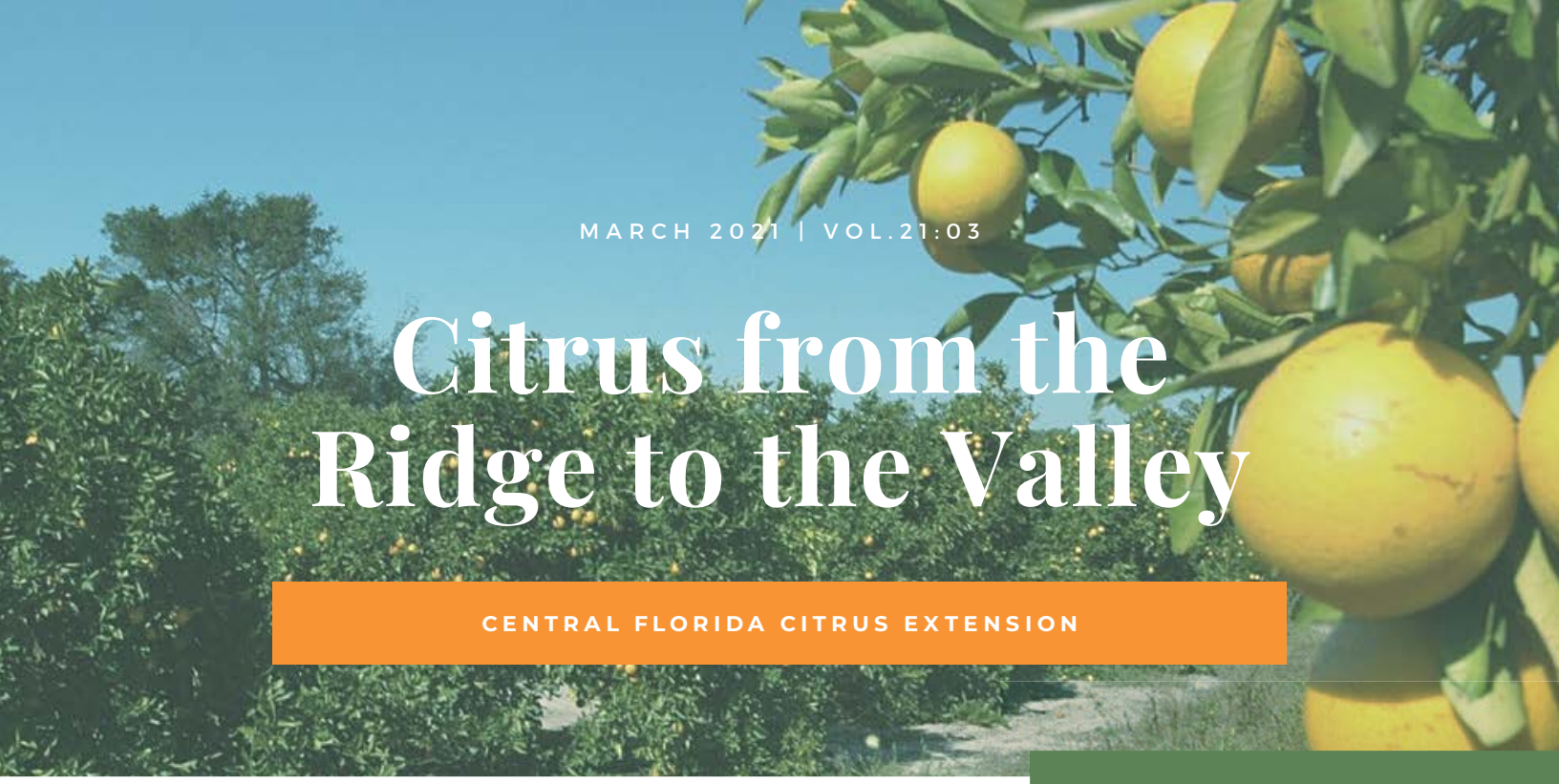

MARCH 2021 | VOL.21:03

Citrus from the Ridge to the Valley

CENTRAL FLORIDA CITRUS EXTENSION

March 2021 OJ Breaks

The first OJ Break Grower meeting of March will be on Tuesday March 9, 2021 from 1pm-2pm. Dr. Davie Kadyampakeni from the CREC in Lake Alfred, will be discussing "Citrus irrigation and nutrient management in the era of HLB". Topics will include: frequent irrigation as a tool for improving tree response to fertilizer inputs, the use of FAWN for improving freeze protection, and the use of precise irrigation management and optimal nutrient fertilization for enhancing citrus yield response. Certified Crop Advisor CEUs will be available as 0.5 in Nutrient Management and 0.5 in Soil & Water Management.

Our second OJ Break of the month will be on Tuesday March 23, 2021 from 1pm-2pm. Dr. Sarah Strauss from the SWFREC in Immokalee, will be discussing "Citrus soil health and cover crops". Her topics will include defining and measuring soil health and the role of soil microbes in the health of the soil. How cover crops are related to soil health and their current use in citrus groves. She will also be reporting on preliminary results of research trials and addressing concerns and questions growers should consider before planting cover crops in their grove. Certified Crop Advisor CEUs will be available as 0.5 in Nutrient Management and 0.5 in Soil & Water Management.

Pre-registration is required for all seminars.

To register for these and other UF/IFAS Citrus Extension Agent meetings, visit the UF/IFAS Citrus Agent's website: https://citrusagents.ifas.ufl.edu/oj-break/.

UF | IFAS Extension
UNIVERSITY of FLORIDA

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The Foundation for the Gator Nation
An Equal Opportunity Institution

Citrus Nutrition Box Program

Due to popular demand, we will continue with our citrus nutrition box program for another year. For growers who have participated in the program this past year, we ask that you continue to sample the same block or grove this year. You should have received a personalized link to confirm your contact information and update the current status of your grove. Also, if you have another block that you wish to enroll or it is your first time participating in the program, please contact your local citrus Extension agent to register the additional grove. New groves participating in the program must be a sweet orange variety, five years or older, and have a minimum of five acres. The variety and age requirement would not apply to the blocks continuing for a second year. We are limiting the new blocks to specific varieties and age to better manage the variability in the nutritional analysis we have seen this past year. Each grower may have a maximum of three nutrition boxes pending box availability. If you would like more than three boxes, your name will be added to a waitlist.

We are still accepting new growers for the program. Please contact us to register as soon as possible. The first samples should be submitted this month and there is still time to mail out the boxes to you. For those of you who have already received your boxes, you may start submitting your March samples.

For blocks in Hillsborough and Polk counties please contact Gail Crawford at dorothyc@ufl.edu or 863-519-1042

For blocks in DeSoto, Hardee, Highlands, and Manatee counties please contact Ajia Paolillo at ajiacunningham@ufl.edu or 863-251-4763

"Safety Morning" will be virtual this year

Due to the current situation of COVID and, under guidance from the University of Florida, the holding of face-to-face educational events, is significantly limited. This year's "Safety Morning", which is typically held in Arcadia in March, will be a virtual program. This virtual training will allow you to do training in small or large groups at your location and convenience. The program includes several recorded presentations on grove safety, tractor and equipment safety, symptoms of heat-related stress, the Worker Protection Standard (WPS) handler training, and citrus Canker decontamination. The program is available in both English and Spanish. We want to do this by having one individual register for a company, group, or individual. Once we have this, we will provide you with a program schedule and WPS record form that will help you document the employees in attendance, and a training link for the program. Remember that, to provide WPS handler training, the trainer must be a certified trained trainer or hold a restricted use pesticide license. That individual must also be available to answer any questions that may be asked during the WPS training. If you and your employees received WPS handler training at last years' Safety Morning on March 10, 2020, you or they will have until the end of March 2021 to complete the WPS handler training to remain in compliance. The annual WPS certification training expires after one year and on the last day of the month trained. To keep on cycle for next March, registration and completion of this program is available now. This way, when we provide WPS handler training next year in March, we stay within the annual training requirements.

If you are in DeSoto, Hardee, or Manatee counties, you can register for the program by emailing or calling Ajia Paolillo at ajiacunningham@ufl.edu or 863-251-4763. You can also contact Ajia for more information or if you have additional questions.

2021 Florida Citrus Growers' Institute

It is getting near that time of the year again for the 2021 Florida Citrus Growers' Institute. This program is typically held on the campus of the South Florida State College in Avon Park. Last year the program was a collection of recorded presentations, which are still available on the citrus agents website https://citrusagents.ifas.ufl.edu/archived-presentations/2020/ . In accordance with the current University of Florida COVID guidelines, our in person meetings continue to be very limited. The decision has been made to again hold this program on a virtual platform. However, this year will be a different format than we used last year. This year's program will be a live streamed event on April 6, 2021. More information will be coming soon on registration and the program agenda.

Remote - Produce Safety Alliance Grower Trainings

A virtual course for fruit and vegetable growers and packers who fall under the FSMA Produce Safety Rule.

Online training Information Due to the COVID-19 pandemic, this training is being offered temporarily via remote delivery. In order to participate, individuals must have video and audio capability, and will be required to have both operating during the entire training. It is a Produce Safety Alliance requirement that participants are monitored in order to verify participants' attendance and engagement. Participants will only be eligible for the PSA/AFDO Certificate of Course Completion if they are present for all modules of the course. The training will take place via Zoom, which does not require special software. Zoom does have system requirements, which can be found here: https://support.zoom.us/hc/en-us/articles/201362023- System-Requirements-for-PC-Mac-and-Linux . Please make sure that your system meets the requirements for Zoom meetings.

Important Notes for registration: The Produce Safety Rule Grower Training Manual v1.2 will be mailed to registrants prior to the training – please be sure that the shipping address you provide at the time of registration is current (especially if working from home or remotely) and capable of receiving packages. Please use an email address that you can be reached at, as evaluations and a Zoom link for the training will be sent in a confirmation email prior to the training date.

Questions: For general registration questions, contact Sarah McCoy at sarahmccoy@ufl.edu. For questions about the training, contact Taylor Langford at taylorlangford@ufl.edu.

Dates and registration links

March 23rd- 25th , daily from 2:30 pm to 5:30 pm
http://bit.ly/39lQ6no

April 20th- 22nd, daily from 2:30 pm to 5:30 pm
http://bit.ly/3a936vM

Recently Found Trunk Disorders

During the recent OJ Break Grower Meeting on February 23, 2021, Dr. Evan Johnson from the CREC in Lake Alfred reported on some unusual trunk disorders that have been found over the past 2 years in Florida groves. There were 3 main types of disorders Dr. Johnson discussed: bark splitting, bark dieback and adventitious rooting, and Kretzchmaria duesta. Most of these disorders were initially suspected to be Phytophthora, however the presence of Phytophthora was not found at many of the sites.

The first two disorders have many unanswered questions. Could they be rootstock related? Possible growth cracks from pushing trees harder than before with fertilizer and irrigation? Is this HLB related or due to a past weather event? Unfortunately, these trunk injuries leave the tree vulnerable to secondary pathogens. Kretzchmaria duesta is a known pathogen, found in landscape trees including oaks. It's recent discovery in Florida citrus has caused trees to collapse quickly, and occurs sporadically in the grove and around the state. The pathogen can live on dead roots and is transmitted through root graphs. At this time there are no known chemical treatments for Kretzchmaria duesta. Below are symptoms of each disorder that Dr. Johnson described during his presentation..

If you suspect that you may have any of these trunk disorders present in your grove, please use the QR code below to fill out a brief questionnaire. Dr. Johnson is trying to identify other locations around the citrus growing regions where this is occurring and gather more information about each incidence.

Bark Splitting – vertical splits on the rootstock and usually stopping at the bud union, found on 2-5 year old trees, sometimes on older trees, oozing may occur

Photo Credits: E. Johnson, UF/IFAS

Recently Found Trunk Disorders ctd.

Bark Dieback and Adventitious Roots – Often found on stunted or thin trees in the grove, bark below the soil line is healthy, roots are healthier than expected, bark dieback stopped at the bud union, adventitious roots found growing out of the bark on the rootstock trunk



Photo Credits: T. Weeks, UF/IFAS

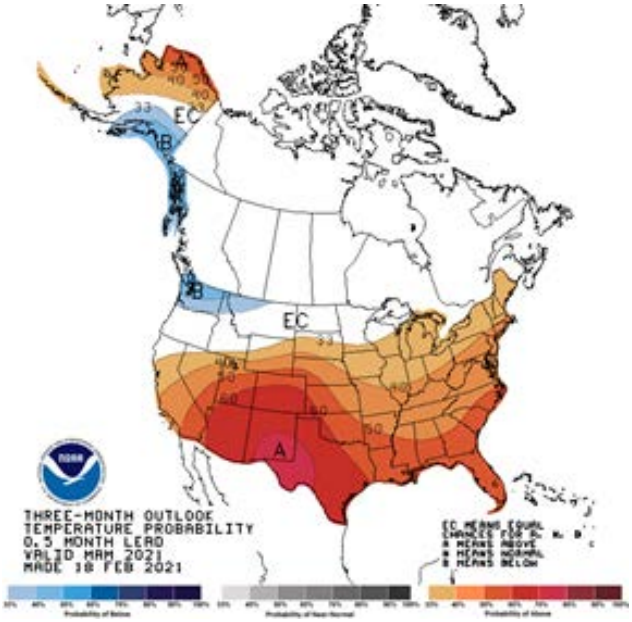
Kretzchmaria duesta – Historically known as Ustulina root rot, fungal structure visible at the base of the rootstock, crown wood and roots are soft and spongy, cross-section of trunk shows black staining of wood, sudden decline of the tree within days to a week, infects stressed or weak trees

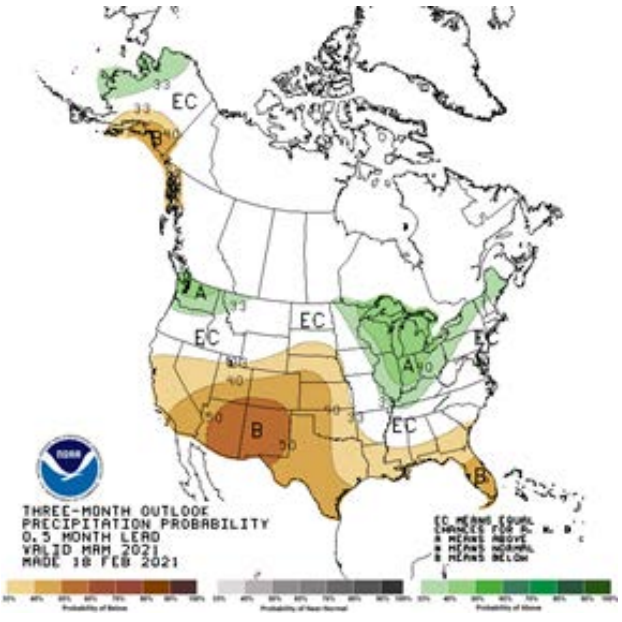

Photo Credits: UF/IFAS

Weather Outlook

BY CHRIS OSWALT

Spring is rapidly approaching, at least it will officially begin on March 20th. Even before we get to the 20th don't forget to spring forward one hour on Sunday, March 14th the beginning of daylight savings time (DST). I have yet to understand the logic of arbitrarily turning the hands on a clock saving any daylight. According to the National Weather Service's (NWS) Climate Predication Center (CPC) forecast, there will be a 60% chance of transitioning from a moderate La Nina phase to a neutral condition during the spring (April to June). That translates into, on average warm and dry conditions for the balance of the spring. Dry weather and reduced rainfall should be a help in the management of post-bloom fruit drop this spring. As of this first week of March full bloom should be starting as predicted in the citrus flower bud advisories located at http://disc.ifas.ufl.edu/bloom/. Thus far the dry conditions have kept most of any post-bloom fruit drop disease development in check, at least to date.





Irrigation Scheduling Applications

BY CHRIS OSWALT

There are also additional tools on the Florida Automated Weather Network (FAWN) related to citrus irrigation scheduling. These tools include irrigation tables for young trees, ridge and flat woods grove locations, and a citrus micro-sprinkler irrigation scheduler (web-based and a smartphone app). The scheduler is a model that customizes a schedule based on your specific system characteristics. Again these links are available under the Tools drop-down menu on the FAWN homepage https://fawn.ifas.ufl.edu/, specifically at https://fawn.ifas.ufl.edu/tools/irrigation/citrus/.

The table for a ridge grove location (Figure 1) creates a schedule based on historical weather records and is to be used as a guide. You will need to make modifications based on your location, soil type, and irrigation system. These tables were developed before HLB and refinements should be made to take into consideration the information provided in the last paragraph of this article about HLB affected trees and irrigation.

Figure 1

IRRIGATION SCHEDULE FOR MATURE RIDGE TREES

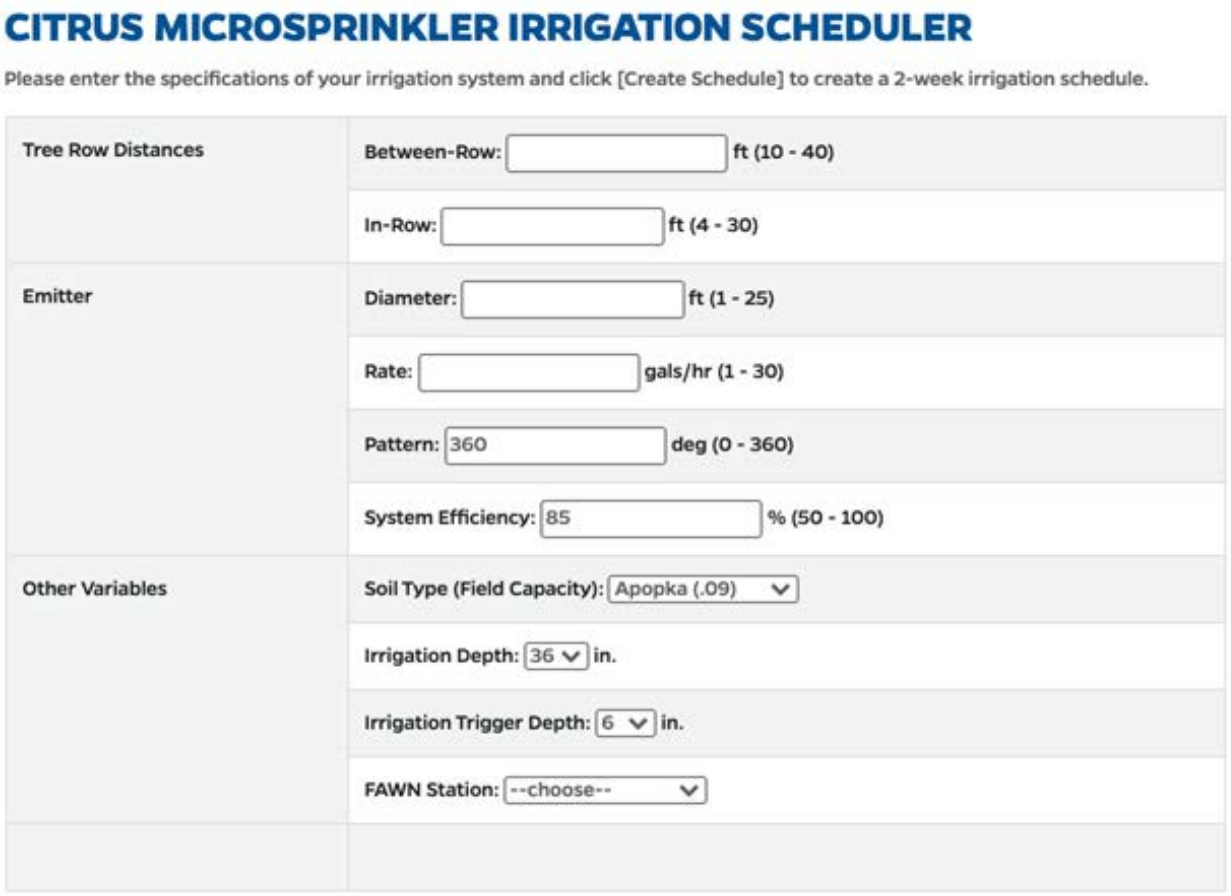
Month	Soil Moisture Depletion (%)	Hours To Operate	Days Between Irrigations	Rainfall Delay If it rains prior to next irrigation then delay the number of days listed below. Delay is based on rainfall amount equal to the midpoint of each interval (e.g., 0.00-0.24" = 0.12"; 0.25-0.49" = 0.37").				
				.00 - .24"	.25 - .49"	.50 - .74"	.75 - .99"	>1.0"
January	50	5-6	7-8	1	3	5-6	6-8	6-8
February	25	3-4	3-4	1	3	4	4	4
March	25	3-4	3	1	2-3	3	3	3
April	25	3-5	2-3	1	2	3	3	3
May	25	3-4	2	0	1	2	2	2
June	25	3-4	2	0	1	2	2	2
July	50	6	3	0	1	2	3	3
August	50	5-6	3-4	0	1	2	3	4
September	50	6	4	0	1	2-3	4	4
October	50	6	5	0-1	2	3-4	5	5
November	50	6	6	1	3	5	6	6
December	50	5-6	7-8	1	3	6	8	8

Irrigation Scheduling Applications ctd.

BY CHRIS OSWALT

The citrus micro-sprinkler irrigation scheduler is an ET (evapotranspiration) based model for citrus irrigation (Figure 2). This scheduler is web-based and also available as a smartphone app (https://smartirrigationapps.org/citrus-app/.) This scheduler uses specific information about your

Figure 2



tree and row spacing, irrigation emitters, soil type, irrigation depth, and closest FAWN station. In figure? is an example for the data entry page. The information required is pretty straight forward with maybe the exception of system efficiency, which could be an entirely separate discussion. This typically would be in a range of say 90% give or take for most well-designed systems in Florida. In our example, we are using 85%. Tree spacing between and in-row is entered, along with information about the irrigation emitters. The emitter characteristics such as the diameter of the emitter irrigation pattern can be physically measured or retrieved from the emitter manufactures specifications. The rate of water discharged per single emitter per hour. This again can be physically measured or retrieved from the manufacture information and emitter pattern in degrees. Other variables would be the soil type and the local FAWN station chosen from the dropdown menus. The depth of irrigation is how deep to saturation the soil and the triggering depth would be the depth at which the soil will dry out before starting a new irrigation event.

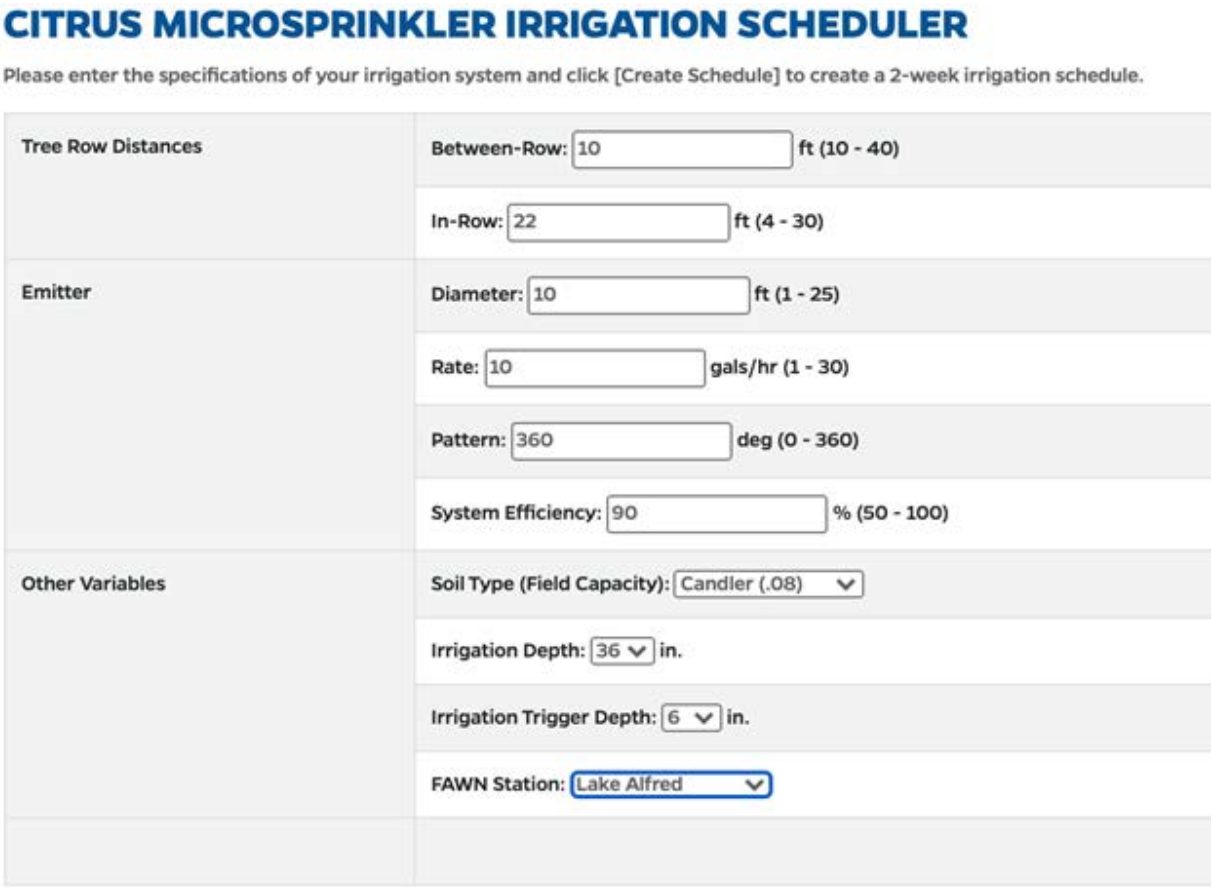
Irrigation Scheduling Applications ctd.

BY CHRIS OSWALT

In Figure 3 we have used some real data and we can demonstrate the scheduler in action. The ending result is that irrigations would be every day for 1 hour and 14 minutes if no rainfall (Figure 4).

These studies show that for HLB-affected trees, irrigation frequency needs to be increased and amounts of irrigation water per application decreased to minimize water stress from drought or excess water while ensuring optimal water availability in the root zone at all times.

Figure 3



It is recommended that growers maintain soil moisture in the root zone (top 3 feet for Ridge and 18 inches for Flatwoods soils) using soil moisture sensors or irrigation apps. The FAWN and

Figure 4

...if it rains:	< ¼"	¼" to ½"	½" to ¾"	¾" to 1"	> 1"
...then delay irrigation:	1 day	1 day	1 day	1 day	1 day

SmartIrrigation apps provide the option of daily irrigation schedules. HLB-affected trees with lower canopies use less water than do healthy trees. Therefore, if the irrigation scheduling app is used, the irrigation time should be reduced by 10% to 20%. For example, if the app suggests an irrigation time of 1 hour and 14 minutes, this time could be reduced by 7.5 to 15 minutes for HLB-affected trees.

Management practices to enhance fruit color at maturity

ARNOLD SCHUMANN, CREC

Citrus fruit for the fresh market must be tasty, determined in part by brix and acid content, free from internal and external defects, the right size, and the right color. External peel color is particularly important for fresh fruit as it is often the first observation made by consumers and partially green fruit may be perceived as unripe. In Florida's subtropical climate, color break usually occurs in the Fall when daylength decreases and temperatures drop. During the color break process, the decline in peel chlorophyll content occurs over several months while carotenoid content increases, and is affected by the environmental conditions, nutrient availability and phytohormones such as ethylene. Factors which can be manipulated by management practices to enhance fruit color include fertilization, irrigation, and phytohormones, while the environmental factors determined by weather are sporadic and not controllable. In some years, warmer weather patterns during the fruit maturation phase will inhibit timely color break, and for some varieties, fruit can then be "de-greened" with ethylene at the packing houses. De-greening is not a perfect solution though and some tangerine varieties are not sufficiently responsive to ethylene. Optimized fertilization may be one of the most cost-effective and practical methods for enhancing color break in Florida citrus.

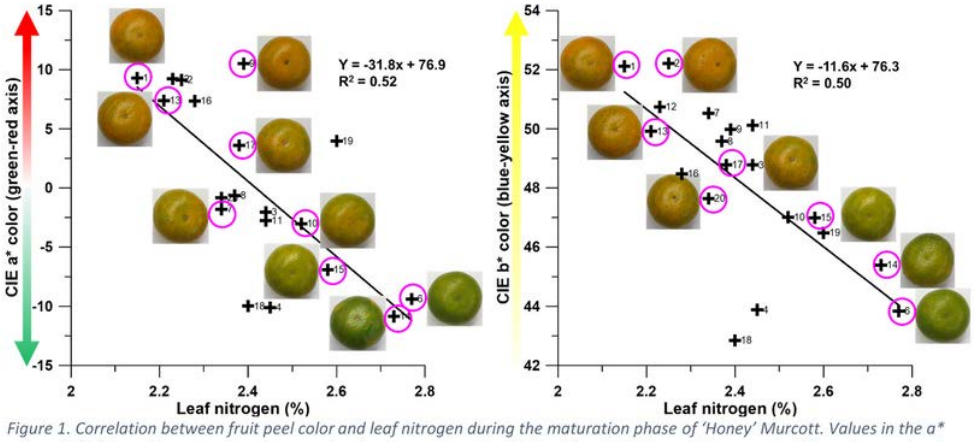


Figure 1. Correlation between fruit peel color and leaf nitrogen during the maturation phase of 'Honey' Murcott. Values in the a color axis (left graph) represents colors ranging from green to red while the b* axis (right graph) represents different amounts of yellow color. Representative images of fruit are shown beside selected data points for reference.*

We investigated the relationships between peel color and leaf nutrients of 'Honey' Murcott measured on December 8, 2020 in the CREC CUPS screen house. Twenty trees with visibly variable amounts of color break were selected for sampling, and from each tree, five fruit pieces of similar size and from the same bloom set were paired with a sample of 25 leaves. Leaf tissue nutrient concentrations were determined in the 20 leaf samples, and average peel color was determined for the 20 fruit samples by digital image processing according to the CIE L*a*b* color measurement system. Regression methods were used to determine the relationships between peel color in the a* (green-red) or b* (blue-yellow) axes, and leaf nutrient concentrations. Loss of green color and increase of red peel color was negatively correlated with leaf N, P, K, and S concentrations. Nitrogen (R2=0.52) and P (R2=0.53) were most strongly correlated with a*, where leaf N concentration in the optimum range (2.5 to 2.7%) was associated with greener peel colors, and leaf N in the low range (2.2 to 2.4%) was associated with redder peel colors (Figure 1). A similar trend was observed for P (data not shown), where leaf P concentrations in the upper optimum range above 0.14% were associated with greener peel colors, and leaf P in the lower optimum range (0.12 to 0.14%) were associated with redder peel colors.

Management practices to enhance fruit color at maturity (continued)

ARNOLD SCHUMANN, CREC

No blue colors were measured in the fruit peel, but on the b* color axis, increasing yellow peel color was negatively correlated with leaf N, P, and S concentrations. Nitrogen (R2=0.50) was most strongly correlated with b*, where leaf N concentration in the optimum range (2.5 to 2.7%) was associated with weak yellow peel colors, and leaf N in the low range (2.2 to 2.4%) was associated with stronger yellow peel colors (Figure 1).

Practical implications of these results are that fertilizers, particularly N, should be allocated in larger amounts at the times of greatest need by the trees during bloom and fruit growth phase 1 (cell division), somewhat less during fruit growth phase 2 (cell enlargement) and should generally not be applied late in the Fall when the fruit is maturing. The requirement for N is particularly non-linear over time. For example, approximately 50% of the annual N should be applied by the end of the bloom. About 25% N should be applied by the end of physiological fruit drop, about May in Florida. Then apply the remaining 25% of annual N, before the Fall. Using leaf sampling as guidance, aim for leaf N concentrations in the upper optimal range during bloom, fruit set, cell division, and cell enlargement, but keep them in the lower optimal to low range during the Fall. This is consistent with guidelines found in Nutrition of Florida Citrus 3rd edition, SL253 (https://edis.ifas.ufl.edu/pdffiles/SS/SS47800.pdf) for best fruit quality and enhanced fruit color development (page 58). Refer also to the General Nutrient BMPs for Citrus Production, on page 75 of the SL253 publication.Bullet points applicable to our discussion are copied below, and should be used in decision making for citrus fertilization:

- Develop a nutrient management plan based on crop nutrient requirements.
- Use tissue and soil analysis to make fertilization decisions.
- Split fertilizer applications throughout the growing season.
- Use appropriate fertilizer sources and formulations based on nutritional needs, season of year, and anticipated weather conditions to achieve greatest efficiency and reduce potential for off-site transport.

It should also be stressed that this example is not to be used as a recommendation to deviate from the current citrus best management practices (BMP's) as related to citrus fertilization.

We also collected internal fruit quality data (brix, acid) in the same study which indicated that brix was negatively affected by higher concentrations of N, P, K, and S in the leaves during fruit maturation in the Fall (P was the most significant). We plan to conduct follow-up studies with other varieties to confirm these results.
For more information, contact Arnold Schumann at schumaw@ufl.edu

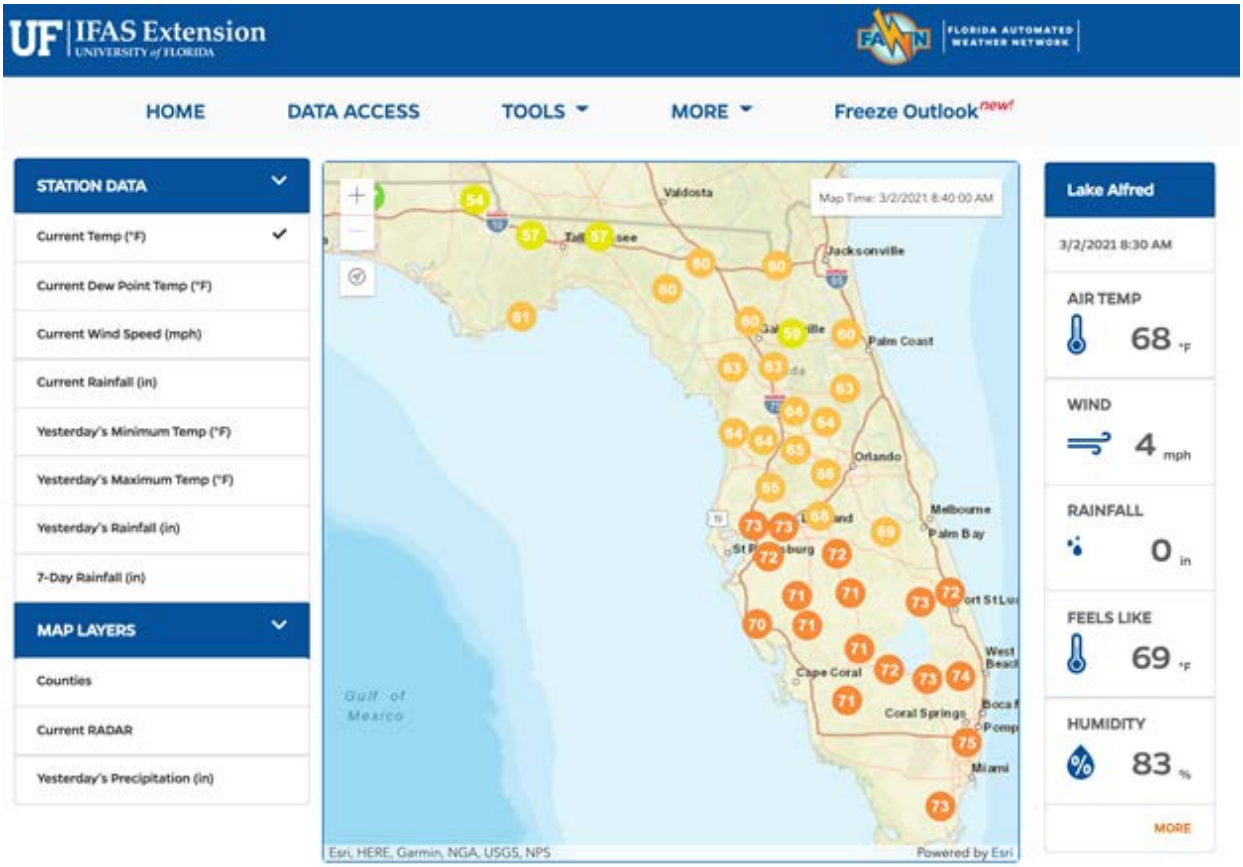
Guidance for Pesticide Spray Applications

BY CHRIS OSWALT

We all know that springtime is the time of the year when there's an increase in our application of pesticides used for many citrus pests and diseases. Typical applications especially those using airblast sprayers are very susceptible to environmental conditions of wind speed and direction, humidity, the chance of rainfall, and the presence of an air inversion. The Florida Automated Weather Network (FAWN) has a web-based application that could be useful in forecasting the best environmental conditions for spray applications. The "Citrus Pesticide Tool" can be found on the tools dropdown menu (Figure 1) on the main menu on the FAWN homepage (https://fawn.ifas.ufl.edu/). The web address for the tool itself is https://fawn.ifas.ufl.edu/tools/pesticide/.

Once you have navigated to the website you can create an icon for your phone that will connect you directly to the tool. The tool allows you to select the Fawn station of your choice to generate the results.

Figure 1



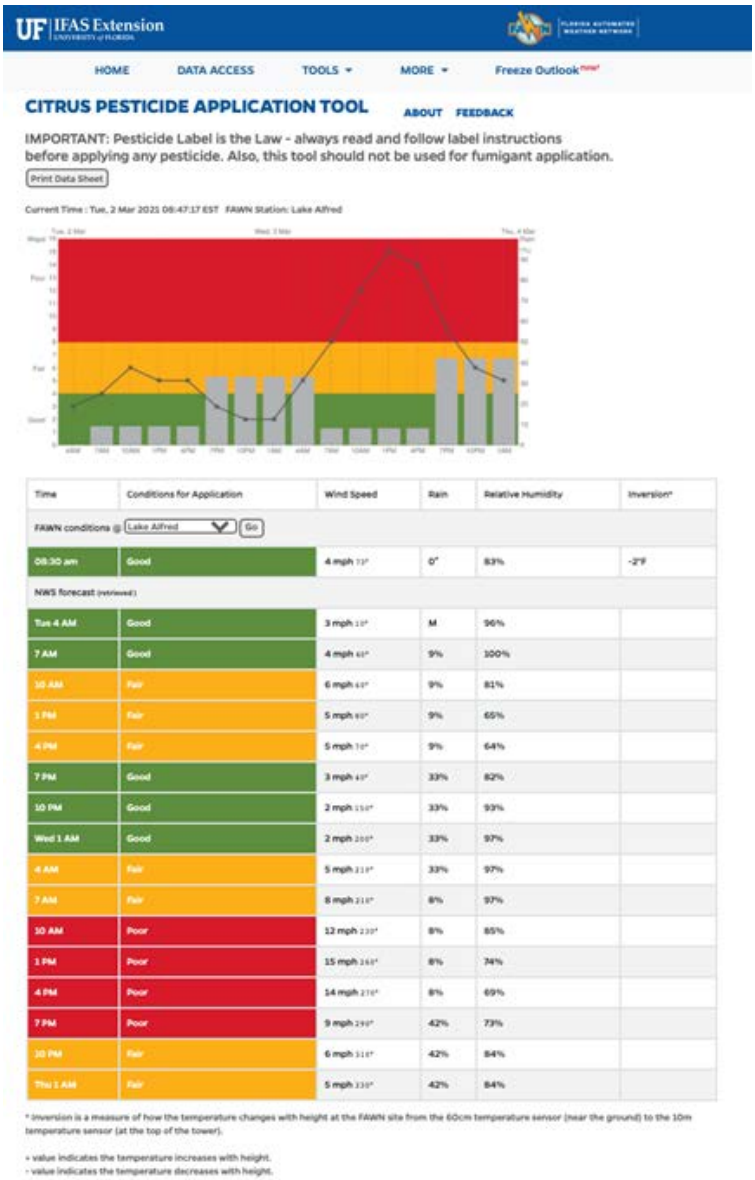
Conditions for the tool are reported as good, fair, or poor based on the parameters mentioned above for current and forecasted conditions. It is important to understand that the use of the tool is for guidance based on normal acceptable predicted parameters for air blast sprayer applications. In no way is this meant as a blanket endorsement for favorable conditions or permission not to follow the pesticide label. Every location is unique and therefore one should consider the individual specific sites at the time of application as favorable or unfavorable.

Guidance for Pesticide Spray Applications ctd.

BY CHRIS OSWALT

In our example (Figure 2), we choose the Lake Alfred FAWN station. The first line generated provides the latest data for the selected weather station, this is in realtime, subsequent lines are based on the National Weather Service weather forecast for the location. The parameters are the time of day, an overall evaluation of current conditions at the chosen weather station (our case Lake Alfred), predicted wind speed and direction, probability of rain, predicted relative humidity, and if there is an air layer inversion (first line only - in realtime). So how do we determine spray conditions? One of the most important environmental parameters for airblast application is wind speed. Wind speed conditions are characterized as good if they are predicted to be between calm and 4 mph, fair if greater than 4 mph and less than 8 mph, and poor if wind speeds are predicted to be over 8 mph. Also included in the wind speed measurements in the table is the compass direction of the predicted wind. This would become very important even if conditions of wind speed are favorable if you are spraying near a sensitive area. Predicted chance of rain is included so that you can make a judgment on your level of the risk of rain for our purposes we proposed less than a 25% chance as good, 25 to 50% chance as fair, and chances greater than 50% as poor. These values of wind speed and rainfall are independent of each other i.e. if the rainfall chance is greater than 50% and wind speed is less than 4 mph the conditions for an application would be considered poor based on the rainfall. This same would hold true for high wind and low chance of rainfall. The predicted relative humidity is a value to consider when determining the dry potential of the air and or spray droplets. Under conditions of low humidity, a small spray droplet can evaporate and drift more readily off target. Higher humidities would indicate less of a potential for evaporation and off-target drift. This parameter is not used in the determination of predictive spray conditions but provides more information if there is an air inversion which is only reported in realtime on the first line. Inversions are what we most often associate with radiational freeze conditions and are why wind machines work in these freeze conditions. An inversion is where the air temperature will increase with height up to a certain level. At FAWN stations this temperature is measured at 30 feet versus the temperature at ground level. If the temperature increases with height then there is a temperature inversion, if it decreases with height there is not. In the table, a positive (+) value indicates an inversion and the strength based on the difference. A negative (-) value indicates that there is not an inversion. Again as in the case of relative humidity, this value is not considered in the predicted spray conditions. It is used as additional information for the applicator since the development of inversions can cause fine spray droplets to remain in the air and float for long distances.

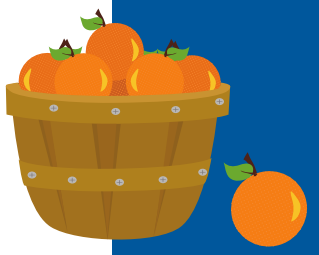
Figure 2



So, as we begin another citrus season this is just one of many tools available to growers to better manage their production inputs.

Fresh Citrus Packers:

SEE BELOW FOR A REMOTE HACCP TRAINING FOR FL FRESH FRUIT & VEGETABLE PACKINGHOUSES.



Registration is available online only at:
https://haccp041321.eventbrite.com

April 13th - 16th, daily
from 1:00 pm - 5:00 pm EST

Due to the COVID-19 pandemic, this training is being offered temporarily via remote delivery. In order to participate, individuals must have video and audio capability, and will be required to have both operating during the entire training.

Participants will be monitored to verify attendance and engagement. Participants will only be eligible for the HACCP Certificate of Course Completion if they are present for all modules of the course. The training will take place via Zoom, which does not require special software. Zoom does have system requirements, which can be found here: https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-Mac-and-Linux Please make sure that your system meets the requirements for Zoom meetings.

There is limited space available.

***** IMPORTANT NOTES FOR REGISTRATION *****

Training materials will be mailed to registrants prior to the training – please be sure that the shipping address you provide at the time of registration is current (especially if working from home or remotely) and capable of receiving packages. Please use an email address where you can be reached, as evaluations and a Zoom link for the training will be sent in a confirmation email prior to the training date.

Questions?

For general registration questions, contact Sarah McCoy at sarahmccoy@ufl.edu. For questions about the training, contact Taylor Langford at taylorlangford@ufl.edu.

ABOUT

Food Safety is critical to the fresh produce industry. In addition to being a major public health issue, food safety issues have had an adverse economic impact on growers, packers, processors and shippers of fresh produce. In addition to a discussion of current and proposed legislation, the latest research on produce safety, and Good Manufacturing Practice (GMPs), this workshop will cover the elements of putting together a comprehensive food safety program.

This course will teach participants how to develop and document a food safety management program based on the principles of Hazard Analysis and Critical Control Points (HACCP) for their specific operations.

Breakout sessions are structured to teach participants how to identify and prevent food safety hazards, monitor hazard reduction procedures, develop control measures, and methods to document and verify the results of their efforts.

This workshop, accredited by the International HACCP Alliance, is targeted to produce packers, to assist in the development and customization of food safety programs for their facilities, using a HACCP-based approach.

REGISTRATION

****Please note: NO substitutions, transfers, or refunds will be issued after registration closes**

The fee for this course is $250. Registration includes the course materials and a certificate of completion. Participation for the entire training is required for the certificate.

Registration will be limited to the first 20 registrants.

Click here for a printable flyer:
http://www.crec.ifas.ufl.edu/extension/events/pdf/HACCP_041321_Flyer.pdf

Food Safety Training Events

The UF Food Safety Team has put together the following upcoming spring events (listed below). More information on each event can be found at the registration pages, and as always, you can reach out to one of us listed on the flyer for questions.

Registration for Upcoming Events - All events are scheduled to take place remotely

UF Food Safety Virtual Office Hours (all 3:30-4:30 PM ET)

April 1, 2021
Registration: https://ufl.zoom.us/webinar/register/WN_Wh4i1thDT1OW6EbmD10tYQ

May 6, 2021
Registration: https://ufl.zoom.us/webinar/register/WN_DD2rQmoUToi1jSWlFfL4qQ

Bridging the GAPS: Approaches for Treating Water On-Farm

March 17-18, 2021
Registration: https://bridgingthegaps031721.eventbrite.com/

Science for Citrus Health

A zoom webinar on the Management of Asian Citrus Psyllid (ACP) and Huanglongbing (HLB) in the field.

March 11, 2021 10 a.m.–12 p.m.
Register at https://ucanr.zoom.us/webinar/register/WN_I7KPgo3STaqwKwJXJQ9Fkw

Relation of ACP density and tree stress: what is the threshold to take control measures? (Dr. Lukasz Stelinski, Professor, Entomology and Nematology, University of Florida)

Biological control of ACP using predators and parasitoids (Dr. Jawwad Qureshi, Assistant Professor, Entomology and Nematology, University of Florida)

Importance of citrus phenology-based sprays for ACP control and Implementation of ACP area-wide management in Texas (Dr. Mamoudou Sétamou, Professor, Citrus Entomology, Texas A&M University)

Q&A and panel discussion

1.5 DPR and CCA CEUs were requested.

2021

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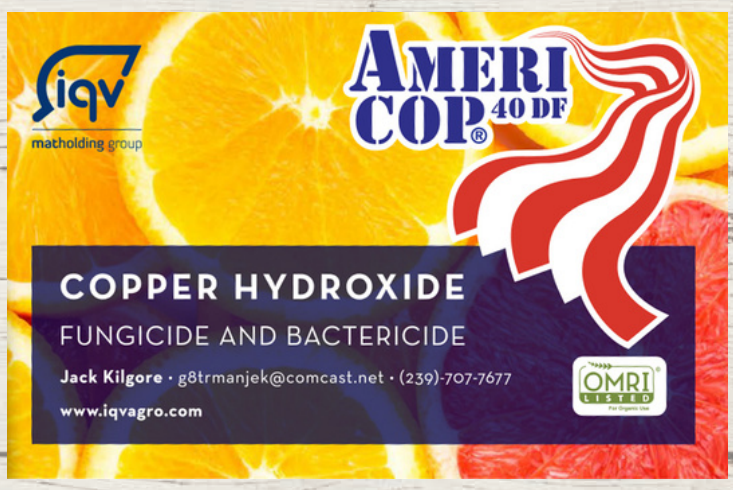

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