UFIFAS SWFREC UPDATE

Southwest Florida Research and Education Center

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Center Director's Corner

Just as our growers have been, here at the SWFREC we continue to recover from the effects of Hurricane Irma in September. As



indicated by the accompanying photographs, we suffered severe damage to several of our long-standing greenhouses and minor roof damage to our newest greenhouses. Most of our newly planted vegetable crops were

washed away when several fields became completely flooded. And a great deal of citrus was on the ground following the storm.

Calvin Arnold <u>cearnold@ufl.edu</u>

crop.

We are getting quotes for repairs and

ordering materials needed to com-

standing tall again, and our vegetable

fields are flourishing with a new fall

plete them. Our citrus trees are







Latest SWFREC Research

Citrus Pathology Lab Gears Up to Combat Citrus Black Spot

Dr. Ozgur Batuman, Citrus Pathologist

Citrus Patholog Citrus black spot disease (CBS), caused by the fungal pathogen *Phyllosticta citricarpa*, was first found in southwest Florida in March 2010. The initial incidence was

contained to a 15-mile area centered in southwest Florida near Immokalee. Today, CBS is continuing to spread in commercial citrus groves, although at a controlled rate, and more sections are being included in the quarantine map in the region. The relatively slow expansion of CBS isolates in Florida might be associated with lack of the ascospores that are produced by the mating type of this fungus. In other parts of the world, the disease cycle of CBS is thought to be depended on ascospores to initiate

infection and spread the disease within and between citrus groves. Nonetheless, currently there is neither a protocol available for growers to follow in order to achieve a successful CBS eradication nor for state regulators to allow deregulation/reversal of the quarantine enforcement of CBS in citrus in Florida. This situation in particular is a great concern to

growers (and regulators) in Collier, Hendry and Lee counties, where CBS continues to spread.

Thus, in collaboration with a number of re-

searchers in UF/IFAS and the USDA, we are continuing to study the CBS biology and epidemiology to better understand how CBS disease develops and/

or may be controlled in citrus groves in Florida. My laboratory at SWFREC in Immokalee is a new addition to the group of scientists who pioneered the CBS research in Florida and will be focusing on development of an effective integrated pest management strategy for CBS control in citrus groves. My laboratory and the Florida Department of Agriculture and Consumer Services are

working together and have taken a leadership role to create a Citrus Black Spot Technical Working Group (CBS-TWG), to discuss priorities and provide updates on CBS research.

The CBS-TWG communicates and collaborates on scientific research programs to provide additional information on the biology and epidemiology of this pathogen in Florida, particularly in Immokalee and surrounding areas where CBS continues to spread in citrus. These new research findings will update previously missing information on the biology of CBS, such as latency period, inoculum sources, alternative hosts, life cycle, vectors and and/or pathways for disease spread, effect of some cultural practices like compost use or hedging/topping on disease inoculum, new and effective fungicide, etc. These findings will help growers to better understand and adopt improved control measures. The CBS-TWG mainly consists of active scientists; however, a number of representative growers and regulators will be integral part of this group to promote CBS research. The group met for the first time in August at the SWFREC to: reaffirm the immediate need for research, outreach, partnership, and cooperation; review objectives developed in three previous CBS workshops since April 2010; discuss progress on objectives, gaps, and new research; and explore program development, collaboration and funding opportunities.

For more information about CBS and the working group, contact Dr. Batuman at <u>obatuman@ufl.edu</u>



Biological scientist Samantha Gebben cultures the fungus that causes citrus black spot disease in the Citrus Pathology Lab.

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Staff News

 Water Resources Engineer Dr. Sanjay Shukla received the 2017 Distinguished Faculty Fellow Award from the UF Water Institute in October. He



was recognized for his "extensive and interdisciplinary water research." The photo above includes Dr. David Norton, UF Vice-President for Research: Dr. Shukla: **UF** Water Institute Director Dr. Wendy Graham, and **UF/IFAS** Senior Vice-President Dr. Jack Payne. As a recognized fellow,

Dr. Shukla will participate in the UF Water Institute Distinguished Scholar Seminar Series and present a seminar on his current research in January in Gainesville. Dr. Shukla also has been recognized as one of three recipients of the Wells Fargo **Extension Profes**sional Awards/ Program Enhancement Grant. And he was appointed to the IFAS Honors and Awards Committee.

 Following Hurricane Irma in September, Entomologist Dr. Phil Stansly was featured on the web site of Citrus Industry magazine answering questions for a section called "Asian Citrus Psyllid Alert: Post-Irma Control Needed." To view the questions and his answers, click here: <u>http://</u> <u>citrusindus-</u> <u>try.net/2017/09/26/</u> <u>asian-citrus-psyllid-</u> <u>alert-post-irma-</u> <u>control-needed/</u>

- Soil and Water Scientist Dr. Kelly Morgan was named the recipient of a UF University Term Professorship Award for the term of 2017-2018 to 2019-20.
- Qiang Zhu received his Ph.D. in horticultural sci-



ences last summer. He is now a post doctoral student with Vegetable

Staff News continued

Horticulturist Dr. Monica Ozores-Hampton (both pictured), who served as Qiang's graduate student committee chair.

Dr. Ozores-Hampton was selected as the recipient of the United States Composting **Council Rufus** Chaney Award. The award is given "to those individuals who have displayed excellence in the area of compost research over a period of many years. The award recognizes those individuals whose breadth of research and/or research findings have had a significant impact on the composting industry and/or end uses of compost."

Ph.D. student
Ibukun "Timothy"

Ayankojo won third place in the Student Poster Presentation competition at the Soil



Science Society of America annual meeting in Tampa in October. His poster was titled "The Use of Smart Phone Application (SmartIrrigation Vegetable) for Irrigation Scheduling in Tomato (Solanum Lycoperscion) Production."

Ph.D. student Kira
Hansen won second place in a
three-minute oral
thesis competition

in the UF/IFAS Agricultural and Biological Engineering Department in Gainesville last month.

SWFREC's graduate student organization (GSO) made a trip to campus in Gainesville for the Gators' football game against the University of Alabama at Birmingham. But it wasn't all for fun. The group met with Dr. Elaine Turner, Dean of the UF/ IFAS College of Agricultural and Life Sciences, to discuss the GSO. its mission, and activity ideas; attended a seminar to learn about library resources for students: and toured the Florida Museum of Natural History.

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New Precision Ag Engineer Intro

Dr. Yiannis Ampatzidis arrived at the SWFREC last summer as the center's new Assistant Professor of Precision Agricultural Engineering.

Dr. Ampatzidis earned his Ph.D. in agricultural engineering from the Aristotle University of Thessaloniki in Greece. He received his master's and bachelor's degrees from the same university.

Prior to accepting the position at SWFREC, he was an Assistant

Professor in the Department of Physics and Engineering at California State University in Bakersfield. Before that, he was a researcher in the Center for Precision and Automated Agricultural Systems at Washington State University in Pullman.

At SWFREC, Dr. Ampatzidis' program will explore mechanization and automation within citrus, vegetable, and specialty crop production to optimize the



management of inputs, resources, and products. Welcome to SWFREC, Dr. Ampatzidis!

Nearly 70 growers and other industry representatives participated in the **SWFREC Citrus Field** Day in early November. Speakers included Plant Pathologist Dr. Ozgur Batuman, Weed Scientist Dr. Ramdas Kanissery, **Precision Ag Engineer** Dr. Yiannis Ampatzidis, and citrus horticulturist Dr. Fernando Alferez.



SWFREC UPDATE

Spotlight On . . . Spanish Citrus Grower Visit

More than sixty citrus producers from Spain visited the SWFREC this month as part of a threeday tour to learn about how Florida growers are managing HLB and the Asian Citrus Psyllid.

SWFREC faculty members gave three indoor presentations to the grower group: "HLB and Its Control" (Citrus Plant Pathologist Dr. Ozgur Batuman), "Asian Citrus Psyllid and Its Control" (Entomologist Dr. Phil Stansly), and "Citrus Production in Florida Under HLB Pressure: Challenges and Opportunities" (Citrus Horticulturist Dr. Fernando Alferez). A fourth presentation, "Protection of New Plantings with Metalized Polyethylene Mulch," was given by Cesar Monzo Ferrer. He is with the Valencian Institute of Agrarian Research in Spain and formerly worked at the center with Dr. Stansly.

The group's visit included a tour of the SWFREC citrus grove, where the growers saw citrus canker and HLB symptoms firsthand.



Dr. Batuman (top) and Dr. Alferez discuss HLB with Spanish growers in the SWFREC grove.

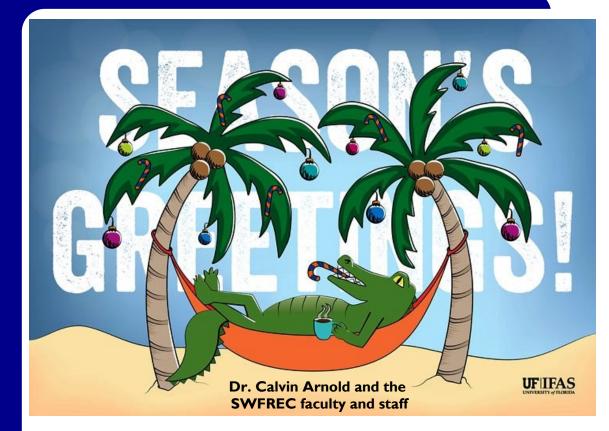
Support Your Foundation!

The mission of the Southwest Florida Research and Education Foundation, Inc., is to support the education, research, and service mission of the SWFREC, which conducts scientific research to provide solutions to problems that hamper profitable agricultural production while preserving our natural resources.

Research highlights include initiation of the Citrus Health Management Area collaboration to combat citrus greening disease and water farming.

The Foundation's priority need is funding to build a new dormitory at SWFREC. As new faculty members have come on board, the number of graduate students is increasing. The new dorm would provide safe onsite housing for an additional eight graduate students.

Become a Foundation member today! For more info and a membership form, click here: <u>http://</u> <u>swfrec.ifas.ufl.edu/docs/pdf/</u> Foundation Flyer 2017.pdf



Coming Events

December 14: Ag Tree Crop Pesticide License Training. 8am. Hendry County Extension Office, LaBelle. Registration required at 863-674-4092 or dcabrera@ufl.edu.

December 20: Citrus Squeezer: Breeding Citrus for HLB Tolerance. 10am. SWFREC. RSVP required at 863-674-4092 or dcabrera@ufl.edu.

January 12: SWFREC Citrus Advisory Committee

Meeting. 10am. SWFREC. RSVP at 239-658-3400 or jderleth@ufl.edu.

January 17: Citrus Squeezer: Pests Workshop. 9am. SWFREC. RSVP required at 863-674-4092 or dcabrera@ufl.edu.

January 29: SWFREC Foundation Board of Directors Meeting. 10am. SWFREC. RSVP at 239-658-3400 or jderleth@ufl.edu.

