

Diversity in research programs to meet the needs of the diverse agriculture in North Florida

UNIVERSITY of FLORIDA

North Florida Research and Education Center Quincy, Marianna and Live Oak





The Systems Research Center

https://nfrec.ifas.ufl.edu/



From the Director's Desk

Well, it has been a full year of social distancing and wearing facial covers, and we are all showing signs of pandemic fatigue. We still need to be careful and be vaccinated as soon as possible so we can develop herd immunity and place this pandemic behind us. This is no time to be complacent!

Other than delays in the planting of our summer crops last spring, our field research has been conducted as usual during the pandemic. Our maintenance and farm crews have been working diligently in performing their tasks while maintaining social distancing and protecting themselves and others. The major setback at the Center has been with our extension programs. Virtual meetings have been the order of the day and have kept our mission moving forward, but it is time to start having face-to-face meetings. If things keep on the positive side in controlling COVID-19, then we hope to have things much closer to normal after July 15th. We may still be restricted to less than 250 people at outdoor events and less than 50 people at indoor events, but we should be more comfortable in organizing these events. We all want to go back to normal, but normal may not completely look it was Pre-COVID....we shall see!

This year is NFREC, Quincy's 100-Yr Anniversary and a celebration is in the planning for a date in October. We will announce the date shortly. North Florida Research and Education Center has come a long ways since our initially funding in 1921. The Center in Quincy was established with the purpose to alleviate the Black Shank Disease that was devastating the region's tobacco industry. That objective was met and was the Center's first major accomplishment. From that point, the Center eventually added the Marianna and Suwannee Valley units and became the most agriculturally diverse Center in IFAS.

We have come a long ways!

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Updates for some of our individual research and extension programs

FORESTRY

FLORIDA TIMBER BLOCK GRANT – Registration deadline April 30, 2021

Any Florida landowners who suffered damage to their pine and/or hardwood trees due to Hurricane Michael may be eligible for a direct payment from the State of Florida. Up to \$608 per acre for pine and up to 714 per acre for hardwood. Sign up is free and there is no commitment. This is based upon work supported by the USDA, Farm Service Agency under a Federal Award.

On-line registration: <u>www.floridadisaster.org/timber</u> Timber Hotline: (850) 270-8317

School Name Change

The UF School of Forest Resources and Conservation has had a name change to reflect the growing and diverse disciplines of the faculty and staff, one of the largest group in IFAS. For more information, please see the new website for information. <u>https://ffgs.ifas.ufl.edu/</u>



SCHOOL OF FOREST, FISHERIES, AND GEOMATICS SCIENCES

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Recent and Upcoming Additions to Gardens of the Big Bend at NFREC-Quincy

We are pleased to announce a new addition to Gardens of the Big Bend currently under construction: the Robert and Elaine Woodward Heritage Garden (garden #2 in the map below). This garden, funded through gifts and a generous endowment from Elaine and Bob Woodward, will honor the region's horticultural heritage over the past 300 years, highlighting cherished plants, garden artifacts, and design elements unique to gardens found in the area.

Gardens of the Big Bend is a botanic garden located on the grounds of NFREC-Quincy. Its mission is to serve as a living laboratory and classroom, regional showcase, and germplasm repository. The garden is developed and maintained by environmental horticulture faculty and staff, and by the nonprofit volunteer group, Gardening Friends of the Big Bend.

Recent installation of concrete curbing and crushed rock inlay is the initial phase of the Robert and Elaine Woodward Heritage Garden. The curbing, in the shape of a 'pioneer house' footprint, eventually will contain a brick-paved patio. This will be a prominent feature of the garden as a gathering point, an outdoor classroom, and a place to display interpretive signage about the garden. As an additional feature, the brick pavers may be engraved to honor a loved one or favorite organization. Family and friends of the Woodwards and NFREC are invited to support the Gardens by purchasing a commemorative brick paver. Please see the sidebar if you are interested in engraving a brick to be placed in the pioneer house footprint.

A ribbon cutting ceremony for the garden will take place sometime this spring, as soon as UF COVID-19 guidelines allow. The ceremony will feature Mr. Woodward and his family as well as Gardening Friends of the Big Bend volunteers and NFREC faculty and staff; local and IFAS press will cover the event. Please stay tuned for the date.

Finally, watch for installation of signs that include a map and description of the Gardens as well as garden hours and policies. The Gardening Friends volunteer group also is purchasing park benches to be installed throughout the Gardens.

Additional information about the Gardens can be found here: Gardens of the Big Bend | My Site (square.site)

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Figure 1. Gardens of the Big Bend is located on NFREC-Quincy grounds along Pat Thomas Highway. Current gardens include: 1) Palm Garden, 2) Robert and Elaine Woodward Heritage Garden, 3) Jurassic Garden, 4) Native Showcase Garden, 5) Pavilion Shade Garden, 6) Champion Arboretum, 7) Discovery Garden, 8) Mediterranean Garden, and 9) Dry Garden. Not shown are the Magnolia Garden and Crapemyrtle Collection.

Sidebar: How to order a Heritage Garden Commemorative Engraved Brick:

To reserve an engraved brick in the heritage garden, kindly order from the website here, or write a check to "Gardening Friends of the Big Bend" and mail it to University of Florida/IFAS NFREC, 155 Research Rd., Quincy FL 32351, Attention: GFBB. Each \$100 brick comes with 4 lines of 21 characters per line, including spaces and punctuation. After ordering, Kelly Thomas will reach out to solicit your brick text, or you can include it in the envelope if ordering by mail.

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ANIMAL SCIENCE

Dr. Angela Gonella and Dr. Nicolas Di Lorenzo are working on several experiments aimed to study embryonic and fetal programming using compounds that have potential to modulate DNA methylation. This is a promising research area.



Above photos show a cow eating methionine as part of the peri-conceptional programming study and an ultrasound image of a 60 days bovine pregnancy.

Dr. Gonella is using estrus synchronization in different locations around Florida. With her program, she aims to increase the reproductive efficiency of cow-calf operations in Florida.



The above pictures show on the left the Rollins' ranches farm crew and NFREC-Repro team after a successful synchronization day (Okeechobee, January of 2021). On the right side, Dr. Gonella and her graduate student use Color-Doppler ultrasonography to conduct super-early pregnancy diagnosis at Mr. Dave Rosman's operation (Cottondale, December of 2020) and of the right an image of the corpus luteum of a pregnant cow on day 20 of gestation.

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Awards and Honors

- Shirley Bradley (NFREC-Suwannee Valley) won a 2021 UF/IFAS Superior Accomplishment Award for Support Services Shirley is a Custodial Worker II at NFREC-Suwannee Valley, but she is so much more. Her hands have touched every part of the Center. When needed, she has volunteered to assist in the greenhouses when they are shorthanded. She also helps with all the events at the Center, not just as a custodial worker, but also with the actual planning and implementing the event. She readily comes early or stays late to assist with registration or serving a meal or in some other capacity. We often get comments and compliments on the cleanliness of our facilities and great customer services provided by Shirley. As the saying goes, "She's got this!"
- Dr. Jose Dubeux's (NFREC-Marianna) graduate students won graduate competitions at the 2020 Tri-Societies Meeting

For the Forage and Grazinglands Division of the Crop Science Society of America, Luana Queiroz placed first in the poster competition for MS students, and Carlos Garcia placed 3rd in the Robert Barnes PhD oral competition for the Division.

Dr. Nicolas DiLorenzo (NFREC-Marianna) received the 2020 College of Agricultural and Life Sciences Doctoral Dissertation Advisor/Mentoring award.

This award recognizes the dedication and success of Dr. DiLorenzo in training and mentoring his graduate students.

- Dr. Angella Gonella (NFREC-Marianna) was awarded the UF/IFAS Early Career Seed Grant. The award was for her project, "Plasmatic cell-free DNA (cfDNA) as a Strategy to Monitor Luteolysis in Beef Cattle," will develop new tools for super-early pregnancy diagnosis (day 17 after breeding).
- Dr. Josh Freeman's (NFREC-Quincy) M.S. Student, Sarah da Silva Benevenute, was awarded three scholarships over the last year.

She received scholarships from the UF/IFAS College of Agricultural and Life Sciences, the National Horticultural Foundation, and the Florida Fertilizer and Agrochemical Association.

> Dr. Holly Ober's (NFREC-Quincy) graduate students received awards.

Her M.S. graduate student, Laura Nicholson, was awarded the Courtney A. Tye Memorial Memorial Graduate Student Scholarship. Her Ph.D. student, Celso Poot, won the Belize Audobon Society's Conservation Award for his accomplishments and efforts in environmental conservation and protection.

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Announcements and Updates

The new meeting pavilion at NFREC-Suwannee Valley is almost complete. We appreciate the efforts of UF-IFAS Facilities, Operations and Planning in making this project a reality. A very special thank you goes to the many donors who contributed most of the funds for the project. This would not have happened if not for your generosity!



Framing is complete for the 4-bay greenhouse that will replace greenhouses destroyed by Hurricane Michael.



I look forward to delivering future e-newsletters.

Glen Aiken

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