#): **Sustaining Florida Citrus Production in the New Age of Diseases**

1. Highlights from the UF Citrus Improvement Program and Sustaining Florida Citrus Production in the New Age of Diseases
2. Advanced Citrus Production System Performance in Florida: successes and challenges
3. Rehabilitation of HLB infected trees when they reach economically unsustainable production

**Speakers: Drs. Jude Grosser, Bob Rouse, and Arnold Schumann**

**Date**: Thursday, April 26, 2012, Time: **10:00 AM** – 12:00 Noon

**Location**: Southwest Florida REC (Immokalee).

No registration fee and lunch is free, but **pre-registration is required**.

**To reserve your seat, call 863 674 4092 or send an e-mail to: [maz@ufl.edu](mailto:maz@ufl.edu)**

2 CEUs for Certified Crop Advisors (CCAs)

**Lunch Sponsor**: **Heath Prescott, KeyPlex**

	<p><b>2012 FARM SAFETY DAY</b> <b>Saturday, May 19, 2012, Immokalee IFAS Center</b> <b>More details on registration and program are below.</b> <b>Class size is limited to the first 150</b></p>
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## **Orange-Juice Futures Extend Slump on Weak Demand** By Marvin G. Perez

**Orange-juice** futures tumbled to a 19-month low on speculation that citrus crops in Florida face no weather threat until the start of the **hurricane season** in June, leaving ample supply as U.S. demand slows. Groves in Florida, the world's biggest orange grower after **Brazil**, escaped damage from cold weather during the winter months. U.S. retailers sold 252.23 million gallons (954.8 liters) of orange juice since Oct. 1, down 11 percent from a year earlier, the Florida Department of Citrus said on April 2, citing Nielsen Co. data. "There's a lack of any weather threat," Sterling Smith, a market analyst for **Country Hedging**, a broker in St. Paul Minnesota, said in a telephone interview. "Demand has been suffering since the early 2000s." Orange juice for May delivery plunged 5 percent to \$1.3965 a pound on ICE Futures U.S. in **New York**, after touching \$1.391, the lowest for a most-active contract since Sept. 9, 2010. **Prices have plunged 38 percent from a record \$2.2695 on Jan. 23, as concerns eased that a U.S. probe would lead to a ban on imports containing a banned fungicide.** Inventories held by the three biggest producers in Brazil will more than double to 535,000 metric tons on June 30, a Brazilian industry group has said.

# IMPORTANT WEBSITES

**Citrus Extension:** <http://www.crec.ifas.ufl.edu/extension/>

**Citrus Health Management Areas (CHMAs):**

[http://www.crec.ifas.ufl.edu/extension/chmas/chma\\_overview.shtml](http://www.crec.ifas.ufl.edu/extension/chmas/chma_overview.shtml)

**Florida Citrus Extension Agents:**

[http://citrusagents.ifas.ufl.edu/Citrus\\_Agents\\_Home\\_Page/Citrus\\_Agents\\_Home.html](http://citrusagents.ifas.ufl.edu/Citrus_Agents_Home_Page/Citrus_Agents_Home.html)

**Southwest Florida Research and Education Center (SWFREC):**  
<http://swfrec.ifas.ufl.edu/>

**Citrus Research & Education Center:**  
<http://www.crec.ifas.ufl.edu/>

**Florida Citrus Resources:** <http://irrec.ifas.ufl.edu/flcitrus/>

**Florida Citrus Pest Management Guide:**

[http://edis.ifas.ufl.edu/topic\\_book\\_florida\\_citrus\\_pest\\_management\\_guide](http://edis.ifas.ufl.edu/topic_book_florida_citrus_pest_management_guide)

**Extension: Citrus Greening Database**

<http://swfrec.ifas.ufl.edu/entomology/extension/hlb/>

**Citrus Greening (Huanglongbing)**

<http://www.crec.ifas.ufl.edu/extension/greening/index.shtml>

[History](#) | [Regulations](#) | [Transmission](#) | [Pathogen](#) | [Alternate Hosts](#) | [Symptoms](#) | [Nutrient Deficiencies Compared to Citrus Greening](#) | [Diagnostics](#) | [Management](#) | [Photo Gallery](#) | [Links](#) | [Contacts](#)

**Citrus Canker**

<http://www.crec.ifas.ufl.edu/extension/canker/index.shtml>

[History](#) | [Eradication](#) | [Decontamination](#) | [Pathogen Symptoms & Susceptibility](#) | [Diseases Commonly Mistaken for Citrus Canker](#) | [Spread](#) | [Management](#) | [Links](#) | [Contacts](#)

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## IMPORTANCE OF SPRAYER CALIBRATION

Sprayers must be checked to ensure all nozzles are applying pesticides uniformly and at the correct rate. Make sure your equipment is working properly and calibrated to ensure the correct amount of pesticide is delivered to the target area.

Pesticide application, greater than the label rate, is illegal and can result in needless risk to groundwater, increased production costs, and crop damage. Under-application might be costly by not properly controlling the target pest. Although you can sometimes repeat the application, doing so is time-consuming, costs more, increases the risk of applying too much and increases the risk in pesticide resistance.

Regular sprayer calibration includes measuring the output of each nozzle to ensure all nozzles are functioning properly. Specific calibration guides are available from a number of sources. Sprayer calibration should be done every time a different pesticide is applied or at least once each season.

The rate of application depends partly on the particle or droplet size, texture, and other properties of the pesticide being applied. Use only water during the test if the pesticide is a liquid. Contact the manufacturer to get reliable information regarding carrier material to perform the tests if the pesticide is a dust, granule, or fumigant, or a liquid diluted with a liquid other than water.

Follow calibration and mixing instructions carefully. Mixing, loading, and calibration methods must also conform to the speed of the application machinery. Moving too fast or too slow changes the rate of application.

### Minimizing spray drift

Spray drift, movement of a pesticide through air during or after application to a site other than the intended site of application is a challenging issue facing pesticide applicators. Complete elimination of spray drift is impossible.

However, drift can be minimized by following these control measures:

1. Read and follow the pesticide label.
2. Select low or nonvolatile pesticides.
3. Use spray additives following label guidelines.
4. Use large orifice sizes for spray nozzles.
5. Avoid high sprayer pressures, which create finer droplets.
6. Use drift reduction nozzles.
7. Use wide-angle nozzles, lower spray boom heights, and keep spray boom stable.
8. Do not spray when wind speeds exceed 10 mph and when wind direction is directed toward sensitive vegetation.
9. Use a shielded spray boom when wind conditions exceed preferred conditions.
10. Avoid spraying on extremely hot and dry days, especially if sensitive vegetation is nearby.
11. Keep good records and evaluate the results.





## PESTICIDE RECORDKEEPING BENEFITS & REQUIREMENTS



### BENEFITS

**Exemption from pesticide contamination liability.** As provided by section 487.081(6), Florida Statutes, if you keep records of all your pesticide use (general and restricted use products), and you have used pesticides legally, you may be exempt from proceedings by the Florida Department of Environmental Protection to recover costs associated with damages, assessment, evaluation, or remediation of pesticide - contaminated property. Records must be kept indefinitely.

**Evaluate effectiveness of controls.** Use your records to analyze your pest management programs: what works and what doesn't. You can compare pesticides with other control tactics.

**Resolve pesticide failures.** If reduced pesticide product performance occurs, having record will help you determine the cause such as pest resistance or use of the wrong application rate.

**Improve your ability to buy the right amount of pesticide.** Records will help you buy the correct amount of pesticide the following year. You'll save money and eliminate excess pesticide disposal problems.

**Provide buyers with required records of pesticide use.** Nurserymen must document certain preventative applications before selling nursery stock. Other buyers may also require a report on pesticides used on crops or other commodities treated with pesticides.

**Improve crop rotation decisions.** With records, you know your crop rotation options. Some pesticides have restrictions on crops that can be planted within certain time frames after pesticide application.

**Determine carryover injury.** If your fields exhibit pesticide carryover injury, records will help evaluate the situation.

**Document your legal use of pesticides.** Records are your best defense if you are accused of an improper application that causes drift, personal injury, or other problems.

**Provide necessary information in a medical emergency.** If an accident or pesticide exposure occurs, records may be necessary for medical personnel to give treatment.

**Support studies that identify critical pesticide registrations.** Through surveys, your records can contribute data needed to preserve pesticide registrations.

**Provide accurate data to respond to public concerns about pesticide use.** Your records can be added to national databases that will accurately show pesticide use. Efforts to reduce pesticide use can be documented in the information.

**Be prepared for requirements of lending institutions.** Some lending institutions and buyers request field records to evaluate potential environmental liability when making land sales or loans.

**Be in compliance with the law.** The Florida Pesticide Law requires all licensed pesticide applicators to keep records of restricted use pesticides applied.

### RECORDKEEPING REQUIREMENTS

The following information must be recorded for each application of a restricted use pesticide:

- Name and license number of licensed applicator
- Name of person who applied the pesticide (may be an unlicensed assistant)
- Date, start time, and end time of treatment
- Location of treatment site using one of the following methods:

1. County, range, township and section
2. Maps and/or written descriptions that accurately identify the treatment location and distinguish it from other sites

3. USDA identification system found in 7 CFR 110 which uses maps and numbering systems

4. Legal property description

5. Global Positioning Satellite (GPS) coordinates or longitude/latitude points that delineate the treatment site

- Crop, commodity or target site treated
- Total size of area treated
- Brand name and EPA Registration Number of product applied
- Total amount of product applied
- Application method
- Name of person authorizing the treatment, if the application was made to property not owned or leased by the licensed applicator

### **ADDITIONAL REQUIREMENTS**

- The required pesticide application information must be recorded within 2 working days after application.
- Records may be kept in any format that includes all the required information and may be incorporated into other business records.
- It is not necessary to record repetitive information that applies to all records, as long as the information is recorded one time and there is a written record that this information applies to other applications as well.
- Records must be kept for 2 years from application date and must be made available to authorized FDACS representatives upon request.
- Commercial applicators must provide a copy of the application record to the person for whom the application was made within 30 days of application.
- Pesticide application records and any available label information must be provided to licensed health care professionals or their designated agents in the event of a medical emergency or if the health care professional determines the information is necessary to provide medical treatment to an individual who may have been exposed to a pesticide included in the record information.

### **VIOLATIONS**

Licensed applicators who violate any of the above requirements are subject to a fine imposed by

FDACS. Violators who are fined have the right to respond to the charges or request a hearing.

### **FORMS**

A Suggested Pesticide Recordkeeping Form for Restricted Use Pesticides and WPS (Worker Protection Standard) is available from the FDACS Bureau of Compliance Monitoring or may be downloaded from <http://www.flaes.org>

### **CONTACT**

For more information contact the FDACS Bureau of Compliance Monitoring, 3125 Conner Blvd., Bldg. 8 (L-29), Tallahassee, Florida 32399-1650, telephone (850) 488-3314.

### **WEB SITE**

More information about Bureau pesticide programs and copies of various forms are available from the web site <http://www.flaes.org>

## **Florida Department of Agriculture & Consumer Services Division of Agricultural Environmental Services**

### **Pesticide Recordkeeping Benefits and Requirements**

Make wiser, more  
profitable decisions by  
keeping records of  
your pesticide use.

**ADAM H. PUTNAM, Commissioner**  
**Florida Department of Agriculture & Consumer  
Services**

## **All Oranges 145.0 Million Boxes**

The 2011-2012 Florida all orange forecast released today by the USDA Agricultural Statistics Board is reduced by 2.0 million boxes to 145.0 million boxes. The total is comprised of 74.0 million boxes of non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 71.0 million boxes of Valencia oranges. The hurricane seasons of 2004-2005 and 2005-2006 have been excluded from the usual 10-year regression analysis and from comparisons of the current season to previous seasons. For those previous 8 seasons, the April forecast has deviated from final production by an average of 2 percent with 3 seasons above and 5 below, with differences ranging from 1 percent above to 3 percent below. All references to "average" or "minimum" refer to the previous 8 non-hurricane seasons unless noted.

## **Non-Valencia Oranges 74.0 Million Boxes**

The forecast of non-Valencia orange production is unchanged at 74.0 million boxes. The route survey (Row Count) conducted April 2-3 indicated the non-Valencia harvest is relatively complete. The Navel forecast, included in the non-Valencia forecast, remains unchanged at 2.6 million boxes.

## **Valencia Oranges 71.0 Million Boxes**

The forecast of Valencia production is reduced by 2.0 million boxes. Weekly utilization of Valencias was more than 5 million boxes during the last three weeks of March. The route survey (Row Count) conducted April 2-3 showed 40 percent of the rows have been harvested. Compared to last month's projections, fruit size is smaller and droppage is higher. Final fruit size is slightly below average and fruit droppage at 19 percent is well above average.

## **All Grapefruit 18.8 Million Boxes**

The forecast of all grapefruit production is increased 100,000 boxes from the previous forecast. The change is based on increased utilization of the white grapefruit variety. Of the total grapefruit forecast, 5.3 million boxes are white and 13.5 million boxes are the colored varieties. The route survey conducted April 2-3 shows 97 percent of the white rows and 92 percent of the colored rows are harvested.

## **All Tangerines 4.3 Million Boxes**

The forecast of all tangerine production is unchanged at 4.3 million boxes, consisting of the early varieties (Fallglo and Sunburst) at 2.35 million boxes and Honey tangerine forecast at 1.95 million boxes. The forecast of the early tangerine varieties is lowered by 50,000 boxes due to final utilization, and Honey tangerines are raised 50,000 boxes based on estimated utilization to the first of the month. The Row Count indication shows that 98 percent of the Honey tangerine rows are harvested.

## **Tangelos 1.15 Million Boxes**

The forecast of tangelo production is unchanged from the previous forecast. The Row Count survey showed nearly all of the rows are harvested.

## **FCOJ Yield Reduced to 1.62 Gallons per Box**

The projection for frozen concentrated orange juice (FCOJ) is reduced to 1.62 gallons per box of 42° Brix concentrate for all oranges, down from 1.64 gallons per box in March. The late (Valencia) projection is 1.72 gallons per box, down from 1.76 gallons per box last month. The early-midseason component is final at 1.555402 gallons per box, as reported by the Florida Department of Citrus. Last season's final yields as reported by the Florida Department of Citrus are: all oranges, 1.586081 gallons per box; early-midseason, 1.522652; and late season (Valencia), 1.664737.

# INCREASING EFFICIENCY AND REDUCING COST OF NUTRITIONAL PROGRAMS

## Economics, nutrition, and Florida soils

- To maintain a viable citrus industry, it is necessary to produce large, high quality crops of fruit economically.
- Good production of high quality fruit will not be possible if there is a lack of understanding of soils and nutrient requirement of the grown trees.
- Most Florida citrus is grown on soils with inherently low fertility and low nutrient holding capacity and thus unable to retain enough amount of soluble plant nutrient against the leaching action of rainfall and irrigation.

## Importance of N & K

- N & K are the most important nutrients for Florida soils and citrus.
- An adequate level of N is required for vegetative growth, flowering, and fruit yield.
- K also plays an important role in determining yield, fruit size, and quality.
- Fertilizer ratios of N to K<sub>2</sub>O are usually 1:1. However, a ratio of 1:1.25 is recommended for high pH or calcareous soils.

## Management practices to improve fertilizer efficiency

They include:

- ◆ Evaluation of leaf analysis data
- ◆ Adjustment of N rates to the level based on expected production and IFAS recommendations
- ◆ Selection of fertilizer formulation to match existing conditions
- ◆ Careful placement of fertilizer within the root zone
- ◆ Timing to avoid the rainy season
- ◆ Split application
- ◆ Irrigation management to maximize production and minimize leaching



## Tissue and soil analysis

- Leaf sampling and analysis is a useful management tool for fertilizer decisions.
- The best indication of successful fertilizer management practices for citrus trees is having leaf nutritional standards within the optimum ranges.
- Trends in leaf N and K over several years provide the best criteria for adjusting rates within the recommended ranges.
- Soil analysis is useful for determining the pH and concentrations of P, Ca, and Mg.

## N requirements for mature trees

- In a mature grove where there is little net increase in tree size, N used for leaf growth is largely recycled as leaves drop, decompose, and mineralize. Replacement of the N removed by fruit harvest becomes the main requirement, and nutrient requirements should vary as the crop load changes.

## Fertilizer Sources

- Inorganic and synthetic organic nitrogen fertilizers are high-analysis materials and are generally most economical to use in citrus groves. They are rapidly available, unless they have been formulated in a controlled-release form.
- The use of high analysis fertilizers eliminates much of the filler. A great deal of the mixing, transportation, and application cost is reduced.
- The use of controlled-release fertilizers for resets in established groves is a feasible option.

## Timing and frequency of application

- 2/3 of the tree's nutritional requirements should be made available between January and early June, with most of it in place during flowering and fruit-setting period. The remaining 1/3 can be applied in September or October.
- Split fertilizer application or fertigation combined with sound irrigation management increase fertilizer efficiency by maintaining a more constant supply of nutrients and by reducing leaching if unexpected rain occurs. Less fertilizer will be required.
- Less fertilizer may also be required if fertilizer is confined to the root zone and if timing is adjusted to avoid rainy periods.

## Foliar feeding

- Foliar feeding is useful under calcareous soil or any other condition that decreases the tree's ability to take up nutrients when there is a demand.
- Foliar applications of low-biuret urea (25-28 lbs N/acre) or phosphorous acid (2.6 quarts/acre of 26-28%  $P_2O_5$ ) in late Dec.-early Jan. are known to increase flowering, fruit set, and fruit yield.
- Postbloom foliar applications of potassium nitrate or mono-potassium phosphate (8 lbs/acre  $K_2O$ ) in late April have been found to increase fruit size and yield.

## Phosphorus

- P applied to established-groves had not leached but had accumulated in the soil at high levels and is available slowly so that P application may be reduced or omitted in established groves.
- P does not leach readily where the soil pH is 6 or higher and the fruit crop removes very little.
- Therefore, regular P applications are not necessary.
- However, some soils used for new citrus plantings may have low native P and P fertilizers should be applied for several years.

## Micronutrients

- Copper should not be included in fertilizers if Cu sprays are used and if the grove soil test show adequate Cu (5-10 lbs/acre).
- Molybdenum (Mo) deficiency occurs on soils that have been allowed to become very acid. Liming those soils should fix the problem.
- Foliar spray applications of micronutrients (Mn, Zn, B, and Mo) are more effective and economically practical than soil applications when included with postbloom or summer foliar sprays after full expansion of the new flush.

## Soil pH & liming

- Soils should have a pH ranging from 5.5 to 6.5 with the higher values used for soils containing high Cu levels.
- Under normal conditions, a clear advantage of pH 6 over pH 5 has been demonstrated in several studies. A pH of 7 was no better than a pH of 6.
- Soil pH can be increased by application of either calcite or dolomite. Dolomite supplies both Ca and Mg. Therefore, the choice of dolomite would be more appropriate to supply Mg and have a good balance between Ca and Mg.

## Overliming

- Liming soils having a pH at or above 6 will be costly and not useful. In groves, where soils have adequate pH but low Ca levels, gypsum ( $\text{CaSO}_4$ ) can be used as a source of Ca without affecting the soil pH.
- Applying dolomite as a source of Mg is not recommended if the soil pH is in the desired range. Under these conditions, soil application of either magnesium sulfate ( $\text{MgSO}_4$ ) or magnesium oxide (MgO) and foliar application of magnesium nitrate  $\{\text{Mg}(\text{NO}_3)_2\}$  are effective for correcting Mg deficiency.

## Nutritional balance

- Correct ratios of nutrients are critical to fertilizer management and sustainability.
- If an element is below the critical level, yield production will fall even though the other elements are kept in good supply.
- Too much N with too little K can reduce fruiting and result in lost crop yield and quality. High K with low N and P supply will induce luxury consumption of K, delay fruit development and reduce juice content.

## ROD SANTA ANA: Spinach genes may stop deadly citrus disease

March 29, 2012

Texas AgriLife Communications

**WESLACO** – Citrus growers worldwide who currently have no cure for a devastating, tree-killing disease may soon find relief from an unlikely source: spinach.

Dr. Erik Mirkov, a Texas AgriLife Research plant pathologist at the Texas AgriLife Research and Extension Center at Weslaco, has transferred two genes from spinach into citrus trees, apparently providing resistance to citrus greening disease, or Huanglongbing, often referred to as HLB.

The transgenic trees have shown resistance in greenhouse trials and will soon be planted in Florida for field testing, he said.

The research is funded by Southern Gardens Citrus, a large citrus and juice producer in southern Florida.

“This project started with a three-year grant from the U.S. Department of Agriculture when the interest was to find resistance to citrus canker,” Mirkov said. “But then citrus greening moved into Florida. Both are bacterial diseases, but citrus greening devastated the industry far worse than canker did.”

Mirkov knew that spinach proteins had broad-spectrum resistance against multiple bacteria and fungi, and started testing his transgenic trees against greening.

“We injected canker into the leaves of transgenic plants with one spinach gene and found that the bacterial lesions didn’t spread,” he said. “But we also showed that transgenic plants infected in the rootstock with citrus greening disease flourished and produced lots of leaves, while the non-transgenic trees produced just one leaf.”

With good greenhouse results, those first generation transgenic trees were taken to the

field in 2009, Mirkov said. After 25 months of growth, some of the transgenic trees never showed infection, while 70 percent of the non-transgenic control trees did.

In the meantime, Mirkov developed improved second-, third- and fourth- generation transgenic trees by adding a second spinach gene and improving how and where the genes expressed themselves.

“Citrus greening is a bacterial disease that affects the vascular system of the tree, or phloem,” he said. “It basically shuts off the tree’s ability to take up and use water and nutrients, causing the tree to die. We were able to improve the transgenic trees by having the genes express themselves in the vascular system.”

Mirkov also found that while one spinach gene is more effective than the other, they work better together than they do alone.

“The first field trial involved transgenic trees using only the weaker of the two genes, but it worked; it gave us encouragement” he said. “By using both genes, we’re hoping to get immunity so that trees are never infected in the field.”

It’s this fourth generation of transgenic trees that Mirkov said will likely be taken through the lengthy and costly deregulation process that declares the fruit safe to eat.

“It’s an expensive process that involves contracts with firms that do the actual testing with rats, bees, an aquatic invertebrate, maybe a songbird,” he said. “It could take three to four years to complete, but it’s important to determine that the fruit produced from transgenic trees are safe to eat, especially by what are considered at-risk groups, which include infants, the elderly and those with compromised immune systems.”

That’s also the reason Mirkov works only with genes and proteins found in foods.

“I decided seven years ago when this program started that if the proteins were not commonly eaten, we wouldn’t work with them.”

Mirkov’s transgenic work in citrus currently includes Rio Red and Ruby Red grapefruits,

Hamlin and Marrs sweet oranges, Rhode Red Valencia oranges and three rootstocks: Flying Dragon, C22 and Carrizo.

Mirkov said he meets several times a year with federal agencies to keep them abreast of his progress. They include the Food and Drug Administration, the Environmental Protection Agency and the U.S. Department of Agriculture.

“There are lots of regulations and requirements to meet, but without immunity to citrus greening, the entire world’s citrus industry is at risk. Citrus greening is a citrus grower’s worst nightmare because at this point, there is no cure. It can spread for years before it can be detected, so it’s insidious, to say the least.”

Ray Prewett, president of Texas Citrus Mutual, a commodity group in Mission, said Mirkov’s work is important and promising.

“The majority of the support for Dr. Mirkov’s research has come from Florida, but the Texas citrus industry has provided some financial support as well,” he said. “The entire U.S. citrus industry is placing a lot of hope and faith on the outcome of this research. Our industry is using all of the currently available tools to fight the disease recently found in Texas, but we are counting on disease-resistant trees as our best long term solution.”

Citrus greening is thought to have originated in China in the early 1900s, according to the USDA website. It is primarily spread by two species of psyllid insects. Greening was detected in Florida in 2005 and earlier this year in the Lower Rio Grande Valley of Texas. It is not harmful to humans, but has harmed trees in Asia, Africa, the Arabian Peninsula and Brazil.

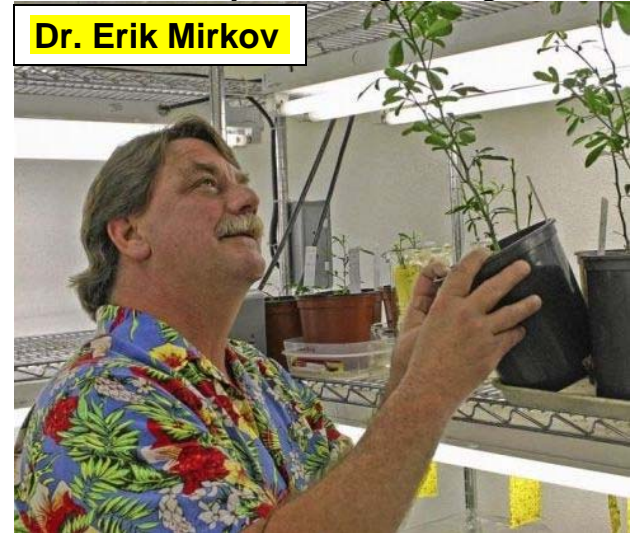
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**Rod Santa Ana is a Texas AgriLife communications specialist.**

Photo of:

, a plant pathologist at the Texas AgriLife Research and Extension Center at Weslaco, will

soon field test transgenic citrus trees that have shown immunity to citrus greening disease.



### Citrus greening detected in California

Two insecticides used to protect citrus against citrus-killing disease

[Suze Knobler, Staff Writer](#), 04/11/2012

There are two insecticides that are being used to fight the Asian psyllid after the discovery of a citrus-killing disease in a Los Angeles County suburb last week had agriculture officials ramping up efforts to curb its spread and promote awareness with local residents.

Commonly referred to as huanglongbing, or citrus greening disease, citrus owners are taking precautions by having their citrus groves sprayed.

According to John Gardner, county of San Bernardino agriculture commissioner/sealer, a synthetic pyrethroid is used as a foliar spray (sprayed directly on tree and leaves) which kills the psyllids that are on the tree.

The second insecticide used is a systemic spray sprayed into the ground, which helps to kill any insects that show up later.

"The synthetic pyrethroid will kill all insects, including the beneficial ones. If you wait a little bit the beneficial insects will repopulate once they have other bugs to feed off of. They can also fly across the street to a neighbor's tree that has not been sprayed and re-establish itself," Gardner said....



# The Twenty Second Annual Farm Safety Day

Saturday, 19 May 2012

## **AN IMPORTANT MESSAGE TO EMPLOYERS**

Safe and competent equipment operators are important to you as an employer. Accidents, which cause damage, injury or death to employees, equipment and crops are costly. We believe all types of accidents can be reduced with proper employee training. Our training has been designed to help your employees perform better, operate safely to prevent accidents, fulfill necessary training requirements and build pride in themselves and their farm company.

### **Certificates**

The 2012 Southwest Florida Farm Safety Day is almost here. Farm Safety Day is an educational event designed to emphasize the importance of farm/equipment safety. Each participant is presented with a certificate of attendance and **the employer will be provided with a certificate of training that can be placed into the employee's file.**

### **Registration Info**

**The deadline for registration is May 4<sup>th</sup>.** It is the employer's responsibility to assure that the employee is present at 7:30 AM on Saturday, May 19<sup>th</sup> at the Immokalee IFAS Center, 2685 State Rd. 29 North, Immokalee, FL 34142 to receive their nametag. Upon arrival each participant will check in at the registration table and receive a packet containing their nametag, instructions (in both English and Spanish) session handouts, an evaluation form, rodeo cap and pencil. They will be directed to their respective course sessions.

Please give us the names of those who will be attending our 22<sup>nd</sup> Farm Safety Day on **Saturday, 19 May 2012**. The cost is \$15.00 per person, which will include educational sessions, handouts, pencils, refreshments, lunch, and a cap.

Make checks payable to: SW Florida Citrus Advisory Committee

Mail registration and checks to:

University of Florida, IFAS, SWFREC

Attention: Barbara Hyman

2685 State Rd. 29 North

Immokalee, FL 34142

Or fax registration to: 239 658 3469

Deadline is Friday, May 4, 2012

If there are any questions, please feel free to contact **Mongi Zekri** ([maz@ufl.edu](mailto:maz@ufl.edu))

**Phone: 863 674 4092**

**Don't wait. The number of trainings offered and attendance at each training is LIMITED. Class size is limited to the first 150 people.**

# TWENTY FIRST ANNUAL SAFETY DAY

Saturday, May 19, 2012

Location: University of Florida, IFAS, SWFREC  
2685 State Rd. 29 North  
Immokalee, FL 34142



## SCHEDULE:

7:30-8:10	Check In, Coffee, Juice, Refreshments, Door Prices
8:10-9:00	Sessions 1, 2, 3, 4 (Begin sessions)
9:00-9:10	Break (change session)
9:10-10:00	Sessions 1, 2, 3, 4
10:00-10:10	Break (change session)
10:10-11:00	Sessions 1, 2, 3, 4
11:00-11:10	Break (change session)
11:10-12:00	Sessions 1, 2, 3, 4, and Door Prices
12:00-1:00	Lunch and Adjourn

## CONCURRENT SESSIONS:

1. Field Safety Orientation
2. Working with Agricultural Equipment/ Farm Safety Regulations
3. Ag Vehicle Safety Transportation and Driving Ag Equipment on Public Roads
4. Orientation to Packinghouse Safety and Field Sanitation

## The 2012 FARM SAFETY DAY REGISTRATION FORM

Please give us the names of those who will be attending our 22<sup>nd</sup> Farm Safety Day on **Saturday, 19 May 2012** at the Immokalee IFAS Center, 2685 State Rd. 29 North, Immokalee, FL 34142. The cost is \$15.00 per person, which will include educational sessions, handouts, refreshments, lunch, and a cap.

Make checks payable to:  
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Attention: Barbara Hyman  
2685 State Rd. 29 North  
Immokalee, FL 34142

Or fax registration to: 239 658 3469  
Deadline is Friday, May 4, 2012

Company Name:

Administrative Contact Person:

E-mail address:

Mailing Address:

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ County: \_\_\_\_\_

Please list the employees who will be attending our safety training and please check their language preference\*. If there is not enough space to fill in all attendants, please attach an additional sheet with the necessary information.

	<u>English</u>	<u>Spanish</u>		<u>English</u>	<u>Spanish</u>
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
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_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

**\*Please Note: It is very important that we know the language capabilities for each attendee.**  
Next to each attendee's name please mark in which language they are more fluent.  
If there are any questions, please contact **Barbara Hyman** ([hymanb@ufl.edu](mailto:hymanb@ufl.edu)) at 239 658 3400.

**Don't wait. The number of trainings offered and attendance at each training is LIMITED.  
Class size is limited to the first 150 people.**

# Flatwoods Citrus

If you did not receive the *Flatwoods Citrus* newsletter and would like to be on our mailing list, please check this box and complete the information requested below.

If you wish to be removed from our mailing list, please check this box and complete the information requested below.

Please send: Dr. Mongi Zekri  
Multi-County Citrus Agent  
Hendry County Extension Office  
P.O. Box 68  
LaBelle, FL 33975

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Subscriber's Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

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## *Racial-Ethnic Background*

\_\_ American Indian or native Alaskan

\_\_ Asian American

\_\_ Hispanic

\_\_ White, non-Hispanic

\_\_ Black, non-Hispanic

## *Gender*

\_\_ Female

\_\_ Male