## HIGHLANDS COUNTY CITRUS GROWERS President's Column by Bert Harris

Thursday 6 March 2025 at 5:30 we gather for our 35<sup>th</sup> Annual cocktail party, errrr Meeting of the Highlands County Citrus Growers Association. The cocktail hour will be followed by Ray's customary meal and our usual railroad—I mean our Association elections.

We will again be at the Seven-Sebring Raceway Hotel. Please recall that **reservations are required**! I would encourage you to register soon for an enjoyable evening with local growers and industry professionals.

Ray has arranged for our friends with Citrus Mutual, CRAFT and CRDF to present The Most Up-To-Date Knowledge.

Tanishka Aglave (16 years old) will talk about her award winning Curry Leaf Extract injection project that could lead to a wider use of trunk injection materials shortly.

Dr. Michelle Heck, of the Grove-First research project will deliver our keynote. Dr. Heck will provide updates on her research on a wide array of future compounds and treatments for our trees.

Riley McKenna will be installed as our 2025 Association President. Riley will bring the energy of youth and the knowledge of our industry to the Association. I know Riley, the Board and Ray will lead the association well.

THAT SAID, the burning question (given the status of our groves) is whether this should be our 35<sup>th</sup> and LAST ANNUAL MEETING?

I wrote in my first column that our association will be engaged in everything that impacts Highlands County citrus growers--including their transition to other land uses. Know that our mission is to assist you as a property owner – whether active or inactive in citrus production.

Our founders had good cause for concern about property rights. Our well-intentioned local government could in any given month accidentally or intentionally, take policy action that could impair our agricultural property. Many of you know that over the past thirty-five years our Association has played a major role in resisting or minimizing

those regulations.

## **JAN** 2025

- HCCGA Annual Meeting
- Grove First
- FL Citrus Show
- Guide to Pesticide Use
- CRAFT Cycle 6
- BMP Manual
- FL Citrus Industry Conference
- Citrus Tree Kills Psyllids
- HCCGA Board of Directors
- HCCGA Golf Day
- Crop Transformation Update
  Cit. Achievement Nominees
- Operation Cleansweep
- Oxytetracycline Efficacy

For this reason alone, I feel the Association should continue to work on our behalf. It brings value to those still growing and to those who own citrus land and are considering options.

I have personally witnessed Ray's representation of our membership. He has resisted additional regulation of our current and future land use, championed property tax savings (tree count based property tax and tax relief for fallow grove land). His work has provided each of us with a significant dollar return per acre in both tax savings and increased land use/land values.

Our Association protects our members' property and property rights—well beyond citrus.

I believe the protection of our property rights (with or without citrus) is and will be our Association's primary mission. Ray's institutional memory, credibility, development expertise and personal relationships are incredibly valuable and cost effective—\$2 per acre per year. Ray's advocacy is worthwhile -beyond citrus-- if that proves to be our lot in life.

This is my last president's letter. Thank you for enduring my comments (and humor) this past year. I have very much enjoyed my time leading our Association. It has been an honor to work with the folks who so strongly support the good in our community.

Bert Harris III



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STAFF Ray Royce, Executive Director Jan Menges, Administrative Assistant

## **2025 Calendar of Events**

March 6 HCCGA 35<sup>th</sup> Annual Meeting @ Seven-Sebring Raceway Hotel

> March 13 Florida Citrus Show @ UF/IFAS IRREC - Ft. Pierce

April 24 HCCGA Golf Day @ Sun N Lake Golf Club

June 11-13 Annual Citrus Conference @ Coconut Point Hyatt - Bonita Springs

August 20-21 Citrus & Specialty Crop Expo @ FL. State Fairgrounds - Tampa

December 6 HCCGA Citrus Fun Shoot @ Quail Creek Sporting Ranch

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



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The 2025 HCCGA Annual Meeting is scheduled for the evening of Thursday, March 6th. We look forward to celebrating 35 years as an Association working on behalf of our membership.

As part of the evening's program, Dr. Michelle Heck of the Grove-First Program will share how she believes the work she is involved with will make a big difference to the industry in the short term. We will hear from a very bright young lady as well about her trunk injection project that showcases the wide range of possibilities associated with this type of production treatment.



We will also hear from some other industry leaders and recognize those folks that have made our major fellowship and fundraising events possible. *Advance registration is required,* so let us know ASAP if you would like to attend or be one of our sponsors.

Please know that your Association has a great Board of Directors, and collectively they and I look forward to working on your behalf in the coming months and years ahead. We strive each day to provide value to all of our members and the companies they represent by pursuing our Association's mission of *"protecting and enhancing the viability and profitability of commercial citrus grove properties in Highlands County".* 

In that vein, I would like thank outgoing HCCGA President Bert J. Harris III for his service as our Board President over the past year – he has done a fabulous job representing our Association and it has been a true pleasure working with him. Bert had previously served as Association President in 2021 and is extremely involved, in a myriad of ways, in helping our County forge its path into the future. So thank you for your tremendous service over the years to both our industry and community Bert!

Riley McKenna assumes the Board presidency at our Annual Meeting, and I know that he looks forward to representing our membership in the upcoming year. Riley is very involved in multiple capacities across our industry, and will articulate a younger grower's perspective on our path into the future with his communications and leadership.

A quick reminder that since we are now in a new tax assessment year it will behoove you to contact the Highlands County Property Appraiser's office and make sure that they have current and accurate information in regards to your grove properties. Having the accurate info can make a significant difference in how your property is assessed and ultimately taxed long term.

I want to take this opportunity to thank the many great companies that advertise within our newsletter, sharing their message across the agricultural community of central Florida. These folks make the production, printing and distribution of this valuable communication tool possible. I encourage our readers to consider doing business with these fine folks whenever they provide a product or service that your operation requires. We can always make room for another ad or two if you want to get some great exposure for your company – just let me know.

This is your newsletter - so if there are ever any topics or issues that you would like to see covered or elaborated upon, please do not hesitate to let me know. Same goes for the work of your Association – if there are issues or services that you perceive we need to pay more attention to, please share that as well.

We have set the date for the 2025 Citrus Fun Shoot at Quail Creek Sporting Ranch. So save the date of **Saturday, Dec. 6** to join us for our Association's largest social and fundraising event.

Since one of our goals is to keep our members as informed as possible on a wide range of issues, never hesitate in contacting me day or night (cell # 863-381-8551) for additional information if you need it; or if I can be of any assistance on any matter, large or small.

Thanks, Ray

## Info Notes

## **2024 Citrus Expo Presentations**

The educational seminars at the 2024 Citrus Expo are available online at: *https://crec.ifas.ufl.edu/citrus-research/presentations*.

## 2024-2025 Florida Citrus Production Guides

The 2024-2025 Florida Citrus Production Guides are available to pick up at the UF/IFAS Highlands County Extension office (we have a few at the HCCGA office as well) or the handbooks are available online (with printable sections) at: *https://crec.ifas.ufl.edu/resources/production-guide*.

## Florida Minimum Wage

Just a reminder that the fourth increase dictated by the 2020 constitutional amendment, raised the Florida's minimum wage rate to \$13 an hour on September 30, 2024. The voter-approved amendment will gradually lead to a \$15-anhour minimum wage on September 30, 2026.

## **2024 Florida Citrus Growers' Institute Presentations Online**

The 2024 Florida Citrus Growers' Institute was held on April 4th at the South Florida State College Avon Park campus. The educational presentations were recorded and are available online at the citrus agent's website: Here you will also find PDF versions of the slides. *https://citrusagents.ifas.ufl.edu/archived-presentations/2024.* 

## **UF/IFAS Podcasts for Growers**

UF/IFAS and Southeast AgNet have partnered to provide the latest news on citrus-related research in a monthly "All in for Citrus" podcast. The podcasts feature short interviews with scientists working to find solutions to citrus greening and other devastating citrus diseases. The podcast complements the new research update website and citrus newsletter at: <u>http://citrusresearch.ifas.ufl.edu/</u> <u>newsletter-sign-up</u>. Podcasts may be downloaded to your mobile phone, tablet or computer to be listened to at your convenience.

## Sales Tax Exemption Forms for Ag Uses

Florida Farm Bureau has a very informative page on their website that lists a number of potential agriculturally related items that may be exempt from sales tax. It also has info about the TEAM card. It can be found at: <u>https://www.floridafarmbureau.org/agricultural-sales-tax-exemptions-in-florida</u>.



## "Florida OJ Break" License Tags

The HCCGA office has a very good supply of the "Take A Florida Orange Juice Break" license plates to share. Please feel free to stop by the HCCGA office and get one for your vehicles. We also have a limited supply of a few other types of OJ related tags.

## **UF/IFAS Research Website**

The updated Citrus Research and Education Center (CREC) website at <u>https://crec.ifas.ufl.edu/citrus-research</u> is now live. The revamped site has the latest research information on HLB management, detailed information on rootstock trials, access to on-line presentations from UF/IFAS research scientists, EDIS documents sorted by topic for easy access, and more.

## **UF/IFAS OJ Break Programs**

The central Florida UF/IFAS citrus extension agents are providing an OJ Break Grower meeting series in a twice monthly virtual program format. Upon registration you will be sent a Zoom link for each meeting. To see the upcoming meeting topics and register for the Zoom notice – go to: *https://citrusagents.ifas.ufl.edu/oj-break*.

## **Restricted Use Pesticide Exams**

Restricted Use Pesticide exams are done using laptops at most UF/IFAS county Extension offices. Whether you are taking the test for the first time, renewing your license, or adding a new category, you can take your exam at most county Extension offices. In Highlands County, the Extension office is scheduling exams for Wednesdays and Fridays. You can schedule your exam online at <u>https://pesticideexam.</u> *ifas.ufl.edu/public/countyList.faces.* 

## **FDOC Webinars**

The Florida Department of Citrus hosts monthly webinars in order to provide key information on various topics important to the Florida Citrus industry. To receive notifications on webinars and other topics, please e-mail *news@citrus. myflorida.com* and ask to be added to FDOC's email distribution list.

## **2025 HCCGA Annual Meeting**

The 35<sup>th</sup> Annual Meeting of the Highlands County Citrus Growers Association will be held at the Seven - Sebring Raceway Hotel on the evening of **Thursday, March 6<sup>th</sup>** with a social hour (cash bar) beginning at 5:30 PM and the dinner and program commencing at 6:30 PM.

All Association members should have received an invitation and reservation form in the mail in mid-January. The dinner is open to all *current* 2025 grower and associate members who wish to attend. However, advance <u>reservations are required</u>, so please return your reservation/sponsorship form as soon as possible if you would like to attend. We certainly appreciate all of the entities that choose to help defray the cost of this event through sponsorship investment. We would especially like to thank the **Florida Department of Citrus** for sponsoring our social hour and the audio visual aspects of the program.

During the dinner program, the Association will hear from guest speakers about the state of our industry, elect four new Board of Directors members, hear reports from Association officers, install the Board Officers for 2025 and recognize the major sponsors of our 2024 Golf Tournament and Sporting Clays Fun Shoot fundraisers.

Our Keynote Speaker this year will be **Dr. Michelle Heck** who is the Lead Scientist and Research Molecular Biologist with the Emerging Pests and Pathogens Research Unit of the USDA Agricultural Research Service. Dr. Heck will provide the most recent project updates regarding the Grove-First program which she is leading.

A special guest speaker will be 16 year old 10<sup>th</sup> grade high school student **Tanishka Algave**, who will share a very interesting presentation on her curry leaf extract project.

We also expect to hear brief reports from **Morgan McKenna Porter** (*Chair of CRDF*), **Steven Hall** (*Executive Director of CRAFT*) and **Matt Joyner** (*CEO of Florida Citrus Mutual*) about the work of their respective organizations on behalf of our industry.

So contact the HCCGA office (*863-385-8091 or <u>admin@hccga.com</u>*) to invest in event sponsorship and/or secure your reservations if you have not already done so. We hope you will join us on the evening of March 6<sup>th</sup>.







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## **Grove-First**

In the United States, despite spending over \$1.4 billion dollars on citrus greening research, no solutions have been found. "Grove-First", a new program developed by USDA Agricultural Research Service scientists Drs. Michelle Heck and Randall Niedz, is a design of experiments framework to rapidly screen molecules in bearing citrus trees using direct trunk injection to select molecules that improve tree health and fruit yield over the course of a single growing season.

A drug repurposing approach enabled the Grove-First team to screen chemistries with regulatoryfriendly profiles for rapid industry adoption. Using this framework, the team identified treatment chemistries with effects comparable to or better than the commercially available oxytetracycline (OTC) formulations on visual tree-health and yield indices in HLB-positive 9-year-old Valencia trees.

By bringing together subject matter experts, including growers, grower organizations, regulatory agencies and consultants, companies, policy makers and scientists, Grove-First rapidly accelerates the identification and large-scale field testing of citrus greening therapies, some of which are available for growers to use immediately and others that require further regulatory actions.



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## Florida Citrus Show: A Day Packed With Value!

The Florida Citrus Show is schedule for March 13 in Fort Pierce at the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Indian River Research and Education Center and U.S. Department of Agriculture (USDA)-Agricultural Research Service U.S. Horticultural Research Laboratory. The event presents a great educational program and is an excellent opportunity for citrus growers to share ideas with peers and see the latest industry offerings at the tailgate-style trade show.

The morning general session will feature big-picture topics, including labor and an agricultural outlook for 2025. The Trump administration came to office with a large agenda and has begun to put it into action. With a new administration at the helm, now is a good time to assess how policies and economics could affect agriculture. Danny Munch, an economist with the American Farm Bureau Federation, will provide an outlook on what we might expect in the coming year.

Jamie Fussell, director of labor relations for the Florida Fruit & Vegetable Association, will discuss the labor situation and H-2A program. He will touch on a number of topics, including the significant increases in the adverse effect wage rate that growers in Florida and other southeastern states have dealt with in recent years.

Vendors will be serving up a variety of delicious foods for lunch at the tailgate trade show. This new addition has been a big hit with attendees in recent years.

After lunch, breakout seminars on citrus and vegetable production will be held. Next, attendees with have the opportunity to tour USDA's "grove-first" approach where alternative trunk-injection therapies are being evaluated in the field.

Other citrus seminar highlights include:

- Update on oxytetracycline trunk injection
- New fresh fruit varieties from UF/IFAS and USDA
- Update on rootstocks, including the SuperSour selections
- HLB and canker management

Register today at www.citrusindustry.net/florida-citrus-show. for the Florida Citrus Show!



## A Guide to Safe, Effective Pesticide Use

By Danielle S. Williams

Pesticides are vital tools in agriculture that help protect crops from pests and diseases. Pesticide use must be managed responsibly to ensure the safety of humans, wildlife and the environment. One crucial aspect of responsible pesticide use is understanding and interpreting the pesticide label. These labels provide essential information on proper handling, application and safety precautions. Labels also give instructions on using the product effectively.

A pesticide label is the information on or attached to the pesticide container. It is more than just a piece of paper; it is a legal document. The term "label" is defined as "the written, printed, or graphic matter on, or attached to, the pesticide or device or any of its containers or wrappers." Many applicators are familiar with the phrase "the label is the law." That is because this document is a contract between the product manufacturer, the Environmental Protection Agency (EPA) and the end user. Using a pesticide in a way that is inconsistent with its label is a violation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). It is the end user's responsibility to use the product properly.

All pesticide products must be registered with the EPA, and each product is given a unique registration number. According to FIFRA, there are four different types of pesticide registration:

- Section 3 The product has a standard registration (the most common pesticide registration).
- Section 18 The product has been given an emergency exemption due to an urgent need to control a pest or disease, and no suitable registered alternatives are available. These exemptions are typically time-limited and granted under strict conditions.
- Section 24(c) The product has been registered based on a special local need (SLN). SLN registrations are granted when a certain region or area has unique pest control needs that can't be addressed with existing registered pesticides.
- Section 25(b) The product has been exempted from registration because it poses minimal risk to humans and the environment.

#### **KEY ELEMENTS OF PESTICIDE LABELS**

#### Name and Ingredient Statement

The brand, trade or product name identifies and markets the product. It is found on the front panel of the pesticide label. Different manufacturers may use different brand names to market products, even if the same pesticide active ingredient is used. The ingredient statement, also normally found on the front panel of the label, identifies the name and percentage weight of each active ingredient. The active ingredients, identified by the common name and the chemical name, are the chemicals responsible for killing, repelling or controlling the target pest. In addition to the active ingredients, the total percentage of inert or inactive ingredients will also be included on the label. These are considered proprietary information and not named.

#### **Use Classification**

The EPA is required to classify pesticides for either general use or restricted use, based on the toxicity of the product, how it will be used and the effect of the pesticide on the environment. General-use pesticides are usually less toxic or less environmentally hazardous than restricted-use pesticides. When a pesticide is classified as restricted, the label will state "Restricted Use Pesticide" at the top of the front panel. To purchase and apply restricted-use pesticides, a person must be certified and licensed in the state of Florida or work under the direct supervision of a certified applicator.

#### PESTICIDES, Con't. from page 8

#### **Child Hazard Warning**

The front panel of every pesticide label must have the statement "KEEP OUT OF REACH OF CHILDREN" due to poisoning being a major cause of injury to children.

#### Signal Words and Symbols

A pesticide label must also display a signal word on the front panel of the label to identify the relative toxicity of the product. The signal word is based on the entire contents of the product, not just the active ingredients. Signal words are:

- DANGER: Highly toxic
- WARNING: Moderately toxic
- CAUTION: Slightly toxic

Pesticides that are highly toxic and likely to cause acute illness through oral, dermal or inhalation exposure have DANGER as the signal word. They will also carry the word POISON printed in red along with the skull and crossbones symbol.

#### Statement of Practical Treatment

The statement of practical treatment, or first aid statement, describes what to do if a person is exposed to the pesticide. Applicators should be familiar with this section before using a product, and it should be readily available in case of an emergency.

#### Hazards to Humans and Domestic Animals

This section of the label includes statements indicating specific hazards, routes of pesticide exposure and precautions to avoid human and animal injury. Examples of statements in this section include:

- "Harmful if absorbed through skin or swallowed."
- "Causes moderate eye irritation."
- "Avoid contact with skin, eyes, or clothing."

#### Personal Protective Equipment (PPE)

This section of the label contains specific instructions about the type of clothing that must be worn during the handling and mixing process. The required PPE may vary depending on the task. The PPE listed is the minimum protection that should be worn while handling the pesticide.

Environmental Hazard Statement

This section of the label describes a product's potential hazards to the environment, including soil, water, air, wildlife, fish and nontarget plants. Endangered species protection information may also be mentioned here. Examples of environmental hazard statements include:

- "This product is highly toxic to bees."
- "This product is toxic to fish, aquatic invertebrates, and plants."
- "Do not apply where runoff is likely to occur."

#### **Directions for Use**

This is the bulk of the pesticide label and typically begins with the statement: "It is a violation of federal law to use this product in a manner inconsistent with its labeling." This section provides detailed instructions on how to correctly apply the pesticide, including application rate, timing, methods and frequency. It specifies the target pests, recommended application rates and the appropriate timing for application. Applying a pesticide to a site not listed on its label is illegal. Products intended for use in agriculture will have an "Agricultural Use Requirements" box included in this section that will contain information related to the Worker Protection Standard, 40 CFR Part 170.

#### See PESTICIDES on page 10

#### PESTCIDES, Con't from page 9

#### Storage and Disposal

Each pesticide has general storage and disposal instructions. Most pesticide labels will contain a general statement to the effect of "do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment" and "store in original containers only." This section of the label provides guidance on how to store the product safely, including temperature requirements, shelf-life and precautions to prevent contamination. It also outlines guidelines for disposing of unused pesticides or empty containers to prevent environmental harm.

#### SUMMARY

The primary objective of the pesticide label is to provide users with the necessary information to handle, apply and store pesticides safely. Proper interpretation and adherence to pesticide labels can minimize health risks, prevent environmental contamination and maximize the effectiveness of the product. It is ultimately the applicator's responsibility to ensure pesticides are being applied safely and effectively.

Danielle S. Williams is a UF/IFAS Extension commercial horticulture agent in Quincy. Source: Applying Pesticides Correctly, 7th Edition by F. Fishel

## **CRAFT Cycle Six & Existing Tree Therapies Round Three Update**

CRAFT received 227 New Tree Planting applications, including 13 solid-set projects featuring plant material from the Program for Expedited Propagation (PEP), 50 traditional solid-set projects, and 164 reset applications representing almost 10,000 acres of new planting proposal applications. CRAFT also received 662 Existing Tree Therapies Round Three (ETT) applications covering approximately 47,000 acres for inclusion in the ETT program. This demand exceeded the funding available for both programs.

The CRAFT Technical Working Group (TWG) and Board of Directors has completed its review of all eligible CRAFT New Planting and ETT applications and contracts have been mailed to the applications selected for funding. The selected applicants have received their contracts with instructions on how to complete their contracts by the specified deadline. The contract package will include instructions regarding next steps and payment processes. Participants are encouraged to read the instructions carefully before signing and returning their agreements.

Any applications that were not selected for funding during this initial review have been added to the waitlist. As funding becomes available, additional contracts may be extended to applicants on the waitlist.

The CRAFT team is excited to work with our participating growers as they get started with these new projects. If you have any questions, please contact Steven Hall, CRAFT Executive Director, at *Steven@ craftfdn.org* or (863) 333-2931.

## **New Citrus BMP Manual**

In the past year, FDACS undertook a significant effort to update all the Agricultural Best Management Practices (BMP's) Manuals. Many of these manuals had not been updated for over a decade. FDACS updated these manuals to:

- 1. Create specificity in the manuals. The previous manuals were not specific about who must do what, within what timeframe, and where. This lack of clarity is the root of many of the problems we were seeing.
- 2. Update manuals to reflect current law. Current manuals had not been updated since the laws surrounding BMPs changed in 2016 and 2020.
- 3. Eliminate practices unrelated to water quality or water conservation.
- 4. Update the practices to reflect our greater understanding of BMPs and changes to the Ag industry since manuals were originally adopted.
- 5. Relate the manual narrative to checklist. Previously, there is no connection. The checklist is what producers must follow. The narrative suggests how to follow and why BMP is important.
- 6. Provide a more consistent structure across manuals to make them easier for staff and producers to follow and enable analyses of practices across manuals.

For the Citrus BMP, the Notice of Change was published in the Florida Administrative Rules process on 1/15. The Rule Adoption Package is near approval and the rule will be filed as soon as possible after the 20-day public comment period ends on 2/4.

FDACS hopes these revisions expand the number of producers implementing BMP's and improves water quality throughout the state. If producers have questions about the new manuals, they can contact the Office of Agricultural Water Policy at (850) 617-1700, (850) 617-1701 Fax, or *AgBmpHelp@FDACS.gov*.

This process is updating and replacing the <u>2012 Citrus BMP Manual</u>. HCCGA staff was involved with the working group that consider manual revisions. The new manual should be much more concise in nature and user friendly. Once administrative processes are completed, and we know how growers will need to be "re-enrolled" in the BMP program we will share that info.





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## **Annual Florida Citrus Industry Conference 2025**

Just a reminder to save the dates of June 11<sup>th</sup>-13<sup>th</sup> for the Florida Citrus Industry Annual Conference in Bonita Springs. Florida Citrus Mutual has planned another great conference that will include informative educational sessions and a number of industry meetings for growers and associated partners to participate in. There will also be fellowship events to enjoy, including the famous slide races, and this is an extremely family friendly event and venue if you have not attended the conference at the Hyatt Regency Coconut Point Resort and Spa before.

Citrus Mutual will open conference registration on or around March 1<sup>st</sup>, however you can reserve your hotel accommodations now at: *https://www.hyatt.com/en-US/group-booking/NAPRN/G-FFMC*.

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## **Experimental Citrus Tree Kills Young Psyllids**

Scientists at the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) are testing a new type of citrus tree that can fight off the HLB-spreading Asian citrus psyllid (ACP). The genetically modified tree has only been tested in the lab and the greenhouse but is very promising as a potential solution to HLB.



The approach involves inserting a gene into a citrus tree that

produces a protein that can kill baby ACPs. That gene normally occurs in a soil-borne bacterium called Bacillus thuringiensis (Bt). The gene provides instructions for the new citrus tree on how to make this protein. So, when the gene is inserted in the tree, the plant produces the protein that kills psyllids.

While this approach can kill baby psyllids, UF/IFAS scientists are close to finding a solution to control the adult pests. "We are trying to deploy a biotechnological solution that is sustainable, easy for growers to deploy and replaces the need for spraying insecticides," said Lukasz Stelinski, an entomology professor at the UF/IFAS Citrus Research and Education Center (CREC). "That can't be done completely with the current Bt trees and thus it might require some additional, albeit reduced, insecticide spraying for adults, for example."

Scientists must now prove this method works in the field, and they're still a few years away from perhaps reaching that conclusion, Stelinski said. They hope to begin testing the trees in about a year.

Through the new research, scientists have found that the tree is protected because all juvenile psyllids that feed on the tree are killed, Stelinski said.

"A citrus tree that produces its own potent defense against the Asian citrus psyllid by preventing this insect from reproducing would reduce or possibly eliminate vector populations," Stelinski said. "In terms of stopping HLB, this approach could curtail the ability of an otherwise very effective vector from spreading the pathogen."

Before UF/IFAS scientists started this research a few years ago, they knew that certain Bt proteins could kill other sap-sucking insects, but none were known to kill Asian citrus psyllids.

The protein binds to specific receptors on the gut wall, causing pores to form. This disrupts the insect cells on the gut wall, ultimately killing the insect.

CREC scientists inserted a gene from Bt into citrus trees. The gene yields a protein in the phloem, the vascular part of a leaf where the psyllid feeds. Ultimately, that protein protects the tree from the psyllid and therefore, from HLB.

Bryony Bonning, an eminent scholar and entomology professor on the main UF campus in Gainesville, led the research to identify the bacterial proteins that kill psyllids.

## Source: UF/IFAS



## HCCGA Board of Directors Elects 2025 Officers

The HCCGA Board of Directors, per the requirements of the HCCGA by-laws, elected new officers for 2025 during their January 9<sup>th</sup> Board meeting. Serving as Association Officers for 2025 after taking office at the HCCGA Annual Meeting on March 6<sup>th</sup> will be:

President: **Riley McKenna** Vice-President: **Trevor Murphy** Treasurer: **Doug Deen** Secretary: **Emma Ezell** 

The Association's new President, Riley McKenna, is a Sebring based grower who has served on the HCCGA Board of Directors for the past several years, and is very involved across our industry in a number of capacities. He also is the second in his family to serve as Board President, as his father Marty served as our Association's 3<sup>rd</sup> Board Chair in 1993. He, and his family, are committed to the future of Florida's citrus industry.

So congratulations to all of the new officers, and thank you for your willingness to serve!

## 2025 HCCGA Golf Day

The Highlands County Citrus Growers Association's annual golf tournament has been scheduled for the afternoon of **Thursday, April 24<sup>th</sup>** this year, at the **SUN 'N LAKE Golf Club** in Sebring. So save the date to join us for a fun day on the golf course.

A 12:00 PM luncheon and sign-in will precede the 1:00 PM tee off. Lunch, range balls, oncourse water-soda-beer, post tournament hors d'oeuvres and a raffle drawing prize ticket will be included in each golfing entry. The cost will be \$100.00 per player (\$400.00 per foursome), and the tournament is open to the public. A four-player team scramble format will be used in the tournament, and there will be a number of hole contests to compete with others in your handicap class for in addition to gift certificate prizes for the top 3 teams in each of the three flights.



CRAFT's mission is to move lab and research solutions into commercial groves for commercial-scale field trials, collect data on the results of those field trials and create an integrated data management system allowing growers, researchers and other interested parties to analyze the efficacy and efficiency of various strategies, treatments and therapies.

For more information, visit CRAFTfdn.org or contact Steven Hall - 863.682-1115 or Steven@CRAFTfdn.org.

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The 2024-2025 Flower Bud Advisories provided by Dr. Tripti Vashisth (UF/IFAS CREC) are now ongoing. These advisories are published biweekly through March 2025. Growers can utilize this information to better understand and predict the timing of flowering for the upcoming season. The advisories can be found at: <u>https://crec.ifas.ufl.edu/research/citrus-production/flower-bud-induction/</u>.

The information is based on the Citrus Flowering Monitor, which is a model that uses area FAWN stations, cultivar type, tree age, soil type and the current date to give predictions of when flowering is expected to occur and how many bloom events to expect.

Growers can enter parameters specific to their grove to get a prediction. Knowing the bloom date is important for managing bloom and other related events. The Citrus Flowering Monitor also gives specific recommendations on how to manage bloom. You can also run the Flowering Monitor utilizing your own site specific information. The model is available at: <u>http://disc.ifas.ufl.edu/bloom/model.jsp</u>.

Growers should pay attention to flower bud advisories because they discuss the predicted bloom and best practices to follow at that time of year for optimum flowering. Keep track of induction hours in your area and watch for projected warm periods from the weather services.

Normal, healthy trees could have their induction boosted by applying some drought stress. Unfortunately, with vulnerable root systems associated with HLB, growers shouldn't risk heavier preharvest fruit drop of the current crop by using water stress to prevent unwanted early vegetative growth and enhance induction of flowers. Starting this year, each advisory will carry additional recommendations regarding use of GA to manipulate flowering.

The information provided by these two modeling resources can also be used by growers in their decision making processes about spray timing before flowering flushes and management of Post-Bloom Fruit Drop to reduce inoculum, especially during prolonged bloom periods and wet weather.

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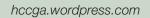


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## **Center for Crop Transformation Update**

By J. Scott Angle jangle@ufl.edu

About 18 months ago, half a dozen Florida citrus leaders visited me in Gainesville, and together we shaped an idea to accelerate our search for solutions to HLB. It came to be known as the <u>Center for</u> <u>Crop Transformation</u> (CTC).

On Jan. 15, UF/IFAS celebrated the progress we've made on translating that idea into a multimilliondollar research center focused on HLB. We gathered at Fifield Hall to mark the completion of CTC Director Charlie Messina's artificial intelligence lab. We redesigned space to make it suitable as a computing center where Charlie taps into higher education's fastest AI supercomputer, <u>HiPerGator</u>, to crunch millions upon millions of genetic combinations.

We also celebrated the arrival of six new growth chambers dedicated to CTC's citrus-focused work. From Charlie's millions we'll be able to plant tens of thousands of seedlings in these chambers to see which gene-edited plants are worth moving into the field. The end goal is to find HLB-tolerant or -resistant trees.

We have done this in part because Ray and other citrus industry leaders asked us to again step on the gas in our search for solutions. We have assembled a CTC scientific team that uses biotech tools to give so many more shots on the goal than we've ever been able to take before to find the tree or trees Florida citrus needs.

The place is important, but the people are even more important. Dr. Alfred Huo, who is one of the most accomplished UF/IFAS scientists (and, I would argue, one of the nation's most accomplished) in gene editing, has transferred from his lab in Apopka to join the CTC in Gainesville. We have also hired genome engineer Can Baysal as an assistant professor at the CTC.

We could not have built this so fast without the financial support of the Citrus Research and Development Foundation, the Florida Department of Citrus and citrus industry leaders serving as its champions. Of course, UF/IFAS has also invested millions to launch the CTC. And Matt Joyner and other industry leaders have supported the CTC as members of its advisory board.

In the 2025 session, UF/IFAS will be seeking \$5 million from the state to continue to build the CTC into an ever-faster solution-seeking machine. Please let me know if you can help us make the case in Tallahassee for this important initiative. Meanwhile, UF/IFAS will continue to explore every scientific avenue towards a brighter future for Florida citrus.

#### J. Scott Angle is the University of Florida's Senior Vice President for Agriculture and Natural Resources and leader of the UF Institute of Food and Agricultural Sciences (UF/IFAS).

## **Citrus Achievement Award Nominees Sought**

For a quarter of a century, the Citrus Achievement Award has grown into the gold standard of industry recognition for those who have made and continue to make a significant impact within and even beyond the Florida citrus community.

The Citrus Achievement Award is presented to an individual grower, allied member, legislator, researcher or anyone else who stands out through leadership, innovation, dedication and active participation on behalf of the citrus industry.

We need your help to select the next honoree. Please let us know who the 2025 Citrus Achievement Award winner should be and why. If you have someone in mind, please email Frank Giles at *Frank@ AgNetMedia.com* to submit your nomination.

The winner will be featured in the June Specialty Crop Grower cover story. Subsequently, the award will be presented during the Florida Citrus Industry Annual Conference in June. As always, we thank you for your feedback and time in helping celebrate the finest Florida citrus has to offer.

Last year's winner, Brenda Eubanks Burnette, helps preserve the heritage of the industry through her leadership of the Florida Citrus Hall of Fame and has been a long-time author of the popular Pieces of the Past column.

Candidates should meet the following requirements for consideration:

- Be actively involved with citrus production as a grower, packer/processor, marketer, industry stakeholder or researcher
- Have had a measurable impact on the citrus industry within the last three years
- Be actively involved in one or more citrus industry organization or association
- Have demonstrated commitment to the future of the Florida citrus industry, notwithstanding personal gain
- Be a leader who is recognized and respected by industry peers.

The deadline for nominations is March 14, 2025.

## 2024-2025 Operation Cleansweep

Operation Cleansweep is a mobile pesticide collection program that provides farmers, nursery operators, golf course operators, and pest control services a one-time safe and economical way to dispose of up to 1,000 lbs. of their canceled, suspended, and unusable pesticides for free.

For information about participating, call 877-851-5285, email *cleansweep@fdacs.gov* or visit *https://floridadep.gov/waste/permitting-compliance-assistance/content/operation-cleansweep-pesticides?fbclid=lwY2xjawEjPOJleHRuA2FlbQlxMAABHaHvkS2S7fC6xfPPUwTq0qIJ7fQVatJ97aAZ8a6NvSgt E9LirOOMLm8TeQ\_aem\_4ZvKjmp9IBga7pPNKjyI\_Q* 

## Oxytetracycline Efficacy Impacted by Exposure to Field Conditions

By Lauren Fessler Mathews, Sanju Kunwar, Ana Redondo and Ozgur Batuman

Based on numerous research studies conducted by scientists at the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS), it has been proven that injections of oxytetracycline (OTC) can help to alleviate symptoms caused by huanglongbing (HLB) disease. This treatment is now widely practiced and crucial for preventing premature fruit drop and sustaining the citrus industry in Florida.

The first approved formulation of OTC for trunk injection, <u>ReMedium TI®</u>, was released in 2022 by TJ Biotech. The same company also manufactures FLexInject®, an injector designed explicitly for injecting mature citrus trees with OTC. In 2023, <u>Rectify™</u>, another injectable formulation of OTC, was approved. Both formulations have oxytetracycline hydrochloride as their active ingredient. OTC is a bacteriostatic compound that inhibits bacterial growth and replication. Like many antibiotics, OTC is sensitive to degradation under certain conditions, including high temperatures and intense UV radiation, which are inherent to Florida citrus groves. This degradation can be observed in the color change of the solution from bright yellow to dark brown (Figure 1).

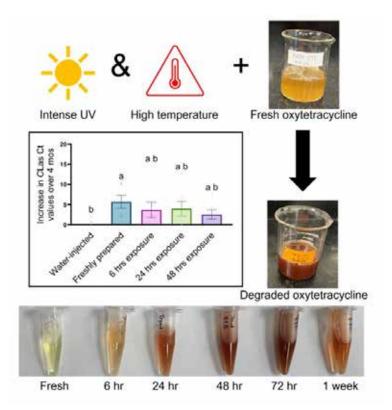


Figure 1. After exposure to intense UV and high temperatures, oxytetracycline degrades and undergoes a color change from bright yellow to dark brown. The graph depicts the increase in Candidatus Liberibacter asiaticus (CLas) Ct values (i.e., decrease in CLas titers) for each treatment after four months. Only the freshly prepared OTC differed significantly from the water-injected control treatment.

In order to establish a threshold for exposure to field conditions under which OTC injections would remain effective at reducing HLB symptoms, a trial was conducted by injecting 10-year-old Valencia trees in the experimental grove at the Southwest Florida Research and Education Center (SWFREC)

#### See OXYTETRACYCLINE on page 22



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#### OXYTETRACYCLINE, Con't from page 20

in Immokalee. FLexInject<sup>®</sup> injectors, made of a UV-protective material intended to prevent OTC degradation, were filled with 100 milliliters of freshly prepared ReMedium TI® (11,000 parts per million) and brought to the field. Trees were either immediately injected, or the filled injectors were left exposed to field conditions for several hours and then injected into trees.

In July 2023, trees were injected with water, fresh OTC and OTC that had been exposed for six, 24 or 48 hours. HLB management was evaluated monthly based on *Candidatus* Liberibacter asiaticus (*C*Las) titer quantification and visual disease ratings.

Four months post-injection in 2023, the freshly prepared OTC was the only treatment with a significant reduction in *C*Las titer compared to the water-injected control (Figure 1). This means that even as little as six hours of exposure did not provide sufficient HLB control in this grove.

This experiment was repeated in 2024 with the same treatments used in 2023 plus treatments with OTC that had been exposed for shorter intervals, including one and a half hours and three hours. Data from 2024 is currently being analyzed. The hope is that these additional intervals will be able to provide a more definitive threshold for the amount of time that filled injectors can be exposed to field conditions before failing to manage HLB. This threshold is important to establish so that this labor-intensive and costly process results in positive impacts and improved yields.

Commercial recommendations are to mix and use OTC within 48 hours, but it is clear that this does not take into account exposure to field conditions. Based on our current research, it is vital that growers inject oxytetracycline that is as fresh as possible to ensure maximum efficacy.

**Acknowledgment:** This project has been supported by funds from the Citrus Research and Development Foundation since 2024.

Lauren Fessler Mathews is a graduate research assistant, Sanju Kunwar is a post-doctoral research associate, Ana Redondo is a research coordinator, and Ozgur Batuman (<u>obatuman@ufl.edu</u>) is an associate professor — all at the UF/IFAS SWFREC in Immokalee.

## **HCCGA Membership Dues**

All HCCGA members should have received their 2025 membership dues renewal statements in the mail in mid-December. We have already received renewal dues payment from most of our members, however if you did not receive your renewal invoice, or have questions about your membership; please contact the HCCGA office at (863) 385-8091 at your earliest convenience.

Both Grower and Associate dues for 2025 remained the same as previous years (as a *matter of fact, they are the same as they were when HCCGA was founded in 1990*). Grower dues are \$2.00 per acre with a minimum of \$100.00 and a maximum of \$2,000.00 and Associate dues are only \$100.00 per year.

Prudent budgeting by your HCCGA Board of Directors, nearly 100% membership renewal from year to year and additional support of several Association social and fundraising events through the year have allowed your Association to keep the dues at this low level for the past 35 plus years.

Thank you again for your membership and support in the past, and we look forward to working on your behalf in 2025.

## **Associate Members** Please Support Associate Members Who Support HCCGA

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



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