

In the News!

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March 7, 2024

Welcome to SWFREC Update E-news!

This newsletter is distributed monthly and contains news about the center and its faculty and staff, program research updates, and upcoming events.

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Spotlight on . . .

Lee County Leaders Gain Ag Education



Members of the Lee County Chamber of Commerce Leadership Lee group visited [SWFREC](#) recently as the first stop of their agricultural education day. Center director [Dr. Mike Burton](#) kicked things off with a welcome and brief presentation titled "SWFREC: Kind of a Big Deal in Commercial Fruit Production." He highlighted two issues at the forefront of ag: Huanglongbing or "greening disease" and efforts to combat bacteria transmitted by the invasive insect and the regulation of mineral fertilization rates for commercial vegetable production.



"The rest of the challenges facing citrus and vegetable production," Dr. Burton noted, "didn't go away when HLB and phosphorus regulation came to hold much attention."

[\(See more\)](#)

Gulf Citrus Members Target Greening



The Gulf Citrus Growers Association (GCGA) conducted its board meeting and membership luncheon at SWFREC last month. More than 50 members and guests participated in the event, which was led by GCGA president Wayne Simmons.

SWFREC plant physiologist [Dr. Ute Albrecht](#) served as moderator of a panel discussion about grower experiences regarding oxytetracycline injections to help citrus trees combat greening disease.



Panelists included (left-right) Joby Sherrod with Alico, Inc; David Wheeler with Wheeler Farms; and Ronnie English with Cooperative Producers, Inc. Discussions ranged from injection treatment protocols and results seen thus far to effects on trees and future plans.

Coverage of the meeting was included on the Citrus Industry magazine's website in "Gulf Citrus Grower Panel Discusses Trunk Injection," an article authored by editor-in-chief Frank Giles. He noted that "Overall, the growers believe the treatments have been positive. But expectations have come back down to earth somewhat after trees initially responded vigorously soon after treatments. Moving forward, determining the age at which a tree might be too old to benefit from trunk injection will be important."

To see the story, click here: [Gulf Citrus Grower Panel Discusses Trunk Injection - \(citrusindustry.net\)](http://citrusindustry.net).



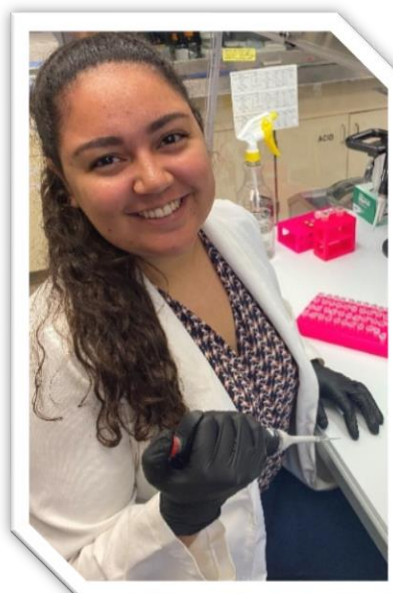
Congratulations!

Student Congratulations are in Order!

Diderot Saintilma graduated with his Master's degree in horticultural sciences during the winter ceremony in Gainesville. His research project title was "Combining Cover Cropping and Compost Application in Tomato (*Solanum Lycopersicum*) Production for Suppressing Weeds and Enhancing Yield." His committee chair was weed scientist [Dr. Ramdas Kanissery](#). **Congratulations, Diderot!**

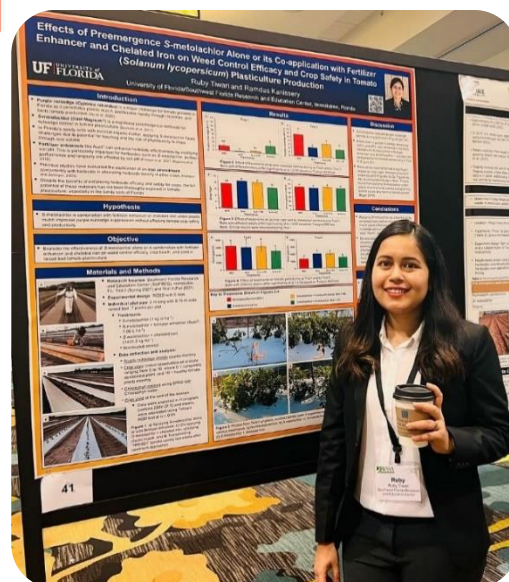


Caroline Tardivo and **Gabriel Pugina**, both SWFREC Ph.D. students, passed their qualifying exam seminars. Caroline presented "New Rootstocks for Citrus Production in Florida: Challenges from the Nursery to the Field" and Gabriel presented "Integration of Cultural Practices to Diminish HLB Consequences in Citrus Production." Plant physiologist [Dr. Ute Albrecht](#) chairs both students' committees. **Congratulations, Caroline and Gabriel!**





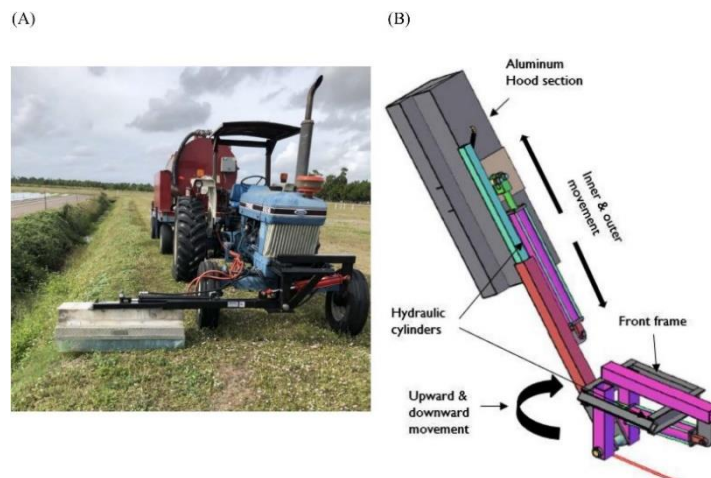
Ph.D. student **Ruby Tiwari** took first and second place, respectively, in poster competitions at the Weed Science Society of America (WSSA) and Southern Weed Science Society (SWSS) annual meetings in late January in San Antonio, Texas. Her poster title for both was “Effects of Preemergence S-metolachlor Alone or its Co-application with Fertilizer Enhancer and Chelated Iron on Weed Control Efficacy and Crop Safety in Tomato (*Solanum lycopersicum*) Plasticulture Production.” Her committee chair is weed scientist [Dr. Ramdas Kanissery](#). **Congratulations, Ruby!**



Publications

Peer-reviewed Publications

- [Evaluation of the Sensitivity of *Podpsphaera xanthii* to Several Fungicides for Management of Powdery Mildew on Squash in Florida](#) has been published in Crop Protection. Research scientist Dr. Katherine E.M. Hendricks and vegetable pathologist [Dr. Pam Roberts](#) are authors.
- [Steam Application with Paraquat to Control Goat Weed \(*Scoparia dulcis*\) in Citrus Orchards](#) has been published in Smart Agricultural Technology. Precision ag engineer [Dr. Yiannis Ampatzidis](#) and weed scientist [Dr. Ramdas Kanissery](#) are second and third authors, respectively. First and second authors are Jaafar Abdulridha, a former engineer in Dr. Ampatzidis' program, and Dr. Mahesh Bashyal, a former post-doc in Dr. Kanissery's program.
- [Evaluation of Trunk Injection Techniques for Systemic Delivery of Huanglongbing Therapies in Citrus](#) has been published in HortScience. Former SWFREC Ph.D. student Dr. Leigh Archer and plant physiologist [Dr. Ute Albrecht](#) are authors.



Extension Publication

- [Biological Soil Crusts in Agroecosystems](#). SWFREC authors include former Ph.D. candidates Dr. Kira Sorochnikova and Dr. Clayton J. Nevins and their advisor, soil microbiologist [Dr. Sarah Strauss](#).

SWFREC in the News

- The article “Taking Available Tools to the Grove” appeared in the January issue of Citrus Industry magazine. Written by Frank Giles, the article highlights trials being conducted by UF/IFAS researchers to help combat the effects of citrus greening disease. Included is information about plant physiologist Dr. Ute Albrecht’s work to inject oxytetracycline to deliver therapy directly into a tree’s vascular system and citrus horticulturist Dr. Fernando Alferez’ work using brassinosteroids on trees after removal of individual protective covers to prolong tree health. To see the article, click here: https://swfrec.ifas.ufl.edu/docs/pdf/news-items/2024-01-Citrus_Industry-Albrecht-Alferez.pdf.
- The February issue of Citrus Industry magazine features the article “Fall Tree Health after Initial Trunk-injection Treatments,” written by Frank Giles and Maegan Beatty. Included is a sidebar story titled “Early Observations on Second Applications,” which features plant physiologist Dr. Ute Albrecht’s research on oxytetracycline injections into citrus tree trunks to promote overall health. To learn more, click here: https://swfrec.ifas.ufl.edu/docs/pdf/news-items/2024-02-Citrus_Industry-Albrecht.pdf.



The quest for long-term solutions to HLB is well underway. Technology like CRISPR is being developed to introduce tolerance or resistance to HLB. Conventional breeding also is seeking rootstocks and varieties that can resist



injections (spring to early summer) increased the fruit size more than late injections (late summer to fall), noted Ute Albrecht, UF/IFAS associate professor of plant physiology. “However, the juice from was usually higher after late injections compared to early injections



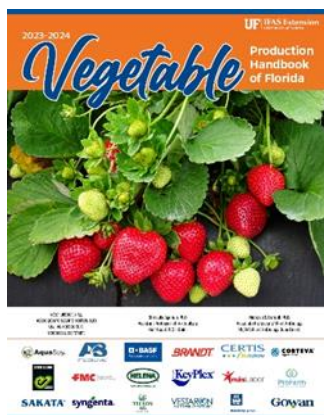
As growers deployed their first application of oxytetracycline (OTC) via trunk injection this summer, expectations were high but tempered by the fact the therapy is not expected to turn the massive HLB ship around in just one season. By this fall, after the seasonal

foliage and canopy on injected trees, with the exception of Early Prime tangerines,” Mahan said. “But our Valencia and Valencia trees responded positively, and so did our Sugar Belle and Tangerine trees.” Mahan said they have control trees to compare trunk injection versus no treatment. In all cases, except Early

Prime, treated trees look better. “Sugar Belle harvest for the past couple of years were marked by significant losses in packouts due to softening fruit, which we believe was a result of HLB disease,” Mahan added. “Our Sugar Belle trees were injected last spring and packouts have exceeded 70% in all cases. HLB

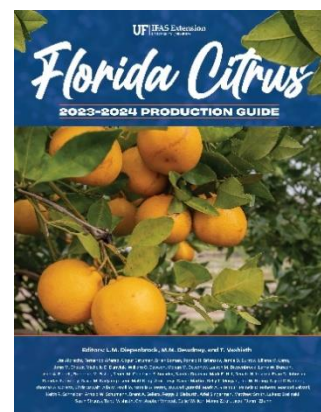
Grower Handbooks Available

Two 2023-2024 grower publications are available online!



The **Vegetable Production Handbook** of Florida provides guidance on vegetable production and includes extensive pesticide tables for each type of crop covered. This link enables printable sections: [2023-2024 Vegetable Production Handbook | EDIS \(flvc.org\)](https://edis.flvc.org). SWFREC authors featured in the book include weed scientist [Dr. Ramdas Kanissery](#), entomologist [Dr. Jawwad Qureshi](#), and vegetable pathologist [Dr. Pam Roberts](#).

The book is available with printable sections here: [Ask IFAS: Florida Citrus Production Guide \(ufl.edu\)](https://askifas.flvc.org). SWFREC authors featured in the book include plant physiologist [Dr. Ute Albrecht](#), citrus horticulturist [Dr. Fernando Alferez](#), citrus pathologist [Dr. Ozgur Batuman](#), weed scientist [Dr. Ramdas Kanissery](#), entomologist [Dr. Jawwad Qureshi](#), vegetable pathologist [Dr. Pam Roberts](#), and soil microbiologist [Dr. Sarah Strauss](#).



The **Florida Citrus Production Guide** contains general pesticide information, horticultural practices, and chapters on mites/insects/nematodes, diseases, and

Kids Corner

Online education games for grade 4 school students can be found at <http://www.myamericanfarm.org/games/grades/grade-4>! My American Farm, a program of the American Farm Bureau Foundation for Agriculture, features “fun farm games for cool kids.” Grade 4 games include “From Seed to Shirt,” “Equipment Engineer,” “Wild Water Adventures,” “That’s Life...Let’s Grow,” “Spin-N-Solve,” “Operation Peanut Butter,” and “Farmers Market Challenge.” Each game description lists ag-related categories that are covered in that segment, from ag commodities and irrigation to soil health and careers.



Upcoming Events

March 26-29

International Research Conference on Huanglongbing

Riverside Convention Center, Riverside, CA

SWFREC speakers include: citrus horticulturist [Dr. Fernando Alferez](#) (Disease Management: Field Trials session), postdoctoral research associate Dr. Kellee Britt-Ugarte Mendia (Vector Control: Genome to Field session), entomologist [Dr. Jawwad Qureshi](#) (Whole Plant Responses and Management session), soil microbiologist Dr. Sarah Strauss and citrus pathologist [Dr. Ozgur Batuman](#) (Disease Management: Oxytetracycline-based Approaches session), and plant physiologist [Dr. Ute Albrecht](#) (Keynote Speaker Address).

For more info and to register: [Home - International Research Conference on Huanglongbing VII \(cvent.com\)](http://Home-InternationalResearchConferenceonHuanglongbingVII.cvent.com).

April 3, 8:00am-2:00pm

The Florida Citrus Show

UF/IFAS Indian River Research and Education Center and U.S. Horticultural Research Laboratory, Fort Pierce

For more info: <https://citrusindustry.net/florida-citrus-show/>.

April 9, 8am-3pm

Florida Citrus Growers' Institute

South Florida State College, Avon Park

Two SWFREC faculty are among the speakers: plant physiologist [Dr. Ute Albrecht](#) (“Update on Trunk Injection”) and weed scientist [Dr. Ramdas Kanissery](#) (“Optimal Weed Control in Citrus: Latest on Chemical Strategies and Non-chemical Alternatives”).

For the full program and registration link, click here: [2024 Institute Brochure 2-29-24 \(ufl.edu\)](http://2024InstituteBrochure2-29-24.ufl.edu).

April 17

UF/IFAS Produce Safety Alliance Grower Training

UF/IFAS Collier County Extension, Naples

A one-day course for produce growers and packers who fall under the Food Safety Modernization Act Produce Safety Rule.

For more info and to register, click here: <https://psa041724.eventbrite.com/>. For more food safety educational offerings, both in person and online, contact taylorlangford@ufl.edu.

August 21-22

Citrus & Specialty Crop Expo

Florida State Fairgrounds, Tampa

For more info: <https://citrusexpo.net/>.

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