

UF/IFAS

Range Cattle Research & Education Center NEWS

3401 Experiment Station • Ona, FL 33865
863.735.1314 • rcrec-ona.ifas.ufl.edu

summer 2019

IN THIS ISSUE

Graduates – Where are they now?



Fall 2016 Graduates: JK Yarborough, Juliana Ranches, and Logan Martin.

The mission of UF/IFAS College of Agricultural and Life Sciences (CALs) is to deliver unsurpassed educational programs that prepare students to address the world's critical challenges related to agriculture, food systems, human wellbeing, natural resources, and sustainable communities (<https://cals.ufl.edu/>). Since our establishment in 1941, UF/IFAS Range Cattle Research and Education Center (RCREC) faculty have been honored to work with many UF IFAS CALs's talented students, who in turn, have gone on to successful careers. It is our privilege to provide you an update on a few of them:



JK Yarborough graduated in 2016 with a Master of Science in Agron-

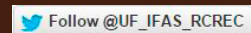
omy. During his studies, he was advised by Joao Vendramini. His thesis, "Bahagrass and Bermudagrass Response to Potassium Fertilization in Florida." JK is a UF/IFAS Multi-County Livestock and Natural Resources Extension Agent I in Orlando, FL serving Orange and Seminole Counties. He has worked there since his graduation in 2016. When asked about his work, JK had this to say, "My efforts largely revolve around helping livestock owners have better pasture. Offering soil/forage testing, identification of persistent and toxic weeds, and stressing the importance of stocking rate are some of the common issues I deal with. I've also started a refrigerator monitoring program to help ensure producer's medications are stored at proper temperatures."



Juliana Ranches graduated in 2016 with a Master of Science in Animal Science. During her studies, she was advised by John Arthington. Her thesis, "Selenium supplementation in beef cattle." Juliana continued her studies at the University of Florida as a PhD Student under the advisement

Featured Article	1
Student & Staff News	4
Faculty News	5
Recent Happenings	6
Connect With Us	7
Upcoming Events	8
Recent Publications	9

Click on the images below to check us out on:



UF UNIVERSITY of FLORIDA
IFAS

of John Arthington; her dissertation topic, "Genetic differences between copper and selenium metabolism among *Bos taurus* (Angus) and *Bos indicus* (Brahman) cattle." Soon she will graduate and relocate to Oregon where she has accepted an assistant professor position at Oregon State University, Eastern Oregon Agricultural Research Center (EOARC). Juliana had this to say about her new position, "At EOARC, I will have a 75% extension and 25% research appointment. My official starting date is December 1 however, I plan to move to Oregon as soon as I finish my Ph.D. program which will be around mid-October. My research program at EOARC will be focused on (1) identifying cost-effective nutritional strategies for cow-calf operations, (2) improving mineral nutrition of cow-calf operations, (3) identifying cost-effective, pre-weaning nutrition and management strategies to improve post-weaning calf health and performance, (4) understanding beef cattle maternal behavior and how this affects the calf at weaning, and (5) understanding and characterizing cattle and wildlife interactions to develop deterrent strategies. My extension program will be focused on helping beef cattle producers to succeed in their operations using research-based information in a multi-disciplinary setting. This will include workshops to discuss current issues in beef cattle production in Oregon; meetings of producers and extension agents to present new research findings; and reproduction, calving and weaning school where the producers will have the opportunity to participate in hands-on activities within these topics."



Jane Cant graduated in 2012 with a Masters of Science in Agronomy.

During her studies, she was advised by Joao Vendramini. Her thesis, "Micronutrients Considerations for Warm-Season Forage Grass Systems in Florida." Jane is an Agriculture Agent I at the UF/IFAS Duval County Extension Office in Jacksonville, FL. When asked about her work, Jane had this to say, "My primary responsibilities are creating educational programs, performing site visits to evaluate issues, assisting with applied research projects, and ensuring producers have access to the recent research-based recommendations on production practices. My areas of emphasis are based off input from producers and stakeholders, and include agribusiness management, livestock and equine production, forage and pasture production, and natural resource management. Agriculture Awareness and service to the community are interwoven into the major areas, and include creating educational displays, working with local schools and clubs, and providing tours that allow people the opportunity to experience food production firsthand. This career has provided numerous opportunities to help producers increase their sustainability, assist the public with developing a better understanding and respect for agriculture, and challenged me to continually learn. My major accomplishment so far has been to help cattle producers increase profitability by developing grazing plans that include annual forages and helping them find access to planting equipment."



Gleise M. da Silva graduated in 2017 with a Masters of Science in Animal Science. During her studies, she was advised by Philippe Moriel. Her thesis, "Effects of reducing the frequency

of supplementation and timing of vaccination on growth and immune response of preconditioning beef calves." In 2017, Gleise was selected as the Master Student candidate from the Animal Sciences Department and nominated for the 2017 IFAS Awards of Excellence for Graduate Research. Gleise is continuing her studies at the University of Florida as a PhD Student under Dr. Nicolas DiLorenzo at the North Florida Research and Education Center. Her studies focus on nutritional and management strategies to enhance beef cattle production. She is expected to graduate in August 2020. Afterwards, she hopes to continue conducting research with emphasis in finding strategies to minimize stress and improve immunity and performance of beef cattle.



Logan J. Martin graduated in 2016 with a Master of Science in Agronomy. During his studies, he was advised by Brent Sellers. His thesis, "Tolerance of Perennial Peanuts (*Arachis pinto*i and *Arachis glabrata*) to Pre and Postemergence Herbicides" Logan is a Territory Manager - Land Management (AL, MS, and FL Panhandle) with Corteva Agriscience out of Daphne, AL. When asked about his work, Logan had this to say, "As a Corteva Agriscience Territory Manager in the Land Management business I get the opportunity to provide vegetation management solutions and technical support for distribution partners, commercial applicators, and end users such as the Department of Defense, Department of Transportation, U.S. Fish and Wildlife Service, electrical utility providers, pipelines, municipalities, and pine or hardwood plantations. When introducing new products to the market, I partner

with local university researchers at Auburn University, Mississippi State University, and the University of Florida. Some of my favorite accomplishments since graduating from the University of Florida and starting my career with Dow AgroSciences, now Corteva Agriscience, have been participating in the launch of new products and concepts, including the launch of Enlist cotton in Texas and new selective brush control mixes in the Southeast U.S.”



Ke Zhang graduated in 2017 with a Master of Science in Wildlife Ecology and Conservation. During his studies, he was advised by Raoul Boughton. His thesis, “Coyote (*Canis Latrans*) Spatial Ecology and Interaction With Cattle (*Bos Taurus*) in the Sub-Tropical Rangelands of Florida.” Ke is continuing his studies as a PhD student at the University of Florida in Wildlife Ecology and Conservation. He had this to say about his current endeavors, “My doctoral study will start from the fall semester of 2019, with focus on movement and habitat use by colonial waterbirds in coastal Alabama.” The broad goal of this study is to understand the contributions of individual nesting colonies to a metapopulation of Ardieds

to guide restoration. My research question will address the topic of the identification of important foraging habitats for waterbirds (tri-colored heron, little blue heron, white ibis). This research will help understand waterbirds spatial behavior and identify critical habitats for waterbirds to use, and further help guide the restoration of waterbirds population in the area. The details will be decided later, but my interest is to apply genetic method and spatial analysis in answering these ecological questions.”



Joao Marcelo Dalmazo Sanchez graduated in 2018 with a PhD in Agronomy. During his studies, he was advised by Joao Vendramini. His dissertation, “Evaluation of management strategies to improve *Arachis* spp. productivity and nutritive value in South Florida.” Joao is serving in a post doctorate position at Sao Paulo State University (UNESP), Jaboticabal, SP, Brazil. When asked about his work, Joao said, “The objective of my work is to assist in the animal nutrition teaching and research programs at the UNESP Jaboticabal, under supervision of Dr. Telma Berchiel-

li. Currently, I am writing scientific manuscripts and assisting graduate students with forage evaluation techniques in animal supplementation experiments, but I have also performed presentations in congress and taught ruminant nutrition classes for graduate students.”



André Aguiar graduated in 2013 with a PhD in Agronomy. During his studies, he was advised by Joao Vendramini. His dissertation, “Grazing Management of Warm-Season Grasses in South Florida.” André is a dairy technical consultant for MidWest PMS in Firestone, CO. (17 months) When asked about his work, André had this to say, “As a Dairy Technical Consultant at MidWest PMS my job is to support and advise our clients to help them achieve their goals. We work with customized liquid supplements for dairy cows, heifers, and calves. We network with researchers, universities, the dairy industry, and service activities to communicate research and new product findings to our clients. In addition, we also conduct our original research on feed ingredients and management practices. I also have experience on robotic milking systems, therefore I advise dairy farmers on the role of nutrition through the robot and on the farm overall management and strategies. I analyze data and provide key performance indicators of how the farms are performing and highlight areas with a potential for improvement. We provide instruction and guidance to producers to support the appropriate and effective use of liquid supplementation, feed ingredients and management to improve production efficiency and profitability.”

Training Available

Beef Cattle Body Condition Scoring (BCS) Tutorial

Take this tutorial (part 1 and 2) and learn how body condition affects fertility and ultimately the profitability of your cow-calf operation. Learn how to properly score cattle and access handy resources to help you score your cattle.

[Click here](#) to take this training (recommended browsers: Google Chrome or Firefox).



Student News

Congratulations Graduates!



[Jose Luiz Carvalho de Souza Dias, Ph.D.](#)

Ph.D. Agronomy

Dissertation:

"Implementation of Integrated Management Practices to Manage Giant Smutgrass (*Sporobolus Indicus* Var. *Pyramidalis*) in Bahiagrass Pastures"

Future Plans:

Dr. Dias has accepted a postdoctoral position at the University of Wisconsin in Madison. He will begin work in September. Pictured here with his brother.



[Courtney L. Darling](#)

M.S. Agronomy - Weed Science specialization

Thesis:

Using glyphosate alone and in tank-mixes for control of grass weed species in bermudagrass

Future Plans:

Courtney will be working as an Agriculture and Natural Resources Extension Agent in Suwannee County.

Staff News

Bethany Wight Renews UAS Remote Pilot Certification

Biological scientist, Bethany Wight and Ph.D. Candidate, Wes Anderson, are certified to operate drones in their work with the Wildlife Ecology and Conservation Program; they use a DJI Phantom 4 drone. Bethany recently renewed her certification.

[Click here](#) to watch a video overview of the Center with aerial clips captured by Bethany.

Federal and University rules and requirements must be followed in drone operation. All drones over 0.55 lbs are required to be registered online with the FAA. If you are operating a drone commercially for a profit or for government operations, including research, you are required to fly under Part 107 regulations. Additionally,

you must become an FAA-certified drone pilot by taking a knowledge test to receive a UAS rated remote pilot certificate. UAS remote pilot certification is valid for 2 years at which point you must re-take the exam to maintain your pilot certification. To learn more about FAA drone (UAS)

regulations [click here](#). If you are operating a drone in association with the University of Florida (UF) you also need to register online in the UF system and request a flight permit in advance of operating your drone. To learn more about UF's drone policies and/or register your drone or apply for a permit, [click here](#).



Above is a mosaic created from drone aerial imagery after a prescribed burn in March 2017 of Woods 4 Unit 1 at the center (constructed from approximately 400 images). Aerial maps of burns are important for relating to productivity in native grasslands and grazing behavior of cattle.

Faculty News

Faculty Promotions

Congratulations to [Maria Silveira](#) and [Joao Vendramini](#) who were promoted to the rank of professor as of July 1.



Teaching Abroad - Brazil

In July, [Maria Silveira](#) and [Joao Vendramini](#) taught a 2-week short course in Brazil at São Paulo State University in Jaboticabal, Brazil. Joao taught, "Methods of forage evaluation" and Maria "Topics in Soil Science and Environmental Nutrient Management." The short course was attended by 17 students and 4 postdoctoral associates.



Teaching Abroad - Australia



Pic. 1. Oldest Gondwana Rainforest.



Pic. 2. Black striped wallaby.



Pic. 3 Tree-kangaroo rescue Center.

In partnership with Steve Johnson (UF/IFAS Dept. of Wildlife Ecology & Conservation, Gainesville), [Raoul Boughton](#) led a study abroad program to the tropics of Northern Australia Queensland during May and June. The focus of the course was Australian Vertebrate wildlife and the group travelled over 1,242 miles learning about threats to fauna and the habitats they live in. The interaction of wildlife and grazing at the [Wambiana Station](#) was a highlight for the students.

There they learned how vertebrate biodiversity is measured through a variety of survey techniques including, pitfalls, trapping, spotlighting, and observation (Pic 1). While there they saw an elusive black-striped wallaby (Pic. 2).

Another highlight was spending a day working at the tree-kangaroo rescue center as volunteers. Students especially enjoyed meeting and working with this very unique species (Pic. 3). Their main threats are habitat loss and

road kills as individual tree-kangaroos disperse between remaining patches of forest.

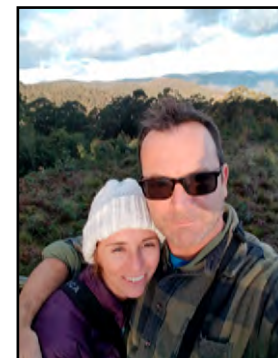
An unexpected wildlife phenomena occurred while visiting a park in the small town of Charters Towers to view the little red and the large black fruit bats or flying foxes of Australia (pic. 4). Where typically one would see a few

hundred to a couple of thousand bats, in this occurrence we estimate there were close to 500,000 fruit bats leaving the roost. [Click here](#) to view video clip.

After the study abroad program, Raoul Boughton and his family spent time in the much cooler climates of south Australia camping and hiking in remote national parks (Pic. 5).



Pic. 4. Bats at roost.



Pic. 5. Betsey & Raoul

Recent Happenings

2nd Annual Nutrition for Beef Females Program



This event was held on May 23, May 30, and June 6 in Hendry, Polk, and Okeechobee counties and focused on nutritional and reproductive strategies to boost the reproductive success of beef heifers. A total of 122 people attended the trainings. Post-training evaluations reported a knowledge increase of 62% on impacts of age at puberty on heifer performance, 96% on supplementation strategies for beef heifers, and 71% on reproductive strategies to induce puberty in beef heifers. In addition, a face-to-face, interactive body condition score training was again available at the end of the program. Overall, the percentage of people selecting the correct body condition score increased from 42.9% to 64.1%. Questions, contact: [Philippe Moriel](#)

Florida Cattlemen's College



On Thursday, June 20, 2019 faculty from the UF/IFAS Range Cattle Research and Education Center hosted

the Florida Cattlemen's College at the Florida Cattlemen's Association Annual Convention in Marco Island, Florida. This year's focus was on economics, animal performance, and soil fertility. The program was sponsored by the Florida Cattlemen's Association.

Sixty-five producers from around the state of Florida and the southeast attended the Cattlemen's College to hear experts in their field present informative talks. This year's presentations included, 'Long-Term Economic Trends in the Beef Cattle Industry,' 'Beef Cattle Market Outlook,' 'Impact that Shade has on Animal Performance,' and 'Identifying the Factors Leading to Bahiagrass Decline in Florida's Pastures.' Of the sixty-five producers who attended, twenty-three completed an evaluation. Based on those completed evaluations, producers in attendance reported an economic benefit of \$625 per cattle and forage operation from the education they received from this program. Therefore, the calculated economic impact this program had on Florida's Beef Cattle and Forage Producers was \$40,625. Questions, contact: [Chris Prevatt](#)

North Florida Livestock Agents Group Annual Livestock and Forage Field Day



Brent Sellers and Chris Prevatt presented at his event held in Alachua on July 25, 2019. Brent led a pasture walk on weed identification and Chris presented on Forage Economics and Risk Management. Questions, contact: [Chris Prevatt](#) or [Brent Sellers](#)

New Extension Specialist Cattle & Forage Tour

Chris Prevatt participated in this event held in North Florida during the week of July 29th. Over the course of 3 days, the group toured 15 operations across Jackson, Washington, and Holmes Counties. The objective of the tour was for agents and specialists to come together on farms and ranches in the Panhandle and hear from producers about the management practices that are working for them on their operation. New extension projects, demonstrations, and collaborations between producers, agents, and specialists will come from the time spent together. Questions, contact: [Chris Prevatt](#)



Group photo: Marcelo Wallau, Mark Maudlin, Angela Gonella-Diaza, Jose Dubeux, Chris Prevatt, Cheryl Mackowiak, Diego Giorello, Visiting Professor from Uruguay, and Doug Mayo.

Forage Workers Tour



On August 14-15, the 2019 Forage Workers Tour was held in Fort Pierce giving UF/IFAS faculty an opportunity to visit outstanding beef and dairy producers in South Florida. Special thanks to Mike and Rob Adams, Frank Lewis and Alec Wynne, and Colleen Larson for the tours and hospitality and to Lauren Butler for coordinating the program. Questions, contact: [Joao Vendramini](#)

CONNECT WITH US

Articles Published in The Florida Cattleman & Live-stock Journal:

Ona Reports

“Warm-Season Forage Mixtures for Pasture Establishment” by Joao Vendramini and Lynn Soltenberger, September 2019

“Controlled fire and grazing in South Florida pastures” by Britt Smith and Raoul Boughton, August 2019

“The Economics of Grazing Cool-Season Annual Forages” by Chris Prevatt, July 2019

Florida Cattle Market Price Watch

This helpful resource is provided monthly by Chris Prevatt, State Specialized Agent II, Beef Cattle and Forage Economics.

View a complete listing of past reports on our website at: <http://rcrec-ona.ifas.ufl.edu/florida-cattle-market-price-watch/>

View these and other publications on our website at: <http://rcrec-ona.ifas.ufl.edu/publications/>

New Videos:



Smutgrass and Haylage Field Day Held June 27, 2019

- Management Practices to Improve Warm-Season Grass Haylage Quality, Joao Vendramini

- Smutgrass Control in Pastures, Brent Sellers

- Weed Wiper Basics, Brent Sellers

- Grazing Smutgrass, Aaron Stam

Field Site Visits:

- How to use a microwave to test hay dry matter concentration

- Haylage baling and wrapping demonstration

- Smutgrass Study, site 1

- Smutgrass Study, site 2



Happy 107th Birthday Dr. Elver Hodges!

Dr. Hodges, the first agronomist at the Center, began his career at Ona in 1941. Learn about his interesting life and work in ‘A Conversation with Dr. Elver Hodges.’ This collection of 4 videos was recorded on January 10, 2013 at the UF/IFAS Range Cattle Research and Education Center in an interview with Al Williamson of UF/IFAS Communications. [Click here](#) to watch now.

All of these videos can be accessed on our website at <http://rcrec-ona.ifas.ufl.edu/virtual-classroom/>

FIELD DAY Join us on Oct. 24!

Registration is now open for our Oct. 24th field day – just 7 weeks away! By tradition, this large event is held every 18-months alternating between fall and spring to showcase research that may be season specific. This year’s topical focus is forage and a special announcement will be made about a new variety soon to be released. The full day program (see the schedule in the flyer) begins

at 8:00 a.m. with sponsor booths and student poster displays to visit, followed by morning talks under the tent with guest speakers and faculty presentations. There will be a steak lunch to enjoy at noon, prepared by the Cloverleaf Foundation of Hardee County, followed by a wagon ride to the field for experimental site, faculty presentation of their Beef Enhancement Projects. The day will conclude around 3:00 p.m.

If you’ve never visited the Center this is an excellent time to see the facility,

meet the faculty, staff, and students, and learn about all the work being done to fulfill our mission to provide science-based information to address challenges affecting owners and managers of grazinglands.

The registration fee (general ticket: \$20, college student ticket: \$10) includes morning refreshments, a steak lunch, and a copy of the field day proceedings. Pre-registration ends on Oct. 17th after which the price will increase; don’t miss the deadline! *(Continued on page 9)*

Listen or download the latest **Joe What? Podcasts:**



- Marcus Shackelford of Rocking S Ranch in Wauchula, about the history and improvement of the Brahman breed in Florida. (Run time: 15.01 min.)



- Dr. Liz Steele of Ridge Large Animal Veterinary Services, Lake Placid and Steele Equine Veterinary Services & Performance Horse Center of Zolfo Springs. They discuss the importance of vaccination programs for cow-calf production in Florida. (Run time: 14.39 min.)



- Audy Spell of Mobile, AL. They discuss opportunities for embryo transfer in beef cattle. (Run time: 8.09 min.)

These monthly podcasts can be found on:

[Podbean](#) [YouTube](#) [UF/IFAS Range Cattle REC Website](#)

Ona Highlights

Save the date and join us for an upcoming Ona Highlight webinar. These informative presentations are held in the Grazinglands Education Building each month. They begin at 11:00 a.m. and last about 45 minutes. To attend in person, call 863-735-1314 and to attend by webinar, access the registration links online [here](#).

Recent recordings:

'2019 Issues and Initiatives of the Florida Cattlemen's Association' - Matt Pearce and Jim Handley of the Florida Cattlemen's Association, 8/13/2019

'Warm-Season Forage Mixtures for Pasture Establishment' - Professor, Joao Vendramini, 7/2/2019

'Implementation of Integrated Management Practices to Manage Giant Smutgrass (*Sporobolus Indicus* Var. *Pyramidalis*) in Bahiagrass Pastures' - Ph.D. Candidate, José Luiz Carvalho de Souza Dias, 6/11/2019

Past webinars (video recordings and a PDF of the slides) are available on the RCREC website, in the [Virtual Classroom](#).

Upcoming Events

Ona Graduate Student Highlight with Juliana Ranches

- Sept. 10, 11:00 - 11:45 AM
Juliana will be presenting, "Differences on Selenium and Copper Metabolism between Brahman (*Bos indicus*) and Angus (*Bos Taurus*) cattle." [Click here to register.](#)

Ona Animal Science Program Highlight with Philippe Moriel

- Oct. 8, 9:00 - 11:00 AM
Philippe will be presenting, "Fetal Programming Studies in Florida." [Click here to register.](#)

UF/IFAS Range Cattle REC Field Day

- Oct. 24, 8:00 AM - 3:00 PM
UF/IFAS Range Cattle REC, Ona.
[Click here to view the flyer.](#) To register, [click here.](#)

Alvin C. Warnick Reproductive Management School

- Nov. 5-7, 11:00 - 11:45 AM
26111 Turpentine Still Rd., Sidell.
[View the brochure for details and registration information.](#) [Click here to register.](#)

Ona Long-Term Agroecosystem Research (LTAR) Highlight

- Nov. 12, 11:00 - 11:45 AM
Join us for an update on the UF/IFAS RCREC LTAR Project, "Assessing the Effect of Prescribed Fire Frequency and Association with Chopping on Sustainability of Southern Florida Rangelands" presented by postdoctoral associate Marta Kohmann. [Click here to register.](#)

Ona Graduate Student Highlight with Liz White

- Dec. 10, 11:00 - 11:45 AM
Liz will be sharing about her work with burrowing owls." [Click here to register.](#)

Florida Cattlemen's Institute and Allied Trade Show

- Jan. 16, 11:00 - 11:45 AM
"Ranching in the year 2020 and beyond"
Turner Agri-Civic Center, 2250 NE Roan Street, Arcadia. For more information contact Bridget at 863-519-1048. Registration is free; for event details and to register visit Eventbrite, [click here.](#)

(Field Day... Continued on from page 7)

To pay by credit or debit card, register on Eventbrite (FYI: a \$2.85 Eventbrite fees per ticket will be added): [click here](#)

To pay by check, call 863-735-1314 ext. 204.

Hope you can join us for this great event!



Recent Refereed Publications

Alencar, N. M., Vendramini, J. M. B., Dubeux Jr, J. C. B. dos Santos, A. C., Sanchez, J. M. D., da Silva, H. M., Silveira, M. L., Sousa, L.F., and Neiva, J. N. M. (2019). Impact of Leaf and Stem Proportions on Dry Matter and Crude Protein In Situ Disappearance of Rhizoma Peanut Genotypes. *Crop Science*, 59, 1815-1821.

Borges, B.M.M.N., Bordonal, R.O., Silveira, M.L., Coutinho, E.L.M. 2019. Short-term impacts of high nitrogen fertilization on soil carbon dynamics in a tropical pasture. *Catena*, 174, 413-416

Boughton, R. K., Allen, B. L., Tillman, E. A., Wisely, S. M., & Engeman, R. M. (2019). Road hogs: Implications from GPS collared feral swine in pastureland habitat on the general utility of road-based observation techniques for assessing abundance. *Ecological indicators*, 99, 171-177.

Cooke, R.F., Moriel, P., Cappellozza, B.I., Miranda, V. F. V., Batista, L. F. D., Colombo, E. A., Ferreira, V. S. M., Miranda, M. F., Marques, R. S., and Vasconcelos, J. L. M. (2019) Effects of temperament on growth, plasma cortisol concentrations and puberty attainment in Nelore beef heifers. *Animal*, 13, 1208–1213.

Merrill, M. M., Boughton, R. K., Lollis, L. O., Saylor, K. A., & Wisely, S. M. (2019). Epidemiology of Bluetongue Virus and Epizootic Hemorrhagic Disease Virus in Beef Cattle on a Ranch in South-Central Florida. *Vector-Borne and Zoonotic Diseases*. <https://doi.org/10.1089/vbz.2018.2406>

Moriel, P., Artioli, L. F. A., Piccolo, M. B., Miranda, M., Ferreira, V. S. M., Antunes, L. Q., Bega, A. M., Miranda, V. F. B., Vieira, J. F. R. L., and Vasconcelos, J. L. M. (2019) Effects of low-moisture, sugarcane molasses-based block supplementation on growth, physiological parameters, and liver trace mineral status of growing beef heifers fed low-quality, warm-season forage. *Translational Animal Science*, 3, 523–531.

Moriel, P., Cappellozza, B. I., Piccolo, M. B., Cooke, R. F., Miranda, M. F., Batista, L. F. D., Carvalho, R. S., Colombo, E. A., Santili, F. V., Filho, R. V. O., Ferreira, V. S. M., and Vasconcelos, J. L. M. (2019) Pre- and post-weaning injections of bovine somatotropin to optimize puberty achievement of *Bos indicus* beef heifers. *Translational Animal Science*, 3, 443–455.

Moriel, P., Vendramini, J.M., Carnelos, C., Piccolo, M.B., & Silva, H.M. (2019). Effects of monensin on growth performance of beef heifers consuming warm-season perennial grass and supplemented with sugarcane molasses. *Tropical Animal Health and Production*, 51, 339-344.

Vedovatto, M., Moriel, P., Cooke, R., Costa, D., Faria, F., Neto, I. M. C., Pereira, C. S., Bento, A. L. L., Almeida, R. G., Santos, S. A., and Franco, G. L. (2019) Effects of a single trace mineral injection on body parameters, ovarian structures, pregnancy rate and components of the innate immune system of grazing Nelore cows synchronized to a fixed-time AI protocol. *Livestock Science*, 225, 123-128.

E NEWS AVAILABLE

Help us protect the environment and reduce expenses by receiving this and other publications from us by e-mail. Give us a call (863-735-1314) or click the link below to let us know you would like to receive electronic mailings.

Subscribe to E News
via ona@ifas.ufl.edu

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.

CONTACT INFORMATION

UF/IFAS Range Cattle Research and Education Center
3401 Experiment Station, Ona, FL 33865
Phone: 863-735-1314
Fax: 863-735-1930
E-Mail: ona@ifas.ufl.edu
Website: <http://rcrec-ona.ifas.ufl.edu>
Newsletter Contact: Andrea Dunlap

