



August 13, 2021

Social media:  

Web site: <https://swfrec.ifas.ufl.edu/>

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 . . . SWFREC Supports Back-to-School Event

When gates opened at 9am on August 7 at the Immokalee High School football stadium, the Lipman Family Farms Backpack Giveaway and Back to School Event was on—and the SWFREC booth was ready!

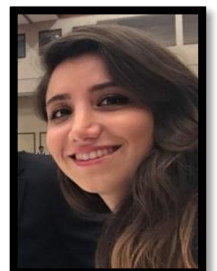
Hundreds upon hundreds of elementary and middle school children filed onto the field to visit 50-plus booths, grab giveaway items (SWFREC’s included rulers, pencils, pens, and notepads), and have stickers placed on their event cards. Once the kids received stickers from ten booths, they were eligible to get in line for a prized backpack. Additional giveaways included gift cards, shoes, bicycles, breakfast tacos, and Italian ices, as well as food boxes for families in need, courtesy of Harry Chapin Food Bank.



[\(See more\)](#)

Congratulations, Doctor!

SWFREC graduate student Shahrzad Bodaghi successfully defended her Ph.D. thesis last month in the UF/IFAS Horticultural Sciences Department. Her presented research was titled **“Deciphering Citrus Rootstock Traits and Consequences for HLB Disease Development.”** Shahrzad’s research advisor was SWFREC plant physiologist Dr. Ute Albrecht. Congratulations, Dr. Bodaghi!



Mask-wearing Requested

Per the University of Florida (UF), COVID-19 cases are surging because of the new delta variant. In light of new guidance from the Centers for Disease Control and Prevention (CDC), UF expects everyone to wear a mask at all times when inside any UF facility. This includes students, faculty, staff, vendors, and visitors. Recent studies and guidance from the CDC state that both unvaccinated and vaccinated individuals can transmit the current COVID-19 variant to unvaccinated persons.



Soil Microbiologist Authors Column



SWFREC soil microbiologist Dr. Sarah Strauss penned a column about her research that appeared recently in the Immokalee Bulletin newspaper, as well as other publications in the South Central Florida Life media group. **“A Soil Microbiologist Tells Us the Hidden Treasures under the Earth”** uncovers microbial diversity, methods of studying soil microorganisms, and the use of cover crops in agriculture to enrich the soil environment and soil microbial community. To read Dr. Strauss’ article, click here: <https://swfrec.ifas.ufl.edu/docs/pdf/soil-microbiology/2021-08-06-Strauss-ImmokaleeBulletin.pdf>.

Economist Gets the Spotlight, Releases Educational Videos



Ag economist Dr. Kimberly Morgan is a director of The Council on Food, Agricultural & Resource Economics (FARE) and was highlighted in the group’s July newsletter. In the “Director Spotlight,” she answered a few questions. To “My Motivation,” she replied: “To me, the pursuit of solutions to questions motivated by real-time field conditions as part of a team of scientists allows me to use my training to make a difference to the people who work 24/7/365 to grow safe, healthy, and delicious food for the world.”

Dr. Morgan’s SWFREC program recently unveiled new educational videos for growers! **“Farm Labor Supervisor COVID-19 Safety Updates: How to Reduce Risks and Protect Your People”** are available in English (54 minutes) here <https://www.youtube.com/watch?v=A1TLauXsRyc> and in Spanish (74 minutes) here <https://www.youtube.com/watch?v=Gocz9Tj1p9I>. In addition, Dr. Morgan and her team are prepping to launch educational sessions with even more updated information via Zoom this fall. Watch for info at: <https://www.facebook.com/FLSTraining15>.



SWFREC Well Represented at Hybrid Conference

Three programs were represented at the American Society for Horticultural Science 2021 Annual Meeting that took place early this month online and in person in Denver, Colorado: plant physiology (Dr. Ute Albrecht), citrus horticulture (Dr. Fernando Alferez), and weed science (Dr. Ramdas Kanissery). Faculty, staff, and graduate students gave talks and presented posters:

- ✚ Assessing Rootstock and Candidatus Liberibacter Asiaticus Effects on ‘Valencia’ Sweet Orange Tree Growth Under Controlled Greenhouse Conditions. **Shahzad Bodaghi, Bo Meyering, Kim D. Bowman and Ute Albrecht**
- ✚ Effect of Trunk-Injected Oxytetracycline on Preharvest Fruit Drop and Health of HLB-Affected Sweet Orange Trees. **Leigh Archer and Ute Albrecht**
- ✚ Effects of Huanglongbing on Citrus Scion and Rootstock Seedlings Under Controlled Greenhouse Conditions. **Rayane Barcelos Bisi, Kim D. Bowman, Ute Albrecht**
- ✚ Candidatus Liberibacter Asiaticus Colonization in Citrus Leaves and Roots Following Natural Infection. **Ute Albrecht, Caroline de Favari Tardivo and Kim D. Bowman**

- ✦ Evaluating Citrus Rootstocks for Their Potential for Use in High -Density Plantings in HLB-Endemic Conditions. **Sudip Kunwar**, Jude W. Grosser and **Ute Albrecht**
- ✦ Greenhouse Testing of the Endophytic Bacterium *Fraxea deficiens*, a Potential Biocontrol Agent of the Citrus Huanglongbing Disease. **Anas Fadli**, Einat Zchori-Fein, Ofir Bahar and **Ute Albrecht**
- ✦ Horticultural Attributes of Sugar Belle, Tango and Early Pride Mandarin Trees Grafted on Two Different Rootstocks Grown with and without Individual Protective Covers (IPCs). **Susmita Gaire**, **Fernando Miguel M Alferez** and **Ute Albrecht**
- ✦ Influence of Rootstock Propagation Method and Rootstock Cultivar on the Performance of Young Field Grown 'Valencia' Sweet Orange Trees. **Sameer Pokhrel** and **Ute Albrecht**
- ✦ Relationship of Fibrous Root Traits and Rootstock Influence on the Grafted Scion. **Ute Albrecht**, **Gabriel Pugina**, Kim D. Bowman and **Bo Meyering**
- ✦ Rootstock-Scion Interactions and Grafting Effects on Citrus Tree Physiology. **Caroline de Favari Tardivo**, **Bo Meyering**, Kim D. Bowman and **Ute Albrecht**
- ✦ Trunk Injection in Citrus – Compartmentalization of Wounds and the Codit Concept. **Ute Albrecht** and **Leigh Archer**
- ✦ A Mechanistic Model for Understanding and Preventing Preharvest Fruit Drop in HLB-Affected Citrus Trees. **Fernando Miguel M Alferez** and **Daniel Boakye**
- ✦ Increasing Yield on HLB-Affected Citrus Trees with Supplemental Application of Zn and K. **Daniel Boakye** and **Fernando Miguel M Alferez**
- ✦ Impacts of Sub-Lethal Herbicide Exposure on Tomato Growth and Productivity. **Ramdas G Kanissery**

Article Promotes SWFREC Research

A story recently posted to the Vegetable and Specialty Crop News web site touts research by precision ag engineer Dr. Yiannis Ampatzidis that helps citrus growers better forecast their production. **“Artificial Intelligence: UF Scientists Use AI to Predict Citrus Yield More Accurately”** reports that the technology predicts yields with 98% accuracy as opposed to 75%-80% accuracy when growers count trees manually. The article was authored by UF/IFAS Communications writer Brad Buck. To read it, click here: <https://vscnews.com/artificial-intelligence-florida-scientists-citrus-yield/>.



McAvoy Has Active Summer

Associate director for stakeholder relations Gene McAvoy had three major accomplishments of late:

- ✓ He was appointed by Florida Commissioner of Agriculture Nicole Fried to serve on the Florida Farmworkers Advisory Council, which meets quarterly to address concerns of farmworkers, farmers, private groups, public agencies, individual citizens, and agricultural employers regarding working, living, economic, and environmental conditions for farmworkers and migrant laborers. He was selected for his knowledge and longtime experience working in ag.
- ✓ He was recognized as a 20-year member of the Gulf Citrus Growers Association during its annual meeting in June. He is an associate member with Hendry Glades Farm Bureau and received a framed citrus label print for his service and support.



- ✓ He made an invited presentation to the National Association of Credit Managers Statewide Agricultural & Turf Suppliers Credit Group at the Eau Palm Beach Resort in Manalapan. His talk, **“Rising Prices Worrying Ag Producers,”** reported that inflationary pressures associated with Covid-19 and supply chain disruptions have caused dramatic and rapid price increases across a wide range of ag inputs—plastics, machinery, labor, and freight—while prices received by growers have remained relatively static over the past decade or more. He provided an update on the situation facing Florida and Southeast specialty crop producers going into the 2021-2022 growing season. Thirty-five ag credit professionals from around the state were in attendance. A video of his presentation will be available soon on the center web page: <https://swfrec.ifas.ufl.edu/>.

Refereed Journal Articles

Huang C-Y, Niu D, Kund G, Jones M, **Albrecht U**, Nguyen L, Bui C, Ramadugu C, Bowman K, Trumble J, Jin H. Identification of citrus immune regulators involved in defense against Huanglongbing using a new functional screening system. *Plant Biotechnology Journal*. 2021. 19(4):757-766. <https://onlinelibrary.wiley.com/doi/full/10.1111/pbi.13502>.

Wade, T., Suttles, S., Walters, L. Transportation safety regulations via the electronic logging device mandate can affect fresh produce shipment costs. 2021. *Choices* 36(3). <https://www.choicesmagazine.org/choices-magazine/submitted-articles/transportation-safety-regulations-via-the-electronic-logging-device-mandate-can-affect-fresh-produce-shipment-costs>.

Castellano-Hinojosa, A., Strauss, S.L. Insights into the taxonomic and functional characterization of agricultural crop core rhizobiosomes and their potential microbial drivers. 2021. *Scientific Reports*. 11, 10068. <https://doi.org/10.1038/s41598-021-89569-7>.

Trade Journal Articles



“Protecting Peppers from Bacterial Spot” appears in the August issue of Vegetable and Specialty Crop magazine. Vegetable pathologist Dr. Pam Roberts and assistant research scientist Cami Esmel McAvoy are co-authors. To read the article, click here: <https://swfrec.ifas.ufl.edu/docs/pdf/plant-path/2021-08-Roberts-VegetableSpecialtyCrop.pdf>.

“Assessing Spatial Patterns of Individual Protective Covers” appears in the August issue of Citrus Industry magazine. Citrus horticulturist Dr. Fernando Alferez, citrus pathologist Dr. Ozgur Batuman, recent plant physiology master’s graduate Susmita Gaire, plant physiologist Dr. Ute Albrecht, and entomologist Dr. Jawwad Qureshi are authors. To read the article, click here: <https://swfrec.ifas.ufl.edu/docs/pdf/citrus-hort/2021-08-Alferez-Batuman-Albrecht-Qureshi-Citrus-Industry.pdf>.



“Pest of the Month: Tomato Fruitworm” appears in the August issue of Florida Grower magazine. Associate director for stakeholder relations Gene McAvoy is the author. To read the article, click here: <https://swfrec.ifas.ufl.edu/docs/pdf/mcavoy/2021-08-McAvoy-Pest-of-the-month-FL-Growers.pdf>.

Extension Article

“Drone Injuries and Safety Recommendations,” co-written by precision ag engineer Dr. Yiannis Ampatzidis, has been published on the Ask IFAS (powered by EDIS) UF/IFAS Extension web site. To read the article, click here: <https://edis.ifas.ufl.edu/pdf/AE/AE560/AE560-Ds88afgbqa.pdf>.



Handbooks Available

The 2020–2021 Vegetable Production Handbook of Florida and the 2020-2021 Florida Citrus Production Guide are now available! To pick up a copy, visit SWFREC (please knock on the front doors) and the UF/IFAS Hendry County Extension office, 1085 Pratt Blvd., LaBelle, FL 33935, Office: (863) 674-4092. The books will also be available at any future in-person meetings and workshops.



In addition to the hard copies, the handbooks are available online (with printable sections): vegetable <https://edis.ifas.ufl.edu/cv292> and citrus <https://edis.ifas.ufl.edu/cg101>.

SWFL Fresh: Choose Local, Choose Fresh

SWFL Direct to Market Producers can now list their business profile on the SWFL Fresh web site. “SWFL Fresh: Choose Local, Choose Fresh” is a brand created by UF/IFAS Extension and the SWFL Regional Planning Council to connect consumers with local producers. If you are a producer selling any direct to market or local sold products, create your profile by clicking the website and scrolling down to “Producers Register Now!”: www.swflfresh.com. For more information or to be involved in future development of this brand, contact Jessica Ryals, food systems agent, UF/IFAS Collier County Extension, Naples, at jessicaryals@ufl.edu.



Extension Publications Provide Virus Info

To read articles written by UF/IFAS faculty and staff about the Coronavirus, you can visit the Electronic Data Information Source here: https://edis.ifas.ufl.edu/topic_covid19.

Upcoming Events

August 18, 8:45am-5pm

Citrus Expo

Lee Civic Center, North Fort Myers

For seminar lineup and to register, click here: <https://citrusexpo.net/>.

Three SWFREC faculty will make presentations:

- 2:20pm: Soil microbiologist Dr. Sarah Strauss, “Soil Health and Microbes: How They Fit Together and Why They’re Important”
- 3:20pm: Citrus horticulturist Dr. Fernando Alferez, “Solving Preharvest Fruit Drop by Understanding Abscission in HLB-Affected Trees: A Hormonal and Nutritional Approach”
- 4:40pm: Plant physiologist Dr. Ute Albrecht, “Update on Rootstock Trials on Florida Central Ridge and Flatwood-type Sites”

August 18, 5:30-9pm

Gulf Citrus Growers Association Citrus and Agriculture Industry Celebration

FGCU Alico Arena, Fort Myers

For more information and tickets, visit: www.gulfcitrus.org.

August 19, 8:45am-5pm

Specialty Crop Expo

Lee Civic Center, North Fort Myers

For seminar lineup and to register, click here: <https://citrusexpo.net/>.

Four SWFREC faculty will make presentations:

- 10:15am: Ag economist Dr. Kim Morgan, **“Managing Farm Business Risks and Protecting Your People During a Global Pandemic”**
- 2:15pm: Vegetable pathologist Dr. Pam Roberts, **“Update on Emerging and Chronic Disease Challenges in Southwest Florida Watermelon Production”**
- 3:15pm: Center director and soil and water scientist Dr. Kelly Morgan, **“Improved Soil Test-based Recommendations Using Artificial Intelligence”**
- 3:30pm: Vegetable horticulturist Dr. Phillip Williams, **“pH and Phosphorus Tomato Fertility in Southwest Florida”**

September 1, 2021

Citrus Squeezer (via Zoom)

Growing Citrus for the Fresh Market in Citrus Under Protective Screens (CUPS)—Dr. Arnold Schumann, UF/IFAS Citrus Research and Education Center, Lake Alfred

1 CEU each for pesticide license renewal and certified crop advisors

To register, click here, then you will receive connection information: <https://ufl.zoom.us/meeting/register/tJYvf-6hqj0rGtAtSLyQ2b-75ESL2gTggw10>.

September 8, 9am-5pm

UF/IFAS Florida Tomato Institute and Food Safety Workshop

LaBelle Civic Center, LaBelle

The morning program will include industry and research updates. The afternoon program will include sponsor new product updates and food safety workshop/T-GAP renewal.

SWFREC morning speakers:

- Center director and soil and water scientist Dr. Kelly Morgan, **“Introducing the UF/IFAS Mehlich 3 Phosphorus Soil Test Program”**
- Vegetable horticulturist Dr. Phillip Williams, **“IFAS Phosphorus Calibration in Tomatoes”** and **“Using Sulfur in Tomato Production Systems to Lower pH”**
- Water resources engineer Dr. Sanjay Shukla, **“Reducing Production Risks and Increasing Profits and Environmental Sustainability with Compact Bed Production System”**
- Weed scientist Dr. Ramdas Kanissery, **“Novel Approaches for Enhancing Pre-emergent Herbicide Use in Tomato Row-middles and Raised Beds”**

For the complete agenda and to register, click here: <https://www.eventbrite.com/e/2021-florida-tomato-conference-tickets-163902740509>.

October 14, 2021

Citrus Squeezer (via Zoom)

Nutrient and Irrigation Management in the HLB Era—Dr. Davie Kadyampakeni, UF/IFAS Citrus Research and Education Center, Lake Alfred

1 CEU each for pesticide license renewal and certified crop advisors

To register, click here, then you will receive connection information:

<https://ufl.zoom.us/meeting/register/tJAof-2hqDMoGNNKgM2prQR8LeiMX-1E5qKP>.

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