UFIFAS

West Florida Research and Education Center NEWSLETTER

Spring 2015

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University of Florida -Jay Research Facility

From the Center Director

pring is upon us, and we are looking forward to a productive year with regard to our teaching, research and extension programs. Warming temperatures combined with sights and smells of new plant growth calls us to action, and I'm looking forward to a great year at the WFREC.



Our teaching program has reached a milestone – 2015 is the 20th anniversary of the establishment of WFREC's academic programs. In 1995, the UF/IFAS began offering academic programs at the Milton Campus. Our academic programs allow students to earn a Bachelor of Science degree in Natural Resource Conservation or Plant Science at the Milton Campus without having to relocate to Gainesville. These programs are possible through a partnership with Pensacola State College and other local area colleges. To date, the UF Milton Campus has graduated over 130 students, many of whom have gone on to leadership positions. Please join us on the evening of 8 May at the Santa Rosa County Auditorium for the 20th Anniversary Celebration, which is intended to reunite classmates, faculty, staff and community partners. We will also recognize our 2015 graduates. We hope to see you there.

Congratulations are in order for two of our employees, Justin McKeithen (Senior Laboratory Technician, Forestry) and Robin Vickers (Administrative Assistant and Events Coordinator). Justin received an IFAS Superior Accomplishment Award in the Scientific/Technical category. Justin is an exemplary employee who is dedicated to the success of our forestry program, and he is very supportive of all Center programs and activities. Robin received the first ever IFAS Community Service Award for her excellent work in getting the Farm to City event started, and with its success over the last three years. The Farm to City event makes a positive impact on the community while bringing about a better understanding between rural and urban people by increasing their knowledge and appreciation for agriculture. The program exposes high school students to farming, and feeds needy families during Thanksgiving week; in 2014, a total of over 600 families were served in Santa Rosa and Escambia counties. Justin and Robin will be publicly recognized at a reception on 30 March on the UF Gainesville campus. They will also now be considered for the UF campus-wide award in their category.

I congratulate Justin and Robin on the hard work and dedication required

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University of Florida -Jay Research Facility to receive these honors.

Some of our students deserve recognition as well. Shaun Myers, Alex Steed, Christie Wagner, and Lexi Woodson were named to the CALS Dean's List for Fall 2014. I congratulate these students on this academic achievement.

Numerous events/happenings since the beginning of 2015 have brought positive attention to the WFREC. On 14 January the International Flying Farmers toured the Jay Research Facility, and I have received several thank you notes from that group indicating they had a positive experience here. On 26 February I gave a presentation on our teaching programs at the Principals Luncheon hosted by Pensacola State College, Milton campus. These area high school principals showed a lot of interest in our teaching programs, and will keep us in mind when counseling their students on their academic future. On 27 February, we hosted over 100 FFA students from area high schools at the Jay Research Facility, where our faculty explained our teaching, research and extension programs; hopefully, future WFREC students were among these FFA students. On 6-7 March we participated in the Lumberjack, Flower & Garden Festival held on the campus of Pensacola State College, Milton campus. The first day (Friday) was cold, but conditions improved on Saturday, and our student club plant sale made a fair amount of money for their operations. On 13 March, Alex Steed (NRC student) and I participated in the 2015 Fresh from Florida event at Northview High School in Escambia County. Alex did a great job of entertaining K-5th grade students with games related to food groups. On 20 March we will have a field day regarding wildlife food plots at the Jay Research Facility. I thank all WFREC and county extension personnel that make these events possible. Events like these promote the WFREC and help ensure our future.

In addition to events, Gator Grind grits and meal are receiving attention and are a positive promotion tool for our Center. Our stone-ground grits are now being served at the Tastee Freeze and at Grover T's Restaurant in Milton. Grits and meal in our decorative two-pound bags are being sold at Grover T's checkout counter. Dr. Unruh mentioned Gator Grind on a local radio talk show, and in response more vendors in the area want to distribute our products. The UF Plant Innovation Program (PIP; http://hort.ifas.ufl.edu/pip/aboutpip.shtml) will feature our grits and meal at their "Flavors of Florida" event in Gainesville on 23 March. The PIP promotes UF developed plant products, and we are discussing distribution of Gator Grind on a wider basis. Looks like we'll have to grow more corn.

I wish everyone success in your endeavors in 2015, and look forward to a productive year at the WFREC.

GO GATORS!



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UNIVERSITY of FLORIDA WFREC

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University of Florida -Jay Research Facility

Justin McKeithen and Robin Vickers Receive IFAS Superior Accomplishment Awards



Justin McKeithen (Senior Laboratory Technician, Forestry) received an award for IFAS Superior Accomplishments in the Scientific/ Technical category.

Robin Vickers received the award in the Community Service category.



The Superior Accomplishment Awards recognize staff members that display superior service in the following categories: clerical/office support, support services, scientific/technician, administrative/supervisory, administrative/ professional, academic personnel, diversity and inclusion in the work place, and community service.

Calendar of Events

April 10th & 11th

Annual Student Club Plant Sale University of Florida 8am— 4pm both days at the PSC/UF Milton Campus greenhouse 5988 Highway 90, Milton FL 32583

May 8th

20th Anniversary Celebration of the University of Florida Academic Programs and Graduation reception, held at the Santa Rosa County Auditorium 4530 Spikes Way, Milton, FL 32583

June 17th

Gulf Coast Turfgrass Expo & Field Day at the West Florida Research and Education

Center—Jay Research Facility

4253 Experiment Road, Hwy 182, Jay FL 32565

July 24th

Corn Field Day at the West Florida Research and Education Center-

Jay Research Facility from 8 am—12 pm

4253 Experiment Road, Hwy 182, Jay FL 32565

August 27th

Fall Extension Farm Field Day at the West Florida Research and Education Center-

Jay Research Facility from 8 am—12 pm

4253 Experiment Road, Hwy 182, Jay FL 32565

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University of Florida -Jay Research Facility

New Employees Join UF/IFAS WFREC

There have been quite a few new faces join UF/IFAS in the last quarter.



On January 2nd Matt Smith began working both as a technician for Turf Science and also as an economist on the USDA Specialty Crop block Grant designed to forge and strengthen trade networks between local farmers and local chefs and buyers. Before he was hired full time, Matt volunteered at the Jay Research Facility starting in July, 2014 after completing his Masters in Food and Resource Economics at UF. As a volunteer, he helped out in the high tunnels and also helped build an enterprise budget for the heir-

loom tomato trial.

On January 9th Cody English began working as the Senior Lab Technician/ Cropping Systems under Dr. Mulvaney. Before that, Cody started at UF as an intern commercial horticulture agent last summer. Cody is responsible for data collection, data entry, and statistical analysis for studies, as well as the coordination and implementation of activities for the establishment and maintenance of field, greenhouse and lab experiments.

On February 2nd Christine Berry started as our new secretary at the Jay Research Facility. She is a recent graduate of Pensacola State College with a degree in Business Administration and Microcomputer systems.





On March 17th Andrea Byers joined Dr. Unruh's team as our new Specialty Crop Field Technician. She is a recent graduate of The University of Florida in Gainesville where she obtained a B.S. in Soil and Water Sciences.

Welcome New Graduate Students



Christopher Ryan is a Florida native who first came to Gainesville in 2008 to pursue his Bachelor's degree from the University of Florida. He graduated in 2012 with a BA in Anthropology and another in Women's Studies. After working nearly two years at UF

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University of Florida -Jay Research Facility in Dr. Kevin Kenworthy's turfgrass breeding program, he entered UF as a student again, pursuing an MS in Environmental Horticulture under Dr. J. Bryan Unruh. His research focuses on turf management practices for homeowners and lawn care companies in the state of Florida and the social and ecological implications involved.

Gabriel Campbell— "I lived the last 7 years of my life in Oklahoma learning about plants and their importance in the ecosystems that sustain terrestrial life. Anthropogenic influences have altered ecosystems worldwide - among the most degraded are costal systems. Under Dr. Thetford and Dr. Miller's supervision I aim to understand, and hopefully, reverse unnatural changes in coastal communities.

CALS Dean's List

The following students made the CALS Dean's List for Fall 2014.



Shaun Myers - "I am currently enrolled in the Natural Resources Conservation program as well as a CALS Honors program participant. It is my hope to graduate in the spring of 2016 and then continue onto my master's and eventually my Ph.D. My current interest lies in invasive reptiles and amphibians, particularly within wetland environments. I find wetlands fascinating and feel that defending the native wildlife from the continued and growing

threat of invasive animals should be a priority in protecting these beautiful areas." Shaun is also the President of the student club.

Christie Wagner - "I graduated with honors December 2014 and received a B.S. degree in Forest Resources and Conservation. I majored in Natural Resource Conservation and minored in Soil and Water Science."





Alex Steed - "I attended Gulf Breeze High School before joining the United States Coast Guard. There, I served as an Avionics Electrical Technician in Hawaii

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and California. I started college at Pensacola State College in 2011, and transferred to UF by 2013. I maintained a GPA of 3.74 at PSC and currently my GPA at UF is a 3.92. I've made the deans list every semester so far at UF and I hope to go on to earn my Master's degree and land a job with the National Park Service. I currently serve as a CALS Student Ambassador and as treasurer for the Milton student club."

Lexi Woodson also made the CALS Dean's List for Fall 2014.

Congratulations students!

The International Flying Farmers Visit the Jay Research Facility

n January 14th, over 80 members of the International Flying Farmers visited the farm as one stop on their tour of farms in Santa Rosa County. The IFF was founded in 1944 and is based in Mansfield, Illinois. UF/ IFAS WFREC hosted members across the U.S. and Canada. The flying farmers were treated to a demonstration of the grist mill by our own Dr. Wes Wood. UF County Extension Director Mike Donahoe received thank you letters stating that this year's workshop received extremely high praise and after 70 years, was one of their best ever. It was a pleasure to have the IFF members on the farm.





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Getting to the Root of the Problem



Ph.D. student Bobby Kerr joined us at UF/IFAS WFREC march 17th and 18th before heading to Gainesville to continue his studies. Bobby is from Kilbirnie, Scottland and came to the United States in July. He plans to remain in the U.S. for the next 4 to 5 years. He is studying Turfgrass Science under the direction of Dr. J. Bryan Unruh and Dr. Jason Kruse with the focus on investigating the differences in phenology of warm season grass root biology. When asked how he likes being at UF/IFAS so far, he replied, "It's great to be a Florida Gator!"

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Grad Student Spotlight Washington Bravo



ack in Ecuador, my family job has always been related to agriculture

nature since I can remember. After I graduated from high school I decided that the rest of my life would be related to agriculture.

so I grew up surrounded by

Following my dream, I moved to Costa Rica where I obtained my BS degree in agricultural engineering at EARTH University. There I worked with Dr. Luis Pocasangre, a bananas root specialist, developing methods for the sustainable control of nematodes in banana plantations. After that I returned to my country and worked in the family business for 2 years, however it has always been my goal to continue studying and pursue a Masters Degree. And to my joy, I was finally accepted at the University of Florida this year.



At the beginning of this Spring I started working under the advisory of Dr. Ramon Leon, studying if different populations of Palmer amaranth have adapted to different row cropping systems in various parts of the South of United States, and how these populations respond to the usual Nitrogen fertilization.

The interest for this weed rises mainly because it's a dioecious plant, meaning that it has distinct male and female individual organisms. This has led to an increase in different populations of the Palmer amaranth specie, showing various characteristics according to its adaptation on different locations.

Additionally, Palmer amaranth has developed a resistance to several herbicides used for the conventional control of weeds in row crops, such as: Dinitroaniline, Triazine, ALS-inhibiting and Glyphosate.

All of these show how Palmer amaranth represents a serious problem to crops of economic importance. Understanding the difference between its populations could improve our management strategies for the control of this problematic weed.

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Studying the Genetics of Palmer Amaranth Adaptation in Agricultural Fields

almer amaranth (Amaranthus palmeri [S.] Wats.) is considered the most economically important weed in row crop production in the

Southern United States. Although this weed species is native to the southwest Unit-



ed States, it was rarely found in agricultural fields. It is during the last 25 years that Palmer amaranth has become a problem for row crops such as soybean, corn, cotton, and peanut. Scientists think that its ability to produce a large number of seeds per plant (up to half a million) and to become resistant to many herbicides including glyphosate (the most widely used herbicide, has allowed it to thrive in many farms.

WFREC is starting a research project to study how Palmer amaranth populations have adapted not only to the herbicides growers use to control but also to other important factors

Rocio Van Der Laat

it,

such as nitrogen fertilization and crop type and density, and crop rotation. For this purpose, Dr. Leon's laboratory is conducting a genetic characterization of multiple Palmer amaranth populations from Florida and Georgia. Thanks to a grant provided by IFAS-Research, Dr. Leon was able to acquire the necessary equipment to conduct molecular genetic research.



Currently, Dr. Leon's team is building the DNA library that will be used for determining the genetic differentiation among populations at a very high resolution.

This research will help determine if Palmer amaranth populations have only evolved resistance to herbicides, or they have changed other traits that make this weed more aggressive in agricultural fields. If this is the case, then we will have the bases to design weed control strategies that limit the growth and reproduction potential of this problematic weed.

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Ph.D. Student Defends His Turf

Fian Glenn, Ph.D. student under the direction of Drs. J. Bryan Unruh and Jason Kruse, successfully defended his dissertation titled, "Effect of Shade Intensity and Duration on Warm-season Turfgrass Growth and Development" on March 24th. Warm-season turfgrasses, because of their morphology, are less tolerant of low-light conditions. Dr. Glenn's work helps us understand how seasonal day length variation, seasonal cloud cover, and shade created by plant canopies and other structures impact their management. His research was designed to attempt standardization of the body of shade research to be described in terms of light and light reduction, as opposed to using percent shade.



Pictured left to right- Dr. Jason Kruse, Dr. Brian Glenn, Dr. J. Bryan Unruh

Congratulations Dr. Barry Brecke



Dr. Barry Brecke won the 2015 Professor Emeritus Research Award. This award is in recognition of his continuous efforts and outstanding contributions to the University of Florida and IFAS. The award will be presented to him in a ceremony to be held in Gainesville on May 19th, 2015.

Congratulations Dr. Brecke! Thank you for all that you do.

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Student Club Plant Sale



he students did a great job raising money at this year's plant sale. All proceeds go to student club operations, scholarships, and field trips. Way to go students!



20th Anniversary Celebration

Register <u>here</u> now to attend



UF/IFAS West Florida Research and Education Center