

UF/IFAS

Range Cattle Research & Education Center NEWS

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IN THIS ISSUE

Extension and Applied Research: Valuable Services to Beef Cattle Producers

by Dr. Cassio Cassal Brauner, associate professor/exchange visitor



Dr. Cassio Brauner

During the past 12 months, I have completed a J-1 exchange visitor program with University of Florida as a Research Scholar, working with Dr. Philippe Moriel in his Beef Cattle research, extension, and teaching efforts at the UF/IFAS Range Cattle REC (RCREC). I will soon return to Brazil where I am an Associate Professor at the Federal University of Pelotas. My research there involves cattle nutrition, reproduction, and metabolism, with primary activities involving teaching and research. During this time working at the RCREC, I was involved in several important activities that I believe potentially impact the cow-calf enterprise in Florida. At first, Dr. Moriel's research program was the main focus that brought me to this center; leading me to participate and work in several trials since my arrival. I was expecting those opportunities, and I was aware of the objectives of the studies as well as their status, but

what impressed me the most was the application of research results through extension activities. One of the reasons that I was surprised is that, in Brazil, unlike the US, the beef cattle extension service is a separate part of universities, and not the researcher's primary goal. In Brazil, extension state offices are responsible for finding new information and answering beef producer's concerns. As a result, there is a distance between what researchers are focusing on and the real needs of producers.

At the UF/IFAS RCREC, I participated in some extension programs involving the community, including the annual youth field day and a local high school group's visit. We helped ordinary people better understand beef production systems, the practices involved, and the development of technologies that add value to all the work involved in beef cattle production. I witnessed various trainings and helped host some visits by producers to the UF/IFAS RCREC that allowed their production challenges to be addressed by applied research. The monthly event "Ona Highlight" provides substantial information directly to producers and stakeholders through a live Zoom broadcast. As a guest presenter in September 2023, I shared about my work in Brazil's beef cattle industry, particularly about the environmental and nutritional

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challenges and the possible opportunities provide by those challenges. By participating in Dr. Moriel's Program through visits to producers, lectures, and trainings, it was possible to observe the direct demonstration of research results developed at the UF/IFAS RCREC, which has great potential for adoption by producers such as byproducts (bakery waste) use in heifer development strategies and initial results of ongoing research involving the impacts of heat stress on beef cows.

Another example of applied research was presented in one of Dr. Moriel's recent publications, which consisted of a vast dataset of historical research at the UF/IFAS RCREC itself over several years. It was found that, taking into consideration a body condition score (BCS) of 1 to 9 scale, cows with BCS < 5 during the prepartum period (~90 days) must receive supplementation aiming for a satisfactory reproductive performance during

the following breeding season. On the other hand, cows with BCS > 5 should receive supplementation if the producer aims to increase the growth and performance of calves after birth without significantly impacting the reproductive efficiency of the cows. These results allow beef cattle producers the option to decide whether or not to use the supplementation, as well as which animals and what results should be expected. Thus, ranchers can save financial resources and labor, increasing the return on investment at the end of the reproductive season and sometimes during weaning.

In summary, close proximity to producers and the knowledge of their different realities and needs through solid extension work, facilitates the direction towards practical and applied research. Adding to this the participation and engagement of students can build a solid environment that collaborates well with their

training.

I, therefore, believe that these factors will be a priority in my return to Brazil and the continuation of my career. Seeking to understand better the needs of producers, to develop research in response of those needs, and develop an effective extension program to improve results in the cow-calf industry. Furthermore, considering the remarkable similarities in environment, animal genetics, and production systems between southern Brazil and Florida, I will seek to continue counting on the direct participation of Dr. Moriel and other professors from this center. I hope to continue our cooperative work with the exchange of research results, as well as students and all other valuable information and experiences.

Questions, contact Dr. Brauner at cassiocb@gmail.com.



Dr. Brauner and PhD student Vinicius de Souza Izquierdo, teach Hardee High School students about heifer development (4/1/24).



September 2023 Ona Highlight guest presenter, Dr. Brauner (9/12/23).

Center News

Students Visit - 4/1

One hundred twelve biology honors and agriculture students and 5 staff with Hardee Sr. High School visited the center. They completed 5 class sessions: heifer development, importance of nutrition to fetal development and profitability, UF CALS majors and possible careers, toxicity of substances and pasture weed management, and use of game cameras in wildlife research.



Center News (continued)

Solar Eclipse - 4/8

With viewing glasses, some of our folks made it outside to catch a glimpse of the partial solar eclipse. in April. It was really cool!



Ranching Foundations Program - 4/26

Hosted at the Center by the South Florida Beef Forage Program (SFBFP), there were approximately 40 in attendance. Breakout sessions included 'Calf Care' with Colleen Larson, 'Heifer Management' with Lauren Butler, 'Cow Management' with Laura Bennett, and 'Bull Breeding Soundness Exam and Management' with Dr. LuJean Waters. During lunch Dr. Chad Carr spoke on 'The Legalities of Selling Meat' and Colleen Larson shared about a 'Rapid Pregnancy Test for Cattle.'



Dr. Carr presents during lunch in the UF/IFAS RCREC Grazinglands Education Building.

New Study Underway

Coyotes began expanding into Florida in the 1960s and by the 1990s were abundant throughout the state. In a partnership between the UF/IFAS Range Cattle REC Rangeland Wildlife Ecology Lab and USDA Wildlife Services, we captured and fitted GPS collars to 15 adult coyotes on the UF/IFAS DeLuca Preserve in Osceola County, Florida. They will be tracked for one year. Our goal is to learn more about what drives coyote movement behavior (e.g., habitat, food availability, etc.) by tracking where they go and what they do over the course of the year.

We will also learn how they interact with turkey and cattle. At the DeLuca Preserve there is an ongoing study that is using GPS telemetry on turkeys. We are collaborating with that project to look at turkey-coyote interactions. For cattle we are most interested in understanding how coyotes use pastures during calving, we don't currently have a way to track cattle movement at DeLuca (but we are hopeful that there might be virtual fencing at DeLuca at some point in the near future, this would give us locations of cattle). We are interested in how coyotes respond to other wildlife, but these interactions are less direct, more like how coyotes behave and use areas that deer most use. We will be able to estimate the areas that other wildlife use from our game camera network at DeLuca.

We are excited to see what we can learn about coyotes at the DeLuca Preserve. Any questions about this



project or coyotes in general can be directed to Hance Ellington (e.ellington@ufl.edu).

Note: All coyotes were safely captured and handled using techniques approved by institutional animal care and use committee by trained professionals on our team.

Publication Receives Honor



The paper "[Removing maternal heat stress abatement during gestation modulated postnatal physiology and improved performance of Bos indicus-influenced beef offspring](#)" authored by UF/IFAS Range Cattle REC faculty and students - Vinicius S. Izquierdo, João V. L. Silva, Giovanna C. M. Santos, João M. B. Vendramini, Philippe Moriel and others was selected by the UF Office of the Dean of Research/Florida Agricultural Experiment Station as a High Impact Publication. It and the UF authorship team will be recognized at the 17th Annual Florida Agricultural Experiment Station Research Awards Ceremony on May 15.

About heat stress, Dr. Moriel states, "Heat stress is detrimental to animal performance, health, and welfare leading to annual losses of over \$1.2 billion for dairy, beef, and swine industries in the U.S. Heat stress will always exist and might get worse in the future. Therefore, our goals are to identify similar strategies and minimize the length of stress exposure during gestation needed to improve cattle comfort while achieving similar benefits to calf growth and health, as reported in this novel study."

Center News (Continued)

Weather News-

Dry and hot pretty much sums it up. Last occurrence of rainfall was April 24, when 0.09" was received. Prior to that, on April 11, we received 0.16" and on April 3, 0.33".

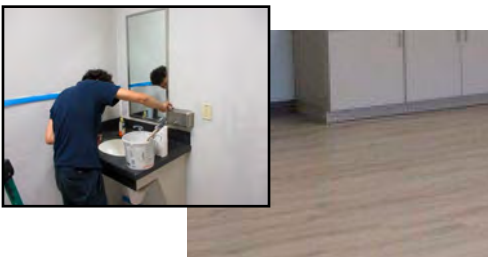
Month	Total rainfall	Maximum temperature (F°)	Minimum temperature (F°)
January 2024	5.54"	85	38
February 2024	2.75"	85	41
March 2024	1.44"	87	47
April 2024	0.58"	91	47

Weather data is collected daily from [FAWN](#).

UF/IFAS RCREC annual Climatological Reports [can be viewed on our website](#) for 2000 through 2023.

Farm Renovations Completed

In February, new flooring was installed in the farm breakroom and a fresh coat of paint applied to the walls (image: David Magana painting). Additionally, our cattle squeeze chute, in use since 2007, was replaced (image: Clay Newman, Jeff Steele, and Dennis Kalich). These welcomed improvements were much needed. Photos provided by Dennis Kalich and Julie Warren.



Faculty News

Cattlemen's Roundtable Held in Okeechobee

On Feb. 21 at 11:00 a.m. a Cattlemen's Roundtable was held at the Okeechobee Livestock Market offering an open discussion on beef cattle nutrition with Dr. Philippe Moriel, UF/IFAS Range Cattle REC's beef cattle nutrition and management specialist. The event was organized by Lauren Butler with Okeechobee County Coop Ext Service and sponsored by Walpole Feed.



Hannah Baker, State Specialized Extension Agent II - Beef & Forage Economics, recent talks:

SFBFP Repro School held April 16-18 "[The Economics of Reproductive Efficiency](#)"

Central Florida Livestock Agents Group (CFLAG) Pasture Management School held April 22-23 "[Establishing Bahiagrass: The How-To & Costs](#)"

See these presentations and more helpful resources on her [webpage](#).



Staff News

In the Community



Andrea Dunlap and Dr. Tenzy Mncube

On April 3, Andrea Dunlap and Dr. Temnotfo 'Tenzy' Mncube had the pleasure of serving as judges at the 69th State Science and Engineering Fair in Lakeland. They saw many impressive projects and enjoyed speaking to the remarkable students who had completed them and were eager to share what they learned.

The State Science and Engineering Fair (SSEF) of Florida is an annual three-day display of science project exhibits prepared by aspiring scientists and engineers in grades 6 through 12. More than 900 Finalists display projects illustrating their research in competition of awards. The main objectives of the SSEF are to: Recognize scientific talent in young people; Introduce students to organized research; Provide teachers a forum for the exchange of ideas; and Focus attention on STEM (science, technology, engineering and mathematics), thus stimulating student, teacher, and public interest. Learn more: <https://ssefflorida.com/>.

Staff News (Continued)

Professional Development Field Trip - Lightsey Cattle Company

On April 22, 17 UF/IFAS faculty, staff, and students had the pleasure of spending Earth Day with Mr. and Mrs. Cary Lightsey and two of their granddaughters at Brama Island in Lake Kissimmee for a professional development field trip. They learned about their family history, cattle operations, and conservation efforts along with a little Brama Island history. They saw wildlife, native woodlands, and some native American artifacts found on the island. It was a really awesome day! Visit our [Facebook page](#) to see more photos.



Student News

Travel Award

Vinicius Izquierdo was selected as the recipient of the 2024 H. Allen Tucker Graduate Student Travel



Scholarship. This travel scholarship is from the American Society of Animal Science and will provide funds to attend the 2024 American Society of Animal Science and Canadian Society of Animal Science annual meeting, which will happen in Calgary, Alberta, Canada, on July 21-25, 2024.

Vinicius is a PhD student in the UF Animal Sciences Department advised by Dr. Philippe Moriel.

Students attend UF's Graduate Student Research Day

On April 2, Seyed Biazar and Julian Avila Bernal attended the Graduate Student Research Day in Gainesville and participated in the poster competition, and presented their projects entitled "Evaluating Agricultural Best

Management Practices on Groundwater Quality in Subtropical Grazing Lands of Florida" and "Climate-Smart Agricultural Practices impact on soil and grassland ecosystem functions," respectively. It was a great opportunity to share their research.

Pictured below are Seyed and Julian with Namrata Ghimire, biological scientist in the UF/IFAS RCREC Soil and Water Science Program.

Julian is advised by Dr. Maria Silveira and Seyed by Dr. Golmar Golmohammadi.



Graduate Students Honored

In April we celebrated our graduate students during 'Graduate Student Appreciation Week,' Apr. 1 - 5 with a special luncheon.

Pictured here are those who attended: Maxwell Naah (exchange visitor; scholar), Joao Lazarin (MS student), Chadwade Anderson (MS student), Nikitha Kovvuri (PhD student), Miranda Imeri (Exchange visitor; scholar), Sophie Mirotnik (Intern), Vinicius Izquierdo (PhD student), and Julian Bernal (MS student).



Student News (Continued)

Rangeland Wildlife Program News

Zach Holmes graduated on May 5, 2024, with his Master of Science degree from the College of Agriculture and Life Sciences in the Department of Wildlife Ecology and Conservation. His thesis focused on vegetation characteristics across pasture types and avian use in response to land management strategies on active cow-calf operations in south-central Florida. As grassland avifauna continue to decline throughout the world (including Florida), it is important to understand how management strategies on cow-calf operations impact grassland species occupancy and the vegetation characteristics they rely on. Zach hopes this work will aid future managers in understanding cow-calf operations from the perspective of grassland avifauna use and will help meet the goals and objectives for grassland birds of conservation concern. Zach was advised by Dr. Hance Ellington and conducted his research at the Range Cattle Research and Education Center, Hardee County and the DeLuca Preserve, Osceola County. Zach is starting a short-term position with the Florida Fish and Wildlife Conservation Commission to help conduct a state-wide census of the threatened Florida scrub-jay population on all publicly managed lands, while he actively searches for a PhD position.



In April, two undergraduate interns with Dr. Hance Ellington's Rangeland Wildlife lab presented a poster on their translations of wildlife extension documents to Spanish. This internship was part of the Active Learning Program at UF. Students are Darwin Ge (left) and David Arceo Zamora (right).



Also this month, the Rangeland Wildlife Ecology lab team attended the Florida Wildlife Society conference in Cape Coral, FL. Alex Furst, Miranda Imeri, and Christian Kammerer shared posters of their work and Zach Holmes presented. (Image: the team at the conference)



Upcoming Events

View our online calendar for more info on events and links to register:

<http://rcrec-ona.ifas.ufl.edu/calendar-of-events/>

Ona Highlight - 'Nutritional Impacts on Beef Cow Reproduction'

with Dr. Philippe Moriel

- May 21, 11:00 - 11:45 AM

Ona Highlight - 'Invisible Fence'

with Dr. Joao Vendramini

- June 11, 11:00 - 11:45 AM

15th Annual Youth Field Day

Questions, contact us at ona@ifas.ufl.edu

- June 27, 8:00 AM - 2:00 PM

Ona Highlight - 'Wild Pig Management by Producers: Survey Results'

with Dr. Hance Ellington

- July 9, 11:00 - 11:45 AM

Ona Highlight featuring the Florida Cattlemen's Association

with Pres. Dale Carlton

- August 13, 11:00 - 11:45 AM

Field Day - SAVE THE DATE!

- October 10, 8:00 AM - 3:00 PM

Research presentations, field tour, learn about student research, and enjoy a steak lunch.

Details coming in the summer!

Questions, contact us at ona@ifas.ufl.edu

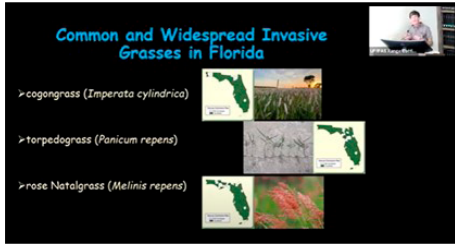


800 yr. old oak tree on Brama Island

CONNECT WITH US

Ona Highlight Recordings

Save the date and join us for an upcoming Ona Highlight by Zoom broadcast. These informative presentations are held each month. They begin at 11:00 a.m. and last about 45 minutes. See our online calendar for upcoming webinars, [here](#).



Recordings of recent webinars:

Mar. 2024
 'Grasses Gone Bad: Emerging Invasive Grasses' with Marc Frank and Dr. Brent Sellers

Apr. 2024
 'An Update on Biosolids Research' with Dr. Maria Silveira

Ona Reports - published in the Florida Cattleman & Livestock Journal:

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



Mar. 2024
 'Virtual Fence - A potential new tool for grazing lands management in Florida' - Dr. Joao Vendramini

Apr. 2024
 'The Emerging Threat to our Native Rangeland Wildlife, the Argentine Black and White Tegu' - Alex Furst, MS Student and Dr. Hance Ellington

May 2024
 'Nutritional Impacts on Beef Cow Reproduction' - by Dr. Philippe Moriel

Caught on Camera:

This feature is assembled by the UF/IFAS RCREC Rangeland Wildlife Ecology Program with images collected from RCREC game cameras mounted throughout the property near Ona, FL. View online this and previous editions: [click here](#).



Florida Cattle Market Update - published in the Florida Cattleman & Livestock Journal:

View these on Hannah's webpage: <https://rcrec-ona.ifas.ufl.edu/about/directory/staff/hannah-baker/>

This is a new monthly feature provided by Hannah Baker, state specialized extension agent II in beef and forage economics. At the link above see 'Florida Cattle Market Update' dropdown menu. Questions? Contact Hannah at h.baker@ufl.edu or 863-374-7051.

Feb. 2024
 - 'Characteristics of beef cow operations in Florida, 2022 Ag Census'

Mar. 2024
 - 'Current and Future Feedlot Inventories'

Apr. 2024
 - 'Feedlot Happenings, Carcass Weights, and Beef Supply'



15th Annual Youth Field Day to be held June 27 - 8:00 a.m. - 2:00 p.m.

Students ages 8 – 18 with their parent, guardian, or youth leader are invited to attend! Like to draw? Check out our 2025 t-shirt design contest. What will this event be like? Watch this video with highlights from our 2023 event! Space is limited. To learn more and register visit: <https://rcrec-2024-yfd.eventbrite.com> or [click here](#) to view these fliers on our website calendar.

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UF/IFAS RANGE CATTLE RESEARCH AND EDUCATION CENTER

15th Annual Youth Field Day

THURSDAY
June 27

2024 CLASS TOPICS

- Ultrasound Technology to Assess Carcass Quality
- Artificial Intelligence and Robotics for Pest Control
- Invasive Reptiles in Florida
- Fetal Development of the Beef Calf & Cow Nutrition: Is Supplementation Profitable?
- From Sand to Clay: Evaluating Soil Textures

Check-in
7:30 a.m. - 8:30 a.m. Registration Kiosk
8:00 a.m. - 9:35 a.m. Class Rotations & Lunch
10:00 a.m. - 2:00 p.m.

Location:
3401 Experiment Station
Ona, FL

Students, ages 8 and up, parents, & youth leaders, are invited to attend! The goal of this event is to excite students about agriculture and science, reveal future opportunities in those fields, and foster a love of learning which will promote agriculture and food stewardship in this and future generations. Register by 6:00 to provide a t-shirt.

Questions?
Call 863-735-1314 or ona@ifas.ufl.edu

For more information & to register visit: <https://rcrec-2024-yfd.eventbrite.com>

April 19 - June 6: \$15
June 7 - June 25: \$20

This year's t-shirt!

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Range Cattle Research & Education Center

2024 UF/IFAS Range Cattle REC Youth Field Day T-SHIRT CONTEST

Contest Rules

- Only one (1) entry per person, open to all ages.
- All entries must include "UF/IFAS Range Cattle REC Youth Field Day", "Ona, Florida" and the year "2025" in the design.
- Designs must be in black ink or pencil.
- Approximate dimensions: 12" wide x 14" high.
- Submit a high-resolution scan or photo of your design as a jpg file with your t-shirt design release form to ona@ifas.ufl.edu by June 25.

This year's Youth Field Day attendees will get to view all the entries and vote for their favorite during the morning check-in time and the winner will be announced at the end of the day. The Field Day Committee will choose the best t-shirt and imprint color for the winning design. Imprint will be in one color, either black, white, orange, or blue, dependent upon the t-shirt color. Prizes: 1st place- Design will be featured on the 2025 Youth Field Day shirt and booklet, receive a free t-shirt in 2025, and a UF Black & Reddie Club cap. 2nd and 3rd place winners will also receive prizes.

Click here to register for the June 27th Youth Field Day: <https://rcrec-2024-yfd.eventbrite.com>
Enter the t-shirt design contest! Scan the QR code below for the contest entry form.

This year's t-shirt was designed by Maddalen Turner!

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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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University of Florida News

<https://news.ufl.edu/>

Florida Teacher Institute - Applications now being accepted

In collaboration with the Department of Agricultural Education and Communication, CALS offers a weeklong residential program July 7-12 for non-agriculture teachers to learn more about incorporating agriculture and natural resources in their lessons. Throughout the week, teachers will engage in a variety of visits and workshops to learn about the many facets of agriculture and natural resources that contribute to solving global food insecurity. Teachers will also develop their own lesson plans to incorporate the concepts they learn into their classes. At a cost of \$450, 55 continuing education units are available.

Learn more:

<https://www.cpet.ufl.edu/teachers/summer-programs/florida-teacher-institute/>

UF/IFAS Range Cattle Research and Education Center Faculty -

Dr. Brent Sellers, sellersb@ufl.edu - Pasture and Rangeland Weed Management

Dr. Maria Silveira, mlas@ufl.edu - Soil and Water Science

Dr. Joao Vendramini, jv@ufl.edu - Forage Management

Dr. Philippe Moriel, pmoriel@ufl.edu - Beef Cattle Nutrition & Management

Dr. Hance Ellington, e.ellington@ufl.edu - Grazinglands Wildlife Specialist

Dr. Golmar Golmohammadi, g.golmohammadi@ufl.edu - Hydrology and Water Quality

Hannah Baker, h.baker@ufl.edu - Beef Cattle and Forage Economics

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