

West Florida Research and Education Center

NEWSLETTER

Fall 2015

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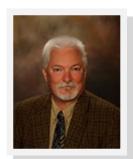
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From the Center Director

It is truly a happy new year at the WFREC. In 2016 we will expand our programs and facilities, which will allow us to increase the capacity to fulfill our stated mission: *To serve and promote the public good through teaching, research and outreach.*



Expansion of our programs is a result of approval of a \$5.5M

work-load increase request from IFAS by the Florida legislature. The money is being used to hire more than 40 new faculty members. The WFREC received two of these positions: 1) a watershed management scientist with 70% research and 30% teaching responsibilities, and 2) an entomologist with 70% research and 30% teaching responsibilities. In this first week of 2016, we are beginning to interview candidates for these positions. I hope to have both of the positions filled with the faculty in place by the beginning of summer.

With new faculty comes the need for more office and laboratory space. The watershed scientist will be located at our Milton campus, while the entomologist will be located at our Jay Research Facility. We have office space for both scientists, but laboratory space not so much. Fortunately, I had a recent conversation with Dr. Amos, Dean of Pensacola State College's Milton campus, and she allocated a nice laboratory space for the watershed scientist in building 4800 of our Milton campus. Laboratory space for the entomologist will be built underneath the eaves of our farm shop at the Jay Research Facility with the help of IFAS Facilities.

Over the past couple of years, occupancy demand in our graduate student dormitory at the Jay Research Facility has increased, and the need for more space will only become greater as the WFREC adds new programs. The existing graduate student dormitory has an occupancy capacity of three, which is inadequate for our current and future needs. In 2016, we will increase the occupancy capacity to eight with an addition to the current structure. The goals of this expansion are to 1) create a better teaching and learning environment for graduate students by providing more functional and sustainable accommodations, and 2) enable recruitment of more graduate students by providing student-friendly housing. IFAS Facilities is helping us with the planning and construction of the addition.

Other recent/ongoing facility improvements at the WFREC includes new gravel in

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University of Florida -Jay Research Facility the farm operations area at the Jay Research Facility. The gravel surface is a most welcome improvement that is best realized during and after our frequent rainstorms. Another improvement that is currently being installed is a deer exclusion fence around all areas on the Jay Research Facility except the forested area on the south side. This improvement will hopefully quell the significant research/crop/revenue losses owing to deer foraging that has occurred over the past several years.

So, things are looking up for the WFREC! I wish you all a safe and productive 2016.

Go Gators!

WFREC Welcomes Volunteer Jeny Bragg



My name is Jeny Bragg. I live in the Pensacola area and am originally from Peru (South America). I have my Bachelor Degree in Agriculture Science. My family and I just moved to Florida recently, and one of the things I wanted to do after my little son began going to school was to get involved again in my career, so I decided to be a volunteer with assisting agriculture research that I have a background in.

So I searched at local universities where I could volunteer around the Pensacola area, and I found that University of Florida has a Research Center. I came to visit and spoke with the Center Director, Dr. C. Wesley Wood, and he gave me the opportunity to volunteer here to apply my educational and career experience.

I recently helped at the lab during the last period of the cotton's project (harvest), by counting the number of cotton bolls of each sample and separating them as hard lock, rot or bolls. We then measured their weight in grams, packed them in sample bags, and wrote the data on the information sheet. Also we did some ginning of the cotton samples, and collected their weight data.

I helped in the cleaning of sesame seeds and collecting data of their weight before and after the cleaning. I helped in the application of fertilizer to an experimental area. In addition to this Dr. Mulvaney showed me how to organize the information data on the computer using Excel program.

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Grad Student Spotlight

Joel Reyes-Cabrera



Energy demand to support human endeavors will continue to grow steadily in the future. The production of plant biomass is a sustainable way to supply this demand. However, production of crops for energy purposes will compete with food crops for resources and modify present hydrological and nutrients cycles.

I am interested in understanding how converting land under current cropping systems to bioenergy crops will affect ecosystem services in Florida. Consequently, we

assess the dynamics of soil carbon storage, water use efficiency, and crop productivity of elephant grass versus bahiagrass in Citra, FL and sweet sorghum versus a peanut-cotton rotation in Jay, FL.

We expect to gain understanding in these novel bioenergy crops beyond productivity and provide information to stakeholders as to crop resource use efficiency and environmental footprint.

Pictured right: elephant grass and bahiagrass





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Farm to City Week



The University of Florida - West Florida Research and Education Center, Bay Area Food Bank, and the Guy Thompson Community Center joined forces to celebrate National Farm to City Week November 20-26, 2015. Farm to City Week is a national effort with the goal to bring about a better understanding between rural and urban people by increasing their knowledge and appreciation for agriculture.

To promote agriculture and increase awareness about the importance of agriculture to consumers and the general public, we distributed food (some locally grown) to 400 pre-qualified families in need in Santa Rosa County and 300 families in need in Escambia County. This food provided these families with a healthy meal this Thanksgiving holiday.







On November 23, 2015 the locally grown produce was harvested at the West Florida Research and Education Center by Santa Rosa and Escambia County Ag students. Participating schools included Northview High School, Central High School, Jay High School, Milton High School, West Florida High School, Earnest Ward Middle School and Beulah Science Academy along with the Boy Scouts of America! Students had an opportunity to learn more about the crops grown in our county and to learn proper harvesting techniques to prepare the crops for distribution. Coastal Machinery came out and grilled hamburgers and hotdogs for the students!



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Many thanks to the volunteers that came out on November 24 to distribute food boxes at the Guy Thompson Community Center in Milton and the Waterfront Rescue Mission in Pensacola.

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University of Florida -Jay Research Facility Special thanks to Hill Kelly and RAM Trucks, Leonard & Susan Kichler Farm, Florida Farm Bureau, Smith Tractor, Santa Rosa and Escambia County Extension Service.







*Fall:Harvest Dinner.

The University of Florida, West Florida Research and Education Center held its annual Fall Harvest Dinner on Friday, November 13, 2015 at the West Florida Research and Education Center's research facility. ALL proceeds from this event will be used to convert an existing equipment building at the Jay Research Center into a conference facility for faculty, students and the public. Thanks to all of our sponsors who made this dinner possible.

Gold Sponsors – Smith Tractor and Crop Production Services
Silver Sponsors – Panhandle Select Mechanicals, Jay Peanut Farmers CO-OP, and
Santa Rosa County Florida Farm Bureau

Bronze Sponsors – Coastal Machinery and Farm Credit of Northwest Florida



Pig provided by Grover T's BBQ



Comedian Lee McBride



WFREC infrastructure update—Dr. Bryan Unruh



Associate VP— IFAS, Jeanna Mastrodicasa, won the John Deere trimmer



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- 1. Persistence, Survival, and Recovery of Warm-Season Turfgrass for Sustainable Urban Landscapes Under Limited Irrigation and Long-Term Drought
 - a. Funding Source: USDA National Institute of Food and Agriculture, Specialty Crop Research Initiative
 - b. Funding Amount: ~\$4,438,003
 - c. Oct. 2015 Sep. 2019



Dr. J. Bryan Unruh

- d. Projector Directors (Kevin Kenworthy and J. Bryan Unruh)
- e. Twenty-three faculty from five academic institutes (UF, Univ. of Georgia, North Carolina State Univ., Oklahoma State Univ., and Texas A&M Univ.) will collaborate on this project. We propose using a Coordinated Agricultural Projects (CAPs) team of turfgrass breeders, extension specialists, plant physiologists, irrigation engineers, molecular biologists and agricultural socioeconomists from five major universities across the southern U.S. The CAPs team will coordinate efforts in the area of turfgrass production (Primary System I), and consumer appeal and market approaches (Primary System II). This synergistic approach will avoid duplication of research efforts and capitalize the genetic diversity for developing environmentally sustainable turfgrasses with wider geographical adaptation and broader regional impacts. This CAPs project will significantly increase the productivity, sustainability, and the economic gain of both the individual state turfgrass programs, and the overall turfgrass industry.
- 2. Development of a Best Management Practices Guide and Template for the Golf Course Management Industry
 - a. Funding Source: Golf Course Superintendents Association of America
 - b. Funding Amount: ~\$48,000
 - c. Dec. 2015 Dec. 2016
 - d. Project Director: J. Bryan Unruh, Jason Kruse, Travis Shaddox, and Don Rainey (L to R)
 - e. We will develop a catalogue of existing BMP resources which will serve as the foundation of a Golf Centric BMP Template which will provide step-by-step guidance on developing, implementing, and administering BMP adoption at the regional, state, and local levels.

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Publications:

1. Glenn, B.D., B. J. Brecke, J. B. Unruh, J. A. Ferrell, K. E. Kenworthy, and G. E. MacDonald. 2015. Evaluation of alternative herbicides for southern crabgrass (Digitaria cilaris) control in St. Augustinegrass. Weed Tech. 29(3):536-543.

2. Telenko**, D. E. P., T. W. Shaddox**, J. B. Unruh, and L. E. Trenholm. 2015. Nitrate leaching, turf quality, and growth rate of 'Floratam' St. Augustinegrass and common centipedegrass. Crop Sci. 55(3):1320-1328. doi: 10.2135/cropsci2014.09.0639



Dr. Barry Brecke

3. Zhang, J., J. B. Unruh, and K. Kenworthy. 2015. Turf performance of bahiagrass, centipedegrass, and St. Augustinegrass cultivars under a linear gradient irrigation system. Hort. Sci. 50(3):1-5.



L to R: J. Bryan Unruh, Jason Kruse, Travis Shaddox, and Don Rainey



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Dr. Mike Mulvaney

Grants:

1. \$9834, Florida Dept. of Agriculture and Consumer Services. Removing the guesswork from irrigation: Using PeanutFARM and soil moisture sensors in in the western Panhandle. Libbie Johnson, Michael Mulvaney (Co-PI), Diane Rowland. Nov. 13, 2015.

2. \$39,413, Florida Dept. of Agriculture and Consumer Services. Nutrient Mineralization from Peanut Residue: How

Much Do Subsequent Crops Really Get? Michael Mulvaney (PI). Dec. 11, 2015.

3. \$45,596, Florida Dept. of Agriculture and Consumer Services. Towards a Quan-

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tifiable Estimation of Peanut Maturity and Its Effect on Emergence, Vigor, and Subsequent Life History Traits. Diane Rowland, Barry Tillman, Michael Mulvaney. Dec. 11, 2015.

4. \$9522, Florida Dept. of Agriculture and Consumer Services. Direct Application for White Mold Control in Peanut. Michael Mulvaney (PI), Nick Dufault, Diane Rowland, Jay Ferrell, Barry Tillman. Dec. 11, 2015.

Publications:

- 1. M. Mulvaney, R.J. Geisel. 2015. Should You give a Nitrogen Credit to the Crop that Follows Peanuts? Panhandle Ag News, Oct. 23, 2015. UF/IFAS Extension, University of Florida. http://nwdistrict.ifas.ufl.edu/phag/2015/10/23/should-you-give-a-nitrogen-credit-to-the-crop-that-follows-peanuts/
- 2. Mulvaney, M.J., H. Enloe. 2015. Polymer coated nitrogen release as affected by placement and date of application in the Southeast. ASA-CSSA-SSSA International Annual Meetings, Minneapolis, MN. Nov. 17, 2015
- 3. Dufault, N.S., H.L. Mehl, A.K. Hagan, R.C. Kemerait, P. Price, M.J. Mulvaney, H.M. Kelly, R.L. Nichols. 2016. Multi-Year Regional Evaluation of One and Two Fungicide Applications for the Management of Target Spot on Two Cotton Varieties. Beltwide Cotton Conferences. New Orleans, LA. Jan. 5-7, 2016.
- 4. Mulvaney, M.J., H. Enloe. 2016. Blends and Timing of Environmentally Smart Nitrogen and Urea: Effects on Cotton Yield and Quality. Beltwide Cotton Conferences, Poster no. 96. New Orleans, LA. Jan. 5-7, 2016.
- 6. AgFax. Southeast Cotton. Owen Taylor, Editor. Sept. 9, 2015. http://agfax.com/2015/09/02/cotton-southeast-defoliation-starting-agfax/



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Graduate student Arun Jani

Publications:

1. Arun D. Jani, Julie M. Grossman, Thomas J. Smyth, Shuijin Hun, Influence of Soil Inorganic Nitrogen and Root Diameter Size on Legume Cover Crop Root Decomposition and Nitrogen Release. Springer International Publishing, Aug 2015. http://link.springer.com/article/10.1007/s11104-015-2473-x

2. Arun D. Jani, Julie Grossman, Thomas J. Smyth, Shuijin Hu, Renewable Agriculture and Food Systems. Cambridge University Press, May 2015. http://journals.cambridge.org/action/

displayAbstract?fromPage=online&aid=9701499&fileId=S1742170515000113

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Upcoming Events

* UF/PSC Spring Festival of Flowers.......April 8—10

* Spring Graduation......May 6

* Gulf Coast Turfgrass Expo and Field Day.....June 15

