

Animal and Dairy SCIENCES News & Current Events



- Teaching • Research • Extension • Departmental Activities



Mississippi State University Meat Chemistry and Cuisine Club

September 18 at 8:18am · 🌐

Don't forget all tshirt money is due the 20th!! Shirt are \$20 comfort colors. And it's not too late to order, if you want one please let us know!

jcgapparel™

MEAT CHEMISTRY AND CUISINE - MSSTATE - CLUB - 12096



» product

6030 COMFORT COLORS SHORT SLEEVE POCKET T-SHIRT
EMERALD



» front

SIZE: 3" x 3"
INKS: white



» back

SIZE: 13" x 13"
INKS: white

Disclaimer: Proof colors are not exact. Colors may vary depending on the screen you are viewing them on. The scale of the design is approximate. All graphics are property of jcgapparel.



Horse Management 101



Horse Management 101 is a program aimed to provide horse interested persons with the management and training skills necessary to promote successful practices and effective communication between horse and rider.

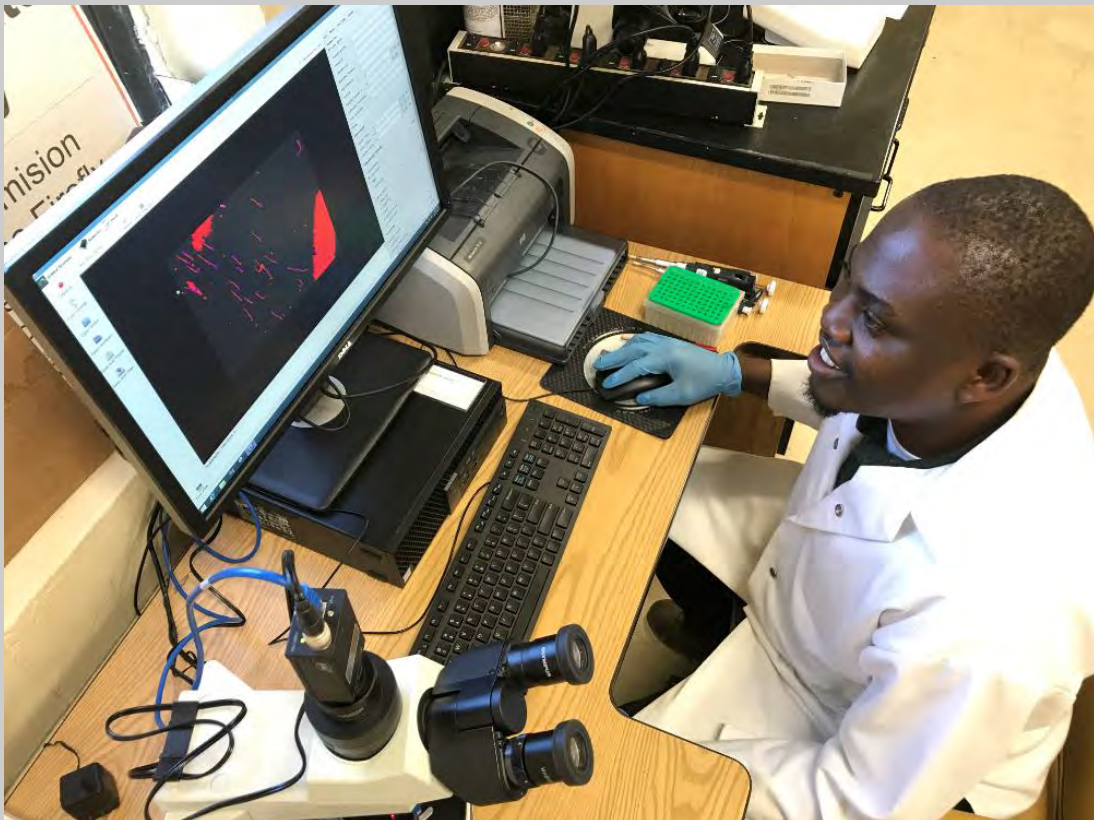


International Engagement

The Biophotonics group is hosting Dr. Popoola M. Ayodele, as an international Visiting Scientist from Nigeria, Africa. Dr. Ayodele (or Ayo) is a faculty member of University of Abuja, Nigeria and Chief Scientific Officer in the Department of Bio-entrepreneurship and extension services of the National Biotechnology Development Agency (NABDA), Federal Ministry of Science & Technology, Abuja. His research interest in Animal Reproductive physiology focuses on the effects of egg yolk plasma on cryopreservation of rabbit semen and fertility outcomes.

During his three month tenure within our department, Dr. Ayodele will gain additional knowledge for semen cryopreservation in livestock and interact with faculty members having interest in animal production in Nigeria. This nascent collaboration aims at developing a memorandum of agreement/understanding to develop sustainable gene banking resources in Nigeria, allowing for genetic improvement of viable livestock species in climatic challenging areas.

Please join me in welcoming Dr. Ayodele to our department.





Mississippi State University Horse Judging Team



Like This Page · September 20 · 🌐

Meet the 2017 MSU Horse Judging Team!

Introducing Alex Blackburn from Franklin, TN.

"I am a junior majoring in Animal and Dairy Sciences with a pre-vet concentration. Since joining the team my favorite class to judge has become Trail. To me the team gives me another outlet for my passion of horses, as it has expanded my knowledge and taught me how to confidently express my opinion to others. The team has also allowed me to become more well rounded within the horse industry, which is helpful for my future goals."



Congratulations to the Equestrian Team!



Mississippi State University Equestrian Team added 2 new photos.

16 hrs · 🌐

Our Western Team had a great start to the show season at Auburn University last weekend, finishing 3rd Overall for Show #1 and Show #2!

The English Team heads the University of North Georgia this weekend for their first English show! Good luck team and Hail State!

TEAMS	16	15	14	13	12	11	TOTAL	PLACE
AUBURN	5	5	3	5	3	1	22	2
BERRY	7	7	7	7	7	7	42	1
JUDSON	--	--	--	--	2	4	6	5
MISS ST	4	4	4	--	4	5	21	3
OLE MISS	--	--	--	--	--	3	3	6
ALABAMA	--	--	5	--	--	3	8	4

MISSISSIPPI STATE UNIVERSITY COLLEGIATE CATTLEMEN'S ASSOCIATION

National Cattlemen's Beef Association

August 22 at 1:03pm

Like Page

It's time to apply to become an intern for the 2018 Cattle Industry Convention & NCBA Trade Show! #CattleCon18 interns will have a unique opportunity to gain experience within the cattle industry while networking with industry leaders from every segment of the beef industry. Apply today: [https://goo.gl/CyCxjp!](https://goo.gl/CyCxjp)

And don't forget, registration for the convention opens October 2!



**2018
CATTLE INDUSTRY
CONVENTION
& NCBA TRADE SHOW**
JANUARY 31-FEBRUARY 2, 2018

Get Connected
**BECOME AN
INTERN**

#BEEFMEET
www.BeefUSA.org

Sponsored By **Tyson**

Breakfast on the Farm



MISSISSIPPI STATE UNIVERSITY
DEPARTMENT OF ANIMAL
AND DAIRY SCIENCES

BOO!

FRIDAY, OCTOBER 27 | 9 A.M.-NOON

open to school groups & field trips

SATURDAY, OCTOBER 28 | 9 A.M.-NOON

open to the public & families

BEARDEN DAIRY RESEARCH CENTER | STARKVILLE

2128 Turkey Creek Road

\$5 per person

Breakfast, milk, and ice cream included

DAIRY TOUR

TRICK-OR-"TEAT"

COW COSTUME CONTEST (11 a.m. daily)

HALLOWEEN ACTIVITY

HAUNTED PARLOR

AND MORE!

Registration required by OCTOBER 20

extension.msstate.edu/breakfast



MISSISSIPPI STATE UNIVERSITY™
EXTENSION

For more information, contact Amanda Stone
at 662-769-9941 or amanda.stone@msstate.edu.



Dairy Cattle Quiz Bowl

2017 Junior 4-H Dairy Cattle Quiz Bowl Competition scheduled to be conducted at 4:00 p.m. Thursday, October 12th during the Mississippi State Fair in the Kirk Fordice Equine Center on the State Fairgrounds in Jackson.

Go to:

<http://extension.msstate.edu/publications/publications/how-get-started-4-h-dairy-quiz-bowl> for more information!

The Dairy Quiz Bowl contest requires four 4-H members for a team, but it is ideal to have five team members (one member is an alternate). Teams will compete in a series of one-on-one matches against another team in a single-elimination format. In each match, you compete with other 4-H members from your county in three phases to answer questions related to the dairy industry. Phase A is a written exam, Phase B consists of team questions, and Phase C is a toss-up round.

Upcoming Events!

Beef Extension - Dr. Brandi Karisch & Cobie Rutherford

- Mississippi State University Artificial Insemination School, October 26 - 28, Animal and Dairy Sciences Department, Mississippi State, MS



Equine Events - Dr. Clay Cavinder

- Upcoming Programs and publications are online at <http://extension.msstate.edu/agriculture/livestock/equine/upcoming-programs>
- For more info, contact Dr. Cavinder at clay.cavinder@msstate.edu



4-H Events - Dr. Dean Jousan

- Mississippi State Fair, October 4-15, Jackson, Ms
- For publications and upcoming events go to: <http://extension.msstate.edu/4-h> or contact Dr. Dean Jousan at dj230@msstate.edu



Dairy Events - Dr. Amanda Stone

- Breakfast on the Farm, Dairy tours with a cow Costume Contest, a "Haunted Parlor, Breakfast with Milk & Ice Cream. October 27-29, MSU Bearden Dairy Research Center. \$5 pp; Register by Oct. 20 at extension.msstate.edu/breakfast





PURINA

CHECK-R-BOARD *Days*

Celebrating Agriculture!

SPECIAL PRICING ON SELECT PURINA LIVESTOCK FEEDS

LOCAL 4-H CLUBS

**GOAT MILKING
DEMONSTRATION**

SHOW COWS & GOATS

FREE PONY RIDES

Mississippi Cattlemans Association

MSU Dairy Cow
(that can be milked)

FARM-TASTIC

HANDS ON EXPERIENCE
(with lambs, chickens & pigs)

GOLDEN TRIANGLE HORSE RESCUE
(pictures with their Miniture Horses)

OKTIBBEHA COUNTY CO-OP

201 Pollard Road • Starkville • 662-323-1742

Saturday, September 30 • 10am - 1pm



FOLLOW US ON
facebook

FUN • FOOD • DOOR PRIZES

(concessions provided by 4-H Clubs • ALL profits go to 4-H)

Come By Saturday, Sept 30 from 10-1 for Our 2nd Annual Check-R-Board Day! Milk a Cow, Pet a Goat, Ride a Pony, and Learn More about Agriculture! Fun, Food, Freebies and Fellowship!

2017 Refereed Publications:

- Liao, Shengfa F.**, Martin Nyachoti. Using probiotics to improve swine gut health and nutrient utilization. *Animal Nutrition*. (2017) 1-13. <http://dx.doi.org/10.1016/j.aninu.2017.06.007>.
- Kutchy, Naseer A., Ana Velho, Erika S. B. Menezes, Marie Jacobsen, Giselle Thibaudeau, Arlindo Moura, Abdullah Kaya, Andy Perkins, and **Erdogan Memili**, Robert W. Wills. Testis specific histone 2B is associated with sperm chromatin dynamics and bull fertility-a pilot study. *Journal of Reproductive Biology and Endocrinology*. (2017) 15:59. DOI 10.1186/s12958-017-0274-1.
- Lemley, Caleb O.** Investigating reproductive organ blood flow and blood perfusion to ensure healthy offspring. *Animal Frontiers*. doi:10.2527/af.2017-0124.
- Keomanivong, F. E., L. E. Camacho, **C. O. Lemley**, E. A. Kuemper, R. D. Yunusova, P. P. Borowicz, J. D. Kirsch, K. A. Vonnahme, J. S. Caton and K. C. Swanson. Effects of realimentation after nutrient restriction during mid- to late gestation on pancreatic digestive enzymes, serum insulin and glucose levels, and insulin-containing cell cluster morphology. *Journal of Animal Physiology and Animal Nutrition*. 101 (2017) 589–604. DOI: 10.1111/jpn.12480.
- Menezes, E.B., R.V. de Oliveira, M.F. van Tilburg, E.A. Barbosa, N.V. Nascimento, A.L.M.C.S. Velho, F.B. Moreno, R.A. Moreira, A.C.O. Monteiro-Moreira, G.M.C. Carvalho, A.F. Ramos, **E. Memili**, A.A. Moura. Proteomic analysis of seminal plasma from locally-adapted “Curraleiro Pé-Duro bulls” (*Bos taurus*): identifying biomarkers involved in sperm physiology in endangered animals for conservation of biodiversity. *Animal Reproduction Science*. <http://dx.doi.org/10.1016/j.anireprosci.2017.05.014>.
- Cavinder, C. A.**, A. Sear, R. Valdez, L. White. Utilization of Social Media as a Marketing Tool for Equine Businesses: An Exploratory Study. *North American Colleges and Teachers of Agriculture Journal*. June 2017, Vol 61(2).
- Gastal, G. D. A., A. Hamilton, B. G. Alves, S. G. S. de Tarso, **J. M. Feugang**, G. A. Apgar, C. K. Nielsen, E. L. Gastal, W. J. Banz. Ovarian features in white-tailed deer (*Odocoileus virginianus*) fawns and does. *PLOS ONE*. 12(5):30177357. <https://doi.org/10.1371/journal.pone.0177357>.
- Aguiar, F.L.N., G.D.A. Gastal, G.M. Ishak, M.O. Gastal, D.I.A. Teixeira, J.R. Figueiredo, E.L. Gastal, **J.M. Feugang**. Effects of FSH addition to an enriched medium containing insulin and EGF after long-term culture on functionality of equine ovarian biopsy tissue. *Theriogenology* 99 (2017) 124-133.
- Feugang, Jean M.** Novel agents for sperm purification, sorting and imaging. *Molecular Reproduction Development*. 2017. 9999:1-10. DOI: 10.1002/mrd.22831.
- Borchers, M. R., Y. M. Chang, K. L. Proudfoot, B. A. Wadsworth, **A. E. Stone**, and J. M. Bewley. Machine-learning-based calving prediction from activity, lying, and ruminating behaviors in dairy cattle. *Journal of Dairy Sciences*, Vol.100:1-11. 2017. <https://doi.org/10.3168/jds.2016-11526>.
- Lemley, C. O.** and K. A. Vonnahme. PHYSIOLOGY AND ENDOCRINOLOGY SYMPOSIUM: Alterations in uteroplacental hemodynamics during melatonin supplementation in sheep and cattle. *Journal of Animal Science* 2017.95:2211-2221. doi:10.2527/jas2016.1151.

2017 Refereed Publications:

- Gastal, G.D.A., F.L.N. Aguiar, B.G. Alves, K.A. Alves, S.G.S. de Tarso, G.M. Ishak, **C.A. Cavinder**, **J.M. Feugang**, E.L. Gastal. Equine ovarian tissue viability after cryopreservation and in vitro Culture. *Theriogenology* 97 (2017) 139-147.
- Maki, C R, S Allen, M Wang, SH Ward, **BJ Rude**, HR Bailey, RB Harvey and TD Phillips. Calcium Montmorillonite Clay for the Reduction of Aflatoxin Residues in Milk and Dairy Products. *Journal of Dairy and Veterinary Sciences*. 2017; 2*3): 555587.
- Regmi, N., T. Wang, **M. A. Crenshaw**, **B. J. Rude**, **S. F. Liao**. Effects of dietary lysine levels on the concentrations of selected nutrient metabolites in blood plasma of late-stage finishing pigs. *Journal of Animal Physiology and Animal Nutrition*. 2017; 1-7. DOI: 10.1111/jpn.12714.
- Wang, Taiji, **Jean M. Feugang**, **Mark A. Crenshaw**, Naresh Regmi, **John R. Blanton Jr.** and **Shengfa F. Liao**. A Systems Biology Approach Using Transcriptomic Data Reveals Genes and Pathways in Porcine Skeletal Muscle Affected by Dietary Lysine. *International Journal of Molecular Sciences* (2017) 18, 885.
- Cain, Amanda J., **Caleb O. Lemley**, F. Kevin Walters, David L. Christiansen, E. Heath King, Richard M. Hopper. Pre-breeding beef heifer management and season affect mid to late gestation uterine artery hemodynamics. *Theriogenology* 87 (2017) 9–15.
- Jones, Barbara W., **Amanda E. Stone**, Connie L. Wood, Kristen J. McQuerry, Joey D. Clark, Denise L. Ray, and Jeffrey M. Bewley, PAS. Case Study: Characterization of milk yield, lying and rumination behavior, gait, cleanliness, and lesions between 2 different freestall bases. *The Professional Animal Scientist* 33:140–149. <https://doi.org/10.15232/pas.2016-01548>.
- Stone, A. E.**, B. W. Jones, C. A. Becker, and J. M. Bewley. 2017. Influence of breed, milk yield, and temperature-humidity index on dairy cow lying time, neck activity, reticulorumen temperature, and rumination behavior. *Journal of Dairy Sciences* 100:1–9. <https://doi.org/10.3168/jds.2016-11607>.
- Hodge, Lauren B., **Brian J. Rude**, **Thu N. Dinh**, **Caleb O. Lemley**. Effect of u-3 Fatty Acid Supplementation to Gestating and Lactating Mares: On Milk IgG, Mare and Foal Blood Concentrations of IgG, Insulin and Glucose, Placental Efficiency, and Fatty Acid Composition of Milk and Serum From Mares and Foals. *Journal of Equine Veterinary Science* 51 (2017) 70–78.
- Littlejohn, B. P., M. C. Roberts, M. N. Bedenbaugh, A. W. Lewis, D. A. Neuendorff, D. G. Riley, J. A. Carroll, **R. C. Vann**, M. Amstalden, R. D. Randel, T. H. Welsh, Jr. (2017). Evaluation of the influence of prenatal transportation stress on GnRH-stimulated luteinizing hormone and testosterone secretion in sexually mature Brahman Bulls. *Journal of Animal Science* 95, 129-138. www.animalsciencepublications.org/publications/jas.
- Gastal, G D A , B G Alves, K A Alves, M E M Souza, A D Vieira, A S Varela Jr, J R Figueiredo, **J M Feugang**, T Lucia Jr and E L Gastal. Ovarian fragment sizes affect viability and morphology of preantral follicles during storage at 4°C. *Reproduction*, (2017) 153, 577-587.

2017 Book Chapters:

Greene, Jonathan M. and **Peter L. Ryan**. L-Arginine in the Uterus and Placenta and During Gestation in Mammals. In *L-Arginine in Clinical Nutrition, Nutrition and Health*, Chapter 22. 2017. V.B. Patel et al. (eds.). DOI 10.1007/978-3-319-26009-9_22.

Stone, A. E. Precision dairy monitoring technology implementation opportunities and challenges. In *Large Dairy Herd Management*, 3rd Edition. (Edited by David K. Beede).

Wang, Taiji, **M. A. Crenshaw**, M. S. Hasan, G. Wu and **S. F. Liao**. 2017. Effects of dietary lysine levels on the plasma concentrations of growth-related hormones in late-stage finishing pigs. In T. Asao and M. Asaduzzaman. eds. *Amino Acid - New Insights and Roles in Plant and Animal*. Chapter 13. pp. 259-271. InTech, Rijeka, Croatia. DOI: 10.5772/intechopen.68545.