

West Florida Research and Education Center NEWSLETTER

Fall 2014 - Vol 6 No 3

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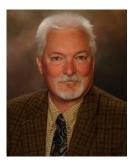


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From the Center Director

Fall is my favorite time of year, and the WFREC is busy with the start of another academic year in Milton and crop harvests at the Jay Research Facility. We admitted eight new students into our programs, and welcomed them in September with a WFREC-wide low country boil. More attention has been drawn to our teaching programs since the new sign on highway 90 has become operational. The sign should help our programs grow over time.

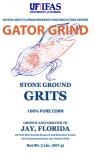




Our crop harvests are going well, with some of our corn variety trials topping 200 bushels per acre. Some of the corn harvested has been turned into grits and meal with our new stone burr mill – we're calling the product "Gator Grind". Much interest in Gator Grind has been generated by attendees during recent events at the Jay Research Facility. I believe grits and meal grown and ground at Jay will be a great promotional tool for the WFREC.

In the last newsletter, I wrote that we were interviewing three candidates for our Cropping Systems Assistant Professor position. I'm happy to say that we selected Dr. Michael (Mike) Mulvaney for the position. Dr. Mulvaney will begin employment at the WFREC on 1 December. For the past few years, Dr. Mulvaney has worked at the International Maize and Wheat Improvement Center (CIMMYT) in Mexico on conservation agriculture systems under maize-wheat cropping systems. He also worked on seed treatments to improve wheat stands under conservation agriculture, yield potential trials under various environments, and genotype by environment by chemical interactions. I've known Mike personally for many years, and feel that we are lucky to have him join the WFREC team. We look forward to the arrival of Mike, his wife Emma, and their daughter Maeve in December.

During the third quarter of 2014, we had many successful events at Jay and Milton. On 23 July, we hosted a tour group from the National Association of County Agents meeting that was being held in Mobile, AL. We had well-attended field days on 29 July (field corn variety trials) and 22 August (Extension Farm Field Day). On 28 August the Farm Bureau Legislative tour stopped by for a look at some of research/extension programs, and we were fortunate that Dean Elaine Turner (CALS) and Senior VP Jack Payne (IFAS) were present for that event.







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Can Wheat Straw Mulch act as a Surrogate Wrack to Promote Survival and Growth of Planted Sea Oats and Build Dunes?

Natalie Hooton, Debbie Miller, Mack Thetford, B. S. Claypool.

As many of you know Sea Oats are the biological engineers of our local dunes. Their lateral and vertical growth traps and stabilizes blowing sand. Anything that increases the survival and growth of planted Sea oats increases the success of dune restoration.

Just as we provide mulch for plants in urban landscapes, dune plants appear to benefit from

crease plant survival, (2) accelerate the growth of dune plants and (3) enhance dune building

natures mulch called wrack (Figure 1). Vegetative wrack, beach litter consisting of "algae, grasses, driftwood, fruits, seeds, and carrion, along with cultural litter" that accumulates at the high tide line or as a result of overwash during storm surge is nature's mulch and enhances growth of dune plants and facilitates dune growth. Wrack provides a nutrient supply, protection, a method to retain soil moisture, an obstacle to promote sand accumulation, and a surface to catch seeds. Wrack also provides insects for shorebirds and should be allowed to remain on our beaches (Figure 2).



Figure 1. An example of wrack on Gulf coast beaches

We wanted to determine the feasibility of using a similar cost-effective organic substance (wheat straw) in coastal dune restoration projects to (1) in-



through sand accumulation. We planted 6000 plugs of Sea Oats (1,000 at six Perdido Key beach sites), covered half the Sea oats at each site with our surrogate wrack (wheat straw) approximately 8 inches deep (5 bales per site) and left the remaining Sea oats at each site bare. We expected greater Sea oat survival and growth and sand accumulation when using wheat straw as a surrogate wrack.

Figures 2. Snowy plover's, endangered species that nest on our beaches, feed on insects found in wrack.

Wheat straw was a great success and should be used when planting Sea oats for dune restora-

tion

All measures of plant growth 1 and 2 years post planting were greater for Sea Oats when planted with wheat straw than without (Figure 3). The number of Sea oat flower stalks was also greater with wheat straw than without. Sea oat survival was very high in our plantings (>

97%) and did not differ with or without wheat straw.

The dune built by the Sea oat and wheat straw planting reached approximately 1.5 ft above the surrounding sand (no plants) two years after planting.

(cont'd on next page)



Figure 3. Sea Oat and dune growth with and without wheat straw mulch two months and two years after planting.

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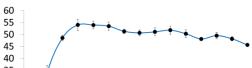
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(Dune Restoration—cont'd from previous page)

Sand accumulation was greater with wheat straw than without wheat straw as early as eight months and remained greater two years after planting (Figure 4).

This project was completed by graduate student Natalie Hooton with assistance from B. Sean Claypool under the direction of Mack Thetford and Debbie Miller. This most recent collaborative work on dune restoration was presented at the Conference on Ecological and Ecosystem Restoration (CEEF) conference in



-With Surragate Wrack -Without Surragate Wrack

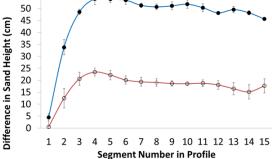
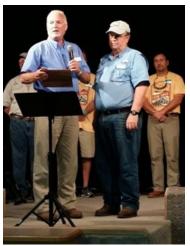


Figure 4. Sand accumulation 2 years post planting with Sea Oats and surrogate wrack (wheat straw) and without surrogate wrack (wheat straw).

New Orleans this summer. The journal article entitled "Survival and growth of planted Uniola paniculata and dune building using surrogate wrack on Perdido Key Florida, U.S.A. 2014. 22 (5) by Hooton, N., D. L. Miller, M. Thetford and B. S. Claypool" provides the full details of this work will be in print in the September edition of the Journal of Restoration Ecology.

(From the Director—cont'd from page 1)

On 15 September, we hosted a "Mondays in the Gardens" talk on Gingers that was sponsored by the Santa Rosa Co Master Gardeners – I heard great comments from the many attendees of that event. We were also one of the major stops on the 48th annual Santa Rosa County Farm Tour on 18 September, where we showcased our peanut programs and the gristmill. At lunch on that tour, Gator Grits were served to more than 200 people and I heard many positive comments about their taste and quality. Moreover, at the lunchtime award ceremony for the tour, our own Dr. Barry Brecke was presented the 2014 Friend of Agriculture Award for his many years of service to farmers in Santa Rosa County and the Florida Panhandle. I congratulate Dr. Brecke on receiving this well-deserved honor. As always, I appreciate our staff



members that work tirelessly behind the scenes to make these events a success.

Lastly, we will have our first annual Fall Harvest Dinner at the Jay Research Facility on 24 October. This event is a fundraiser, and the proceeds will be used to convert an existing equipment building at the Jay Research Center into a conference facility for faculty, students, and the public. I hope you will join us for a fun night on the farm with BBQ, boiled peanuts, live music featuring "A Touch of Blue", a silent auction, and three-time Iraq war veteran and comedian Jody Fuller. Ticketing information can be found on our website. We look forward to seeing you there.

I wish everyone a good semester and bountiful harvest.

GO GATORS!



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TAKE A MINUTE with...Dr. Travis Shaddox

Dr. Travis Shaddox is a post-doctoral research associate working from Gainesville under the direction of Dr. Bryan Unruh. His research interests include nitrogen and phosphorus leaching in turfgrass from various soluble and slow-release technologies. His research largely consists of fertilizer and nutrient dynamics in warm-season turfgrasses. He continues to investigate the influence of slow-release technologies on turf response and their associated practical use in various turf industries. He also has projects investigating the differences between various forms of iron and wetting agents on



turf growth. He is one of the publishers of the Florida Department of Environmental Protection funded leaching project, completed in 2012. Dr. Shaddox worked ten years in the Florida turfgrass industry both in golf and lawn care. He is a member and actively participates in numerous professional societies including those involved with fertilizer policy-making in Florida.

What sparked your interest in turfgrass studies and research?

I grew up in a small town in Oklahoma. Before I was even a teenager, I would help my grandfather on his farm harvesting various crops so I was exposed to Ag very early. Additionally, my mother was always growing various plants outside our house. On the weekends, I would work with a couple of men from church mowing lawns. I think this exposure at such a young age helped to develop a passion for horticulture and specifically turf.

What aspect of your job do you enjoy the most?

I spent ten years in the industry working with manufacturers, distributors, and end users in golf and lawn care. One thing that was consistent between them was a basic thirst for science-based knowledge. The challenge has always been communicating science to the end-user in a way that he/ she easily understands the value of the information. I enjoy that.

If there was one thing you wanted homeowners, landscapers, and golf course superintendents to know about turfgrass, what would it be?

No matter what we try to do as turf managers, nature rules. We are trying to mold nature to our liking, but ultimately nature is the boss. Water, light and temperature will always play a more important role than any product we use. If you want to resolve most of your turf-related issues, make sure water, light and temperature are sufficient in both quantity and quality before considering other possibilities.

What advice do you have for students interested in studying turfgrass?

Network. Don't be shy about speaking with faculty and/or industry personnel, both before deciding on this career, and after.

Student Club Officers

President- Shaun Myers

Vice-President- Julia Retzloff

Treasurer- Alex Steed

Secretary- Jill Varnagatas

** Club members present at the meeting unanimously voted in favor of electing this slate of candidates.

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History of the West Florida Research and Education Center

Not many people in Northwest Florida are aware that the University of Florida has a research facility in the Jay area. In fact, the research farm has been around since 1947. Originally known as the West

Florida Experiment Station, it was authorized by the Florida Legislature in 1943 for the purpose of research on field crops and livestock. After an exhaustive search for the right location, the property was purchased from the Florida Pulp and Paper Company for \$17,800 in August of 1946. The land was turned over in 1947 after the paper company harvested all the pine timber and pulp from the 640 acres.



In 1947 the first agronomist, Dr. H. W. Lundy, was hired. His first goal was to get approximately 300 acres of vegetation and stumps cleared (photo above circa 1947). The first field experiments were started in 1948. That year also saw a comprehensive soil survey done on the property by the Soils Department in Gainesville, and variety trials began on horticultural crops such as peaches, pears, plums, muscadines, blueberries, pecans, figs, potatoes, cabbage, broccoli and watermelon (among others). The purpose of these trials was to determine varieties suitable for home fruit and vegetable

production.



On June 1st of 1949, Dr. Curtis Hutton was hired as Agronomist and first Head of the Experiment Station (photo to the left circa 1960's). As well as acting as head of the experiment station, Dr. Hutton also conducted research in soil chemistry.

Early work at the station included soil fertility requirements; identifying cultivars well adapted to conditions in Northwest Florida; and determining the optimum time and densities for various crops commonly grown in the area. The station was instrumental in developing the double cropping system of wheat planted in Novem-

ber and soybeans planted in June on the same soil.

Several researchers came and went during the next couple decades that resulted in important discoveries that improved farming production in the region. In 1966, with the hiring of Dr. Joseph E. Ber-

trand as Associate Animal Scientist, research involving cattle began. Cattle were a part of life on the station until Dr. Bertrand retired in the 1990's. There was also a nematologist on the station, Dr. Robert Kinloch, from 1969 until he retired in the 1990's as well. The 90's also saw soil fertility and forage programs phased out as those researchers retired too. However, there were new beginnings for WFREC during this time.



The UF Milton Campus was built on the PSC (known then as PJC) campus in Milton in 1992 for the purpose of offering programs in Natural Resource Conservation and Horticulture. Teaching, administrative and conference facilities included buildings 4800 and 4900 to be shared with PSC. The first UF faculty were hired in 1994 and classes began in 1995. The first UF Milton student graduated in 1997.



1997 also saw construction of the UF greenhouses at the Milton campus.

Some of the employees who have been at WFREC for more than 30 years and still with us today include Dr. Barry Brecke, Greg Kimmons (farm manager), Robert Murrell (weed science lab tech), and Tim Baxley (horticulture lab tech).

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FARM TO CITY WEEK NOVEMBER 21-27, 2014

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. We know that you support agriculture and we are asking for your support of our local efforts to promote agriculture during the Farm to City Week.

To promote agriculture and increase awareness about the importance of agriculture to consumers and the general public, we will distribute food (some locally grown) to 400 pre-qualified families in need in Santa Rosa County and 200 families in need in Escambia County. This food will provide these families with a healthy meal this Thanksgiving holiday.

We would like you to consider supporting this community outreach project. There are several ways that you can help us take care of our own in need this holiday season. We are asking for monetary donations at the following levels: *Platinum level of \$500.00 *Gold level of \$300.00 *Silver level of \$200.00 *Bronze level of \$100.00 or help by donating your time to come out and help distribute the holiday meal boxes.

To make a monetary contribution, please make checks payable to the **University of Florida** and mail to Robin Vickers at 5988 Hwy 90, Bldg. 4900, Milton, FL 32583. Want to be a volunteer? Email Robin Vickers at <u>rvickers@ufl.edu</u> or by calling 850-983-7134.

Ca	lenc	lar	of	Eve	ents
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- October 17 Closed for UF Homecoming
- October 24 **Fall Harvest Dinner**, 6-9 pm. Tickets are \$50 in advance, \$60 at the door.
- November 11 Closed for Veteran's Day
- November 22 Last Day for students to drop or withdraw for the semester
- November 21—27 **National Farm to City Week**—To promote agriculture and increase awareness about the importance of agriculture to consumers and the general public.

November 27-28 Closed for Thanksgiving

December 13–19 Final Exams

-Fall 2014 Graduation Reception To Be Announced-

The University of Florida, Milton Campus recognizes its graduates by hosting a graduation reception for students and their families. Fall 2014 graduates: Micah Byars, Cortney Tyson, Courtney Culler., Christie Wagner and Shane Jurjens.

December 24 Final Grades Available

December 25 - January 1 Closed from Christmas through New Years

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Student Internship Presentations, Summer 2014

On Wednesday, August 6th, seven students gave short presentations on their summer internship experiences: Christie Wagner, Rett Daniels, Aaron Waits, Julia Retzloff, Case Pilcher, Cody English and Steven Lawhon. It was quite interesting to hear about all the varied projects the students were involved in.



First was **Christie Wagner**, who has been working on a project with Dr. Kimberly Bohn and Justin McKeithen. The project involves researching gap distribution and regeneration response following silvicultural treatments and hurricane disturbance on the Escambia Experimental Forest in Brewton.

Rett Daniels spent his internship with the Northwest Florida Water Management District.



His duties included assisting with timber cruising, equipment and facilities maintenance and upkeep, invasive plant species eradication, boundary line marking and maintenance, prescribed burning and tractor/dozer work.

A new UF Milton student, **Aaron Waits**, was given the opportunity to spend his summer working on several research projects to get varied experience. He helped with some work at Eglin Air Force Base, assisted with Perdido Beach Mouse tracking, and worked on beach vegetation surveys being done in Perdido State Park. The intention was to help Aaron narrow his interests in Natural Resource Conservation.

Julia Retzloff spent her internship assisting Gina Duke (UF Milton graduate) at Blackwater

State Forest with banding baby Red-Cockaded Woodpeckers. This project involved scoping out potential nests throughout the park and then revisiting the marked sites later to band babies.



Case Pilcher's internship was with Jackson Guard working in the areas of forestry, wildlife and fire control. Some of the projects he assisted with included timber stand improvement, vegetation monitoring, erosion control and endangered wildlife tracking.

Steven Lawhon worked at WFREC's Jay Research Facility. He assisted Drs. Brecke, Unruh and Leon in the areas of variety trials, turfgrass and

weed science. He even assisted with the annual turfgrass expo, which is the largest event



we hold at our facilities.

Cody English worked with the Santa Rosa County Extension agents this summer to complete his internship. He worked with Mike Donahoe, John Atkins, Blake Thaxton and Prudence Caskey. One of the projects he assisted with was the Spring Heirloom Tomato Variety Trial that was conducted in the high tunnel here at the Jay Research Facility. He will also be assisting with the Fall Heirloom Tomato Variety Trial.

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UF/IFAS WEST FLORIDA RESEARCH AND EDUCATION CENTER Fall Harvest Dinner

FRIDAY, OCTOBER 24, 2014: 6:00PM-9:00PM 4253 EXPERIMENT ROAD, HIGHWAY 182, JAY, FL 32565 \$50 per ticket in advance; \$60 per ticket at the door

A Touch of Blue

There will be a silent auction at the event.

ENTERTAINMENT

Mr. Jody Fuller, Comedian/Speaker/Soldier

This 3 time Iraq war veteran, who just happens to stutter, takes you on an inspiring and hilarious journey from a stuttering kid in Alabama to the battlefields of Iraq.

DINNER: Ribs and Chicken

ATTIRE: Country Casual (blue jeans and boots)

A Touch of Blue is a Pensacola, FL based band which consists of 4 members who all bring a wide diversity of music professionalism to the table. A Touch of Blue isn't just a single genre band; they're a variety band with music consisting of rock, country, pop, oldies, and rhythm and blues.

The proceeds from this event will be used to convert an existing equipment building at the Jay Research Facility into a conference facility for faculty, students, and the public.

Your donation is tax deductible to the extent allowed by law.

Please make checks payable to: University of Florida Foundation

Please mail checks to: UF/IFAS WFREC, Attn: Robin Vickers, 5988 Highway 90, Building 4900, Milton, FL 32583 To purchase tickets via credit card or make a donation, please visit: http://uffuflevents.imodules.com/WFRECDinner

Dr. Miller Featured in Nature Conservancy Publication

Dr. Miller is featured in a publication by The Nature Conservancy titled "Longleaf Pine: Protecting and Restoring an American Treasure" which describes the Gulf Coastal Plain Ecosystem Partnership and Dr. Miller's role in helping to conserve the Longleaf Pine in our local area. Click the link below to view the publication (Florida/ Alabama appears on page 28):

http://www.americaslongleaf.org/media/13207/Longleaf-Rangewide-Teams.pdf



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WFREC Happenings from the Past Three Months



On **July 23rd** WFREC was a stop on a break-away farm tour of the **National Association of County Ag Agents**, who were attending their Annual Meeting and Professional Improvement Conference in Mobile, Alabama.

July 29th we held a field corn variety tour with 18 varieties of field corn on demonstration (photo on the right depicts Dr. Ramon Leon giving a presentation).



On August 6th we held a farewell luncheon for Dr. Ajay Sharma, a post-doc who had been working



under the direction of Dr. Kimberly Bohn since 2012. Dr. Sharma accepted a faculty position with Lincoln University in Nebraska. We wish him much success!

August 22nd was the annual **Extension Farm Field Day**. Local farmers are given a tour and speakers talk about issues that are pertinent to our local farming community. (Photo shows Mike Donahoe, Santa Rosa County Extension Director.)





On **August 28th** WFREC was a stop on the **Florida Farm Bureau Legislative Tour**. We were very fortunate to have Dr. Elaine Turner, Dean of UF/IFAS College of Agricultural and Life Sciences, and Dr. Jack Payne, Senior Vice President for Agriculture and Natural Resources at the University of Florida, visiting with us for the tour.

August 28th also marks the introduction of Gator Grind. The new grist mill is up and running smoothly and the farm guys (Greg Kimmons, Justin Hudson and Chad Stewart) are milling cornmeal, grits and fine grits to use for demonstration and give-aways at tours and seminars.





On **August 2**9th Wes and Brenda Wood hosted a **Welcome Back Party** at their house for students, faculty and staff to celebrate the beginning of the new semester. The guys prepared a shrimp boil and everyone had fun with the yard games, fishing or just enjoying the view of Blackwater River off the back dock.

And **September 2nd** was the first session of **Fall Tomato School** hosted by the Extension Service. The next sessions will be September 23, October 7th and October 28th. All sessions are held 6pm to 7:30pm at the conference room in Jay. \$20 session fee.

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