

# Citrus Notes



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Extension Agent  
for  
Polk &  
Hillsborough  
Counties

## IMPORTANT DATES

**OCTOBER 10, 2017**

**OJ BREAK MEETING**  
Lake Alfred

**NOVEMBER 2, 2017**

**ANNUAL CITRUS  
EMPLOYEE SAFETY  
TRAINING & TRACTOR  
RODEO**  
Bartow

**NOVEMBER 6 - 7, 2017**

**FRUIT CROPS  
MANAGEMENT SHORT  
COURSE**  
Lake Alfred

## CONTACT INFO

### POLK COUNTY EXTENSION SERVICE

PO Box 9005, Drawer HS03  
Bartow, FL 33831  
(863) 519-1052  
Email: [wcoswalt@ufl.edu](mailto:wcoswalt@ufl.edu)

### HILLSBOROUGH COUNTY EXTENSION SERVICE

5339 County Road 579  
Seffner, FL 33584  
(813) 744-5519  
Ext. 541231

October

## OJ Break Meeting



This month we have Dr. Lukasz Stelinski, Entomologist from the

UF/IFAS Citrus Research and Education Center. Lukasz will be making presentation titled "Managing Psyllids with Resistance in Mind". This would include the latest information on the development of psyllid resistance to some of our insecticides.

Our October OJ Break lunch sponsor is Bo Meador from AgroSource Inc., makers of Fireline™ and Firewall™. Bo will be taking a few minutes to share the latest product information on their bactericides. Registration is required (see details below). We have requested and expect to receive 1.5 CEU's for your restricted use pesticide license (RUP) and for certified crop advisors (CCA)

The OJ Break will be held at Ben Hill Griffin Jr. Citrus Hall which is located at the UF/IFAS Citrus Research and Education Center, 700 Experiment Station Rd. in Lake Alfred, FL. The OJ Break will begin at 10:30 a.m. and conclude after lunch.

**Registration deadline is Friday, October 6, 2017.** To register please contact Gail Crawford by phone at 863-519-1042 or email at [dorothy@c@ufl.edu](mailto:dorothy@c@ufl.edu) You can also pre-register by using the following eventbrite

[https://  
october17polkojbreak.eventbrite.com](https://october17polkojbreak.eventbrite.com)

### 2017 Annual Citrus Safety Training & Tractor Rodeo

Attached to the end of the newsletter is additional information and the registration form for this year's Citrus Employee Safety Training and Tractor Rodeo. Preregistration needs to be completed by Friday, October 27, 2017. The cost of the training is \$15/person and this includes lunch. Program begins at 7:30 a.m. with registration.

### Fruit Crops Management Short Course

The Fruit Crop Management Short Course will shed light on important crop management related topics such as flowering, dormancy, irrigation, nutrition, fruit set and more. Speakers are experts from Georgia, California, South Carolina and Florida. This will be a great time of gaining knowledge on the management of growing non-traditional crops in Florida and meeting fruit specialists from around the United States. Program and registration information are available in the attached flyer.

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# Q&A

## How will a Hurricane affect next years crop?

*The following questions and answers were from a November 2004 Citrus Industry article written by Drs. Richard Buker, Gene Albrigo and Jim Syvertsen. I have modified some of the content to make the answers more concise. In addition, remember these trees at the time were not thought to have HLB. Knowing this you should make adjustments in the information to compensate for the effects of HLB infection on citrus trees.*

### **Will the loss of leaves and subsequent regrowth affect the remaining fruit growth or quality?**

The greatest impact of the hurricane(s) on this year's crop was the direct loss of fruit numbers from the wind. In addition, where over 50% of the leaves were lost, the fruit soluble solids may not reach their potential. The acid content in fruit should remain the same, so if lower solid content occurs then Brix:Acid ratios will be lower. Results from studying the effect of mechanical harvesting on trees have manually defoliated trees during the spring for the last 3 years. After removing less than 50% of leaves for three consecutive years, the growth and quality of fruit was not reduced. Although these trees lost some stored nitrogen (N) in the removed leaves, trees recovered with normal fertilization rates. Thus, healthy well managed trees can replace 50% of their leaves without loss of future yield, if leaf removal occurs early in the season.

### **Will new leaf flushes require more crop protection material and fertilizer?**

The new flush is very important for future fruit production (see next question for additional details). When possible, proper irrigation and fertilizer practices that ensure healthy and rapidly developing leaves should be enacted. Any tree with a large proportion of new leaves may be susceptible to citrus leaf miner and psyllids as the new flush develops. Trees that were productive and healthy prior to damage will most likely not need abnormally high additional nutrients. Grapefruit trees, which typically exhibit nutrient deficiencies before other citrus varieties, should be monitored closely. If roots are healthy or have healed, normal nutrient application methods will be effective after a hurricane. The rate and placement of fertilizer may need to be adjusted if tree damage has occurred. If nutrients are applied to the foliage,

then apply N-P-K in 100-125 gallons per acre only after enough leaves have flushed and fully expanded to absorb nutrient applications.

### **How could a hurricane impact the potential of trees to flower next spring?**

Flowering normally occurs on 5 month old twigs and on one year old woody branches. Young vigorous shoots on trees that had fingersized limbs with significant rubbing damage to the bark and some one year old shoots were shattered, particularly in the tops of trees. The shattered shoots will obviously not flower this spring. Buds usually protrude past the stem surface and some were damaged by rubbing. These buds also may not be able to flower. Some areas, endured flooding conditions which may have damaged the root system. Damage to the roots would become evident in wilted leaves and may occur some time after the water is removed. Although damage to the root system will delay the development of new shoots, hedging and topping may be a way to rebalance the shoot to root.

Unfortunately no one has researched the minimum bud age required for flowering under Florida conditions. Any year old or less wood that produces a leaf flush late in the fall can decrease the potential for flowering by reducing the number of buds available to flower normally. Heavy leaf loss has resulted in new flush and their buds may not mature in time to produce flowers. Knowing when your trees flushed after any hurricanes is important in predicting if and how much your trees will flower this spring.

### **What about alternate bearing?**

Fruit and leaf loss from hurricanes have the potential to reduce yields next year and start an alternate bearing cycle. We can expect that it will be more important than usual to delay any stimulation of early growth due to warm periods in December. Use of interrupted irrigation to cause drought stress during December and early January will aid the trees potential to have increased flowering. Sound management practices that supports bud aging along with shoot and root regrowth, where necessary, will restrict future negative impacts from storm damage.



## UF/IFAS CITRUS GROWER'S HOTLINE:

As growers assess the damage from hurricane Irma, UF/IFAS citrus specialists are available to answer your questions related to hurricane recovery practices for HLB-affected citrus groves. To provide answers as quickly as possible, UF/IFAS has established the "UF/IFAS Citrus Growers' Hotline" (866-835-2732) for growers to call with their questions. Staff will be answering the hotline weekdays from 8AM-5PM and will take down growers' questions and contact information that will be delivered to the appropriate citrus specialist to reply back directly to the caller. Growers are also encouraged to call the hotline to let IFAS know what the current needs are for your operation. This information will help direct the planning of future IFAS citrus extension programs to meet the ever-changing needs of the Florida citrus industry.

### Syngenta Initiates Summer Intern Recruiting

Syngenta has kicked off their recruiting efforts for the 2018 Florida Intern Program. As you are aware, Syngenta interns play a primary role in supporting key brands in the Florida citrus industry. Their field activities provide the key link between Syngenta and growers, while helping ensure optimal product performance.

The summer internship of 2017 was a success in supporting the Syngenta Citrus Portfolio by providing scouting, root mass sampling and phytophthora analysis. Expanded services across more acres were an important key to this summer's success. These services have increased in their value to growers over time. Syngenta's 2018 marketing plans are underway and include further market growth of their brands. The Syngenta internship program is the conduit for providing these important services and will be a fundamental part of their overall marketing strategy.

Below are a list of intern qualifications; these are not meant to be exclusive, but rather to help narrow our search.

- Seeking future employment in agriculture
- Basic familiarity with production agriculture
- Basic familiarity with insect, disease, and weed control

- Basic computer skills
- Willingness to work outdoors, experience preferred
- Self-motivated, detail oriented, honesty, and personable
- Ability to relocate to or originally from one of the following counties; Polk, Highlands, Hardee, Desoto, Hendry, Collier, Lee, Okeechobee, Martin, Osceola, St. Lucie, or Indian River
- Sophomore or Junior level (Seniors will be considered)

These internships represent an outstanding opportunity for the right candidate. In addition to the technical and professional skills gained from Syngenta Crop Protection, students will have an excellent opportunity to demonstrate their abilities to some of the most influential organizations in the Florida agricultural industry. Students will be provided with comprehensive training, skilled mentoring, and will be part of a respected professional team executing a multi-million dollar sales initiative and marketing strategy.

Syngenta is currently recruiting for up to six intern positions with an approximate start date of May 14, 2018 and an approximate end date of August 10th, 2018.

The Florida internship locations are designated as follows:

- 2 east coast scout intern - Indian River, St. Lucie, or Martin Counties

- 1 southwest scout intern- Lee, Hendry, or Collier Counties
- 1 west central scout intern- Highlands, Hardee or Desoto Counties
- 2 central scout intern- Osceola, Polk or Highlands Counties

Syngenta is one of the world's leading companies with 28,000 employees in over 90 countries dedicated to one purpose: bringing plant potential to life. We contribute to addressing some of the planet's most critical issues such as the rising demand for food from a growing population. Working for Syngenta offers you the opportunity to play a part in addressing one of the most urgent challenges facing global agriculture today where we need to feed 200,000 more people every day.\* Come be part of our good growth plan: one planet, six commitments: Make crops more efficient, rescue more farmland and help biodiversity flourish; empower smallholders, help people stay safe and look after each worker. \* Our work matters. There has never been a better time to join Syngenta!

Please have all interested candidates email their resumes directly to [zach.langford@syngenta.com](mailto:zach.langford@syngenta.com) The Syngenta sales team will be interviewing interested candidates now through December 2017 at which time they hope to have all candidate selections complete.

## FOOD SAFETY & MODERNIZATION ACT

### PRODUCE SAFETY RULE CHANGES

1. FDA has proposed to extend all the rule water compliance dates by 2 additional years. This means that instead of having 2 years to comply with the water standards (i.e. 2020 for the largest farms), farms would have 4 years to comply (i.e. 2022 for the largest farms).
2. FDA deemed 8 water testing methods equivalent, In addition they intend to evaluate other methods.
3. FSMA Produce Safety Rule Inspections will be delayed one year, and not begin until 2019.

*Will have a complete update with the changes out soon from our Food Safety Specialists*

### WPS Farm Worker Protection Rule

#### Provisions Delayed by EPA

EPA will extend the deadline to meet requirements of its new farmworker protection standard until guidance and training materials are ready to help state agencies implement the changes.

Wendy Cleland-Hamnett, acting assistant administrator for EPA's Office of Chemical Safety and Pollution Prevention, announced the extension in a May 11 letter to the National Association of State Departments of Agriculture.

"After careful evaluation, the EPA believes it appropriate to grant your request to extend the implementation of all revised provisions to the Agricultural Worker Protection Standard (WPS) until the necessary guidance and training have been completed which would allow state lead pesticide agencies to successfully implement the rule changes," Cleland-Hamnett said.

Cleland-Hamnett did not specify a new deadline for compliance, but NASDA and other farm groups have repeatedly asked for an extension until at least Jan. 2, 2018. Shortly before Donald Trump took office as president, the Obama administration denied an extension request from NASDA and the American Farm Bureau Federation.

Cleland-Hamnett said in her letter that EPA would "soon begin the regulatory process to formally extend the compliance date for all revised provisions of the WPS."

Published in November 2015, most of the rule's provisions were scheduled to go into effect Jan. 2, 2017, with the rest slated to become effective a year later.

"Protecting the health and safety of agricultural workers is a fundamental priority for NASDA members," said NASDA CEO Barbara Glenn. However, she said that although states "have been working diligently with EPA to implement the agency's 2015 rule, the lack of needed education and training materials and other significant challenges with the rule have made the original implementation timeline unrealistic."

NASDA, numerous state agencies, and AFBF said they are concerned that EPA has not clarified its requirements regarding Application Exclusion Zones (AEZ's) and "designated representatives," persons who would be authorized to receive information on behalf of farmworkers about chemicals used at farm operations.

The final rule would prohibit applications within 100 feet of workers for "aerial, air blast, fumigant, smoke, mist and fog

applications" as well as applications that use very fine or fine droplet sizes. The AEZ would be 25 feet when the pesticide is sprayed using droplet sizes of medium or larger and from more than 12 inches above the plant medium, according to an EPA fact sheet.

But some state agencies have said that the AEZ provisions should not apply when worker housing is within the exclusion zone.

In August, the Association of American Pesticide Control Officials told Jack Housenger, then the chief of the EPA's Office of Pesticide Programs, that a number of states with strict standards for farmworker housing believe it makes more sense to allow workers to "shelter in place" instead of being forced to leave the AEZ and then returning soon after the application.

Oregon's Occupational Safety and Health Administration, for example, is working on an alternative that would allow "occupants of protected spaces—including fully-enclosed housing—to remain indoors as protection from the potential hazard of spray drift." The state is planning to propose regulations in June.

Environmental and farmworker safety groups opposed any extension, arguing that states have had ample time to comply.

In a May 11 letter to the agency, groups including Farmworker Justice and Pesticide Action Network North America said that "EPA has gone to extraordinary lengths to ensure that growers are ready to implement the WPS within this timeframe and states are prepared to enforce it. Indeed, states with some of the largest agricultural production centers such as California, North Carolina and Florida are implementing the provisions of the WPS that went into effect earlier this year, demonstrating that EPA's revisions can be implemented without meaningful loss in agricultural activity or revenue."

In addition, they said that "farmworkers have one of the highest rates of chemically related illnesses of any occupational group, yet they are among the least protected people from occupational chemical exposures."

NASDA and AFBF also have criticized the "designated representative" provision, claiming it would deprive farmers of a reasonable expectation of privacy for confidential business information. In December, the groups said the rule "subjects farmers to potential harassment and public criticisms for lawful use of EPA-approved pesticides." (AgriPulse, 5/31/17)





# CITRUS SAFETY TRAINING

## AND TRACTOR RODEO

**NOV. 2,  
2017**

### TOPICS WILL INCLUDE

- Electrical Safety, Road Safety & First Aid
- Tractor Safety
- WPS Handler Training
- Basic Pesticide Safety Training,
- Decontamination Safety



## ANNUAL CITRUS EMPLOYEE SAFETY TRAINING

UF/IFAS Extension Polk County invites you and your employees to attend the 2017 Polk County Citrus Safety Training Program. This program is designed to help growers with regulatory compliance by providing annual safety training for their employees. Topics include proper safety measures in the grove and on the highway.

**Pre-registration is required. Completed registration forms are due in the Extension Office no later than Friday, October 27, 2017.**

**ENGLISH AND SPANISH  
SESSIONS AVAILABLE!**

## TRACTOR RODEO COMPETITIONS

The **Sprayer Operator Competition** will test precession, safety awareness, and attention to detail required for safe pesticide applications using a tractor with a sprayer.

The **Herbicide Operator Competition** will test for the above mentioned skills on a tractor with a boom sprayer.

In the **Fertilizer Spread-Off**, operators will simulate fertilizer applications to resets scattered randomly through a grove. The operator will be provided with an all-terrain utility vehicle (ATV), bucket of simulated fertilizer, and cups to apply the fertilizer. Judging will be based on precision of the fertilizer application, time, and vehicle operation skills.

For more information about any competition, contact Chris Oswalt at **(863) 519-1052**.

**UF/IFAS Extension Polk County Agricultural Center  
Stuart Conference Center  
1710 Highway 17-98 South, Bartow, FL 33830**

# CITRUS WORKER SAFETY TRAINING PROGRAM REGISTRATION

This registration and a fee of \$15 per person, which includes lunch, are due by Friday, October 27, 2017.

<b>SAFETY TRAINING PROGRAM</b> (PLEASE PRINT PARTICIPANT'S NAMES)	<b>ENGLISH</b>	<b>SPANISH</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

## TRACTOR RODEO COMPETITION REGISTRATION

### ANNUAL TRACTOR RODEO RULES

To compete in the team competition, the completed pre-registration form must be received in the Extension Office by October 27, 2017. This year, the team competition will be determined by the score and ranking of single individuals from a company. The highest company individual score and rankings from each competition will determine the team winners.

All participants will also compete as individuals for the events they enter.

<b>NAME</b>	<b>SPRAYER OPERATOR</b>	<b>HERBICIDE OPERATOR</b>	<b>FERTILIZER SPREAD-OFF</b>

Contact Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Company Name and Address: \_\_\_\_\_

Please mail this form with your check made payable to: Polk County Citrus Advisory Committee  
Gail Crawford, UF/IFAS Extension Polk County  
PO Box 9005, Drawer HS03, Bartow, Florida 33831-9005



# FRUIT CROP MANAGEMENT

## Short Course

NOV. 6-7,  
2017

The Fruit Crop Management Short Course will shed light on important crop management related topics such as flowering, dormancy, irrigation, nutrition, fruit set, and more. Speakers are experts from Georgia, California, South Carolina, and Florida. This will be a great time of gaining knowledge on management of growing non-traditional crops in Florida and meeting specialists from around the United States.

### Location

UF/IFAS Citrus Research and Education Center  
700 Experiment Station Road  
Lake Alfred, FL 33850  
For directions, visit

<http://www.crec.ifas.ufl.edu/about/map/map.shtml>

### Schedule

See attached document

### Conference Hotel

Mention University of Florida, Citrus Research and Education Center

#### Best Western Inn and Suites

1008 US Highway 92 West, Auburndale, FL  
863-551-3400  
\$95 per night

### Registration

<https://fruitcropmanagementshortcourse.eventbrite.com>

Registration by October 23rd - \$75.00

Registration after October 23rd - \$100.00

If you would like to pay by check, please contact Jamie Burrow

**UF** IFAS Extension  
UNIVERSITY OF FLORIDA



For more information, please contact Jamie Burrow, 863-956-8648, [jdyates@ufl.edu](mailto:jdyates@ufl.edu)

# FRUIT CROP MANAGEMENT SHORT COURSE AGENDA

**Monday,  
November 6, 2017**

**Plant Biology  
and Horticultural  
Management Practices**

8:15 a.m.	Registration and light refreshments
8.45 a.m.	Welcome
9:00 a.m.	<b>Tree Growth, Development, and Pruning</b> <i>Gregory Reighard, Clemson University</i>
9.45 a.m.	<b>Dormancy, Chilling, and Flowering</b> <i>Dario Chavez, University of Georgia</i>
10:30 a.m.	Break
10.50 a.m.	<b>Thinning</b> <i>Gregory Reighard, Clemson University</i>
11.35 a.m.	<b>Fruit Set, Development, and Alternate Bearing</b> <i>Anish Malladi, University of Georgia</i>
12:20 p.m.	Lunch
1:30 p.m.	<b>Fertilization and Irrigation</b> <i>Juan Carlos Melgar, Clemson University</i>
2:15 p.m.	<b>Plant Growth Regulators in Fruit Crops</b> <i>Craig Campbell, Valent Biosciences</i>
3:00 p.m.	<b>Harvesting, Postharvest Quality, and Technology</b> <i>Mary Lu Arpaia, University of California, Riverside</i>
3:45 pm	Depart

**Tuesday,  
November 7, 2017**

**Fruit Crops in Florida  
and General Production  
Practices**

8:00 a.m.	Light Refreshments
8:30 a.m.	<b>Peach</b> <i>Tripti Vashisth, University of Florida</i>
9:00 a.m.	<b>Brambles</b> <i>Christopher Vincent, University of Florida</i>
9:30 a.m.	Break
10:00 a.m.	<b>Pomegranate and Hops</b> <i>Shinsuke Agehara, University of Florida</i>
10:30 a.m.	<b>Tropical and Subtropical Fruits</b> (lychee, papaya, avocado) <i>Jonathan Crane, University of Florida</i>
11:00 a.m.	<b>Blueberry</b> <i>Jeffrey Williamson, University of Florida</i>
11:30 a.m.	<b>General Economics</b> <i>Ariel Singerman, University of Florida</i>
12:00 p.m.	Lunch

For the past 100 years, the University of Florida (UF) Citrus Research and Education Center (CREC) has been honored to assist the citrus industry in meeting its developmental needs through its Research, Extension, and Teaching programs. CREC is the oldest and largest off-campus experiment station in UF's Institute of Food and Agricultural Sciences (UF/IFAS) and is unique among research centers in that it focuses entirely on one commodity, citrus. CREC discovers and delivers innovative solutions that empower citrus and other agricultural interests to conduct responsible and profitable business. CREC fosters scientific excellence and efficient use of resources.



*Save the Date*

**UF | IFAS**  
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UF/IFAS Citrus Research and Education Center

**100<sup>th</sup>** Anniversary  
Celebration

1917 - 2017

Wednesday, November 29, 2017 | 9:00AM - 3:30PM | Ben Hill Griffin, Jr. Citrus Hall

*Please join us to celebrate the 100<sup>th</sup> anniversary of the UF/IFAS Citrus Research and Education Center. The morning program will feature speakers from the University of Florida and UF/IFAS faculty. Guests can learn about the latest research on fighting citrus greening, tour experimental groves and meet with research faculty during afternoon tours and site visits.*

The event is free but pre registration is required.

To RSVP <https://crec100years.eventbrite.com>

Parking available