

UF/IFAS

# Range Cattle Research & Education Center NEWS

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Fall 2015

## Faculty Enrichment Abroad



Drs. Maria Silveira and Joao Vendramini recently had the opportunity to spend 7 months (February to September, 2015) on sabbatical at the University of Queensland (UQ), Australia. During this period, they learned and shared professional experience and scientific expertise on agricultural research and interacted with a wide range of scientists from various institutions in Australia including the Queensland Government, Agriculture Department, and the

Commonwealth Scientific and Industrial Research Organisation (CSIRO). They also closely interacted with students and actively participated in various academic activities such as seminars, guest speakers, and group discussions. Drs. Silveira and Vendramini also had the opportunity to visit Lincoln University in New Zealand and learn about their graduate program. They also visited several local beef cattle and sheep producers in Australia and New Zealand and learned about the challenges and critical issues livestock production systems are facing there.

University of Queensland ranks among the top 50 universities in the world and is the leading institution in Australia in agriculture research. University of Queensland has a strong reputation as one of Australia's top research-intensive universities, attracting more total research funds than any other Australian university. With an annual enrollment of about 50,000 students, UQ is also recognized as a leading institution in higher education in Australia. During their sabbatical, Drs. Silveira and Vendramini were affiliated with the School of Agriculture and Food Sciences in St Lucia, Queensland. The school houses more than 150 academics and is focused primarily in the areas of agriculture, agribusiness, food, plants, soil, and animal science.

During her sabbatical, Dr. Silveira worked primarily with Dr. Ram Dalal (Adjunct Professor, Soil Science) group. Dr. Dalal currently serves as the leader of the Australia National Soil Carbon Program and his team is internationally recognized for their work on soil carbon sequestration and nutrient cycling. His projects are mainly focused on increasing soil fertility through organic matter management and include assessment of carbon sequestration in grazing systems (including methods for the quantification of carbon and its forms), management strategies to improve nitrogen use efficiency, and the use of organic waste streams as inputs to build carbon stores in agricultural soils.

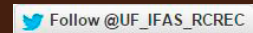


*Undergraduate Forage class.*

## IN THIS ISSUE

Featured Article	1
Staff News	2
Toxic Weed Alert	2
Ona White Angus - Field Day & Sale	3
Upcoming Events	3
UF CALS Facts & Figures	4
Recent Publications	4

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**Faculty Enrichment Abroad, continued**

Dr. Vendramini's research activities at the UQ were mainly related to a project focused on investigating the effects of density of legume tree forage (*Leucena leucocephala*) on water use efficiency. This effort was part of a PhD student project, led by Dr. Max Shelton's group. Dr. Max Shelton is internationally recognized for his work with *Leucena* and his contributions in the area of forage management. Dr. Vendramini also had the opportunity to learn about different methods and essays used to estimate N<sub>2</sub> fixation by tropical and subtropical legumes. Dr. Vendramini expects to incorporate the knowledge he acquired from Dr. Dart's group in his current research projects with warm-season legumes in South Florida.

One of the main goals of Drs. Silveira and Vendramini's sabbatical was to expand their academic qualification in these areas of forage and soil management and learn new research approaches that could be beneficial to their research and extension programs in Florida. In addition to expanding their academic interest through collaboration with a diverse group of scientists who are currently working on production- and environmental-related issues that are also relevant to Florida, they expect to use this opportunity to expand the mission of their programs at UF and create future collaborative research opportunities with UQ and other Australian institutions.



*New planting of leucena.*



*Leucena Field Day.*



*Tour to visit producers with group from Indonesia.*



*Roma Cattle Sale Yard - 7,000 animals sold per week.*



**Staff News**

**Staff Recognized for Outstanding Service**



Clay Newman was recently recognized as the 2015 UF/IFAS Range Cattle Research and Education Center Superior Accomplishment Awardee. This coming November will be 9 years Clay has been with the Center, located in Ona. As an Agriculture Assistant, he works on the farm crew assisting the herdsman and research coordinator with the cattle and land work. Those nominating Clay for the award recognized the extra effort he put forth to handle his regular duties plus ensure that cattle operations continued smoothly during our herdsman's 2 month medical

leave last spring. With roughly 700 head of cattle to manage with various research projects going on that required cattle work and pregnancy checking to be done, this was a very important role to fill. Clay will be officially recognized in December at our annual Christmas gathering.

Clay has now been nominated by the faculty and staff at the Range Cattle REC for the division-level UF/IFAS Superior Accomplishment Award in the support services category. Winners of this division-level award are usually announced around Christmas and recognized in Gainesville at a spring ceremony, where they receive a certificate, monetary award, and become eligible for the university-level award. We are thankful to have Clay on staff and wish him the best on the division-level award!

**Toxic Weed Alert**



**Creeping Indigo**  
*Indigofera spicata*

- a poisonous non-native plant that has become a concern in Florida pastures.

See the attached flyer to learn more or view the EDIS Fact Sheet at:  
<http://edis.ifas.ufl.edu/ag399>

## Ona White Angus - Field Day and Sale

A special field day was held on October 22 at the Turner Agri-Civic Center in Arcadia to highlight the Ona White Angus and provide attendees with information pertaining to beef cattle production in tropical and sub-tropical climates, the practical applications possible with the Ona White Angus, and to provide details on the sale of the herd. Videos of each of the field day speakers and a PDF copy of their PowerPoint presentation can be accessed on the UF/IFAS Range Cattle REC's website: <http://ona-rcrec.ifas.ufl.edu>. On the homepage, use the navigation list on the left side of the page, under 'Extension' to access the 'Virtual Classroom' and from there click on 'Videos' to see all the files for the Ona White Angus Field Day.

### Topics and speakers include:

Beef Production in Tropical and Subtropical Environments

– Dr. Joao Vendramini

Color Inheritance in Cattle

– Dr. David Riley

Effects of Heat Stress on Reproduction in Cattle

– Dr. Peter Hansen

Adapting Angus Cattle to Subtropical Climates

– Dr. John Arthington

Ona White Angus Sale Information Session

– Dr. John Arthington

### **Why sell?**

Presently, the genetic diversity of the herd is limited and an aggressive embryo transfer program using multiple black Angus bulls is needed to maximize the herd's growth. The best way to achieve this outcome is to transfer the herd to a new owner with the desire and resources to invest in its future and commercialize the herd

for dispersing its beneficial genetic traits throughout the world's tropical and subtropical regions.

### **Sale information**

The entire herd will be offered for sale as a single group via internet auction through Producers Cattle Auction, on January 21, at 10:00 a.m.; with a minimum reserve of \$700,000. The UF/IFAS Range Cattle REC will not retain any cattle, embryos, or semen. As of September 2015, the herd consisted of 68 mature cows, 13 yearling heifers, and 7 bulls. Prospective buyers must register with Producers Cattle Auction prior to the sale. Information is available at <http://www.producerscattleauctions.com> or by phone at 251-633-9306. For questions regarding the internet sale process and policies, contact Todd Clemons at the Okeechobee Livestock Market, 863-763-3127. At the buyer's discretion, the herd may remain at the UF/IFAS Range Cattle REC through a negotiated management/research contract. For additional information about the cattle and their sale, view the Sale Information Session video mentioned above and see the field day handout Ona White Angus, which is also available in the 'Videos' page of the RCREC's Virtual Classroom.

### **Viewing the Cattle**

If you would like to see the cattle prior to the auction, a special viewing time has been planned. Visit the UF/IFAS Range Cattle REC on December 8, between 1:00 – 4:00 pm (EST). Staff will be available to show the cattle and answer any questions.

## Upcoming Events

### **Livestock Education and Certification for Agriculture Law Enforcement (LECALE)**

- December 7-11, 2015

*Straughn Center, 2142 Shealy Drive, Gainesville*

*More information: <http://www.animal.ifas.ufl.edu/conferences/>*

### **Florida Cattlemen's Institute and Allied Trade Show**

- January 14, 2016

*Turner Agri-Civic Center, Arcadia*

### **Ona White Angus Sale**

- January 21, 2016

*Producers Cattle Auction (Online)*

### **65th Florida Beef Cattle Short Course**

- May 4-6, 2016

*Alto and Patricia Straughn IFAS Extension Professional Development Center, located at 2142 Shealy Drive, Gainesville*

### **9th Annual Youth Field Day**

- June 23, 2016

*Range Cattle REC, Ona*

### **Range Cattle REC's 75th Anniversary Field Day**

- October 27, 2016

*Range Cattle REC, Ona*



*Ona White Angus foundation cow and White Angus calf.*

### Quick Facts & Figures - 2015

- CALS is the 4th largest college at UF
- CALS is the 4th largest college of agriculture and related sciences in the country
- CALS has 23 undergraduate majors
- CALS has 6 pre-professional majors/specializations for students interested in health careers
- CALS has 22 graduate majors
- The largest undergraduate major in CALS is Biology with 565 students
- The undergraduate major with the highest percentage of female students is Dietetics at 86%
- The undergraduate major with the highest percentage of male students is Geomatics at 86%

### Recent Publications

Aguiar, A.D., J.M.B. Vendramini, J.D. Arthington, L.E. Sollenberger, N. DiLorenzo, and M.J. Hersom. 2015. Performance of beef cows and calves fed different sources of rumen-degradable protein when grazing stockpiled limpoggrass pastures. *Journal of Animal Science*. 93:1923-1932.

Davis, K.M., T. Smith, B. Bolt, S. Meadows, J.G. Powell, R.C. Vann, J.D. Arthington, N. DiLorenzo, D.L. Lalman, F.M. Rouquette Jr., G.R. Hansen, A.J. Cooper, J. E. Cloud, M.D. Garcia, A.D. Herring, D.S. Hale, J.O. Sanders, T.B. Hairgrove, T.J. DeWitt, and D.G. Riley. 2015. Technical note: Digital quantification of eye pigmentation of cattle with white faces. *Journal of Animal Science*. 93:3654-3660.

Hersom, M., A. Imler, T. Thrift, J. Yelich, and J.D. Arthington. 2015. Comparison of feed additive technologies for preconditioning of weaned beef calves. *Journal of Animal Science*. 93:3169-3178.

Mercadante, V.R.G., K.M. Waters, G.H.L. Marquezini, D.D. Henry, F.M. Ciriaco, J.D. Arthington, D. DiLorenzo, and G.C. Lamb. 2015. Effects of anti-phospholipase A2 antibody supplementation on dry matter intake feed efficiency, acute phase response, and blood differentials of steers fed forage- and grain-based diets. *Journal of Animal Science*. 93:776-785.

Mercadante, V.R.G., K.M. Waters, G.H.L. Marquezini, D.D. Henry, F.M. Ciriaco, J.D. Arthington, D. DiLorenzo, and G.C. Lamb. 2015. Inclusion and anti-phospholipase A2 antibody to backgrounding diets on performance, feed efficiency, in vitro fermentation, and the acute-phase response of growing beef calves. *Journal of Animal Science*. 93:414-424

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### ABOUT THIS NEWSLETTER

This newsletter is a publication of the UF/IFAS Range Cattle Research and Education Center (RCREC) located in South Central Florida in the heart of Florida's cattle country. Our goal is to keep you up to date on RCREC happenings, publications, research, faculty & student news, upcoming events and bring you beneficial information you can use in your beef cattle or forage operation.

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## TOXIC WEED ALERT: CREEPING INDIGO

Creeping indigo is a non-native plant that is typically found in “high-traffic” areas of pastures, roadsides, lawns, and grass parking areas. The plant contains the toxins 3-nitropropionic acid and indospicine that can potentially affect all livestock, but the most clinical cases have been documented in horses. Indospicine is the toxin

responsible for causing corneal edema, ulcerations, and non-neurologic symptoms, while 3-nitropropionic acid interferes with mitochondrial energy production and produces lesions within the basal ganglia of the brain leading to neuronal degeneration and motor dysfunction.



Creeping indigo is a prostrate plant with a very shallow or submerged crown. The perennial root is a taproot capable of growing at least 2 feet deep. Stems grow to 6 feet long and root at the nodes. Tiny appressed hairs can be observed on leaflets, stems, and seedpods.



Pink flowers are borne at the leaf axils and are in spike-like racemes. Lateral petals are longer than lower ones.



Leaves are alternate and contain 5 to 7 alternate leaflets. Scattered appressed hairs are often found on the leaflets.



Seed pods are clustered, hairy, and pointed downward. A needle-like point is commonly found at the tip of the seedpod. Each seedpod contains 4 to 8 hard seeds that can remain dormant in the soil for many years.

### Herbicides effective for creeping indigo control in pastures.

Herbicide <sup>2</sup>	Broadcast rate (oz/acre)	Spot-treatment rate (oz/gallon water)	Control <sup>1</sup>
GrazonNext HL <sup>4</sup>	24	0.5 to 1.0	E
Dicamba	32	0.5 to 1.0	G - E
Remedy Ultra	16 - 32	0.5 to 1.0	G
2,4-D Amine	64	1.0 to 2.0	G
Pasturegard HL	16 - 24	0.5 to 1.0	G - E
Metsulfuron <sup>3</sup>	0.3	0.01	E

<sup>1</sup>E = 90 to 100% control, G = 80 to 90% control.

<sup>2</sup>Be sure to read and follow the herbicide label.

<sup>3</sup>Metsulfuron should not be applied to bahiagrass pastures as severe forage injury will occur.

<sup>4</sup>Manure from animals grazing pastures treated with this herbicide should not be composted, but can be spread back onto the treated pasture.

To learn more about creeping indigo view publication number SS-AGR-395 found here <http://edis.ifas.ufl.edu/ag399> or contact your local UF/IFAS Extension county office <http://solutionsforyourlife.com/>.