

APRIL 2022 | VOL.22:04

Citrus from the Ridge to the Valley

CENTRAL FLORIDA CITRUS EXTENSION

April 2022

2022 Florida Citrus Growers' Institute



**Registration closes
Friday April 1st!**

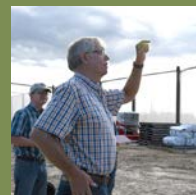
Once again, we are planning on being back together in-person for the 2022 version of the Florida Citrus Growers' Institute. The program will be held on April 5, 2022, on the campus of South Florida State College's Jay Wildstein Center for the Performing Arts in Avon Park. Make plans now to join us for the all-day educational event complete with CEU's for Certified Crop Advisors and Restricted Use Pesticide license holders and lunch. We have included the program brochure with information on the program and registration.

**The Foundation for the Gator Nation
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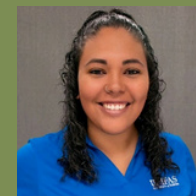
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PURPOSE OF THE INSTITUTE

Citrus Greening or Huanglongbing (HLB) continues to impact all citrus production areas of Florida. The 2022 Florida Citrus Growers' Institute is an opportunity for Florida citrus growers to come together to learn about effective management of HLB and other challenging diseases affecting the industry. Topics this year include horticultural management of HLB, citrus pest management and citrus irrigation and nutrition.

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 and demonstration & research for RUP holders. CEU's have been requested for CCA's in the appropriate CEU categories.

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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 5, 2022

2022 Florida Citrus Growers' Institute

PROGRAM AGENDA
TUESDAY, APRIL 5, 2022

8:30 AM - Registration

9:00 AM - Welcome and Introductions

Mr. Chris Oswald, CES, Bartow, FL

9:05 AM - CRDF Program Update - *Mr. Rick Dantzer, COO, CRDF*

9:20 AM - CREC Update - *Dr. Michael Rogers, Center Director, UF/IFAS CREC*

CITRUS PEST MANAGEMENT

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

9:30 AM - Citrus Black Spot (CBS) Management Update - *Dr. Megan Dewdney, UF/IFAS CREC*

10:00 AM - Can Chemical Weed Control Affect Tree Health and Fruit Drop in Citrus? - *Dr. Randa Kanisery, UF/IFAS SWFREC*

10:30 AM - Break

CITRUS HORTICULTURE

Moderator: Ms. Lourdes Condera, CES, Sebring, FL

10:45 AM - Lessons from Below - Citrus Root Structures and What They Mean? - *Dr. Ute Albrecht, UF/IFAS SWFREC*

11:15 AM - Foliar Applications of Zinc and Potassium to Increase Yield by Reducing Fruit Drop in Hamlin Oranges - *Dr. Fernando Alferez, UF/IFAS SWFREC*

11:45 AM - Update on Gibberellic Acid Studies - *Dr. Tripti Vashith, UF/IFAS CREC*
12:15 PM - Lunch

CITRUS IRRIGATION & NUTRITION

Moderator: Mr. Ayia Pavlilo, CES, Arcadia, FL

1:15 PM - Monitoring and Managing Seasonal Demand for Plant Nutrients with Smartphone Apps - *Dr. Arnold Schumann, UF/IFAS CREC*

1:45 PM - Irrigation Scheduling for Improved Tree Performance of HLB-Affected Trees - *Dr. Davie Kadampakeni, UF/IFAS CREC*

2:15 PM - Nitrogen and Phosphorus Recommendations for HLB Affected Citrus - *Dr. Kelly Morgan, UF/IFAS Gainesville, FL*

3:00 PM - Adjourn

CES: Cooperative Extension Service

COO: Chief Operating Officer

CRDF: Citrus Research and Development Foundation

CREC: Citrus Research & Education Center, Lake Alfred, 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 5, 2022

PREREGISTRATION IS REQUIRED

Name: _____

Company: _____

Address: _____

City/State/Zip: _____

Phone: _____ Email: _____

Please send registration by April 1, 2022 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 or

online at: <https://2022floridacitrusgrowersinstitute.eventbrite.com/>

2022 Spring Weather Outlook

BY CHRIS OSWALT

The latest NOAA 2022 spring weather outlook for temperature and rainfall has us looking at an increased probability of likely above-normal temperatures (fig 1). The rainfall outlook (fig 2) has us looking at equal chance for above or below normal rainfall. The El Nino Southern Oscillation (ENSO) forecast is for La Nina conditions (around 53% chance) for the summer of 2022 (Jun-Aug). The forecast for after Aug is to hold in La Nina or transition into ENSO-neutral conditions (about 40-50% chance) towards this fall. La Niña forecast in the Apr to Jun period calls for slightly wet conditions during this period.

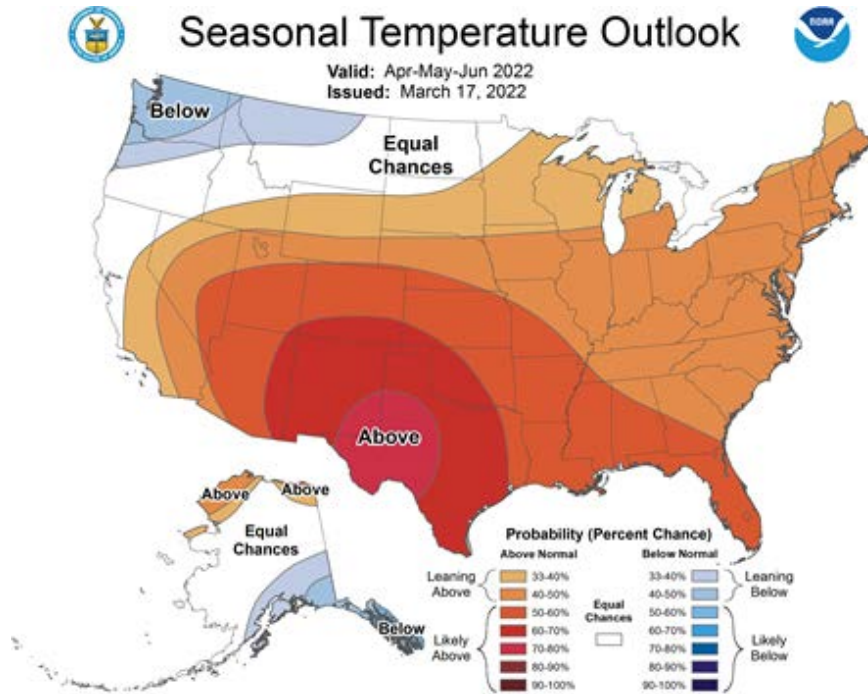


Figure 1 Spring 2022 temperature outlook

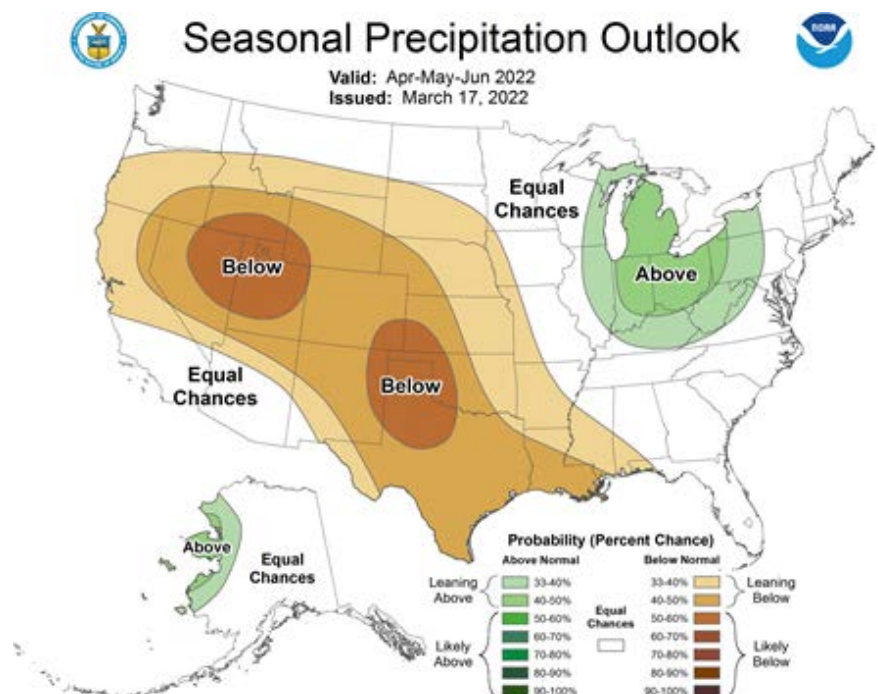


Figure 2 Spring 2022 precipitation outlook

2022 Spring Weather Outlook, ctd.

BY CHRIS OSWALT

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for March 17 - June 30, 2022
Released March 17

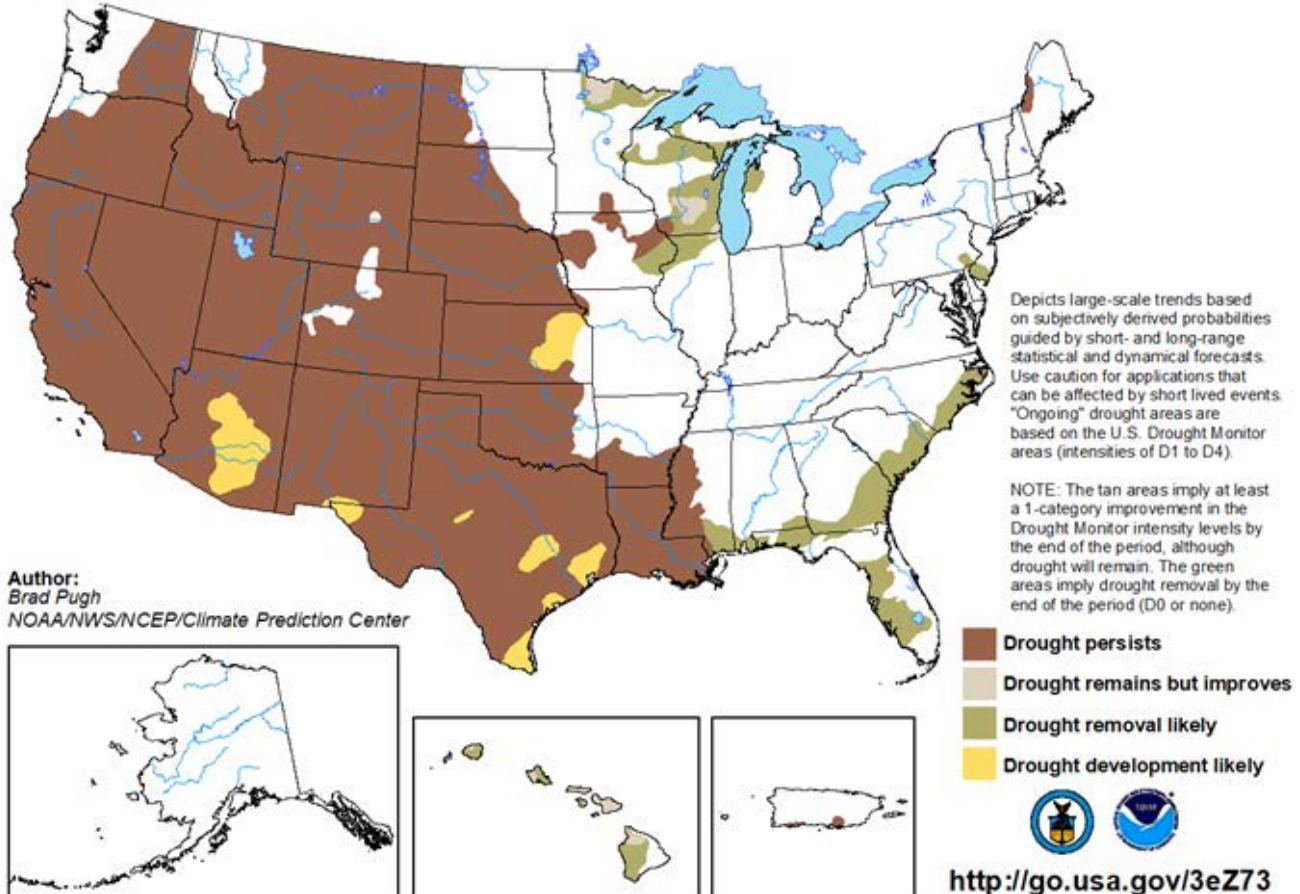


Figure 3 Spring 2022 drought outlook

Timing Your Postbloom Citrus Spray Applications

BY CHRIS OSWALT

There are two models that growers can use to help them time their disease control measures. The first is the citrus advisory tool (<http://agroclimate.org/tools/cas/>), which predicts the current risk for PFD at many of the FAWN locations across the state. Once a FAWN station is selected, the model needs to have some site-specific information to determine the PFD risk (fig 1). Although the model doesn't allow for site-specific data input, the value for leaf wetness (one of the most critical parameters) is closely related to dew point temperature. Dew point temperature is relatively consistent over large geographical areas. The model output will indicate when fungicidal applications would be most warranted to protect bloom and fruit set.

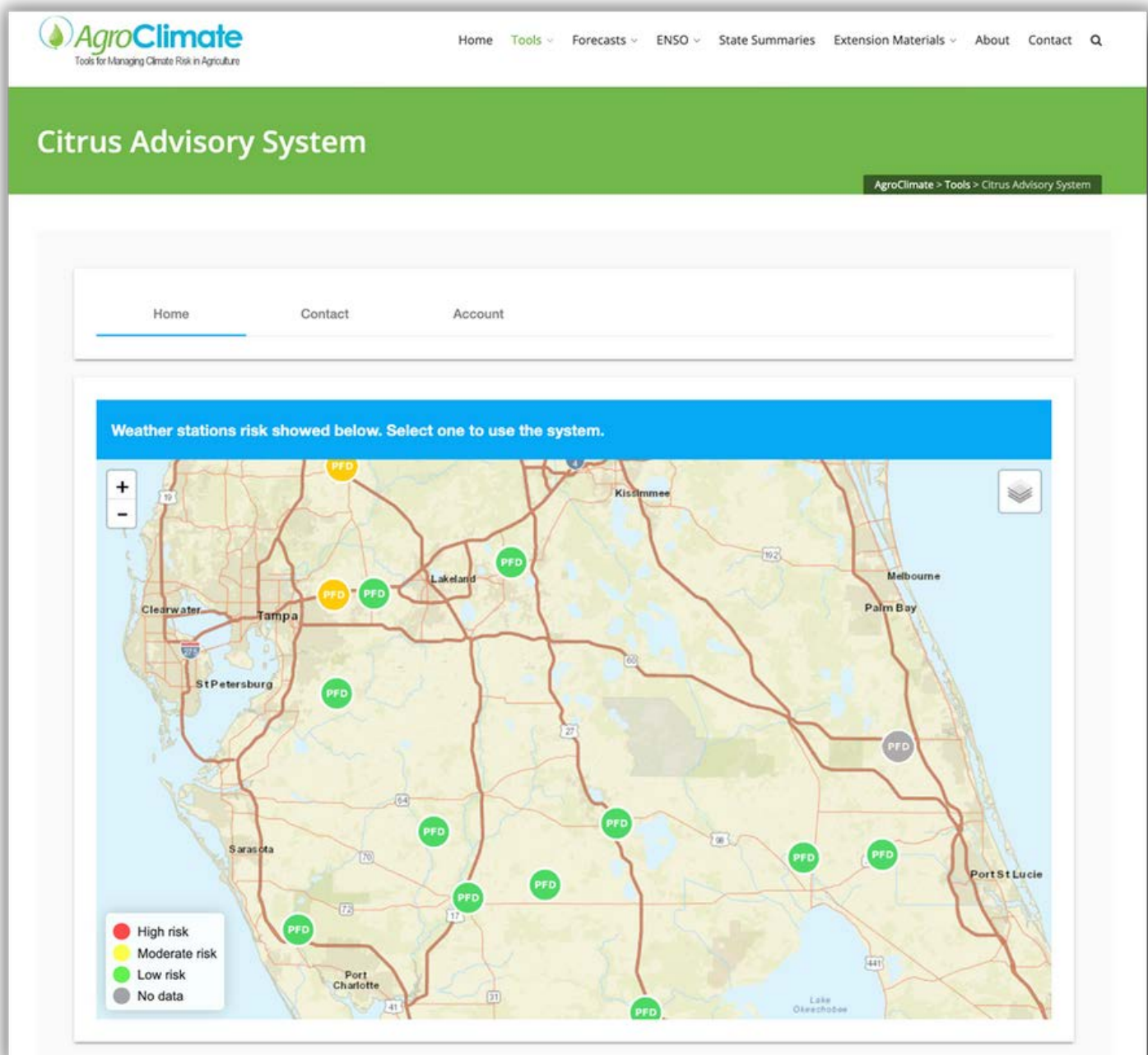


Figure 1. Screen shot of the Citrus Advisory System indicating risk for PFD at the FAWN locations.

Timing Your Postbloom Citrus Spray Applications, ctd.

BY CHRIS OSWALT

Another scheduling resource you can use for controlling Alternaria is the ALTER-RATER which is a model that assigns a score to daily weather conditions and when a certain threshold is reached it will recommend a spray application for the disease (Tables 1 & 2, from the UF/IFAS 2021-22 Florida Citrus Production Guide). The model provides different threshold scores based on the susceptibility and historical disease pressure. The thresholds used are 50 points for heavily infested Minneola, Dancy, Orlando, Sunburst; many flatwoods groves, east coast and SW Florida, 100 points for moderately infested Minneola or Dancy, many Murcotts; Ridge and north Florida groves, and 150 points for light infestations, any cultivar; mostly Ridge and north Florida groves. At this point the information and determining the score will need to be done manually using your local data or data from a local FAWN weather station. Values for leaf wetness are generated for many of the FAWN locations. Rainfall being more variable from one location to another one might want to use your own rainfall data.

Copper fungicides are often a good choice for many citrus fruit and foliar fungal diseases. In using copper as a fungicide it is considered a protectant and needs to be in place and covering the susceptible plant tissue, being fruit or foliage. Typically citrus fruit is most susceptible to fungal diseases early on in the fruit enlargement period.

Table 1. The number of points assigned to each day with ALTER-RATER according to the environmental conditions on that day. Daily point scores are added until the selected spray threshold is reached.

Rainfall > 0.1 inch	Leaf Wetness > 10 hr	Avg Daily Temp (°F)	Daily Points Assigned
+	+	68–83	11
+	+	> 83	8
+	+	< 68	6
+	-	68–83	6
+	-	> 83	4
+	-	< 68	3
-	+	68–83	6
-	+	> 83	6
-	+	< 68	4
-	-	68–83	3
-	-	> 83	0
-	-	< 68	0

Table 2. Suggested threshold scores to be used in different situations with the ALTER-RATER.

Suggested Threshold Scores	Situation
50	Heavily infested Minneola, Dancy, Orlando, Sunburst; many flatwoods groves, east coast and SW Florida
100	Moderately infested Minneola or Dancy, many Murcotts; Ridge and north Florida groves
150	Light infestations, any cultivar; mostly Ridge and north Florida groves

Timing Your Postbloom Citrus Spray Applications, etc.

BY CHRIS OSWALT

Another model (<http://agroclimate.org/tools/citrus-copper-application-scheduler/>) available to growers helps determine the need for additional applications for copper fungicides (fig 2). This model would work not only for fresh fruit fungal diseases but also for determining the need for copper sprays for citrus canker disease. This is another model that was developed after years of data. The model factors in the date of a copper application, the amount of copper applied, the subsequent rainfall, citrus variety, and lastly, the expansion of the fruit or fruit enlargement. The first four factors are relatively straightforward, but the fifth one is the one I find most critical to determining when to make subsequent copper applications. The model determines the amount of peel expansion that occurs and determines if there is too much space or cracks in the protectant cover of copper on the fruit surface. One additional advantage of this particular model is uploading your own weather (rainfall) data.

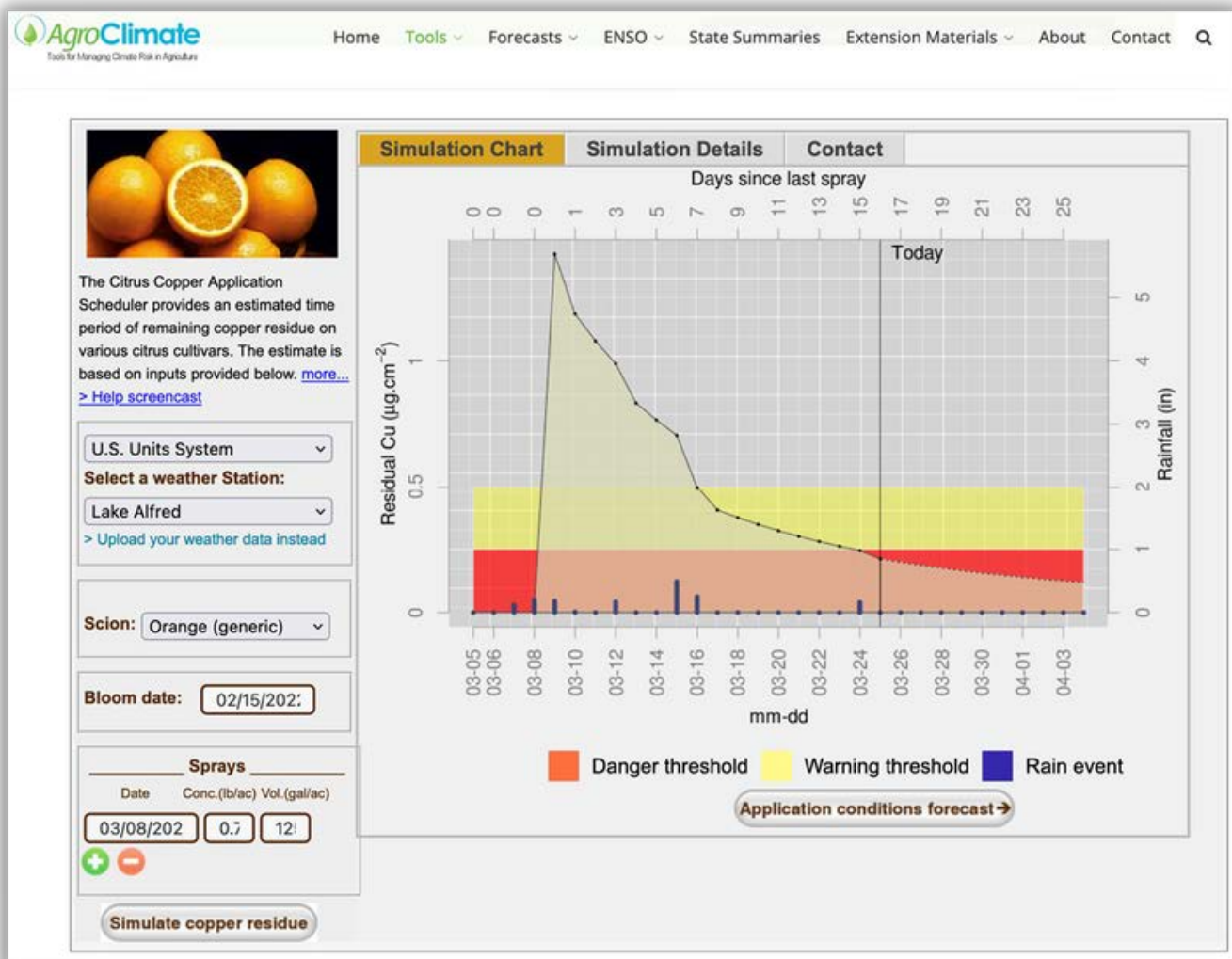


Figure 2. Example of the graphical output of the Citrus Copper Application Scheduler.

In conclusion, Florida citrus growers have a number of computer models that can help them greatly enhance their disease and insect management program. By having this additional information and guidance, growers could save money while getting a bigger bang for their buck. For additional information on control recommendations please visit the 2021-22 UF/IFAS Florida Citrus Production Guide (<https://crec.ifas.ufl.edu/resources/production-guide/#diseases>).

Avoiding Irrigation Issues

BY AJIA PAOLILLO

To keep your irrigation system running efficiently, it is important to perform routine maintenance throughout the year. There are many types of issues that can affect your irrigation system, causing it to run poorly. Poly tubing and emitters can become clogged, emitters can be blocked by weeds, or broken through normal wear and tear. When this happens, trees receive inadequate amounts of water, leading to tree stress, poor tree health and ultimately reduced fruit quality and yield. Emitters and poly tubing should be inspected routinely for clogging issues, and any line breaks, which should be repaired immediately. Broken or missing emitters waste water and do not apply water evenly to the root zone.



What factors can lead to irrigation system clogging? Irrigation water with a high pH or containing high levels of minerals such as calcium, magnesium and iron, can clog emitters when combined with some fertigated liquid fertilizers. Growers with clogging issues can test their water sources for pH and mineral concentration to determine if acidification would result in a decreases incidence of clogging. Solids such as soil particles, bacteria, and algae from poorly filtered water sources can also contribute to clogged systems. There are different types of filters used to eliminate these types of obstructions from the water before it moves through the lines. Choose filters that are appropriate for your operation's needs and remember to clean filters on a regular basis to keep water flowing efficiently. Ants and most recently snails, are known to clog irrigation lines by entering the tubing and blocking emitters when high populations are present. Evidence of clogged lines and emitters can be wilted trees. Also due to a blocked or partially blocked emitter, the wetted area is smaller than normal which could trigger false readings in moisture sensors and can result in dry spots.

Three methods used for clearing irrigation lines are acidification, chlorination, and flushing (Kadyampakeni and Schumann, 2020). Acidification will aid in lowering the pH of the irrigation water to prevent clogging from mineral deposits. Chlorination will help clear living organisms such as bacteria and algae from the lines. Flushing will physically force deposits, solids, insects and snail shells from the lines. Be sure to routinely inspect your irrigation system to keep it running properly.

For more information on irrigation maintenance please refer to [“How to keep your irrigation system properly maintained”, by Dr. Davie Kadyampakeni and Dr. Arnold Schumann, May 2020, Citrus Industry Magazine.](#)



USDA Approves Secretarial Natural Disaster Designation

BY LOURDES PÉREZ CORDERO

Throughout Central Florida, many citrus growers have reported considerable damage on trees due to the freeze event that happened between January 23rd and 31st. Temperatures dropped and remained below 30 degrees for long hours throughout the week, with the Monday mornings being the coldest in most areas of Central Florida. As the days progressed after the event, reports of ice in fruit, burned blooms and flush, limb splitting, and severe fruit drop became gradually more common.

After reviewing reports of production losses throughout many counties in Florida, Gov. Ron DeSantis announced USDA approval of a Secretarial Natural Disaster Designation for 17 counties in Florida. This allows assistance from the Farm Service Agency (FSA) to growers of affected counties.

The counties considered primary natural disaster areas are the following: Broward, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Hillsborough, Indian River, Manatee, Martin, Okeechobee, Osceola, Palm Beach, Polk, St. Lucie, and Sarasota.

In addition, the following 10 counties were named as contiguous disaster areas: Brevard, Charlotte, Lake, Lee, Miami-Dade, Monroe, Orange, Pasco, Pinellas, and Sumter. Another 10 counties were deferred until harvest in order to better determine production losses. These are the following: Alachua, Brevard, Jefferson, Lake, Leon, Levy, Madison, Orange, Santa Rosa, and Suwannee. Farmers affected by the freeze and that are located in counties declared as primary or contiguous will have 8 months from March 21st, 2022 to apply for FSA emergency loans.

Growers who are interested in any of the programs or loans available should contact their local FSA office for more information.

Hardee County FSA: (800) 243-9912 *Also serves De Soto & Hardee*
(863) 773-4764 ext. 2

Highlands County FSA: (800) 243-9912 * Also serves Okeechobee*
(863) 763-3345 ext. 2

Hillsborough County FSA: (800) 243-9912
(813) 752-1474 ext. 2

Manatee County FSA: (800) 243-9912
(863) 773-4764 ext. 2

Polk County FSA: (800) 243-9912
(863) 533-2051 ext. 2



Leaf and bloom damage due to cold temperatures

Please visit the following link to view the USDA/FSA Disaster Assistance Programs available:
<https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index>

Restricted Use Pesticide License

UF IFAS Extension
UNIVERSITY of FLORIDA

Core Exam Review Class

April 28, 2022
8:30 am to 12:30 pm

UF/IFAS DeSoto County Extension

*Cost: \$15 class
\$41 class & study guide

2150 NE Roan St.
Arcadia, FL 34266

This review class will discuss the required information for the Core exam for Restricted Use Pesticide Licenses in Florida.

Participants may take the Core exam
after the class has ended.

Registration

Advanced registration is required through Eventbrite
<https://corereviewclass42822.eventbrite.com>

Class size is limited to 8 people.
No walk-ins will be permitted.

4 Core CEUs for Restricted Use Pesticide licenses
are available for this class

For more information or to schedule your exam, please contact
Ajia Paolillo, UF/IFAS Multi-County Citrus Agent
(863) 251-4763 ajiacunningham@ufl.edu

*Eventbrite charges an additional fee when purchasing tickets

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2022

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