

Citrus Notes



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IMPORTANT DATES

JUNE 9-11, 2019

**FLORIDA STATE
HORTICULTURAL
SOCIETY MEETING**

Orlando, FL

JUNE 27, 2019

CITRUS YOUTH DAY

Lake Alfred, FL

JULY 24, 2019

CERTIFIED PILE BURNER

Immokalee, FL

AUGUST 14-15, 2019

CITRUS EXPO

Ft. Myers, FL

CONTACT INFO

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COUNTY EXTENSION
SERVICE**

PO Box 9005, Drawer HS03
Bartow, FL 33831
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COUNTY EXTENSION
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5339 County Road 579
Seffner, FL 33584
(813) 744-5519
Ext. 541231

Florida State

Horticultural Society



The 132nd Annual Florida State Horticultural Society meeting 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>.

Citrus

Youth Day

The UF/IFAS Citrus Research and Education Center (CREC) in Lake Alfred invites you to the third annual Citrus Youth Day. The Citrus Youth Day will be held on Thursday, June 27, 2019. I have included an informational flyer for the event.

The event will be a fun and educational experience about Florida citrus and research for students 8-18 years old. Participants will gain a better understanding of how soil and light are important to growing citrus and that not all bugs are bad. There will also be a tour of two horticulture labs. This will be a great opportunity to learn about Florida citrus. You can register at <https://2019citrusyouthday.eventbrite.com>.

USDA Accepting Applications for Covering Organic Certification Costs

USDA's Farm Service Agency (FSA) announced that organic producers and handlers can apply for federal funds to assist with the cost of receiving and

maintaining organic certification through the [Organic Certification Cost Share Program](#) (OCCSP). Applications for fiscal 2019 funding are due Oct. 31, 2019.

FSMA/Produce Safety Alliance

On-Farm Reviews

Earlier this month we had a couple of Food Safety and Modernization (FSMA), Produce Safety Rule Trainings specifically geared for citrus growers.

On-Farm Readiness Reviews are still available through FDACS. These are free, voluntary, on-site visits conducted by FDACS and UF/IFAS to help you get a better idea of your "readiness" for a Produce Safety Rule inspection. To sign up, visit <https://www.freshfromflorida.com/Business-Services/Fruit-and-Vegetables/Food-Safety-Modernization-Act-Produce-Safety-Rule/On-Farm-Readiness-Review>.

Certified Pile

Burner Class

There will be a Florida Division of Forestry, Certified Pile Burner Class held at the UF/IFAS Southwest Florida Research and Education Center in Immokalee on July 24, 2019. I have included program and registration information in this newsletter.

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The Foundation for the Gator Nation

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CITRUS LEAF SAMPLING FOR NUTRIENT ANALYSIS

RECOMMENDATIONS FOR CITRUS LEAF SAMPLING AND ANALYSIS

Current UF/IFAS citrus nutrition recommendations contain specific information on the procedure that should be followed in collecting these leaf samples. These recommendations are contained in "Nutrition of Florida Citrus Trees" SL 253 found at the following link: <https://edis.ifas.ufl.edu/pdffiles/SS/SS47800.pdf>.



Citrus leaf analysis can provide a grower with quantitative data on the nutritional status of citrus trees. This information can be used to identify either deficiencies or excesses in the levels of foliar nutrients. The following article reviews the proper timing, collection, handling, and preparation of citrus leaf samples.

Collection Timing

Samples should consist of four to six-month-old spring flush leaves taken in the months from July to August. This timing will coincide with the height of the rainy season in Florida, and typically fertilizer applications would not be made during this time of the year.

Collecting the Sample

Samples should be obtained from a representative area with similar soil characteristics, same fertilizer, and production practices. It is suggested the area be about 20 acres, but it can be larger or smaller depending on the size of your particular production unit. On the ridge, the area could be quite large due to the uniformity of soils types. In flatwood soils that are considerably more variable, it might be useful to take multiple samples to better identify differences in tree nutrition due to this soil type variation.

Leaves should be collected from 15 to 20 trees in the identified production area. A combined total of 100 leaves from these trees should be obtained from spring flush, non-fruiting twigs. The trees should be uniformed and representative of the

block or grove. Collect only insect and disease free full sized spring flush leaves. Select only a single leaf (including the petiole) from the non-fruiting twig.

Leaf samples can be placed in labeled paper bags. The labeling should enable you to reference where the samples were taken when you receive the analysis. Do not leave the samples out in the heat. If they need to be stored for a short period, consider placing them in a cooler to prevent desiccation.

Do not collect samples from trees on the edges of blocks or at the end of tree rows.

Sample Handling & Preparation

Protect leaves from excessive heat, and if the sample cannot be washed and dried on the day of collection, place in a refrigerator for overnight storage. Leaves that are to be analyzed for macronutrients (nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur) do not need to be washed before analysis.

Leaves that are analyzed for micronutrients would need to be washed before analysis. Washing would consist of using a mild detergent solution to gently clean off as much of the surface contamination as possible. Care should be taken not to damage the leaves, and they should also be rinsed in deionized water before the drying of the leaf surface.

Once the samples have been adequately prepared for analysis, proceed with delivery or shipping to the testing lab.

Q&A

Factors Affecting Mineral Concentration of Citrus Leaves

From time to time, growers may have some compelling reason to collect and analyze citrus leaf samples at different times of the year. Current tables that allow growers to interpret the results of their citrus leaf analysis is based on the collection and analysis of 4 to 6 month-old leaves from non-fruiting twigs. This begs the question as to the potential consequences of interpreting samples taken from leaves other than those recommended. The following questions and answers will help you understand the possible implications of leaf sampling outside of the current recommendations.

What is the effect on leaf age and the mineral concentration in citrus leaf samples?

Nitrogen is less consistent and variable based on nitrogen fertilization timing, specifically on sandy soils with low nitrogen reserves. Nitrogen uptake and mobility are relatively fast, and samples taken immediately after fertilizer applications will likely be higher. Leaf nitrogen levels will decrease with leaf age. The levels are relatively stable in the 4 to 6 month period when taken from non-fruiting twigs.

Phosphorus and potassium decrease with leaf age. Calcium, boron, iron, and manganese increase with leaf age. Magnesium initially increases with leaf age to about 6-month timeframe then decreases. Copper and zinc remain stable with increasing leaf age.

What about within tree mobility of citrus mineral concentrations?

Minerals that are considered mobile in plants are nitrogen, phosphorus, potassium, magnesium, molybdenum, and chlorine. These will depend on the time of year, and source/sink relationship within the tree, will move from older leaves into newly developing flush leaves.

Calcium, sulfur, boron, copper, iron, manganese, and zinc are concerned non-mobile mineral, and thus movement out from older leaves to other parts of the tree is significantly reduced. This information will be useful in our subsequent discussion with interpreting citrus leaf analysis.

What are the consequences of sampling fruiting twigs versus non-fruit twigs?

Fruiting twig leaves will contain high levels of calcium and magnesium and lower levels of nitrogen, phosphorus, potassium, zinc, copper, iron, and boron.

What about leaves collected from actively flushing shoots?

Leaves from flushing shoots have slightly lower levels of nitrogen, potassium, and magnesium. These lower levels are likely due to the mobility (as mentioned previously) of these minerals within the tree.

What about the size of the leaf and the location on the tree?

Although differences do exist, larger leaves have higher potassium levels, so the collection of normal/average size leaves is adequate.

The location on the tree does affect the mineral concentration of citrus leaves. Examples would be potassium (in Valencia orange) significantly higher at the 0 to 6-foot height than at a height greater than 6 feet. Potassium was also more elevated on inside canopy leaves versus outer canopy leaves, while magnesium was lower inside the canopy. So it would be best to collect samples randomly from around the tree canopy and not just one location on all trees.

What about the tree to tree variation or variations due to rootstock and scion?

Samples should be collected from uniformed and representative trees. This methodology should minimize any sample variation.

Significant differences can occur between trees on different rootstocks and scions. This becomes somewhat problematic if the trees are interplanted. If they are in separate blocks or interplanted, one could sample each combination to determine if there are significant differences in mineral nutrition of the trees. Once this is done, a decision on how to best handle this variation can be made.

How does irrigation potentially affect mineral nutrition?

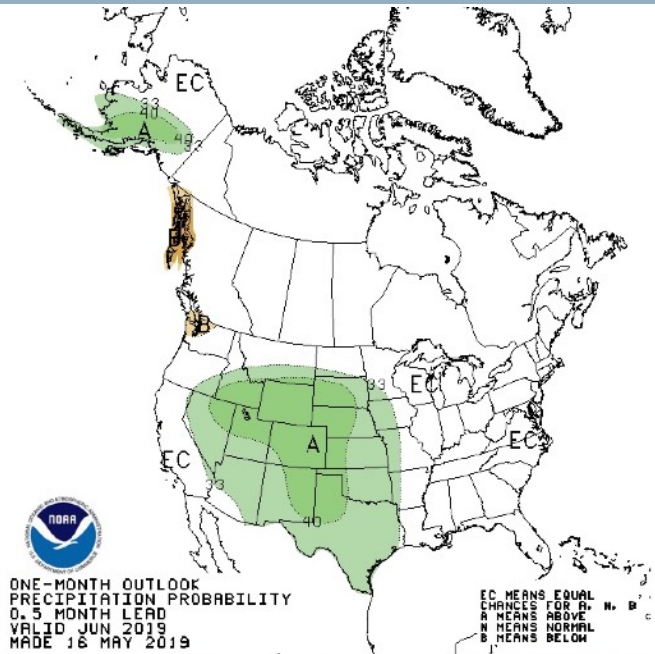
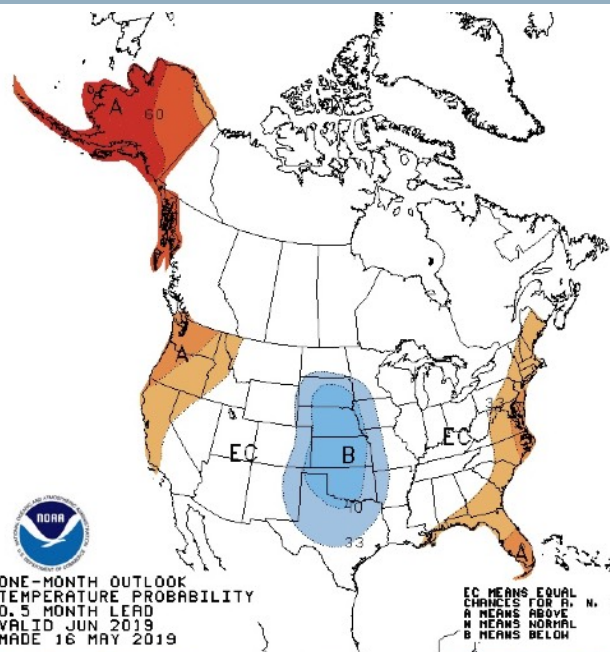
Excessive irrigation can lead to the leaching of plant nutrients resulting in potentially deficient levels of mineral concentration in leaves.

What is the effect of fruit load on nutrition?

In “on” years magnesium levels could be lower in seedy citrus varieties, especially grapefruit. Heavy crops during “on” years can result in a decrease in leaf nitrogen, phosphorus, and potassium and an increase in leaf calcium levels.

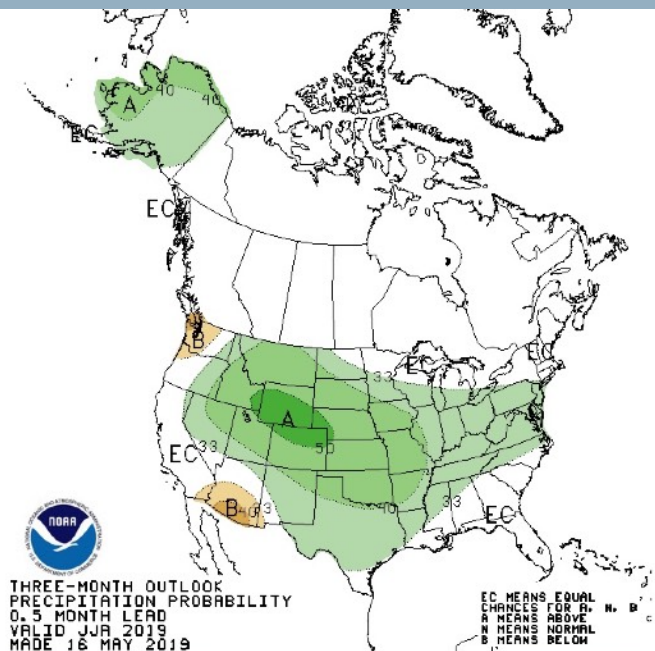
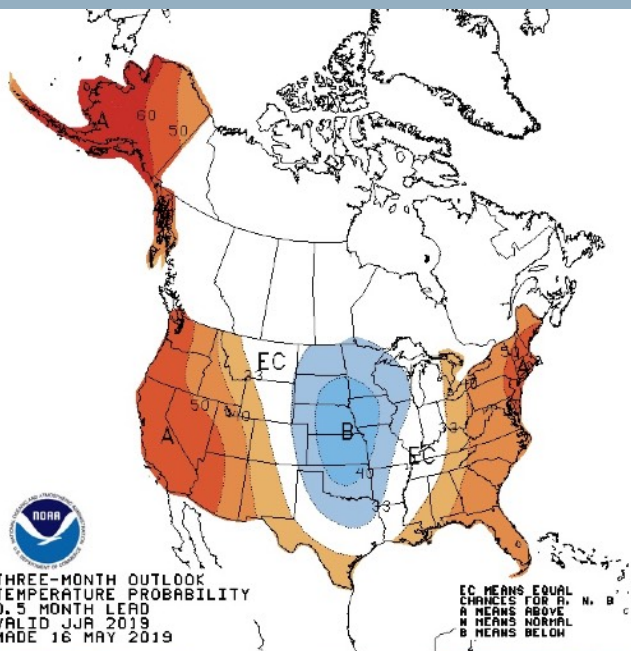
WEATHER OUTLOOK

MONTHLY OUTLOOK FOR JUNE 2019 - TEMPERATURE AND PRECIPITATION



WEATHER OUTLOOK

MONTHLY OUTLOOK FOR JUNE/JULY/AUG 2019 - TEMPERATURE AND PRECIPITATION



Summer Weather Outlook

Based on the latest El Nino/Southern Oscillation (ENSO) forecast, we are still heading for a summer under El Nino conditions. Current probabilities indicate there is a 70% chance of El Nino

conditions continuing through the summer and a 55-60% chance that will carry into the fall.

Under El Nino conditions during the summer, the zonal flow has a tendency, historically, to not be very favorable for hurricane development. We should get a

2019 hurricane season update the first part of June, with updated predictions and seasonal outlook.

Remember, as mentioned last month, it only takes one hurricane to cause significant damage to your property and crop.



Information for the next Certified Pile Burners Course:

The Florida Forest Service and University of Florida Cooperative Extension Service will be conducting a Certified Pile Burners Course on **Wednesday, July 24, 2019**. This course will show you how to burn piles *legally, safely and efficiently*. Most importantly, it could save a life. If you burn piles regularly, don't put off registering for this training. When the weather is dry, certified pile burners will receive priority for authorization to burn. Also, certified pile burners are allowed to burn up to two hours longer per day and get multiple day authorizations. Don't wait. The number of trainings offered and attendance at each training is LIMITED. This training will be held from 8:30 am till 4:30 pm at the **Southwest Florida Research and Education Center, Immokalee, Florida**. Included are a registration form and program agenda.

Registration is required to attend and class size is limited. To attend please send the following information (see form on next page):

1. Your full name (as wanted on your pile burning certificate).
2. Your mailing address (where you want the certificate mailed).
3. Your Florida Forest Service Customer Number (It is the number that you are required to give the FFS when you call in for your burn permits. If you do not know it please call the local FFS office and ask them to create one for you).
4. Your email address (if you have one) and/or contact phone number.
5. A check made out to: Hendry County 4-H for \$50.00.

The first fifty individuals to provide these five requirements will be registered; there will be a 7-day non refundable fee limit. If you do not make the training and did not contact our office at least one week before the class, you will not receive a refund. There will be a test at the end of the session. You must receive a grade of 70% or higher on the exam and demonstrate a proper pile burn with your local FFS office to become certified. Once you are certified it will be noted with your customer number, thus it is important for us to have the proper number. If you do not have a customer number the FFS office will set one up for you. Fill out the registration form on the next page and return as directed.

Sincerely,

Mongi Zekri

For Questions Contact: Dr. Mongi Zekri at maz@ufl.edu or 239-595-5494

Registration Form

Florida's Certified Pile Burner Program
Wednesday, July 24, 2019

Hendry County Extension Office
P.O. Box 68, LaBelle, FL 33975
(863) 674-4092

Please send this form and a check for \$50.00 made payable to:

Hendry County 4-H

Mail to: Dr. Mongi Zekri
Hendry County Extension Office
P. O. Box 68
LaBelle, FL 33975

Name

Mailing address

Email address

Phone Number

Florida Forest Service Customer Number, <https://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Field-Operations/County-Foresters/Find-a-County-Forester>



Florida's Certified Pile Burner Training

Wednesday, July 24, 2019

**Location: Southwest Florida Research and Education Center
2685 State Road 29 North, Immokalee, FL 34142
(239) 658-3400**

All Times Are Local

1. Opening Comments and Introduction	08:30 – 09:10
2. Fire Weather	09:10 – 09:50
3. BREAK	09:50 – 10:00
4. Smoke Management	10:00 – 11:20
5. Open Burning Regulations	11:20 – 12:15
6. LUNCH (provided)	12:15 – 01:15
7. Planning and Implementation	01:15 – 02:30
8. Safety	02:30 – 03:10
9. BREAK	03:10 – 03:20
10. Public Relations	03:20 – 04:00
11. Wrap Up & Test	04:00 – 04:30

Please bring a Pencil for the Exam!



CITRUS YOUTH DAY

Each participant will receive
a t-shirt and sling bag.

Register today!
Space is limited.

**THURSDAY,
JUNE 27,
2019**

JOIN US FOR THE CITRUS YOUTH DAY AT THE UF/IFAS CITRUS RESEARCH AND EDUCATION CENTER (CREC) IN LAKE ALFRED.

Citrus Youth Day will be a fun and educational experience about Florida citrus and research for students 8-18 years old. Participants will gain a better understanding of how soil and light are important to growing citrus and that not all bugs are bad. There will also be a tour of two citrus horticulture labs. This will be a great opportunity to learn about Florida citrus!

SCHEDULE

8:15 a.m.	Registration
8:45 a.m.	Welcome and Break into Groups
9:00 a.m.	Group Rotations <ul style="list-style-type: none">• How Citrus “Sees” Light• Soil Water Sensors• Citrus Pests: The Good and Bad• What happens in a citrus lab!
12:30 p.m.	Lunch
1:00 p.m.	Program Adjourns

Citrus Youth Day is a UF/IFAS 4-H Youth Development Program presented by the University of Florida (UF) Citrus Research and Education Center (CREC). For more information about Florida 4-H, visit <http://florida4h.org/> or call **1-352-846-HHHH**.

REGISTRATION

<https://2019citrusyouthday.eventbrite.com>

Early Registration by May 31 - \$15.00
Registration June 1 - June 14 - \$20.00
Late Registration June 15 - June 27 - \$25.00

Location

UF/IFAS Citrus Research and Education Center
700 Experiment Station Road
Lake Alfred, Florida 33850
For directions, visit

<https://crec.ifas.ufl.edu/about-us/maps/>

IMPORTANT: When visiting labs, guests are required to wear closed toed shoes, long pants (no shorts), and either short or long sleeved shirt. Please dress accordingly so you may participate in the lab tour.

PARTICIPATION FORM: Upon arrival, all youth participants will be required to have a completed participation form. You may find the form at <http://florida4h.org/participation-form.pdf> or the link will be sent in your order confirmation email.

For more information, please contact

Jamie Burrow, 863-956-8648, jdyates@ufl.edu