

# Citrus Notes



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Extension Agent  
for  
Polk &  
Hillsborough  
Counties

## IMPORTANT DATES

**MARCH 12 - 15, 2019**

**INTERNATIONAL  
RESEARCH CONFERENCE  
ON HLB**

Riverside, CA

**APRIL 2, 2019**

**FLORIDA CITRUS  
GROWERS' INSTITUTE**

Avon Park, FL

**MAY 14, 2019**

**OJ BREAK**

Lake Alfred, FL

## 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

## 2019 Florida Citrus

## Growers' Institute



The 2019 Florida Citrus Growers' Institute will be held on Tuesday, April 2, 2019. The program

will be in the Alan Jay Wildstein Center for the Performing Arts at the Avon Park campus of South Florida State College. We are currently finishing up the program portion of the Institute. This year, we will be including synopsis presentations from information presented at the International Research Conference on HLB held in Riverside, California. We have completed and are distributing the program brochure at this point. In addition, we have setup an eventbrite link for registration at <https://2019floridacitrusinstitute.eventbrite.com/>

### International Research Conference on HLB

The sixth meeting of the International Conference on HLB will be held March 12<sup>th</sup> to 15<sup>th</sup>, 2019 in Riverside, California at the Riverside Convention Center. If you are interested in attending the conference, additional information can be found at the following website: <http://iocvirchlb.com/>. As in the past, there will be HLB Grower Day presentations. These presentations will be part of this year's Florida Citrus Growers' Institute.

## May 2019 OJ Break

The May 2019 OJ break will be held at the UF/IFAS Citrus Research and Education Center's BHG Citrus Hall in Lake Alfred. This month, our speakers will be Dr. Arnold Schumann and Rick Lusher. Dr. Schumann will be discussing the use and selection of soil moisture sensors for use in sandy ridge soils. We will also be discussing the use of sole moisture sensors to determine irrigation scheduling of citrus.

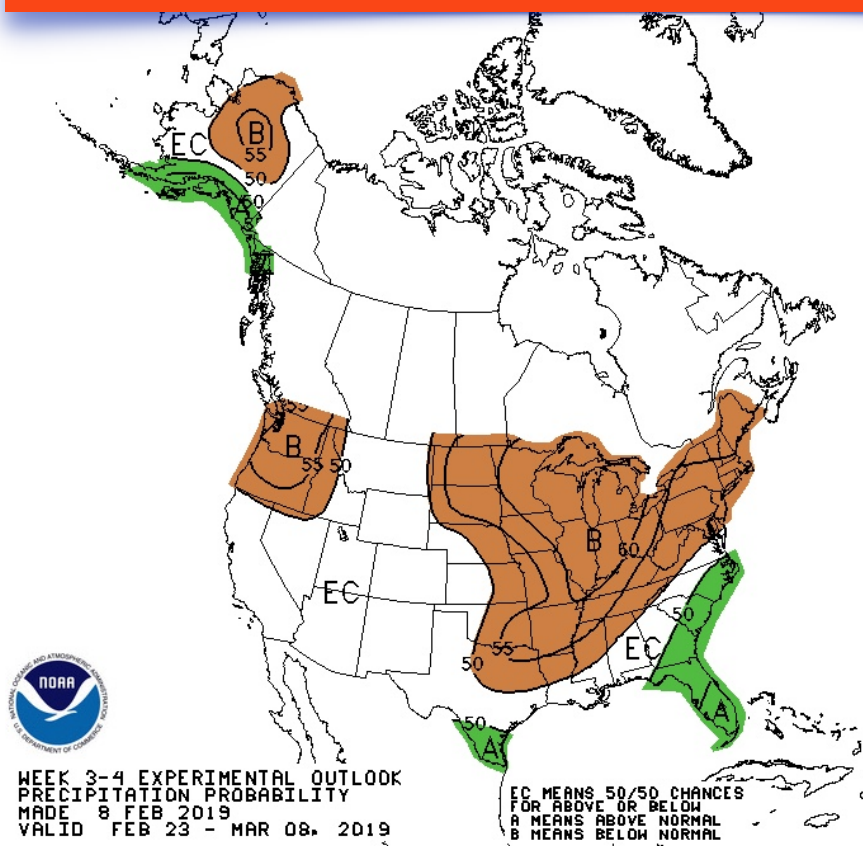
Rick Lusher, the director of the Florida Automated Weather Network (FAWN), will be discussing opportunities to add your weather stations to the Florida Farm Weather Network. The Florida Farm Weather Network is a program partially funded locally through a cost sharing program on weather stations through the Office of Ag Water Policy and the FDACS BMP program.

Registration information will be available in subsequent issues of this newsletter.



**UF | IFAS Extension**  
UNIVERSITY of FLORIDA

*The Foundation for the Gator  
Nation  
An Equal Opportunity Institution*



## PRECIPITATION

### PROBABILITY

The figure to the left is an experimental precipitation outlook issued by the NWS, Climate Prediction Center. It is a 3 to 4 week outlook depicting above or below normal chance of rainfall for the period displayed on the map (Feb 23 to Mar 8, 2019).

The shorter 6 to 14 day outlooks indicate a higher chance for above average chance of rainfall. This, coupled with the temperature outlooks indicating above average temperatures, bloom could be right around the corner. According to Dr. Albrigo's model beginning March 5, 2019.

Don't forget to scout for PFD!

### Operation Cleansweep

Attached at the end of the newsletter is a flyer for the 2018-19 edition of Operation Cleansweep here in Florida. The following information comes from the Florida Department of Agriculture and Consumer Service.

Operation Cleansweep provides farmers, nursery operators, golf course operators, and pest control services a one-time safe and economical way to dispose of their canceled, suspended, and unusable pesticides. Some of these materials are very old and in containers that are deteriorating. Some, such as chlordane and DDT, are so toxic to humans and hazardous to the environment that they are no longer allowed to be used. Proper disposal can be costly and a regulatory burden for small farmers and other pesticide users. Operation Cleansweep offers an opportunity to avoid these formidable barriers and to promote safe and environmentally sound pesticide use, handling and disposal. Operation Cleansweep began in 1995, with a statewide collection of more than 70,000 pounds of lead arsenate, a widely used pesticide for citrus operations that was banned from use by the EPA. Through June 2017, Operation Cleansweep collected and disposed of more than 1,762,000 pounds (881 tons) of canceled, suspended, and unusable pesticides from more than 2,400 participants in all 67 counties. For more information, contact Shannon Turner at 877-851-5285 or [Shannon.Turner@freshfromflorida.com](mailto:Shannon.Turner@freshfromflorida.com).

Additional information can be found at the following website: <https://floridadep.gov/waste/permitting-compliance-assistance/content/operation-cleansweep-pesticides>.

### Citrus Canker Control

Dr. Megan Dewdney, UF/IFAS CREC, spoke at our last OJ Break in February on the control of citrus diseases. Having this opportunity I wanted to quickly review the control recommendations for citrus canker. Copper continues to be our main material for citrus canker control.

She mentioned that on young citrus trees an old product "Actigard" with a new name "Blockade" could be an additional option. Blockade applications for citrus canker should begin prior to the appearance of disease symptoms. The material stimulates a SAR (systemic acquired response) in trees and needs to be active prior to infection.

On mature trees, copper applications for the protection of fruit should begin once fruit size reaches 3/8 inch in size. Sprays should be scheduled a minimum of 21-days apart to protect susceptible fruit. Spray coverage is important, so choose an application speed and sprayer volume that achieves good fruit coverage. In addition, this 21-day interval on average ensures that there will be significant copper residue remaining on the fruit. The interval accounts for copper losses due to rain washing of copper under normal rainfall and fruit enlargement. Intense rainstorms may require reapplication.

Precautions that should be taken when using copper would include using it at the recommended label rate for disease control. Remember that phytotoxicity can occur more easily during hot and dry weather (air temperatures in excess of 94°F). To reduce the potential for phytotoxicity, spray volumes/acre can be increased along with minimizing the use of complex tank mixes.

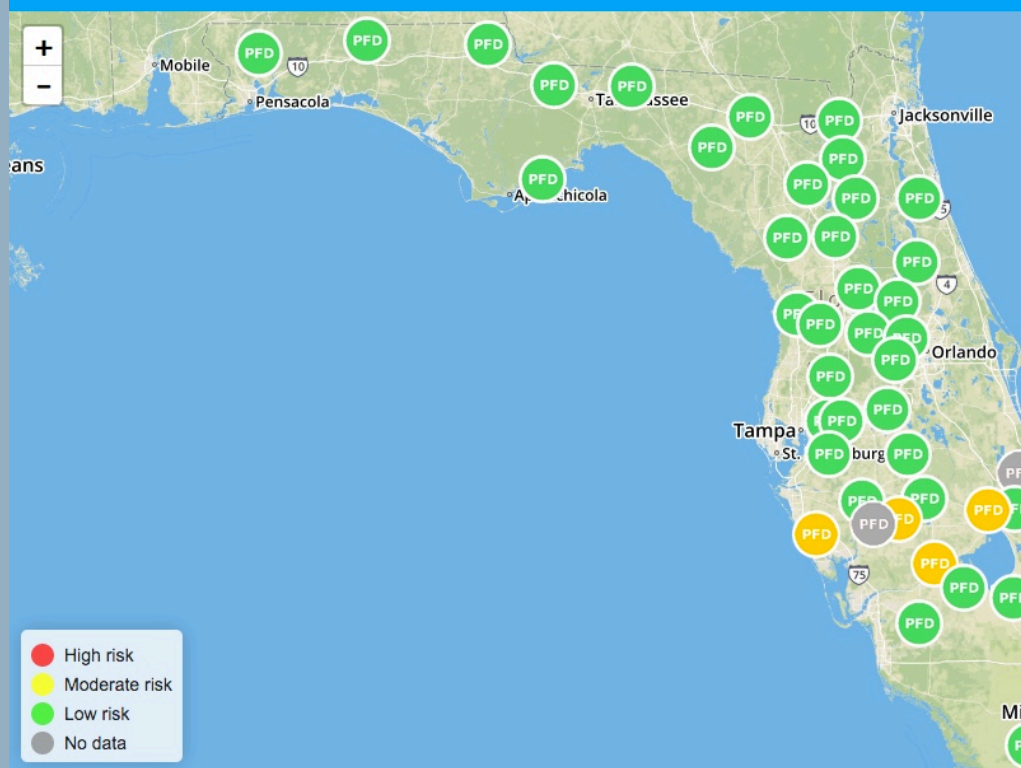
## POST-BLOOM

### FRUIT DROP

On the right is the home page of the Citrus Advisory System on the AgroClimate website. The Citrus Advisory System predicts the risk for post-bloom fruit drop using weather data collected and calculated from each of the Florida Automated Weather Station (FAWN) sites throughout

Additional information can be found in the corresponding article below.

Weather stations risk showed below. Select one to use the system.



### Post-bloom

## Fruit Drop Model

The folks at AgroClimate along with Drs. Natalia Peres and Megan Dewdney, have developed a model to alert growers to when environmental conditions are favorable for post-bloom fruit drop. The model also makes recommendations on when to spray for the disease.

The model resides on the AgroClimate website (<http://agroclimate.org/>) under the “tools” drop-down menu labeled the “citrus advisory system” (<http://agroclimate.org/tools/cas/>). Once you navigate to this page you will see a map of Florida with traffic light colored disks (red, yellow, or green). The colors indicate PFD risk: red as high, yellow as moderate and green as low.

Once you locate a FAWN weather site near your grove location, clicking on the disk will open a new page where you are able to enter your bloom intensity, flower stage, and previous fungicide applications. The results will provide a recommendation on the need to make a fungicide application for PFD.

You can also view at the disease simulation tab where a graph plots past conditions over time, with an additional three-day forecast for disease risk based on the National Weather Service local forecast for the FAWN site.

If you are further interested, there are two additional tabs for daily weather summary “daily weather” and the actual 15-minute weather data “weather” from the FAWN station. The data contains leaf wetness duration (LWD) in hours, average daily air temperature (Temp (F) or (C)) a calculation of the post-bloom fruit drop index (PFD Index) and a signal word for the risk for that particular day. The “weather” page includes temperature, humidity, rainfall amount, leaf wetness (yes or no) LWD, mean temperature, and PFD index.

Data used for the risk calculation comes from an accurate model that predicts leaf wetness (that is based on air temperature, dew point temperature, humidity, and wind), air temperature, rainfall, etc. The model incorporates a past history of the disease in the grove, so you are no longer required to enter the

past disease severity, buttons present or diseased petals.

It is worth mentioning that rainfall will spread PFD spores, but it is the duration of leaf wetness that increases the risk of infection. Rainfall that extends the duration leaf wetness is more problematic than rainfall occurring when leaves are typically wet (i.e. overnight). This duration is more important to disease risk than the amount of rain.

## Division of Emergency Management Block Grant Meetings

There will be another round of Block Grant meetings to help citrus growers with the application process. There will be two in Polk County, both at Florida Citrus Mutual Headquarters in Bartow. Dates for the meetings are as follows: March 15, 2019, and April 19, 2019, from 8:00 a.m. to 4:30 p.m.

Growers should make appointments for any of the dates listed above by calling 863-800-0342 (Information from Florida Citrus Mutual Triangle).



# OPERATION CLEANSWEEP 2018-2019

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**Operation Cleansweep is a mobile  
pesticide collection program  
that provides a safe way to  
dispose of cancelled, suspended  
and unusable pesticides.**

**CLEANSWEEP@FRESHFROMFLORIDA.COM**

## CONTACT:

**FLORIDA  
DEPARTMENT OF  
AGRICULTURE  
AND CONSUMER  
SERVICES**

**SHANNON TURNER**  
**TOLL-FREE NUMBER:**  
**877-851-5285**

## AVAILABLE TO:

- ✓ Farms/Groves
- ✓ Greenhouses
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- ✓ Golf Courses
- ✓ Pest Control Services

## Partners & Representatives:

FL Peanut Producers Association  
FL Farm Bureau  
FL Fruit & Vegetable Association  
FL Nursery Growers & Landscape Assn.  
FL Forestry Association  
FL Landscape Maintenance Association  
FL Dept. of Ag. and Consumer Service  
FL Golf Course Superintendents Assn.  
FL Turf Grass Association  
FL Fertilizer & Agrichemical Association  
FL Pest Management Association  
FL Tomato Committee  
FL Citrus Mutual  
FL Dept. of Environmental Protection  
Certified Pest Control Operator Assn.  
UF Institute of Food & Ag. Sciences  
Turf Grass Producers of Florida



## PURPOSE OF THE INSTITUTE

Citrus Greening or Huanglongbing (HLB) continues to impact all citrus production areas of Florida. The 2019 Florida Citrus Growers' Institute is an opportunity for Florida citrus growers to come together to learn about effective management of HLB and other challenges affecting the Florida citrus industry. Topics this year include horticultural management of HLB, Asian citrus psyllid management, and a synopsis of the International Research Conference on HLB.

## CONTINUING EDUCATION UNITS

Continuing Education Units (CEU's) will be offered for holders of restricted use pesticide licenses (RUP) and certified crop advisors (CCA). CEU's have been requested in the following categories: private applicator, agricultural tree crop, regulatory, and demonstration & research for RUP holders. CEU's have been requested for CCA's in the appropriate CEU categories.

## SPONSORS

### PLATINUM

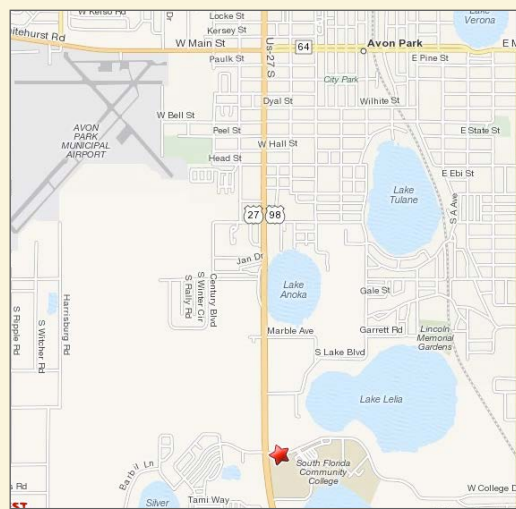
Bayer CropScience  
Harrell's  
Syngenta Crop Protection

### GOLD

BASF  
FMC Corporation  
Valent

### BRONZE

Alltech  
Gowan  
Tree Defender



## DIRECTIONS

The South Florida State College is located at 600 West College Drive in Avon Park.

From the South: Take U.S. Hwy. 27/98 north towards Avon Park, turn east onto W. College Drive and follow the signs to the Theatre.

From the North: Take U.S. Hwy. 27/98 south to Avon Park, continue south to W. College Drive, turn east onto W. College Drive and follow the signs to the Theatre.

From the East: Take U.S. Hwy. 98 north to where U.S. Hwy. 27/98 merge south of Sebring. Proceed on U.S. Hwy. 27/98 north towards Avon Park, turn east onto W. College Drive and follow the signs to the Theatre.

From the West: Take S.R. 64 east to Avon Park, turn south on U.S. Highway 27/98 to W. College Drive, turn east onto W. College Drive and follow the signs to the Theatre.

SOUTH FLORIDA STATE COLLEGE  
ALAN JAY WILDSTEIN  
CENTER FOR THE PERFORMING ARTS  
600 W. COLLEGE DRIVE  
AVON PARK, FL

# FLORIDA CITRUS GROWERS' INSTITUTE



Conducted by  
University of Florida, IFAS Extension  
Citrus Research and Development  
Foundation

South Florida State College  
Alan Jay Wildstein  
Center for Performing Arts  
Avon Park, Florida  
April 2, 2019

# 2019 Florida Citrus Growers' Institute

## PROGRAM AGENDA TUESDAY, APRIL 2, 2019

8:00 AM - Registration

8:40 AM - Welcome and Introductions

*Mr. Chris Oswalt, CES, Bartow, FL*

## REGULATORY & CITRUS HORTICULTURE

*Moderator: Mr. Chris Oswalt, CES, Bartow, FL*

8:45 AM - Citrus Regulatory Update - *Ms. Callie Walker, FDACS/DPI*

9:00 AM - Optimizing Grove Nutrition with Leaf Sampling and Nutrient Deficiency Diagnosis - *Dr. Arnold Schumann, UF/IFAS CREC*

9:30 AM - Citrus Weed Control - Efficacy, Longevity and Crop Safety - *Dr. Ramdas Kaniserry, UF/IFAS SWFREC*

10:00 AM - Is it profitable to use mesh bags for protecting young citrus trees? - *Dr. Ariel Singerman, UF/IFAS CREC*

10:15 AM - Break

## INTERNATIONAL RESEARCH CONFERENCE ON HLB

*Moderator: Dr. Steve Futch, CES, UF/IFAS CREC*

10:40 AM - IRCHLB Overview - *Dr. Michael Rogers, UF/IFAS CREC*

10:45 AM - Horticultural Practices - *Dr. Tripti Vashisth, UF/IFAS CREC*

11:10 AM - Asian Citrus Psyllid - *Dr. Lauren Diepenbrock, UF/IFAS CREC*

11:35 AM - HLB Pathology - *Dr. Megan Dewdney, UF/IFAS CREC*

12:00 PM - Lunch

## PSYLLID MANAGEMENT

*Moderator: Dr. Mongi Zekri, CES, LaBelle, FL*

1:00 PM - Psyllid Management Options and Challenges when Reducing Costs, and Resistance - *Dr. Lukasz Stelinski, UF/IFAS CREC*

1:30 PM - Using RNAi Technology to Modify Asian Citrus Psyllid as a Tool in HLB Management - *Dr. Nabil Killiny, UF/IFAS CREC*

2:00 PM - Using Particle Films to Improve Establishment of Citrus Plantings in Florida - *Dr. Christopher Vincent, UF/IFAS CREC*

2:30 PM - Impact of organic and conventional spray programs on Asian citrus psyllid management and yield - *Dr. Jawwad Qureshi, UF/IFAS SWFREC*

3:00 PM - Adjourn

CES: County Extension Service

CREC: Citrus Research & Education Center, Lake Alfred, FL

FDACS/DPI: Florida Department of Agriculture & Consumer Services/ Division of Plant Industry, Gainesville, FL

SWFREC: Southwest Florida Research & Education Center, Immokalee, FL

UF/IFAS: University of Florida, Institute of Food and Agricultural Sciences

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution.



## FLORIDA CITRUS GROWERS' INSTITUTE

April 2, 2019

## PREREGISTRATION IS REQUIRED

Name: \_\_\_\_\_

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

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

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

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

Please send registration by March 29, 2019 to:

Gail Crawford, Polk County Extension Service, P.O. Box 9005, Drawer HS03, Bartow, FL 33831

By phone: 863-519-1042, Fax: 863-534-0001, email: [dorothy@ufl.edu](mailto:dorothy@ufl.edu) or

online at: <https://2019floridacitrusinstitute.eventbrite.com/>