Citrus connection

HIGHLANDS COUNTY CITRUS GROWERS

President's Column by Bert Harris

So last month I wrote "*If the weather will continue to cooperate, we are all about to see in the coming months if investments in OTC, growth regulators and other production therapies are going to pay off with more fruit loaded on the trailer and higher quality at the plant*."

And then "Gosh Darn It" within a matter of days we had yet another #!?+&@%$ hurricane come through the citrus belt just to continue the run of absolutely %$&!?@+# weather related luck we have experienced over the past several years in addition to having to deal with this insidious HLB disease.

So I don't know that everyone will be able to get a true picture in the upcoming harvest season of whether or not the investments that they have made in their production practices was worth the cost and risk, and if we truly have the necessary tools to move forward in this challenging environment or not.

However, we move forward as growers usually do and pray hard that the crop remaining on the trees makes it to the processing plant or packing house with solid quality. The only good news out of all of this is that every piece of fruit is indeed even more valuable.

I was fortunate to have Congressman Scott Franklin in my home recently for a "friendraiser". He has indeed been a true friend to both the agricultural interests of our area and our overall community as well.

His common sense approach to helping seek solutions to the water quality issues of our area is refreshing. His assistance in securing federal funding for everything from nutrient management research to septic-to-sewer conversion is a holistic approach to a multi-faceted concern.

Congressman Franklin was also a key contributor to the Florida congressional delegation's recent letter to USDA Secretary Vilsack urging the USDA take immediate action to provide disaster assistance for Florida agricultural producers affected by Hurricanes Helene and Milton.

Specifically, in the letter Rep. Franklin and the Florida delegation:

* Emphasize the necessity for the USDA to utilize block grants to distribute aid to Florida and other specialty-crop states, where high volume of disaster program applications overwhelm local FSA offices and delay assistance for producers;

* Demand USDA enhance current FSA operations and improve staffing issues;

* Urge the USDA to provide a budgetary request to House and Senate Appropriations Committees to ensure Congress can appropriate adequate funding for disaster response;

* Discuss crop insurance reforms to help specialty crop producers recover in tandem with disaster aid; and

* Reasserts Congress' desire to collaborate with USDA to ensure proper support for Florida agriculture.

So for numerous reasons, I want to thank the Congressman for his commitment to our nation through his years of military service, serving our region of the state in various leadership capacities in the past, and for how he is helping our agricultural community now through his representation in the US Congress.

Bert Harris III

OCT 2024

HIGHLANDS COUNTY CITRUS GROWERS ASSOCIATION, INC.

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2024 Calendar of Events

November 12-14
Ag-Venture @ Highlands County Fairgrounds

December 7
HCCGA Citrus Fun Shoot @ Quail Creek Sporting Ranch

March 6
HCCGA Annual Meeting

April 24
HCCGA Golf Day

For additional information about any of these meetings or events, contact Ray or Jan at the HCCGA office

Executive Director's Report

BY RAY ROYCE

I know that we are all happy that Election Day 2024 has come and gone. On the plus side of politics - we are indeed very fortunate to have a good set of folks that look after our interests on the local, state and congressional level that won their races in resounding fashion.

Congratulations to Scott Kirouac on his re-election to the Highlands County Board of County Commissioners. Scott has always worked very hard on behalf of agricultural landowner policy initiatives, thankfully a commitment that all of our county commissioners share.

Since Commissioners Chris Campbell and Kevin Roberts did not have opponents in this election cycle, we will have the same set of five county commissioners for the next two years at least. Commissioner Elwell and Tuck's terms of service on the commission run through the fall of 2026, with Kirouac, Roberts and Campbell now slated to serve through 2028.

Our County Commissioners faithfulness to agricultural property rights will be especially important in the next year or so as Highlands County goes through their 2050 Comprehensive Plan (Comp Plan) and Land Development Regulations (LDRS) review and revision process. The Comp Plan and LDR revisions that county staff and political leadership will work on, and ultimately enact, will determine how agricultural property owners (*roughly 75% of our County currently has Ag Land Use & Zoning designation*) is treated for decades into the future.

Congratulations are in order for our State Representative Kaylee Tuck and State Senator Erin Grall too as they were re-elected to their respective seats in the Florida Legislature. They are active and steadfast supporters of our Ag community. And of course we cannot talk about agricultural advocates without thanking our citrus industry champion, Senator. Ben Albritton. As the President of the Florida Senate for the next two years he will play an instrumental role in not only protecting and promoting Florida's agricultural community, but in helping shape the future of our State across the board as well.

Scott Franklin was also re-elected to serve a third term in the United States Congress as our Florida 18th congressional district representative. Congressman Franklin, who has served in a wide range of leadership positons over the years, has been extremely involved in championing citrus issues on the federal level – thank you for your service Congressman Franklin!

Senator Rick Scott won another six year term in the US Senate as well on November 5th. Senator Scott is another member of the Florida congressional delegation with close connections in our area, and to our industry, that consistently tries to work though the maze of the federal bureaucracy on our behalf.

The **2024 HCCGA Citrus Fun Shoot**, is now less than a month away on **Saturday, December 7th.** We look forward to another great shoot this year as the shoot returns to **Quail Creek Sporting Ranch,** located just north of Okeechobee. So get your shooting teams organized now and join us for a great day of outdoor camaraderie and a fabulous lunch. Even if you don't want to shoot, consider sponsoring a shooting station. See the flier in this newsletter or give us a call if you have any questions on how to get involved. Look forward to seeing many of you there!

While we strive to keep our members as informed as possible on a wide range of local issues, please never hesitate in contacting me day or night (cell phone: 863-381-8551) for additional information if you need it; or if I can be of any assistance on any matter, large or small. *And remember, if you are not getting regular e-mail updates from us (usually several a week plus this newsletter every month), then we do not have a good e-mail address for you – so please let us know.*

Thanks, Ray

HLB-Tolerant Scion Breeding Update

U.S. Department of Agriculture-Agricultural Research Service (USDA-ARS) geneticist Matt Mattia with the U.S. Horticultural Research Laboratory in Fort Pierce, Florida, recently provided a scion breeding update on HLB-tolerant citrus. A slightly edited version follows:

Significant strides are being made in the development and evaluation of new citrus varieties, with many now nearing commercial release. These varieties are not only promising in terms of fruit quality but also show improved resilience against HLB.

Sweet Orange-Like Varieties

One of the most exciting advancements this season is the near release of several sweet orange-like hybrids. These selections, including the standout **FF-1-5-213**, have undergone rigorous evaluation. They show superior juice quality with excellent Brix levels. Growers and processors have their eyes on these hybrids. However, there still remains a regulatory hurdle in using sweet orange-like hybrids in amounts greater than 10% in not-from-concentrate orange juice.

Mandarins

Several seedless varieties of mandarins are showing excellent fruit quality and resistance to HLB. The seedless **Page** and **Nova** mandarins, now undergoing propagation trials, have been noted for their easy-to-peel characteristics and appealing taste.

Grapefruit

Re-selected grapefruit, considered a long shot, are also ready for trials. Selections like **Florida Red**, **Henderson** and **Red Blush** are under evaluation as single trees. These grapefruit selections, although not fully resistant to HLB, offer hope that with the right cultivation techniques, grapefruit could make a comeback in commercial production. The Florida Red, Red Blush and Henderson varieties in particular are being propagated for further trials, with potential to be more tolerant than commercially available options. In addition, several grapefruit-like hybrids are being evaluated for commercial fit.

Industry Collaboration Essential

None of these advancements would be possible without the close collaboration between researchers, growers and processors. Large-scale processing trials with partners like the Coca-Cola Company have also been essential, helping identify orange-like varieties for juice production. These collaborations have led to the creation of an elite list of citrus varieties with high Brix levels and excellent flavor profiles.

The Citrus Research and Development Foundation, the Florida Department of Citrus and New Varieties Development and Management Corporation have funded this research.

Varieties and OTC Treatments

In addition to traditional breeding techniques, researchers are experimenting with treatments like oxytetracycline (OTC) injections to improve tree health and HLB tolerance. Early data suggests that different citrus varieties respond uniquely to OTC treatments, further informing breeding strategies that focus on improving tree tolerance.

Hybridization Efforts

The 2024–25 season will also see the continuation of hybridization efforts, with thousands of new hybrids being evaluated for fruit quality and HLB resistance. These hybrids are the result of crossing materials from the oldest breeding collections, which can withstand Florida's challenging growing conditions.

While the battle against HLB is far from over, these new selections represent a major step forward in ensuring the future viability of the state's citrus industry.

Source: USDA-ARS

Programs for Agricultural Producers in Florida's Heartland

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) has announced the EQIP Disaster Assistance Program in response to hurricanes Debby, Helene and Milton. Eligible practices include replacement of high tunnels, replacement of crop mulching (plastic), replacement of individual protective screens on young citrus trees, tree/brush removal, repair and replacement of damaged center pivots, etc. For more information, contact Carlos Torres at (863) 451-3419 (*carlos.torres2@usda.gov*) or Kayla Nickerson at 863-451-3420 (*knickerson@highlandsswcd.org*).

The application period is Oct. 18th – Dec. 20th, 2024. Applications will be batched and ranked every two weeks so that producers may begin work as soon as possible. A waiver to start work early may be obtained and is required before commencement, though not a guarantee of funding. General cost share program applications are accepted year-round.

If your Ag operation is impacted by a natural disaster, **Farm Service Agency (FSA)** and **Risk Management Agency (RMA)** also offer disaster assistance programs and Federal crop insurance. Contact your local USDA Service Center to report losses and learn more about program options available to assist in their recovery from crop, land, infrastructure and livestock losses and damages. On farmers.gov, learn more on our Protection and recovery webpage at: *https://www.farmers.gov/protection-recovery* or by using the Disaster Assistance Discovery Tool at: *https://www.farmers.gov/protection-recovery/disaster-tool*.

FARMS & Mini-FARMS Programs

The Southwest Florida Water Management District is offering FARMS (Facilitation Agricultural Resource Management Systems) - an agricultural cost-share reimbursement program that reduces groundwater withdrawals from the Upper Floridan aquifer through conservation and alternative water supply best management practices (BMPs). For a list of qualifications and examples of project types, visit: *https://www.swfwmd.state.fl.us/business/agriculture/facilitating-agricultural-resource-management-systems-farms*. For additional information, contact Carole Estes at (941) 404-1452 or *Carole.Estes@WaterMatters.org*. Applications accepted year-round.

Highlands County Extension has partnered with the **Highlands Soil & Water Conservation District** to provide 5 free soil/water tests and 2 free tissue tests to Highlands County producers through the AgriTest Initiative. For more information, contact the Highlands County Extension Office at (863) 402-6540. Applications accepted year-round.

For help navigating the various programs and cost share assistance for your agricultural operation, please stop by the Highlands Soil and Water Conservation District Office or call Kayla Nickerson at (863) 451-3420.

The Good, the Bad and the Ugly: Optimizing OTC Injections

By Ute Albrecht, Caroline Tardivo, Larissa Nunes, Gabriel Pugina, Gerardo Moreno and Jasmine de Freitas

As growers are well into the second year of oxytetracycline (OTC) injections since approval for commercial use, more and more data are accumulating. The good news is that in all University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) trials, trees have been responding with significant improvements in yield and juice quality. The not so good news is that phytotoxic effects may occur. Researchers are still trying to figure out how to administer the injections without harming the trees in the process.

The Good

Let's begin with the good news. Numerous field trials are in progress in commercial citrus groves. In all trials, yield increases of 25% to more than 100% have been measured consistently, along with significant improvements in fruit size and juice quality. While yield increases vary from trial to trial, the increase in Brix or total soluble solids appears to be more consistent, ranging from 10% to 20%.

Table 1. Results from two rootstock trials. Trees (Valencia) were planted in 2015 and injected in May 2023.

Rootstock	Pounds solids/acre		
	Non-injected	Injected	Increase
Trial 1 (Highlands County)			
US-812	389	704	81%
US-942	267	440	65%
UFR-4	135	311	130%
UFR-2	203	297	46%
Sour orange	147	266	81%
Rootstock effect: p<0.001			
OTC effect: p<0.001			
Trial 2 (Polk County)			
US-942	472	704	49%
Carrizo	514	673	31%
US-812	525	668	27%
US-897	356	516	45%
UFR-4	349	515	48%
UFR-2	372	443	19%
Rootstock effect: p<0.001			
OTC effect: p<0.001			

In rootstock trials, all rootstocks responded positively to the injections but, perhaps not surprisingly, there were significant differences among them (Table 1). Although differences among rootstocks seem to be mostly a reflection of their general relative performance, OTC injections may help uncover their true potential, especially in trials where new rootstocks are included.

A comparison of rootstock versus scion injection did not produce any significant differences for yield and juice quality thus far. However, longer bark cracks are being observed when injecting into the scion. This year, OTC was taken up faster when injections were administered into the scion instead of the rootstock. This was not the case last year. In some cases, the uptake rate also varied by rootstock.

In some UF/IFAS trials, trees have been injected for two consecutive years. One of these trials is in a commercial

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OTC, Con't from page 6

grove near Fort Pierce. The trees in that trial are Valencia on sour orange rootstock. They were nine years old at the time of the first injection in 2022.

In the first year, a yield increase of 32% was measured when OTC was applied at the low rate (0.55 g/tree) and an increase of 67% when applied at the high rate (1.1 g/tree). The pounds solids per box were increased by 15% and 19%, respectively.

Greater increases were measured after two consecutive years of injection. Although yields were higher in 2024 compared to 2023 regardless of injection, compared to non-injected trees, OTC injected at the low rate increased the yield by 71% and at the high rate by 121%.

OTC rate	Boxes/ acre	Lbs. solids/ box	Lbs. solids/ acre
Year 1			
Non-injected	57 b	4.8 b	274 b
5,500 ppm	75 ab	5.5 a	408 a
11,000 ppm	95 a	5.7 a	543 a
	p=0.056	*p<0.001*	*p<0.001*
Year 2			
Non-injected	101 b	5.4 b	541 b
5,500 ppm	173 ab	6.2 a	1066 a
11,000 ppm	223 a	6.2 a	1385 a
	p<0.001	*p<0.001*	*p<0.001*

Table 2. Results from a trial near Fort Pierce, Florida. Trees (Valencia/sour orange) were planted in 2013 and injected in June 2022 and 2023.

Pounds solids were increased by 15% regardless of the rate. The total pounds solids/acre was 1,066 for trees that received 0.55 g OTC and 1,385 for trees that received 1.1 g OTC, compared to 541 for the non-injected control trees (Table 2). The tree density in that trial was 290 trees per acre.

The Bad and the Ugly

The bad (and sometimes ugly) news is that, especially in this year, phytotoxicity after injection seems to have been occurring with some regularity. This can manifest as moderate leaf yellowing in some parts of the canopy to severe yellowing and bronzing. In even more severe cases, leaf drop, twig dieback and fruit drop may occur.

However, such effects are usually only observed in a small section of the canopy. In most cases, yellowing or bronzing are followed by the production of healthy new leaves during the next flush.

The location of phytotoxicity in the canopy is related to the proximity of a branch to the injection site. Branches emerging closely in line with the injection site will usually receive more OTC than branches emerging on the opposite side of the injection and experience the most severe phytotoxicity.

At harvest, the injected side of the canopy usually looks healthier and produces more and better quality fruits than the opposite side (see *citrusindustry.net/2024/05/14/address-sectoring-trunk-injected-trees*). It must be noted that any xenobiotic (a chemical substance foreign to an organism) can potentially cause harm to the tree. Phytotoxic effects are not limited to OTC or the low pH of the injected solution. Similar or even worse phytotoxic effects with other injected chemicals, regardless of the pH, have been seen. Researchers have not observed any such effects when injecting water alone, even when it was acidified.

How can phytotoxic effects be avoided? Unfortunately, there is not a clear answer yet. This year, Florida had a long dry period followed by higher than usual temperatures. It is possible that the stress caused to the trees by these conditions rendered them more vulnerable to the additional stress from the injections.

See OTC on page 8

OTC, Con't from page 7

Interestingly, a study initiated this year saw severe leaf yellowing in one grove location but not in another even though the trees were of similar age, and injections were performed at the same time using the same rate. This suggests that the local environment at the time of injection plays a role in the tree response. In one trial, leaf yellowing was observed even when the OTC was administered in two half doses on two opposite sides of the trunk. However, the leaf yellowing was more moderate than when administering a single injection of the full dose into one side of the trunk.

Moving Forward

For new tree plantings, managing the trees so they have a longer trunk rather than a short one should be considered. The longer the trunk, the more time (distance) the OTC has to disperse evenly before reaching the scaffold branches. In any case, it is better to inject in line with the crotch of the scaffold branches instead of directly in line with a main branch.

The best approach is to use two injectors (or more for very large trees) spaced evenly around the trunk, to split the OTC into multiple smaller doses, instead of one injector on one side of the trunk containing a high dose However, this may not be cost-effective and/or practical.

If deciding to split the injections, using a smaller injector tip may be considered. Using a smaller injection tip is especially important for injecting smaller trees, which are more prone to bark cracking and other trunk damage. A recently completed UF/IFAS study suggested that the number of injection sites is more important than the OTC dose. Chemjet injectors were used in that study (which require a 11/64-inch drill bit), but smaller tips are also available for the FLexInject injectors.

Researchers are constantly learning as studies continue. OTC injections are effective. Learning how to optimize the process without increasing the costs is the goal moving forward.

Acknowledgments: The authors thank the grower collaborators for providing trees, tree care and help with the harvest, and the Citrus Research and Development Foundation for financial support.

Ute Albrecht (ualbrecht@ufl.edu) is an associate professor; Caroline Tardivo, Gabriel Pugina and Larissa Nunes are PhD candidates; and Jasmine Freitas and Gerardo Moreno are biological scientists — all at the UF/IFAS Southwest Florida Research and Education Center in Immokalee.

UF/IFAS Citrus Recovery Resources

In response to Hurricane Milton, UF|IFAS has developed a comprehensive webpage to share citrus recovery resources. On the webpage, you can find essential information on the impacts of hurricanes on citrus crops, recovery guidelines and best practices for managing citrus trees after a storm. It also features links to research findings, funding opportunities, support services designed for growers affected by hurricanes and more.

To access these resources, please visit UF|IFAS website at: *https://crec.ifas.ufl.edu/citrus-research/resources/hurricane-resources/2024.*

Brassinosteroids Help Trees After IPC Removal

Individual protective covers (IPCs) protect newly planted trees from HLB by excluding the Asian citrus psyllids (ACP) that spread the disease. However, IPCs must be removed after two or three years, leaving the trees exposed to ACP.

UF/IFAS Associate Professor Fernando Alferez and his team have discovered that adding a brassinosteroid (BR) treatment when IPCs are removed may prolong tree health and improve fruit yield and quality. Dr. Alferez's team has done work on evaluating BRs to improve citrus fruit quality and tree protection under HLB. BRs are growth hormones found in most plants. As commercial products, they control plant growth and development.

BR Benefits

Alferez reports that six months after IPCs are removed from young trees, most trees become infected with HLB. However, he reports the following positive results six months after IPC removal for trees that had BR treatments:

- More abundant, earlier and synchronized flushes
- Denser canopy and greener leaves
- More chlorophyll content
- More fruit set
- Most trees still negative for HLB
- Thicker rootstock
- Larger canopy volume
- Some new phloem vessels
- Less callose deposition
- Increase in enzymes related to oxidative stress alleviation

Conclusions

A summary of Alferez's work concludes that:

- BRs improve growth, branching and immunity if applied to young trees less than 3 years old.
- Applying BRs at the right time to mature citrus trees improves internal fruit quality.
- The effect of BRs is significant in mature trees at 3 or less in the scale of HLB damage. There is a strong potential for BR use in oxytetracycline-treated trees, as these trees show signs of recovery and improved health.
- BRs may recover trees already affected by HLB if no reinfection occurs.

See Alferez's full presentation on brassinosteroids at: *https://www.youtube.com/watch?v=XKXOfVa-61Q*.

Courtesy of AgNet Media

Winter Weather Watch

The 2024-25 edition of the Winter Weather Watch program will begin on November 15, 2024. 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 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, there are special weather narratives provided as needed in the event of freezing temperatures, and a weekly outlook provided by our own meteorologist David Faysash.

When freezing temperatures are predicted in our area additional updates will include the afternoon zone forecast and the modified sunset brunt minimum temperature equation. We will also provide the weekly citrus leaf freezing temperatures (also available on FAWN) and the 2024-25 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). You can subscribe to the Winter Weather Watch by contacting Joy Spencer at 863-519-1041 or by email at *j.spencer@ufl.edu*.

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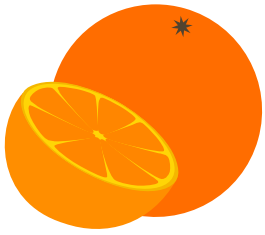


How can I help you?

https://citrusagents.ifas.ufl.edu/agents/

Alissa Hevesh

Agriculture & Natural Resources Extension Agent

UF/IFAS Extension Highlands County

UF IFAS Extension UNIVERSITY of FLORIDA

Development of Root Nutrient and Fertilization Guidelines for HLB affected Orange and Grapefruit Trees

Researchers: Davie Kadyampakeni, Alan L. Wright, Lorenzo Rossi, Yu Wang
Contact: Davie Kadyampakeni, dkadyampakeni@ufl.edu UF/IFAS CREC

Take Home Message:
- Fruit yields and juice quality were elevated with improved macronutrient and elevated micronutrients.
- Root development (longevity, length, volume, and area) was greater with elevated soil-applied micros at all rates of macronutrients.
- Canopy size was comparable between treatments at both ridge and flatwoods sites.

Summary:
Huanglongbing (HLB)-affected citrus trees have a fibrous root loss of about 30 to 80%, which increases as HLB symptoms develop in the canopy. Investigating optimal nutrient concentrations in citrus roots thus improves our understanding of HLB dynamics concerning root nutrition and fertilizer application methods. This study sought to evaluate nutrient uptake of HLB affected orange trees via soil fertilizer applications for 5- to 6- year-old 'Valencia' orange trees on Swingle rootstock at Ridge and Flatwoods sites. Macronutrients and micronutrients were applied at varying fertilization rates of standard fertilization via fertigation according to UF/IFAS guidelines.

For macronutrients, the rates were a) standard fertilization + 40 lbs/acre Ca + 40 lbs/acre Mg + 220 lbs/acre K and b) standard fertilization + 90 lbs/acre Ca + 90 lbs/acre Mg + 440 lbs/acre K.

For micronutrients, the rates were a) standard fertilization + 5 lbs/acre Fe, 5 lbs/acre Mn, 5 lbs/acre Zn + 1 lb/acre B, b) standard fertilization +10 lbs/acre Fe, 10 lbs/acre Mn, 10 lbs/acre Zn + 2 lbs/acre B and c) standard fertilization + 20 lbs/ acre Fe, 20 lbs/acre Mn + 20 lbs/acre Zn + 4 lbs/acre B.

Soil and leaf samples were collected for nutrient concentration analysis in spring and fall 2019 and summer 2020. No significant differences among treatments were observed for tissue and soil nutrient concentrations due to nutrient interactions. Fruit yield between 2019, 2020, 2021, and 2022 harvest seasons increased with increased nutrient availability.

Therefore, at higher fertilization rates of (standard fertilization + 40 lbs/acre Ca + 40 lbs/acre Mg + 220 lbs/acre K + 20 lbs/acre Fe, 20 lbs/acre Mn + 20 lbs/acre Zn + 4 lbs/acre B), HLB-affected trees showed increased nutrient uptake, and root development improving overall tree performance.

Source: Keeping Florida Citrus Growers Informed. Aug 2024, pg.29. UF/IFAS CREC Lake Alfred

New BMP Cost-Share Application Site Launched

The Florida Department of Agriculture and Consumer Services Office of Agricultural Water Policy (FDACS OAWP) recently announced updates to the Best Management Practices (BMP) Cost Share Program.

A new application portal is now open. Applications can be submitted directly via smartphone or computer. Learn more about the BMP Program, including how to request project funding at: *https://www.fdacs.gov/Agriculture-Industry/Water/Agricultural-Best-Management-Practices/BMP-Cost-Share-Program*.

There are now clearer guidelines on eligible reimbursement items. An enhanced reimbursement option will also be available for those who enter into a confidential data-sharing agreement.

Updates to the BMP Program are designed to increase accessibility and transparency. Fully trained field staff will assist with the transition and application process for interested individuals.

FDACS OAWP will prioritize awarding first-time participants in the BMP Cost Share Program and projects that will result in the highest level of nutrient reductions to help achieve basin management action plan goals and water conservation.

Funding will be based on the submittal of the necessary information for the request. Completed requests will be reviewed in the order in which they are received. Review of each cost-share funding request will be conducted by FDACS. Additional information from the producer, including a site visit, may be requested by FDACS before a funding decision is made.

When applying, producers must meet the following requirements for their funding request to be considered:

1. The property where the prospective project is located must be in production for at least one year prior to applying (regardless of ownership/lease).
2. The producer must have an active Notice of Intent to Implement Agricultural BMPs for the property where the proposed project will take place.
3. An implementation verification site visit must have been performed within the last two years (exceptions available if in a storm-impacted region).
4. The producer must provide a statement regarding any previous or current compliance action that resulted in an administrative order with a water management district, the Florida Department of Environmental Protection or FDACS, if applicable.

FDACS will match or overmatch other agency/entity funding as long as the total cost-share award does not exceed 90% of the total cost to the awarded producer.

If there are no other agency/entity funding partners, FDACS will allow for cost-share reimbursement up to a maximum project total of $150,000 per project for approved services, equipment and improvements.

Source: FDACS OAWP

We Believe in Florida Citrus....

For more than 15 years, Magna-Bon has been helping citrus growers reduce copper toxicity in the soil. Our product, **CS 2005**, uses less than a quarter pound of copper per acre compared to several pounds with conventional coppers. With soil toxicity, this will drastically affect yields in the grove. Our systemic copper sulphate pentahydrate in-solution formula penetrates the stemmata of the citrus tree, absorbing **CS 2005** to combat diseases such as: *Brown Rot, Greasy Spot, Pink Pitting, Scab, Melanose, and Citrus Canker!*

Industry Support

Magna-Bon supports regional trade shows, all regional citrus growers' associations, and various sponsorships throughout the year. Although it is not directly citrus related, Magna-Bon helped orchestrate selling blueberries from a local blueberry farm to the Central Florida area during the pandemic shutdown. You can read the article in the May 2020 issue of Florida Grower.

Backed by Research

We have more than nine years of research with the UF/IFAS research program. Research by Dr. Jim Graham notes that not only does Magna-Bon **CS 2005** have systemic capabilities, it also helps with the suppression of citrus canker!

Scan the QR Code and Watch our Video to See How Magna-Bon CS 2005 is Truly Different!

We believe in Florida citrus because it's our state. Our manufacturing plant is in Okeechobee and we look forward to serving the agriculture community for many years to come!

2024 Citrus Fun Shoot - December 7th

Registration for the **2024 HCCGA Citrus Sporting Clays Fun Shoot** is now open and very active. We are very pleased that the Citrus Fun Shoot is returning to **Quail Creek Sporting Ranch** for 2024.

While our Fun Shoot has evolved over the past 27 plus years, the key concepts remain the same – providing a great opportunity for fellowship with others within the citrus industry and greater agricultural community, fun clay target shooting, great and plentiful food and some fabulous green bird station and raffle prizes.

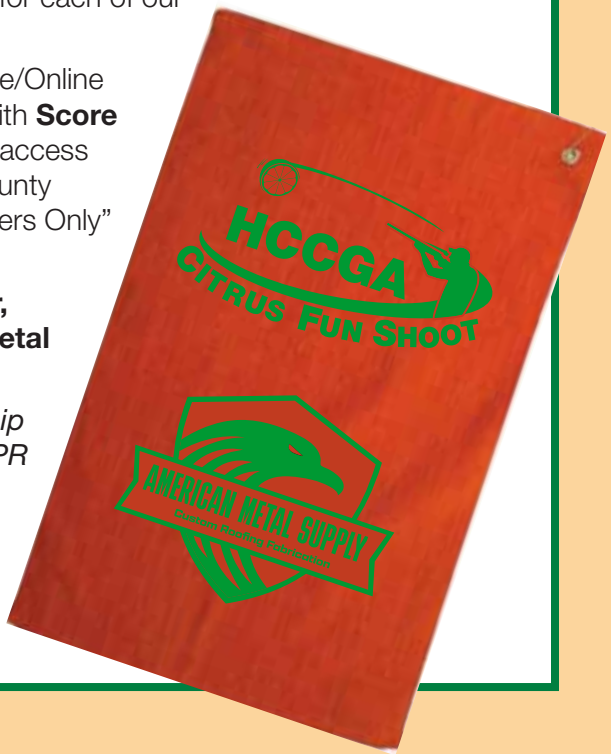
The day will start with grilled sausage & white bread and all the Natalie's juice you can drink and warp up with a great Prime Rib & Seafood lunch - so make plans to join us and 300+ other shooters on ***Saturday, December 7th*** for our 27th Annual Citrus Fun Shoot.

We want to thank our shoot's Title Sponsors: **Tropicana Brands Group, Duke Energy, TradeMark Nitrogen, Alan Jay Fleet Sales, PGIM Real Estate, Hood Citrus Caretaking, Peace River Citrus Products, Magna-Bon II, AgNet Media, Cowpokes Watering Hole Restaurant, CRAFT, Glade & Grove Supply, Syngenta, Cutrale Citrus Juices USA, Wedgworth Fertilizer, Everglades Equipment Group, Natalie's Orchid Island Juice Company,** and **Florida Power & Light.**

Our Seafood & Prime Rib Luncheon sponsor is **Farm Credit of Florida.**

Thank you to **Austin Hedrick,** and his company **American Metal Supply,** for providing a commemorative shooting towel for each of our shooting participants.

Florida State Sen. Ben Albritton is sponsoring our Live/Online Scoring, and again this year through our association with **Score Chaser** (*www.scorechaser.com*.) you will be able to access scores online during and after the shoot. Our HC County Attorney **Sherry Sutphen** is sponsoring our "Shooters Only" gun raffle drawing again this year.



Our four Green Bird Station Sponsors so far are: **Tree Defender, Marden Industries - SuperTrak**, **Quality Roofing & Sheet Metal** and **Highlands County Sheriff Paul Blackman.**

At this time we do have one last Green Bird Station sponsorship slot ($750.00) left if your firm would like to garner some great PR – just give us a call for details.

A registration/sponsorship flier is included in this newsletter, so we hope you will join us at **Quail Creek Sporting Ranch** on **Saturday, December 7th!**

2024 CITRUS FUN SHOOT

100 Target Fun Shoot • Dec. 7, 2024 • 8:30 am

Held at Quail Creek Sporting Ranch

Highlands County Citrus Growers Association, Inc.

Sponsored in part by...

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PARTICIPATION LEVELS

All levels include one raffle ticket per registered shooter

- **Gold Sponsorship $1000**
  Includes up to 6 shooters, lunch, use of one shooting cart, signage and recognition during awards ceremony
- **Team Sponsorship $675**
  Includes 4 shooters, lunch and station sponsorship sign
- **Individual Shooter $175**
  Includes 100 target shooting round and lunch
- **Station Sponsorship $150**
  Includes lunch for one and a station sign
- **Lunch Only $60**

SIGN ME UP!

Please check a Participation Level: ❑ Gold ❑ Team ❑ Station ❑ Individual ❑ Lunch Only

Enclosed is my check for $ _____ OR ❑ Bill me $ _____

Sponsor Name _____

Contact Name _____

Address _____

Phone _____ Email _____

Please attach shooting participants' names and contact info (address, phone & e-mail) to the back of this form.

For additional information, contact Jan or Ray at the HCCGA office at 863-385-8091 or admin@hccga.com.

Mail or E-mail form to: HCCGA, 6419 U.S. Hwy. 27 S., Sebring, FL 33876; E-Mail: admin@hccga.com.

For information about Quail Creek Sporting Ranch, go to: QuailCreekSportingRanch.com.

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Natural Disaster Recovery Loan Programs

Eligible Florida farmers, ranchers and growers impacted by Hurricane Milton can apply for low-interest or interest-free loans of up to $500,000.00 through the Agriculture and Aquaculture Producers Natural Disaster recovery Loan Program the Florida Department of Agriculture and Consumer Services (FDACS) announced recently.

Loans can be used by eligible agriculture and aquaculture producers to restore, repair, or replace essential physical property – including fences, equipment, greenhouses, and other buildings – or to remove vegetative debris.

Impacted producers are encouraged to take photos of any property damage sustained and to save all receipts for recovery efforts and supplies. Specific details on the application process are available on the program's website at: *https://www.fdacs.gov/Agriculture-Industry/Agriculture-and-Aquaculture-Producers-Natural-Disaster-Recovery-Loan-Program*.

Agriculture and Aquaculture Producers Natural Disaster Recovery Loan Program

- Interest-free loans up to $500,000 for eligible agriculture and aquaculture producers that have experienced damage or destruction from Hurricane Helene or Milton.
- Loans may be used to restore, repair, or replace essential physical property, including fences, equipment, greenhouses, and other buildings, or to remove vegetative debris.
- Interested producers can learn more or apply on the website.
- The term of the loans is 10 years.

The qualifying counties for **Hurricanes Milton, Helene and Debby** include Highlands and its surrounding counties.

Applicants must not have accepted financial assistance from another state or federal disaster relief program, which would render an approved applicant ineligible for other financial assistance.

Florida Small Business Emergency Bridge Loan Program

In the wake of Hurricane Milton, Florida Commerce has launched another $50 million for the Florida Small Business Emergency Bridge Loan Program. This is in addition to the $15 million already deployed for Hurricane Helene. Note that for Hurricane Helene, eligible small businesses may apply for loans of up to $50,000 through the program, and loans of up to $100,000 are available for agriculture and aquaculture small businesses. For Hurricane Milton, Florida Commerce has added loans of up to $150,000 available for citrus and cattle operations. More details are available at: *https://floridacommerce.my.site.com/RebuildFloridaBusinessLoanFund/s/.*

USDA Citrus Crop Forecast Update

All Oranges 15.0 Million Boxes

The 2024-2025 Florida all orange forecast released on October 11th by the USDA Agricultural Statistics Board is 15.0 million boxes, down 16 percent from last season's final production. The total includes 6.00 million boxes of non-Valencia oranges (early, mid-season, and Navel varieties) and 9.00 million boxes of Valencia oranges. The Navel orange forecast, at 190,000 boxes, accounts for 3 percent of the non-Valencia total.

The estimated number of bearing trees for all oranges is 30.3 million. Trees planted in 2021 and earlier are considered bearing for this season. Field work for the latest Commercial Citrus Inventory was completed in June 2024. Attrition rates were applied to the results to determine the number of bearing trees used to weigh and expand objective count data in the forecast model.

Non-Valencia Oranges 6.00 Million Boxes

The non-Valencia forecast of 6.00 million boxes is 11 percent less than last season's production. The estimated number of bearing trees (without Navels) is 9.72 million, down 17 percent from the previous season. The estimated fruit per tree for early and mid-season (non-Valencia) oranges is 392 pieces, an increase of 50 pieces from last season. Projected fruit size is below the minimum, requiring an estimated 344 pieces of fruit to fill a 90-pound box. At 31 percent, projected droppage is slightly below average. The Navel crop of 190,000 boxes, included in the non-Valencia forecast, is 6 percent more than last season's production.

Valencia Oranges 9.00 Million Boxes

The Valencia forecast of 9.00 million boxes is 20 percent lower than last season's production. The estimated number of bearing trees is 20.1 million, down 11 percent from the previous season. The estimated fruit per tree is 244, a decrease of 35 pieces from last season, and the lowest in a series dating back to the 1964-1965 season. Projected fruit size is below average, requiring an estimated 266 pieces of fruit to fill a 90-pound box. Projected droppage is above average at 38 percent.

All Grapefruit 1.40 Million Boxes

The forecast of all grapefruit production is 1.40 million boxes, 22 percent less than last season's utilization of 1.79 million boxes. The total is comprised of 1.20 million boxes of red grapefruit and 200,000 boxes of white grapefruit. The red grapefruit forecast at 1.20 million boxes is 23 percent less than last season's final production. Bearing trees are down 2 percent from last season's revised bearing tree numbers. The average fruit per tree at 271 pieces is 85 pieces less than last season. Fruit droppage is projected to be about average. Fruit size at the final month is expected to be above average. The white grapefruit forecast of 200,000 boxes is 17 percent less than last season's final production. White grapefruit bearing trees declined by 8 percent from last season's revised bearing tree numbers. The average fruit per tree at 369 pieces is 110 pieces less than last season, and only 6 pieces more than the eight-year season minimum. Current fruit sizes are above average, and at the rate of growth measured in last month's survey, are expected to be above average at harvest. Final drop is expected to be slightly above average.

Tangerines and Tangelos Total 400,000 Boxes

The forecast for tangerine and tangelos is 400,000 boxes, 11 percent less than last season's utilization of 450,000 boxes. This forecast number includes all certified tangerine and tangelo varieties.

Forecast Procedures

All citrus forecasts are based on actual fruit counts and measurements. The objective count method uses four components: (1) bearing age trees provided from the latest Commercial Citrus Inventory; (2) average fruit per tree obtained from the Limb Count survey using randomly selected trees and limbs; (3) fruit size from the fruit measurement survey; (4) fruit loss from the drop survey. These measurements are used in the forecast models; regression data are from the 2014-2015 through 2023-2024 seasons.

See FORECAST on page 19

FORECAST, Con't from page 18

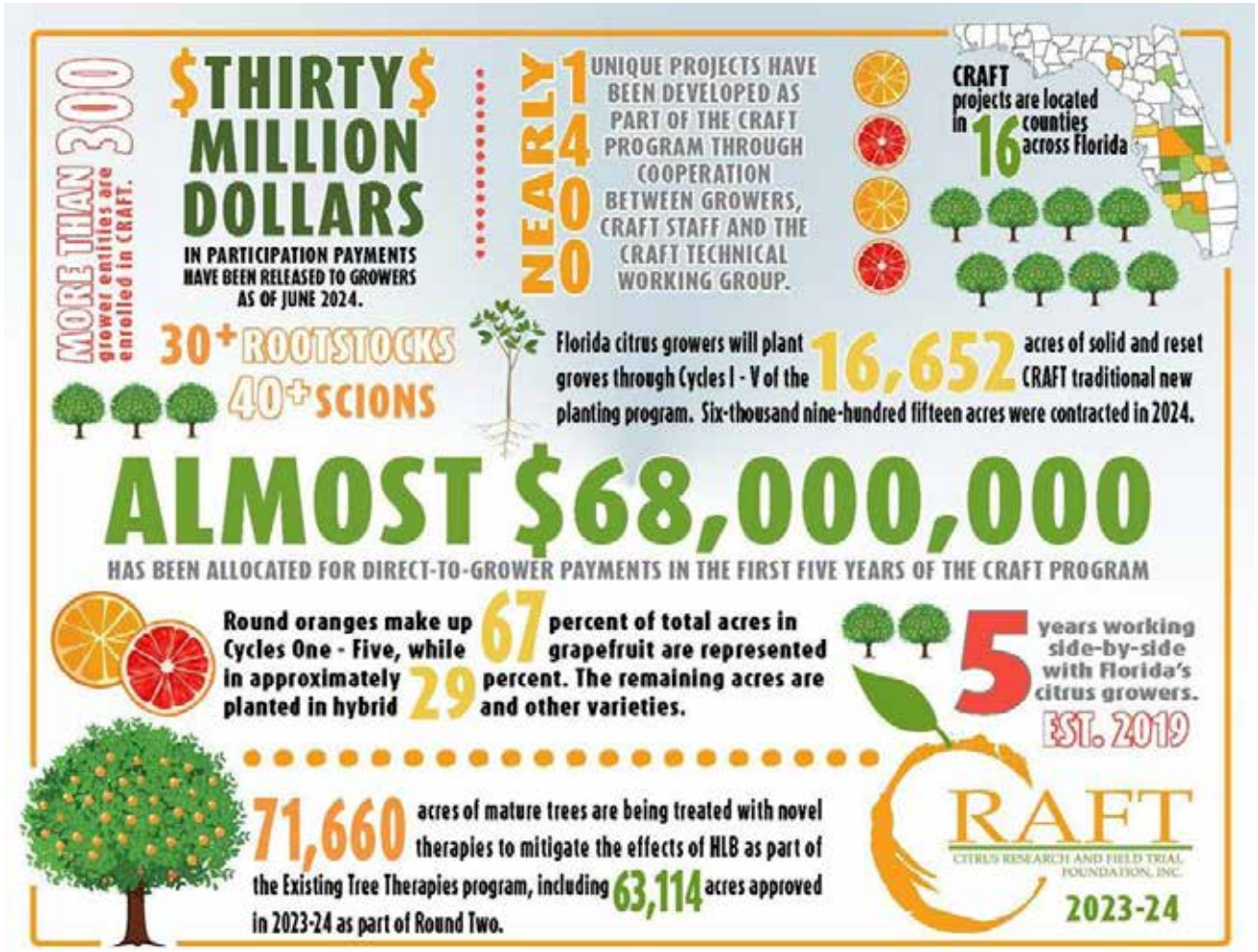
The latest Tree Inventory is used to determine estimated tree numbers. All trees planted in 2021 and earlier are included for the current season. An attrition factor was applied to these tree numbers (by age and area) to account for losses since the inventory period. Statistically valid procedures are used to provide unbiased estimates of fruit count. Samples are drawn with known probabilities from the Commercial Citrus Inventory, taking into account the variability in fruit per tree. Limbs are randomly selected from sample trees. Fruit on these limbs is counted in the mid-July to mid-September period.

Weather and Crop Progress

The citrus growing region experienced normal rainfall throughout the bloom period. The citrus region was drought free with the exception of a small portion in the western area. Temperatures on most accounts were average or above, reaching the high 70s to low 80s consistently. May and June days on most accounts were generally dry. Other that a few thunderstorms in isolated areas, the citrus belt received negligible rainfall. By the middle of June, all levels of drought conditions had expanded in the citrus growing area, leaving only a sliver in the north of the citrus belt drought free.

Well cared for groves looked good, although it was evident the fruit set was lighter than normal. Grove operations during the summer months included spraying pesticides, herbicides, fertilizers, and nutritionals, mowing, discing, removal of dead trees, replanting young trees, and general grove maintenance. Irrigation was being run as needed in groves that had missed the recent rains.

Size surveys showed fruit sizes were average or above on grapefruit yet were average to smaller than average on oranges. During the September survey, early oranges measured smaller than the minimum of the past ten seasons and close to the minimum of the previous ten seasons on late oranges. Harvest of Navel oranges for the fresh market was observed in early October.



CRAFT Program Update

The 2024 CRAFT Foundation application window closed in early November and the CRAFT team, Technical Working Group, and Board of Directors have begun the application review process, which includes eligibility confirmation and blind reviews of the proposed projects. Once approvals are finalized, participation agreements will be sent to all approved growers. Any remaining projects are placed on a waitlist for future consideration, should additional funding become available.

The CRAFT Foundation anticipates funding over $17 million in projects this year. This funding is in addition to the almost $68 million in direct-to-grower payments that have been made in the first five years of the CRAFT program.

Here is a look at some other vital statistics from our first five-years of the CRAFT program. Please visit *https://craftfdn.org* for more information about the CRAFT program or to access the CRAFT public dashboard.

Growers with any questions or in need of more information about the program are encouraged to contact Executive Director and Program Manager Steven Hall at *Steven@craftfdn.org* , Assistant Program Manager Tina Buice at *Tina@craftfdn.org* , or Scientific Coordinator Carisa Keller at *Carisa@craftfdn.org*.

More SuperSour Rootstocks Under Study

"Superior New Rootstocks Can Make Citrus Profitable Again" is the headline of a recent U.S. Department of Agriculture Agricultural Research Service (USDA ARS) article. Kim Bowman, research geneticist at the USDA Horticultural Research Laboratory in Ft. Pierce, Florida, wrote the article. A slightly edited version follows:

The rootstock and root system are what make trees strong enough to survive and produce a good crop of high-quality fruit, even when infected with HLB and other stresses.

Among the hundreds of promising new SuperSour hybrid rootstocks being tested within the USDA ARS citrus rootstock breeding program, several have been standout performers in field trials. The trials have been performed at Ft. Pierce, at the USDA Whitmore Farm in Lake County and in grower-cooperator trials at other sites.

Two of these early-standout rootstock performers were released in late 2023 as SuperSour 4 and SuperSour 5 and are being included in some new commercial plantings this year. Some of the other USDA SuperSour hybrids not yet released appear extremely outstanding in field trials. They are producing lush trees loaded with good fruit at 7 to 8 years of age, alongside trees on other rootstocks that appear as the more common weak, diseased trees.

Among the unreleased SuperSour hybrids that appear particularly outstanding is a hybrid between standard sour orange and trifoliate orange, and a similar hybrid that has US-942 as one of its parents. Both of these new SuperSour hybrids exhibit excellent tolerance to HLB and are on the short list for potential release and commercial availability in 2025–26. They are likely to be named SuperSour 6 and 7.

While the outstanding newest rootstocks will not improve performance of existing trees in the field, these new hybrid SuperSour rootstocks provide good hope for the future. They offer the opportunity to re-build a new citrus industry with healthier and more productive trees on the foundation of a much stronger rootstock.

Source: USDA ARS

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- **BRANDT Manni-Plex for Citrus** – high efficiency foliar nutrient combo for citrus
- **BRANDT Smart B-Mo** – high efficiency foliar boron/molybdenum
- **Celite® 610** – mechanical insecticide that contains 100% diatomaceous earth, OMRI Listed

Complexed Nutrients:
Feed with Dry Lignosulfates

- **Agra Sol** – dry soluble powder chelated micronutrients

Summer Oil Sprays:
Foliar Feed and Protect

- **BRANDT Smart K B** – high efficiency foliar potassium/boron
- **Nordox® 75 WG or 30/30** – copper fungicide, OMRI Listed
- **TresOil®** – emulsified fungicide/insecticide spray oil, OMRI Listed

For more information, contact J.R. Gough at Jr.Gough@brandt.co or 863 781 0363

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