

October 2021

This issue of the newsletter has some great information on some upcoming events and programs we hope you will take part in:

On October 26, 2021, there will be a Citrus Black Spot Training Workshop in Arcadia. Participants will learn how to detect citrus black spot and the management options available - read more about this in the following pages.

Sign up now for the annual Polk County Citrus Employee Safety Training, which will be held on November 4, 2021 at the Stuart Center next to the Polk County Extension office in Bartow. Registration information is included inside the newsletter.

The Winter Weather Watch program will be starting on November 15, 2021. Register for this program to receive daily weather forecasts that are available for growers to help make decisions about cold protection during the winter months.

Fresh Fruit Training is now available online. You may choose to complete training modules from multiple subjects. Certificates of completion will be provided. Please see the enclosed flyer for more details.

Please note that Citrus Nutrition Day, which was originally scheduled for October 12, 2021 at the UF/IFAS Citrus Research and Education Center has been rescheduled for October 26, 2021. Please contact Jamie Burrow for more details jdyates@ufl.edu



UF | IFAS Extension UNIVERSITY of FLORIDA

Chris Oswalt UF/IFAS Extension Polk and Hillsborough counties (863) 519-1052 wcoswalt@ufl.edu



Ajia Paolillo UF/IFAS Extension DeSoto, Hardee, Manatee counties (863) 251-4763 ajiacunningham@ufl.edu



Lourdes Pérez Cordero UF/IFAS Extension Highlands County (863) 402-6540 lperezcordero@ufl.edu



The Foundation for the Gator Nation
An Equal Opportunity Institution



New Highlands County Agent

My name is Lourdes Pérez Cordero and I am the new Agriculture and Natural Resources Extension Agent of Highlands County. This is a multi-crop extension appointment with a focus on citrus production. My immediate goal is to get acquainted with the local growers and the challenges that they currently face, as well as learning their production practices and management techniques. By developing diverse educational programs, I will be able to provide the latest science-based information and available resources to the community. I look forward to contributing to the betterment of common agricultural practices and fostering new professional relationships.

My office is located at the Highlands County Extension Office. I can also be contacted by phone at (863) 402-6540 and by email at lperezcordero@ufl.edu.

Paraquat Dichloride Training Reminder

BY AJIA PAOLILLO

If you use herbicides containing paraquat dichloride in your citrus groves, you must be aware of the use certification requirements for this product. In 2016, certifications and training for using this herbicide were put into place following the Environmental Protection Agency's (EPA) risk mitigation requirements. Any person that uses paraquat must meet these requirements. The first requirement is that any person using paraquat must be a certified pesticide applicator, which means they possess their own restricted use pesticide license. Unlike other pesticides, they cannot use, handle, or apply this product while operating under their supervisor's license. Furthermore, they must also receive a separate certification, indicating that they passed an EPA-approved paraquat training course. This training requirement is listed on the product label.

The EPA's website identifies those who need to take the training:

"Any person who intends to use paraquat must be a certified applicator and is required to take the training. "Use" includes pre-application activities involving mixing and loading the pesticide; applying the pesticide; and other pesticide-related activities, including, but not limited to, transporting or storing opened pesticide containers, cleaning equipment, and disposing of excess pesticides, spray mix, equipment wash waters, pesticide containers, and other paraquat-containing materials."

Many of you have completed these requirements to apply paraquat. As we know, restricted use pesticide licenses are renewed every four years, but did you also know that the paraquat training certification needs to be completed at a minimum of every three years?

If you need the initial training or recertification, you may access the training using this link for the Extension Foundation website: https://campus.extension.org/enrol/index.php?id=1660

Here you will need to create an account if this is your first time taking the training, or you can log into your account for recertification. The free online training will supply a certificate upon completion of the test at the end of the module. Keep a copy of your certificate, as you may be asked to show this during a regulatory inspection.

Citrus Black Spot

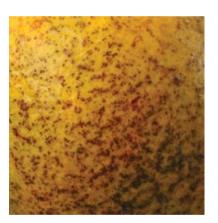
BY AJIA PAOLILLO

Citrus black spot (CBS) is a fungal disease caused by Phyllosticta citracarpa (formerly Guignardia citricarpa). This fungus lives on dead twigs, leaf litter, and lesions on fruit. The spores move with water and are spread to clean fruit and leaves through rain splash. All of the commercial varieties of citrus grown in Florida can be affected by this disease, with lemons being the most susceptible. Mid to late season round oranges are highly susceptible, and tangerine/mandarin hybrids are moderately susceptible. There are four types of symptoms that can appear with CBS: Hard Spot, False Melanose, Cracked Spot, and (Early)Virulent Spot. Symptoms can appear on green fruit but are most visible on fruit as they mature and change color. There is a long latent period with CBS from infection to when symptoms appear, which is why symptoms are commonly found on mature fruit. The warm temperatures and wet, humid conditions of our summer weather are favorable for infection. Other diseases such as Alternaria Brown Spot and Citrus Canker can be mistaken for CBS, so it is crucial to learn the characteristics of the various CBS symptoms.

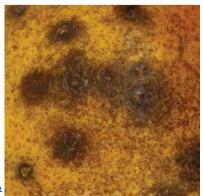
Hard Spot: This is the most characteristic symptom of CBS, which appears as the fruit turns color. The round lesions are sunken with brick-red to black margins. The tissue in the center of the lesion is grey, and pycnidia, which are fungal structures, are visible as black dots in the center of the lesions. A green halo may surround some lesions. Lesions can be separate or coalesce to form irregularly shaped larger lesions.



False Melanose: Consists of many tiny, smooth, but slightly raised lesions that are tan to dark brown in color. Lesions can be found on green fruit early in the season and fruit that has turned color. The lesions do not contain pycnidia. However, False Melanose can develop into Hard Spot later in the season, which would contain pycnidia.



Cracked Spot: This symptom is thought to be associated with citrus rust mite damage. The brown lesions are extensive, covering a good portion of the fruit peel. The lesions are smooth yet contain raised cracks, which can be felt and may also include Hard Spot lesions in some cases.



Citrus Black Spot

BY AJIA PAOLILLO

(Early)Virulent Spot: It appears as irregularly shaped, sunken lesions on the fruit peel, which are light red, to very dark red depending on the lesion age. Lesions can be scattered on the peel or appear close together and coalesce to form a more significant lesion. Later in the season on mature fruit, Virulent Spot can be visible, as the earlier lesions become leathery to the touch and the color darkens to brown and even black. Pycnidia can be found in these lesions. Unfortunately, the virulent spot may even appear postharvest during packing or shipping, although symptoms were not present during harvest.



Early Virulent Spot





Images Credit: UF/IFAS, Publication HS1184

CBS lesions do not usually affect the internal quality of the fruit, and fruit can still be processed. However, severe infestations cause fruit drop, leading to yield loss. Fresh fruit marketability is particularly affected by this disease due to the unsightly appearance of the lesions and restrictions on exporting to international markets. Currently, CBS quarantine zones exist in Charlotte, Collier, Glades, Hendry, and Lee counties in Southwest Florida. Groves within these quarantine areas must follow regulatory protocol for both processed and fresh fruit.

Management for CBS utilizes applications of fungicides including copper products, strobilurins (Abound, Gem, or Headline), other fungicides containing strobilurins (Amistar Top and Pristine), and Enable. Monthly applications from May-September, when most infection occurs, are needed for effective control. Applications starting in April might be necessary if there is a high amount of rainfall. When using strobilurins, Amistar Top, and Pristine, remember these products can only be used four times a year. This includes the use of these products in the management of other diseases such as Melanose and Greasy Spot. To avoid resistance, do not apply two consecutive sprays of these products, instead rotate with other products which utilize different modes of action.

The use of copper products and residual efficacy can be monitored using the citrus copper application scheduler http://agroclimate.org/tools/citrus-copper-application-scheduler/. Throughout May-September, fruit expansion and rainfall can cause copper residues to be reduced through cracks in the protective surface as the fruit grows and degradation from rains. This scheduler can help you to identify the most effective timing for copper applications due to these factors.

For more information on Citrus Black Spot, refer to the 2021-2022 Florida Citrus Production Guide https://edis.ifas.ufl.edu/publication/cg088

There will be a Citrus Black Spot Training Workshop on October 26, 2021, in Arcadia. Please see the flyer on the next page for more information and to register for the event.

Citrus Black Spot

Training Workshop

October 26, 2021 9am-12pm

Turner Agri-Civic Center 2250 NE Roan St. Arcadia, FL 34266



Citrus Black Spot is a fungal disease that has been found in five SW Florida counties.

This disease has the potential to continue moving north through the citrus growing region. Participants will learn how to detect citrus black spot in the grove, be provided with management options, and learn about regulatory procedures.

Workshop Agenda

8:30am-Registration check-in

9:00am- Opening remarks - Ajia Paolillo

9:10am- Recognizing symptoms, scouting and management- Dr. Megan Dewdney

10:15am- Disease Identification Exercise

10:30am-Break

10:45am- Current Status and Potential Impacts of CBS- Callie Walker

12:00pm- Lunch provided by Tree Defender

Pre-registration is required by October 21, 2021 https://bit.ly/3062qG9

For more information contact:
Ajia Paolillo, UF/IFAS Extension
Multi-county Citrus Agent
ajiacunningham@ufl.edu
863-251-4763



Restricted Use Pesticide License
CEUs have been requested,
pending approval.

3 CCA CEUs will be available in Integrated Pest Management



The 2021-22 Florida Citrus Production Guide

The new 2021-2022 Florida Citrus Production Guide, is available for pickup at your local UF/IFAS Extension Offices. The beginning section of the production guide covers general information that growers will find helpful, including pesticide resistance and management, PPE statements on pesticide labels, WPS reference information, plus much more. The guide is also divided into the following sections:

- Horticultural Practices
- · Mites. Insects. and Nematodes
- Diseases
- Weeds
- Pesticides

Each section gives detailed information relating to the individual topics. Growers get the essential information they can use in the field, such as symptoms to look for in the grove, monitoring techniques, and the current UF/IFAS management and control recommendations.

If you would like a copy of the new Florida Citrus Production Guide, please let us know!



Polk County Citrus Employee Safety Training

BY CHRIS OSWALT

The annual 2021 Polk County Citrus Employee Safety Training program will take place on Thursday, November 4, 2021, at the Stuart Conference Center in Bartow. The program topics along with registration and additional information is in the program flyer. Please note that this year we will not be holding the Tractor Rodeo in the afternoon. The program requires a registration fee along with a due date of Friday, October 29, 2021. If you have any questions about the program, please contact Gail Crawford at (863) 519-1042.



Citrus Safety Training UF/IFAS Polk County Nov 4,





Annual Citrus Employee Safety Training

Polk County Extension - UF/IFAS invites you and your employees to attend the 2021 Polk County Citrus Safety Training Program. This program is designed to help growers with regulatory compliance by providing annual safety training for their employees. Preregistration is required. Please indicate if each participant would like the English or Spanish sessions. Completed registration forms are due in the Extension Office no later than Friday, October 29, 2021. Topics this year include:

- Grove crime and equipment safety
- WPS handler training
- Heat stress & hearing protection
- Environmental hazards

- Fire extinguisher safety
- Disease decontamination procedures

When: November 4, 2021

Where: Stuart Conference Center 1710 US Hwy 17 S. Bartow, FL

Time: Check - In at 7:30am

Program 8am to 1:00pm (including

lunch)

Other: English and Spanish sessions available and a core CEU for your Restricted Use Pesticide (RUP) License. Please be advised that facial coverings are encouraged. For more information

contact Gail Crawford at

(863)519-1042

An Equal Opportunity Institution. UF/IFAS Extension, University of Florida, Institute of Food and Agricultural Sciences, Nick T. Place, dean for UF/IFAS Extension. Single copies of UF/IFAS Extension publications (excluding 4-H and youth publications) are available free to Florida residents from county UF/IFAS Extension offices.

In accordance with the provisions of ADA, auxiliary aids and services will be provided upon request with a 3-day notice. Contact Gail Crawford at (863) 519-1042. This material is available in an alternate format upon request.

Citrus Worker Safety Training Program Registration

This registration and a fee of \$15 per person, which includes lunch are due by Friday, October 29, 2021

	SAFETY TRAINING PROGRAM (Please Print Participants Names)	ENGLISH	SPANISH				
1							
2							
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	Company Name and Address:						
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Please mail this form with your check made payable to:

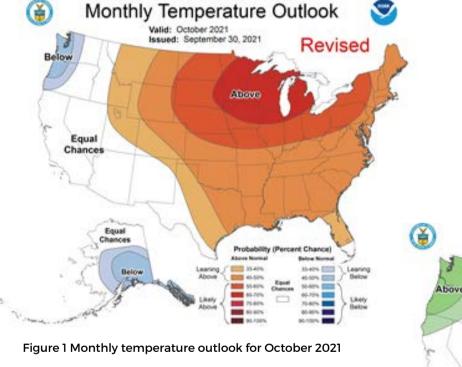
Polk County Citrus Advisory Committee

Gail Crawford, UF/IFAS Extension Polk County PO Box 9005, Drawer HS03, Bartow, Florida 33831-9005

Fall Weather Outlook

BY CHRIS OSWALT

Autumn is here, days are getting a little shorter and it not quite as hot as before. The latest NOAA weather outlooks for temperature and rainfall have us looking at an increased probability of above-average temperatures for September (fig 1). The rainfall outlook (fig 2) has us looking at an equal chance or probability for above, below, or normal rainfall. The El Nino forecast is for continuing in neutral El Nino conditions for the next couple of months with a 70-80% chance of a transition into La Nina conditions for the 2021-22 winter. Technically we are in a NOAA La Nina Watch condition as of mid-September. So, in planning for this winter, La Nina conditions are, on average, usually warm and dry winters with plenty of sunshine. Along with the knowledge that these types of years are when we have had severe freezes.



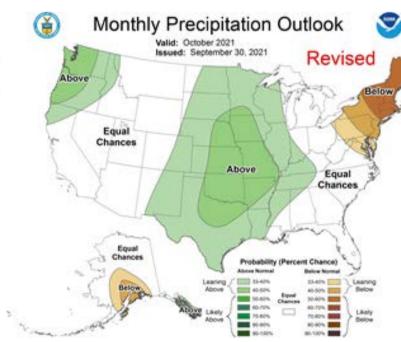


Figure 2 Monthly precipitation outlook for October 2021

Winter Weather Watch

BY CHRIS OSWALT

UF/IFAS Polk County Cooperative Extension Service



The 2021 - 22 version of the Winter Weather Watch will begin on November 15, 2021. Time is short so send in your subscription form to receive timely agricultural winter weather forecasts and information.

The 2021-22 edition of the Polk County Winter Weather Watch program will begin on November 15, 2021. The program provides growers with winter weather forecast information specifically geared toward agricultural interests in West Central and Southwest Florida. The program provides subscribers with an unlisted phone number for (24 hour/7 days a week) access to daily weather forecasts. The zone forecasts are from the National Weather Service (NWS) and are listed on the automated phone menu, so you can select the products you are interested in. Forecasts include the zone forecasts, 6-10 and 8-14 day outlook forecasts. In addition to the forecasts we have special weather narratives provided as needed in the event of freezing temperatures and a weekly outlook provided by our own meteorologist Fred Crosby. When freezing temperatures are predicted in our area additional updates will include the afternoon zone forecast and the modified sunset brunt minimum temperature equation. If this is not enough we will also provide the weekly citrus leaf freezing temperatures and the 2021-22 Winter Weather Watch manual. Subscriptions for the Winter Weather Watch program are only \$100.00 for the entire 4 month period (Nov 15 to Mar 15). The cost is about the same as one tank (well maybe two now days) of gas for your pickup truck. You can subscribe to the Winter Weather Watch by completing and returning a "subscription form" or calling Gail Crawford at 863-519-1042 or email at dorothyc@ufl.edu

Forecast Schedule

The following schedule lists the products available from the Winter Weather Watch. The times and specific days of week and the forecasted minimum temperature dictate when these forecasts products will be updated. Our Winter Weather Watch area includes the following areas by county: Pasco, Hillsborough, Polk, Highlands, Hardee, Manatee, Sarasota, DeSoto, Charlotte, Lee, Glades, Hendry and Inland Collier.

Forecast Product	Above 32 ° F	320-290F	Below 28 ⁰ F
Zone*	Daily 8:30 a.m.	Daily 8:30 a.m.	Daily 8:30 a.m.
6-10 & 8-14 Day Outlooks*	Mon/Wed/Fri 8:30 a.m.	Mon/Wed/Fri 8:30 a.m.	Mon/Wed/Fri 8:30 a.m.
Weekly Outlook	Friday 5:00 p.m.	Friday 5:00 p.m.	Friday 5:00 p.m.
Leaf Freezing Temperatures	Friday 5:00 p.m. & on the Florida Automated Weather Network (FAWN)	Friday 5:00 p.m.	Friday 5:00 p.m.
Special Weather Narratives	As Needed	Daily 3:00 p.m.	Daily 3:00 p.m.
Afternoon Zone*	None	Daily 4:00 p.m.	Daily 4:00 p.m.
Sunset/Brunt	None	As Needed	Daily 7:00 p.m.

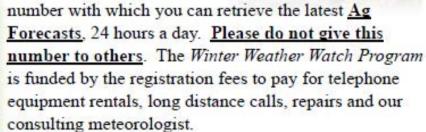
^{*}NWS products are subject to changes in schedule timing based on NWS release of these products.

2021 - 2022 WINTER WEATHER WATCH PROGRAM

NOVEMBER 15, 2021 TO MARCH 15, 2022 REGISTRATION FEE: \$100.00

It's once again time to register for the upcoming 2021 - 2022 Winter Weather Watch Program. Upon receiving your \$100.00 registration payment, you will be

sent an unlisted telephone





2021 - 2022 Winter Weather Watch Program

NAME:	PHONE NUMBER:	
ADDITIONAL PHONE NUMBERS:_		
COMPANY:		
MAILING ADDRESS:		
EMAIL ADDRESS:		
CITY-	ZIR CODE:	

REGISTRATION FEE \$100.00

PLEASE RETURN THIS REGISTRATION FORM AND YOUR CHECK PAYABLE TO:
POLK COUNTY EXTENSION CITRUS ADVISORY COMMITTEE
PO BOX 9005, DRAWER HS03
BARTOW, FL 33831-9005



2021-22 Fresh Fruit Trainings

TRAINING TEAM CONTACT INFORMATION

Amir Rezazadeh (Ouestions & In-Person Scheduling) amir2558@ufl.edu 772-462-1660

Mark Ritenour ritenour@ufl.edu 772-577-7359

Jamie Burrow (Certificates/Technical Support) idvates@ufl.edu 863-956-8648

Christine Kelly-Begazo (Training Payment) ckellybe@ufl.edu 772-226-4330 x3



- Please note that the Safari browser may not work properly with the program on a desktop or mobile device. It is recommended to use desktop Google Chrome or Firefox browsers.
- You will need to be able to print, scan, and upload the sign in sheet to complete the training modules.
- The cost is \$3.00 per a person total for as many modules as they wish to complete, or a maximum of \$100 per company.
- Certificates and training kits (hand sanitizer, mask, educational materials, and more) will be sent via FedEx.

TRAININGS OFFERED IN ENGLISH AND SPANISH

Agricultural Tractor Safety

Ladder Safety

Worker Health. Hygiene, and Training

Overview of Food Safety for Fresh Citrus

Identification of Citrus Diseases in the Packinghouse

> Chemical Hazards-Packinghouse Personnel

Worker Protection Standards-Field Crews and Harvesters

CDC-Issued Guidance for COVID-19 in Agricultural Workplaces





















Virtual trainings can be accessed at

https://crec.ifas.ufl.edu/trainings/fresh-fruit/

Alico Citrus Internships Summer 2022



Company Overview

Alico, Inc. (NASDAQ: ALCO) is a holding company with assets and related operations in agriculture and environmental resources, including citrus and wildlife management. Our mission is to create value for shareholders by managing existing assets to their optimal current income and total returns, opportunistically acquiring new assets and producing high quality agricultural products while exercising responsible environmental stewardship. Our objectives are to produce the highest quality agriculture products, create innovative land uses, opportunistically acquire and convert undervalued assets, sell under productive land, generate recurring and sustainable profit with the appropriate balance of risk and reward, and exceed the expectations of shareholders, customers, clients, growers and partners.

Program Overview

As an intern with Alico Citrus, you will receive an opportunity to see all components of the citrus caretaking business. This is a paid internship. You will have a designated mentor and assigned rotation throughout the organization for the summer. You will get the chance to see all aspects of our business from production to the corporation side. This internship will give you the potential to gain a diverse training along with contact to the citrus industry as well as prospective employment opportunities after college.

Intern Focus

- Production
- Human Resources
- Accounting
- Information Technology
- Business Administration

Qualifications

- Seeking future in employment in the Florida Citrus Industry.
- Basic familiarity with agriculture.
- Basic computer skills.
- Pertaining to the internship, willingness to work outside.
- Self-motivated, detail oriented, honest, and a good personality.
- Ability to relocate to or originally from one of the following counties: Polk, Highlands, Hardee, Desoto, Hendry, Collier, or Lee.
- Freshman through Senior level
- Satisfactory results of a pre-employment background check, drug test, and driving record

Alico Citrus Internship Program
Apply Here!

For more information contact: Carisa Keller Internship Coordinator Director of Sustainability 941-268-7495 ckeller@alicoinc.com





2021 Fall Food Safety Events





Produce Safety Alliance Grower Training

A one-day course for fruit and vegetable growers and packers who fall under FSMAs Produce Safety Rule.

- 9/21/21- Ft. Pierce PSA Training https://psa092121.eventbrite.com
- 10/19/21 Naples PSA Training <u>https://psa101921.eventbrite.com</u>
- 11/10/21- Monticello PSA Training https://psa101921.eventbrite.com
- 11/17/21- Belle Glade PSA Training <u>https://bit.ly/3fxotdx</u>

Remote- Produce Safety Alliance Grower Training

A three-day, three-hour virtual course for fruit and vegetable growers and packers who fall under FSMAs Produce Safety Rule.

- 8/30-9/2/21

 Remote PSA Training Sold Out
- 11/30-12/2/21- Remote PSA Training https://psa113021.eventbrite.com

Bridging the GAPs: Approaches for Treating Water On-Farm

Join this one-day course with extension specialists across the Southeast to learn about approaches for treating water on-farm and implementing systems to meet requirements of the Produce Safety Rule.

• 9/22/21- Fort Pierce BTG Training https://bridgingthegaps092221.eventbrite.com



Preventive Controls for Human Food-Preventive Controls Qualified Individual (PCQI) Training

This three-day course for those covered under FSMAs Preventive Controls for Human Food Rule

11/2-11/4/21—Lake Alfred

Contact: taylorlangford@ufl.edu for registration.

Questions?

Michelle Danyluk mddanyluk@ufl.edu Renée Goodrich goodrich@ufl.edu

Keith Schneider keiths29@ufl.edu

Matt Krug mkrug@ufl.edu

Katelynn Stull k.stull@ufl.edu

Taylor O'Bannon taylorlangford@ufl.edu

To stay up to date with upcoming food safety events visit: https://www.eventbrite.com/organizations/events

Eventbrite registration questions? Contact Sarah McCoy at sarahmccoy@ufl.edu

Citrus Grower Cover Crops and Reflective Mulch Survey

Dear Grower,

Researchers at the University of Florida, Southwest Florida Research and Education Center and the Food and Resource Economics Department would like to bring your attention to the following survey regarding the use of cover crops and reflective mulch in citrus production. These systems are being investigated as potential means to improve soil health and reduce pest pressure from Asian psyllids, the primary carrier of HLB. We are also interested in understanding the efficacy and adoption of these systems as conservation practices. We are aware that these systems are not widely used in citrus production, so we need your input on the feasibility of the practices. Your responses will help us measure the general willingness to adopt cover crops or reflective mulch and provide the information needed to explore potential means of promoting implementation, such as cost-share programs.

Your participation is appreciated regardless of farm size, farming experience, or familiarity with these practices. A higher response rate will ensure we obtain quality information that accurately answers the research objectives, which will enable us to help producers. Be assured that all information you provide will be kept confidential: no names or statistics (including minimums, medians, and maximum) that could be used to identify your operation will be published. The findings will be displayed in aggregate form, only.

Participation is voluntary. The survey should take about 15 minutes. The survey is available online at https://ufl.qualtrics.com/jfe/form/SV eWCyZMi7tbEBhRQ. Please be sure that only one survey is filled out per farm. Additionally, be sure that the person filling out the survey is the one with the most knowledge of all operations on the farm. A QR code is also available below.

We regret that we are not able to administer the survey in-person and talk to you about our project, but unfortunately this is the best we can do under COVID-19 restrictions. Please contact Dr. Shourish Chakravarty via email at shourish@ufl.edu or call (352) 215-5057 or Dr. Tara Wade at tara.wade@ufl.edu or call (239) 658-3444 with any questions regarding the survey.

Thank you in advance for your participation.

Sincerely,

Dr. Shourish Chakravarty

Dr. Tara Wade

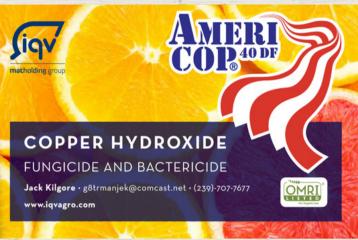
Funded by the Citrus Research and Development Foundation



2021

Newsletter Sponsors









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If you would like to be a sponsor, please contact Chris Oswalt: wcoswalt@ufl.edu or Ajia Paolillo: ajiacunningham@ufl.edu

Recognition of a sponsor does not constitute endorsement of a company or product.

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