The May 2019 OJ break will be held on May 14, 2019 beginning at 10:00 a.m. at the UF/IFAS Citrus Research and Education Center’s BHG Citrus Hall in Lake Alfred. 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. 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.

This month, our lunch sponsor will be the Polk County Soil and Water Conservation District and Chairman, Joe Garrison. We need you to register for the meeting so we have a head count for lunch. Please register by Friday, May 10, 2019 by calling Gail Crawford at 863-519-1042 or by email at dorothyc@ufl.edu or by eventbrite at https://polkojmay2019.eventbrite.com.

May 2019

OJ Break

Produce Safety Alliance
Citrus Grower Training

There will be a Food Safety and Modernization (FSMA), Produce Safety Rule Training held at the UF/IFAS Citrus Research and Education Center in Lake Alfred on Thursday, May 2, 2019. This training will be focusing specifically on fresh market Florida citrus growers. As mentioned in the past, this training will be required (the timeframe for compliance is dependent upon farm revenue) for growers of fresh citrus by the Food and Drug Administration. I have included a flyer with registration and additional program information.

Florida State Horticultural Society

The 132nd Annual meeting of the Florida State Horticultural Society will be held June 9 to 11, 2019, at the Sheraton Orlando North Hotel. For additional information on meeting registration and membership in the Society, please visit: https://fshs.org.

Stone Fruit Field Day

Dr. Ali Sarkhosh is conducting a UF/IFAS Stone Fruit Field Day to be held at the Frank Stronach Conference Center, at the UF/IFAS Plant Science Research and Education Center in Citra, FL. The field day will be held on Tuesday, April 30, 2019. I have included additional information and a registration flyer in this issue of the newsletter.
2019 Hurricane Season

According to the National Weather Services’ Climate Prediction Center, weak El Nino conditions are forecasted for this summer (a 65% chance) with the weak conditions continuing into the fall (at a 50-55% chance). El Nino conditions in the equatorial Pacific would typically bring a more zonal weather flow from west to east across the southern United States. This upper air zonal flow condition will tend to affect the Atlantic hurricane season.

In consideration of this weather pattern, the Atlantic hurricane forecast from Dr. Klotzbach, of Colorado State University, predicts a slightly below average hurricane activity for the 2019 Atlantic hurricane season.

Dr. Klotzbach’s forecast predicts there will be 13 named storms this season. The historical season average (1981-2010) is 12.1 named storms. Of these named storms, five will become hurricanes (historical average 6.4), and of these five, two are predicted to be major hurricanes (historical average 2.7).

Furthermore, the probabilities for at least one major hurricane making landfall along the entire U.S. coastline is 45%. The likelihood of a major hurricane making landfall on the U.S. east coast, including peninsula Florida, is 28% and making landfall on the Gulf coast from the Florida panhandle west to Brownsville, Texas is also 28%. These probabilities compare to the last century averages of 52% for making landfall along the entire U.S. coast, 31% for the U.S. east coast including peninsula Florida and 30% for the Gulf coast from the Florida panhandle west to Brownsville, Texas.

Hurricane predictions become more accurate as we approach the start of the hurricane season. Remember, it only takes one hurricane to cause significant damage to your property and crop.

FDA Updates Regarding the Produce Safety Rule

Remember that in Florida, FDACS has been commissioned by FDA to perform routine inspections. Although FDA in routine inspections, the FDACS employees commissioned by FDA will essentially operate as FDA employees so we expect most of this information to be relevant to what will happen in Florida, including the part about initial inspections starting in Spring 2019, (for large farms over $500k in average annual produce sales) but also the part about inspections being educational in nature.

Update on Agricultural Water Compliance Dates

If you recall, in September 2017, FDA issued a proposed rule to extend the compliance dates for the PSR provisions related to agricultural water. FDA announced and released the final rule making those extended compliance dates for agricultural water provisions final. Larger farms are now required to comply with the agricultural water requirements by January 26, 2022, while small farms have until January 26, 2023 and very small farms until January 26, 2024. This rule does not change the compliance dates for sprout operations.
This web-based deployment of DRIS is designed for analyzing leaf nutrient concentrations of Florida citrus. It has been optimized for Florida oranges (and related varieties) and the DRIS norms used for calculations were derived from a high-yielding 'Hamlin' orange grove in the central Florida Ridge region prior to the spread of greening disease (Huanglongbing, HLB). Since varieties like grapefruit have lower N requirements than oranges, the DRIS results for grapefruit may be less useful. (Dr. Schumann, http://www.makecitrusgreatagain.com/cgi-bin/driscgiproject1)

DRIS

Discussion

The example above illustrates the conventional citrus leaf analysis run by a commercial laboratory (in the table noted as Lab 1 to Lab 3). The results from entering the laboratory leaf analysis values into and running DRIS analysis for each corresponding laboratory sample are listed in the above table as DRIS 1 to DRIS 3. I have further color-coded the results from the laboratory and the DRIS analysis into the following categories: excessive/high, optimum, low or deficient. In comparing the results from the commercial labs and the DRIS analysis for the first sample Lab and DRIS 1, the results are identical in their category descriptions. In Lab and DRIS 2, the only discrepancy is with the element manganese. The lab result fell within the low category, while DRIS analysis indicated that it was deficient. For Lab and DRIS 3, the discrepancy was with the element zinc. The levels from the commercial lab were considered low, while DRIS analysis resulted in an optimum level for zinc.

In addition to DRIS analysis accounting for differences in leaf weight, it also provides guidance as to the most critically deficient elements. As mentioned by Dr. Schumann in his explanation (ranking of deficiencies), this should be useful in determining the nutrient of most critical need and provide a starting point to better fine tune your citrus nutritional program.

Running DRIS is relatively simple and straightforward, instructions and the DRIS program can be found at http://www.makecitrusgreatagain.com/.
UF/IFAS EXTENSION PRESENTS

STONE FRUIT FIELD DAY

Tuesday
April 30, 2019
9:30AM-3:30PM

NO REGISTRATION FEE
Sponsored by Maxijet

PLEASE RSVP BY APRIL 23
stonefruitfieldday2019.eventbrite.com
or to Staci Sanders (352) 591-2678

Frank Stronach
Conference Center
UF/IFAS Plant Science
Research and Education Unit
West Highway 318
Citra, FL 32113

Questions?
Contact Juanita Popenoe,
Multi-County Commercial
Fruit Production Agent,
UF/IFAS Extension
Lake County at
jpopenoe@ufl.edu or
352-343-4101 ext. 2727

<table>
<thead>
<tr>
<th>AGENDA</th>
</tr>
</thead>
</table>
| 9:30 a.m. -10:30 a.m. | Registration and Welcome  
Dr. Sarkhosh, Dr. Popenoe and PGREU team |
| 10:00 a.m. -10:20 a.m. | Subtropical Peach Production in Florida: Research and Extension Update  
Dr. Ali Sarkhosh, UF/IFAS Horticultural Sciences Department |
| 10:20 a.m. -10:45 a.m. | Progress in Low-chill Peach Variety Development for Florida  
Dr. Jose Chaparro, UF/IFAS Horticultural Sciences Department |
| 10:45 a.m. -11:30 a.m. | Prevention and Management of Peach Diseases in Florida  
Dr. Phil Harmon, UF/IFAS Plant Pathology Department |
| 11:10 a.m. -11:35 a.m. | Maximizing Fruit Quality of Low-chill Peaches through Optimum Preharvest-Management Practices  
Dr. Mark Ritenour, UF/IFAS Indian River Research and Education Center |
| 11:35 a.m. -12:00 p.m. | Prevention and Management of Root-knot Nematodes in Peach Orchard  
Dr. Don Dickson, UF/IFAS Entomology and Nematology Department |
| 12:00 p.m. -1:00 p.m. | Lunch |
| 1:00 p.m. -1:30 p.m. | Nitrogen Fertilization in Subtropical Peaches  
Dr. Zifnna Rubio Ames, UF/IFAS Horticultural Sciences Department |
| 1:30 p.m. -2:00 p.m. | Bagging as an Alternative Insect and Disease Management Tool  
David Campbell, UF/IFAS Horticultural Sciences Department |
| 2:00 p.m. -2:30 p.m. | Florida and the Not-So-Giant Peach: Can Peaches from Unthinned Trees be Used in the - Fermentation Industry  
Savanna Curtis, UF/IFAS Food Science and Human Nutrition Department |
| 2:30 p.m. -3:30 p.m. | Field Plot Tour OR Tasting Fruit of Different Peach Cultivars  
Drs. Chaparro, Sarkhosh, and Popenoe |
Produce Safety Alliance
Grower Training

May 2, 2019 8:00am – 5:00pm
UF/IFAS Citrus Research and Education Center
700 Experiment Station Road • Lake Alfred, FL 33850

Who Should Attend
Citrus growers and others interested in learning about produce safety, the Food Safety Modernization Act (FSMA) Produce Safety Rule, Good Agricultural Practices (GAPs), and co-management of natural resources and food safety are encouraged to attend. The PSA Grower Training Course is one way to satisfy the FSMA Produce Safety Rule requirement.

What to Expect
The trainers will spend approximately seven hours of instruction time covering content contained in these seven modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part I: Production Water; Part II: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

In addition to learning about produce safety best practices, key parts of the FSMA Produce Safety Rule requirements are outlined within each module.

All standard course material will be covered, but instructors will focus the course on topics relevant to fresh-market Florida citrus growers.

Benefits of Attending
The course will provide a foundation of Good Agricultural Practices (GAPs) and co-management information, FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan.

After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed the training course.

Cost to Attend: $25 Please register at: https://psa050219.eventbrite.com
Cost for non-industry members is $125. Cost includes the training materials, lunch, refreshments, and a certificate of attendance issued by AFDO. Seats are limited to 50. For questions, email Sarah McCoy at sarahmccoy@ufl.edu.
Please note: NO substitutions, transfers, or refunds will be issued within one week of the training start date.

Training materials and certificate are funded through the Florida Department of Agriculture and Consumer Services (FAIN #U18FD005909)
Produce Safety Alliance
Grower Training

REGISTRATION FORM

Registration is also available online at: https://psa050219.eventbrite.com

Please note: NO substitutions, transfers, or refunds will be issued within one week of the training start date.

UF/IFAS Citrus Research and Education Center – May 2, 2019

Name: ______________________________________________________________

Company: ___________________________________________________________

Address: ____________________________________________________________

Email: ______________________________________________________________

Phone: ______________________________________________________________

Special meal requirements (vegetarian, etc.)?: ______________________________

Your name EXACTLY as you would like it to appear on your certificate: ________________

Important: Make checks payable to “University of Florida”

Course registration of $25 for produce industry members ($125 for non-industry members) is requested by April 26th, 2019. Registration will be confirmed upon receipt of registration materials.

Mail check and registration to: University of Florida
ATTN: Sarah McCoy
700 Experiment Station Road
Lake Alfred, FL 33850
sarahmccoy@ufl.edu

Training materials and certificate are funded through the Florida Department of Agriculture and Consumer Services (FAIN #U18FD005909)