Have You

UF/IFAS DEPARTMENT OF ANIMAL SCIENCES NEWSLETTER VOL.3 | FALL 2021





HAVE YOU HIERD?

Fall 2021

UF/IFAS Department of Animal Sciences

John ArthingtonProfessor and Chair

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Cover Photo



One of the Rams sold in the inagural Ram Test and Sale. Photo Credit: Tyler Jones. See page 11 .

LETTER FROM THE CHAIR

Dear alumni, friends and supporters,

We are back! This has been the feeling in the Department of Animal Sciences this semester. While we have continued to wear masks and enforce good COVID-19 practices, we have returned to campus and are participating in a multitude of in person events. This semester has been one of new challenges and opportunities for our department. Our faculty, staff, and students have taken the Fall by the horns and we are feeling reinvigorated going into 2022.

This Fall has been full of success and celebration for our department. Our faculty have continued to win awards and push the boundaries of the animal sciences industry. They have also worked harder to connect with industry professionals to ensure we are meeting the needs of the stakeholders we serve. For instance, our Inaugural UF Ram Test and Sale held in October was a producer-driven idea resulting in a standard performance evaluation for sheep producers in the Southeast. Thirteen producers from Florida and Georgia consigned animals to this year's ram test and we only expect the program to grow with time. We were also able to host two ribbon cuttings in December recognizing the dedication and pride of our alumni. The first was the Sams-LeFils Round Pens at our Horse Teaching Unit donated by Kim and Danny Sams along with The Walt Disney Company Foundation Matching Gift program. The second was the dedication of the Beef Teaching Unit Front Porch to Sam Tripson thanks to a generous gift from Trey and Chelsea Warnock. We are so thankful for the dedication and strength of our alumni and look forward to using both facilities to produce the next generation of industry professionals.

We welcomed a few new faces to our department this semester and are excited to see our ANS family grow through our faculty and staff additions. Looking forward, our department is progressing academically as well. Dr. Raluca Mateescu is offering an Animal Genetics Certificate open to both UF and non-UF students in the Spring of 2022. Another program launching in the Spring is the Florida International Dairy Academy. The program coordinators and Dairy Science Club represented our department at the World Dairy Expo this year and we are excited to welcome our first cohort in January.

We hope you will enjoy this third issue of "Have you Herd?", a newsletter produced three times a year, featuring the wonderful things happening in our department – from student life to research findings and everything in between. Reach out if you have ideas or feature stories you would like HERD.

Lastly, we could not do what we do here in the department without our alumni, friends, and stakeholders who generously support our efforts in so many ways. Whether you are giving through financial support, your time to speak to our students or providing jobs and internships, we cannot say thank you enough. If you are interested in giving, please visit https://give.ifas.ufl.edu/animal-sciences-giving/ to learn about various giving opportunities or reach out to me directly.

Sincerely,

John ArthingtonProfessor and Chair



John Arthington PROFESSOR & CHAIR

Alumnistatight

Current Florida CattleWomen's Association President, Michele Curts is a 2011 graduate of the University of Florida Institute of Food and Agricultural Sciences Department of Animal Sciences (UF/IFAS ANS) and the UF/IFAS Department of Agricultural Education and Communication (AEC). Since 2017, Curts has served as the Leadership Programs Coordinator for the Florida Farm Bureau Federation in Gainesville, FL.

Though she did not grow up immersed in the cattle industry, Curts found her passion for beef cattle through UF/IFAS ANS. During her time in the department, Curts was involved in Block and Bridle and Gator Collegiate Cattlewomen, two of the main departmental clubs. These organizations, along with faculty relationships, with professors like Dr. Todd Thrift, sparked her passion for the beef industry.

"He never made me feel like because I was a female, that I couldn't pursue something in the beef industry," Curts said. "He pushed me and challenged me to find my place."

Curts quickly found her place on the CattleWomen's executive board shortly after returning to Gainesville in 2015 to pursue her master's degree in Agricultural Education and Communication. She discussed how a conversation between past Florida CattleWomen's president Mrs. Debbie Gill open the door for her presidency this year.

"It was simply that one moment of me saying you know I'm interested in getting involved on the executive board, and it got me to where I am today," Curts said.

One major goal of her presidency is to inspire young women to pursue their passions. She said she hopes her officer team can inspire those without beef backgrounds to feel empowered to get more involved. Curts wants younger women



within the beef industry to know there is a place for them, they just have to find their niche.

While in college, Curts urges students to do three things:

- 1. Introduce yourself to everyone
- 2. Create relationships
- 3. Take advantage of every opportunity

Although students often hear about how important networking is, Michele knows it can be difficult to do and hard to understand its importance at first. She stresses the importance of having an engaging conversation when networking, as the more engaging you are, the higher the chance they will remember you.

She acknowledges the industry is small, but said, "You never know who you're talking to and it never hurts for people to know who you are."

Finally, Michele highly recommends taking advantage of every opportunity while in college, whether it be internships, clubs, or traveling to industry events. She found these experiences to be some of the most rewarding during her time as an Animal Sciences student.

"Just really take advantage of the time you're here, because it goes by in the blink of an eye," Curts said

Find more information about UF/IFAS Animal Sciences on our website. Stay in touch with us on Facebook, Twitter, and Instagram. To read more pieces like this one visit http://blogs.ifas.ufl.edu/animalsciencesdept/.

Club Highlights

Daily Science Club President: Sara Hettinger

In the Fall of 2021 the DSC has had a myriad of events. Five students attended the World Dairy Expo in Madison, WI, representing the University of Florida Department of Animal Science undergraduate, graduate, and extension programs. Fifteen students became certified in Artificial Insemination, at a clinic hosted by the DSC. Students participated in CALS Land Grant Institution Week, collecting and packaging food for the Hitchcock Field and Fork Pantry. Events for next semester include attending the National and Regional meetings of the American Dairy Science Association meetings where students will present



the research presentations they have begun working on and compete in an intercollegiate dairy quiz bowl and other competitions. Additionally, the DSC will be partnering with the Florida 4H Dairy program, traveling to the Georgia Dairy Producers conference, touring numerous dairies throughout the Southeast, and hosting Family Day at the Dairy.

The Dairy Science Club is open to all UF students, faculty, and staff to be involved. We meet every 1st, 3rd, and 5th Wednesday of the month, during the Fall and Spring semesters. For more information feel free to contact us at ufdairyscience@gmail.com or sign up for our email list at https://ufdairyscience.wixsite.com/ufdsc.

Gator Collegiate CattlewomenPresident: Gracie Wagner

This semester, GCCW has been embracing the 'normalcy'. We have welcomed industry speakers to our club meetings, including Florida CattleWomen's President Michele Curts and American National CattleWomen's President-Elect, Reba Mazak. In addition, after three semesters without, we have begun attending our semesterly ranch tours again. This semester we toured Usher Land and Timber in Chiefland and enjoyed learning about all aspects of their cattle and timber operations. Next semester, the biggest event we are looking forward to is our annual Beef Dinner Fundraiser on April 9, 2022. After two years of waiting, we are finally able to host it in person! We are running a raffle currently for Beef Dinner: tickets are \$10 and

you will be put into a drawing to win 2 tickets to Beef Dinner. Information on this fundraiser and everything we have done this semester can be found on @GatorCollegiateCattlewomen.

UF Block and Bridle President: Gina Tran

We started the semester by welcoming our new members with the New Member BBQ in collaboration with Gator Collegiate Cattlewomens and Dairy Science Club. Following the New Member BBQ, our new members had the opportunity to get hands on experience with animals they have never worked with or shown in the past through our initiation event called Little International. Students learn animal handling skills and techniques while also learning more about the beef, swine, and equine industries. Some of our past service events and anticipated service events for the semester include a snack drive for our local



frontline healthcare workers, teaching our community about the importance of the agricultural industry at the Farm Bureau Food and Agriculture Festival, and making Christmas cards for folks at a local retirement home to brighten up their holiday season! Other activities we have had during the semester include attending and taking committee meeting minutes at the Florida Cattlemen's Association Quarterly, a dinner with Deseret Ranches for students to learn about their operation and for the chance to interview for internships, our Halloween Social with a costume contests, and rope nights!

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Little International is a small-scale livestock show hosted annually by the UF Block and Bridle club. This annual event, often called "Little I", is the initiation event for new members. Participants learn showmanship skills for a livestock species with which they have limited or no previous experience working with. This year, exhibitors had eight weeks to work with their animals, either beef cattle, horses, or pigs, under the supervision of experienced members.

On show day, exhibitors competed in their species classes, where only two students would advance to the round robin series. The round robin series is where student show all species again for a chance to be named Grand or Reserve Champion of the show. Students who competed in round robin were Tanner Leturno (swine), Katie Caren (swine), Deztinee Harris (beef), Katherine Harris (beef), Kayleigh Fountain (equine), and Mikaela Martin (equine).

This year's Grand Champion showman was Mikaela Martin and the Reserve Champion showman was Tanner Leturno. We are very proud of all of this year's exhibitors, as they put in countless hours and pushed themselves to learn the most they could.

UF Block and Bridle would like to sincerely thank our alumni and industry representatives who volunteered as judges this year. We are so thankful to have the support of individuals like Ms. Shelby Howell (beef judge), Ms. Cori Wiygul (equine judge), and Mr. Clayton Lyons (swine judge). Finally, we are also grateful for our sponsors of the event including Farm Credit of Florida, Graphite Maintenance, and Santos Landscaping. We would not have had such a successful event without any of these companies or individuals.

As this semester comes to a close, we are looking forward to what the spring semester has instore for Block and Bridle, including our annual Ray Kempfer Memorial Clay Shoot and Ropin' in the Swamp events. Stay tuned or reach out for more information!







Epigenetics & Embryo Transfer

Most of us are familiar with the long molecule that contains our genetic code, DNA. We are taught our genetic code is made by combining our parent's DNA, making something new and unique. But our parents are not the only factors influencing how the code is expressed. The environment around us, even before we are born, can also play a role in how our genetic code is interpreted and expressed. The observable expression of an organism's genetic code is called its phenotype. Changes in the environment at significant points in development can result in phenotypic differences in people and other animals, like cows. The study of how the environment influences phenotype is called epigenetics. Epigenetic changes do not alter the original genetic code, but they do alter how the body "reads" the genetic code.

Epigenetics has been a growing topic in animal science research. Scientists have been trying to understand how epigenetics may be used to improve animal performance. Dr. Peter Hansen, a Distinguished Professor in the UF/IFAS Department of Animal Sciences, has been studying how the molecules added to a cow embryo's early environment can impact how the adult cow grows and functions.

"We're taught that an animal phenotype is a

combination of genetics and its environment," Hansen said. "So animal scientists have been trying to manipulate genetics to identify our best animals and propagate them. We've also been trying to give the animal the best environment possible. But we never really thought about the animal's environment when it was a fetus or embryo. We used to only worry about it after it was born. So now we're starting to worry about it when it's even just a two-cell embryo."

According to Hansen, this field of study dates back to the 1940s, and the studies on the Dutch hunger winter. Near the end of World War II, the German-occupied Netherlands suffered a severe famine in 1944. In the 1980s, epidemiologists looked at the men and women who were fetuses in 1944, Then they compared them to people who were fetuses in 1943 and 1945 when there was more plentiful food. They discovered a surprising phenomenon. The people who were fetuses when their mothers were hungry had different gene expressions than their same-sex siblings. This resulted in an increased incidence of heart disease and diabetes later in life.

"That discovery set off a whole field of research that says in fetal life you kind of get programmed for the environment you're going to see as an adult," Hansen said. "For example, if you're living



in a world without many nutrients, you kind of get programmed to live like that. But then if you find yourself in an environment with lots of nutrients, you know you have a higher rate of obesity because you're not "programmed" right."

In recent years, Hansen's lab has been researching what molecules added to an embryo's might have an impact on cows' phenotypes. For embryos grown through in vitro fertilization (IFV), the first seven days of growth in the petri dish can influence the phenotype of the adult cow. Different molecules present in the petri dish can have different impacts.

One of the molecules the Hansen lab has investigated is colony-stimulating factor 2. This molecule was discovered in the immune system, but it's also produced in the reproductive tract. Hansen treated embryos with colony-stimulating factor 2, hoping to increase the embryo's ability to establish pregnancy. Unexpectedly, when the calves were measured after three months of age, they grew faster than the control calves. This study has only been completed once, so the Hansen lab plans on repeating it.

Choline is a micronutrient you get from meat, and it provides methyl groups, or CH3's. Those methyl groups cause DNA methylation, which can "turn off" certain genes. Some research has shown that feeding choline to dairy cows can influence milk

production. Eliab Estrada, a doctoral student in Hansen's lab, has been testing whether choline as an added molecule at the embryo stage would have any impact. It did not appear to have an impact on dairy cow milk production, but they kept testing choline in different scenarios and found something interesting.

"We transferred a bunch of Brahman embryos at the Beef Unit just to expand the herd, but then we treated half the embryos with choline and the other half without choline," Hansen said. "The calves treated with choline were bigger at birth and even bigger at weaning. So while it didn't seem to impact dairy cattle, it did appear to have an impact on the Brahman cattle's growth. They were bigger at birth and bigger at weaning than the control calves."

Now Estrada and Hansen are repeating their choline study to see if they can replicate the results.

Photo Captions

- 1. Dr. Peter Hansen, Distinguished Professor & L.E. Red Larson Professor
- 2. Photo credit to Zoe Bowden
- 3. UF/IFAS Department of Animal Sciences Brahman Bulls

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Congratulations

New Faculty Faces



Fernanda Batistel
Ruminant Nutrition
Research/Teaching



Fernanda Rezende
Statistical Genetics
Research/Teaching



Kyle MendesMeat Science Lecturer
Teaching



Feng YueGrowth/Development
Research/Teaching

New Staff Faces



Savannah LinzmaierAcademic Advisor II/
Communications Specialist

Not Pictured:

Kenneth Irvin Agricultural Assistant II

Anna Scott
Agricultural Assistant I

Faculty Award Highlight



Carissa Wickens
Associate Professor
Equine Sciences
Dallas Townsend Extension
Professional Enhancement Award

University of Florida 2021 Ram Test & Sale

The University of Florida Department of Animal Sciences, in partnership with the UF College of Veterinary Medicine, recently hosted the Inaugural UF Ram Test and Sale in Gainesville, Florida on October 2, 2021. The program was a great success with educational programs in the morning followed by a live auction. The sale was the culmination of a producer driven idea to host a standardized performance evaluation for sheep producers throughout the Southeast. Thirteen producers from Florida and Georgia consigned animals to this year's ram test. The evaluation began in May with 41 weaned rams being consigned to the test. Following an 84-day evaluation period for growth and parasite resistance, 13 of the highest performing rams were offered for sale. The rams offered included Florida Cracker, Katahdin, and Barbados Blackbelly breeds. Buyers from Florida, Georgia, Mississippi, and Tennessee came to find their next sire prospect at the sale. The co-high selling rams were both purchased by Carol Postley of Fairmeadow Farm in Ocala, Florida for \$1000 each. Mrs. Postley selected Lot 1, a Florida Cracker ram consigned by the University of Florida, and Lot 7, a Katahdin ram consigned by EBH Plantation in Callahan, Florida. The volume buyer was Josh Woodward of United Producers in Columbia, Tennessee. When the final gavel fell, the sale average was \$480 per head. We would like to thank everyone who participated in this program, and we look forward to providing this opportunity again next year.

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. Owen Rae, Carol Postley, Dr. John Arthington, and sse Savell.







THANK YOU!

UF/IFAS Department of Animal Sciences

Horse Teaching Unit Over the past year, Kim and Danny Sams and The Walt Disney

Sams-LeFils Round Pens
Dedication & Ribbon Cutting

Company Foundation Matching

Gift program have created a new opportunity for animal sciences students specializing in equine science to learn and grow in a hands-on learning environment at the UF/IFAS

Department of Animal Sciences Horse Teaching
Unit. The Sams-LeFils Round Pens are a result of
their generous gift and passion for the program and
will serve to teach the next generation of equine
students about horse handling and practices.











UF/IFAS photos by Catherine Wofford

UF/IFAS Department of Animal Sciences

Sam Rupert Tripson sadly passed away in 2015 after a hard-fought battle with cancer. Sam graduated from the University of Florida with a B.S. in Agricultural Operations Management in 2008. Descended from a long line of Indian River cattlemen and citrus

growers, Sam worked as a ranch manager for Dr.
Roger West in Gainesville prior to beginning his
career with Helena Chemical. Thanks to a generous
gift from Trey and Chelsea Warnock, the Sam
Tripson Memorial Front Porch is an enduring legacy
of Sam's passion for agriculture and the University
of Florida.





UF/IFAS photos by Catherine Wofford

Beef Teaching Unit

Sam Tripson Memorial Porch Dedication & Ribbon Cutting







Department of Animal Sciences Ambassadors



Elizabeth ChmielewiskiAnimal Biology



Daniel CleinAnimal Biology



Jessica CzipulisFood Animal



Amanda Foreman Animal Biology



Megan Lee Equine



Emma Lipori Animal Biology



Sophia Salazar Animal Biology



Shelby WelshonsAnimal Biology

College of Agricultural & Life Sciences Ambassadors



Gina TranAnimal Sciences



KeeLeigh JenkinsAnimal Sciences



Madi KoukosAnimal Sciences



Callahan Register Animal Sciences



Taylor JacksonAnimal Sciences



Jenny BurkeAnimal Sciences

Awards & Recognition

Awards & Accomplishments

- ANS Assistant Professor Antonio Faciola was awarded the 2020-2021 University of Florida Undergraduate Faculty Advisor/Mentor of the Year award.
- ANS Assistant Professor Antonio Faciola was also awarded the 2020-2021 CALS Undergraduate Faculty Advisor/Mentor of the Year award.
- ANS Associate Professor Lori Warren was awarded the CALS Innovation in Teaching Award.
- ANS Distinguished Professor Peter J.
 Hansen was the recipient of the 2022
 International Embryo Transfer Society's (IETS) Distinguished Service Award

Livestock Judging Team

- Team members include: Chloe Bunyak, Kendall Gill, Aubrey Fredrick, Morgan Rasnik and Coach: Allyson Trimble
- · 5th Overall High Team
- 5th High Individual Sheep
- 10th High Individual Sheep
- 10th High Individual Cattle

SHARE YOUR STORY WITH US

We enjoy hearing updates from our alumni!

- Do you have internship or job opportunities for animal sciences students?
- Are you interested in speaking in an undergrad class bout your career?
- Would you like to be featured in a **Have you HERD** Alumni Spotlight?

Visit our <u>website</u> to learn how to be involved with the UF Department of Animal Sciences!









Extension Updates

71st Annual UF Beef Cattle Short Course

The 71st Annual UF Beef Cattle Short Course will be hosted at the UF/IFAS Straughn Professional Development Center in Gainesville, FL from May 4 - 6, 2022. Keep an eye on our website for more updates and details: https://animal.ifas.ufl.edu/events/beef-cattle-short-course/.

Questions:

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UF/IFAS Department of Animal Sciences

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Dr. Mario Binelli

UF/IFAS Department of Animal Sciences

Phone: (352) 359-1888 Email: mario.binelli@ufl.edu

Know Your Heifer

The **Know Your Heifer Program** is an extension service to beef producers. In the 2020-2021 breeding season, we enrolled over 2,000 heifers in more than 20 beef operations across Florida. We confirmed that half of all immature heifers were still open in the end of the breeding season. Participation in the program enabled producers to make cost-effective management decisions, such as culling or delaying breeding, based on the evaluation of heifers. Additionally, **we established a statewide system to collect, summarize and compare information on the reproductive potential and performance of replacement beef heifers.** Beef operations were ranked, and producers could see how they measured up. For more information and to enroll, go to https://animal.ifas.ufl.edu/extension/beef/KYH/.

Questions:

Contact Dr. Mario Binelli or talk to your Livestock County Agent at your local IFAS Extension Office to sign up! Find more information at:

www.animal.ifas.ufl.edu/extension/beef/KYH/

Dr. Mario Binelli UF/IFAS Department of Animal Sciences Phone: (352) 359-1888

Email: mario.binelli@ufl.edu

Education Updates

Animal Genetics Certificate

The 11-credit Animal Genetics certificate provides a background in Mendelian, population, and quantitative genetic inheritance, in-depth knowledge of genetic improvement and management programs, and the application of genetic principles towards the improvement of health and production of livestock and domestic animals.

Courses:

ANS 3384C - Genetics of Domestic Animals

ANS 4382 - Equine Genetics

ANS 4383 - Genetic Analyses of Complex Traits in Livestock

ANS 4388 - Canine and Feline Genetics

Questions:

Raluca Mateescu
UF/IFAS Department of Animal Sciences

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UF/IFAS Animal Sciences Department

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GIVING

Your generous donation to the UF/IFAS Animal Sciences Department will provide support for our students, faculty and staff.

To support ANS, our scholarships and more, visit give.ifas.ufl.edu/animal-sciences-giving/.

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