

Animal and Dairy Sciences



OUR MISSION:

Our faculty are committed to serving the citizens of this state through teaching, research and extension programs. Research and extension centers are located strategically throughout the state.

Animal research facilities at Leveck Animal Research Center, Bearden Dairy Cattle Research Center, Prairie Research Unit, Brown Loam Research Station, and the White Sands Unit give faculty opportunities to investigate the challenges facing the livestock industry.

Our Mission is to provide science-based solutions for animal agriculture through innovative and effective education, research and extension programming. Our Vision is Building the Future of Agriculture.

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Gamma Sigma Delta International Graduate Scholarship Winner Announced



Congratulations to Katie Cagle-Holtcamp, winner of the Gamma Sigma Delta International Graduate Student Scholarship. Katie is involved in an interdisciplinary study in The School of Human Sciences and Mississippi State University Animal & Dairy Sciences! #MSUAg

Congratulations, Cobie Rutherford!

**We would like to offer Cobie Rutherford a
big congratulations on passing his prelims!**



JULY 22-23, 2019
10 a.m. Monday-3 p.m. Tuesday
MISSISSIPPI HORSE PARK



Dairy Cow Camp

"Moove" to the top of the show ring at your next dairy competition!



Spend two days with judging and showmanship experts!
Bring your animal! (for an additional fee)

Camp will be held at
MISSISSIPPI HORSE PARK
869 East Poor House Road
Starkville, MS 39759

Cost: \$100/camper | \$22/animal
Free for parents/chaperones

Get your printable registration form at
extension.msstate.edu/dairy-cow-camp

Fill out the form and make checks out to MSU Foundation.

Mail to Dr. Amanda Stone at
Box 9815, Mississippi State, MS 39762

Your registration **MUST** be
postmarked no later than June 21!

Questions? Contact Dr. Amanda Stone at
(662) 769-9941.

Thanks to our generous sponsors!



The Mississippi Horse Park is a division of the MSU Extension Service and a partnership of the City of Starkville and Oktibbeha County.

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. For disability accommodation, please contact Amanda Stone at (662) 769-9941 or amanda.stone@msstate.edu.

A SNEAK PEEK INTO THE NEW ANIMAL AND DAIRY SCIENCES BUILDING



**New office furniture
and classroom seating**

**KEEP UP WITH US ON
FACEBOOK**



**ANIMAL AND
DAIRY SCIENCES**

<https://www.facebook.com/Mississippi-State-University-Animal-Dairy-Sciences-153818701305363/>

Upcoming Extension Events

Dr. Brandi Karisch, Extension Beef Specialist

July 17-18 - Deep South Stocker Conference, Athens, GA

Oct. 24-26 - Mississippi State University Artificial Insemination School, Animal and Dairy Sciences Department, Mississippi State, MS

Dr. Amanda Stone, Extension Dairy Specialist

July 22-23 - Dairy Cow Camp, Mississippi Horse Park, Starkville

Dr. Dean Jousan, Extension 4-H Livestock Specialist

July 31-Aug. 4 - Southern Regional 4-H Horse Championship, Perry, GA

Aug. 1-2 - Neshoba and Newton State Fall Dairy Shows

Aug. 9-10 - 4-H/FFA Replacement Beef Heifer Development Contest, Hinds Community College, Raymond

Dr. Clay Cavinder, Extension Equine Specialist

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2019 Refereed Publications

- Hatcher, Jillian, **Clay Cavinder**, Courtney P. Heaton, Lesli Figueredo, Alex Holtcamp and **Thu Dinh**. Physiological and Physical Benefits of Interactions with Horses. *Journal of Extension*, 2019, Vol 57, Number 3, Article # 3RIB6.
- Zoller, Jennifer L. , **Clay A. Cavinder**, Dennis Sigler, Luis O. Tedeschi, and Julie Harlin. Development of a mathematical model for predicting digestible energy intake to meet desired body condition parameters in exercising horses. *Journal of Animal Science* 2019.97:1945–1955. doi: 10.1093/jas/skz041.
- Yang, Zhongyue and **Shengfa F. Liao**. Physiological *Effects* of Dietary Amino Acids on Gut Health and Functions of Swine. *Frontiers in Veterinary Science* 6:169. doi: 10.3389/fvets.2019.00169.
- Ferguson, Treena L. , **Brian J. Rude**, and D. Tommy King. American White Pelican (*Pelecanus erythrorhynchos*) Growth, Nutrition, and Immunology. *BioOne Complete*. Waterbirds, 42(1) : 61-69. URL: <https://doi.org/10.1675/063.042.0107>.
- Julien, Allison R. , Andrew J. Kouba, David Kabelik, **Jean M. Feugang**, **Scott T. Willard**, and Carrie K. Kouba. Nasal administration of gonadotropin releasing hormone (GnRH) elicits sperm production in Fowlers Toads (*Anaxyrus fowleri*). *BMC Zoology* (2019) 4:3. <https://doi.org/10.1186/s40850-019-0040-2>.
- Aldridge, Mildred Elizabeth, Jasmyn Elaine Fearon, Bethany Peyton Haynes, Hannah Marie Miller, Katie Yvonne Sanford, Rachel Rebecca Scott, William Wess Anglin, Lauren Susanne Blalock, Briana Lashun Burkes, Olivia Lucienne Cohn-White, Brittany Renee Franks, Haleigh Margaret Giles, Ashley Lorraine Greene, Riley Dawn Hanby, Anna Grace Holliman, John Mark Kirby, Austin William Klein, Courtney Ann Lehmann, Grace Jennette Llyod, Cody Triston Lore, Tyler B. McMurray, Zachary Vinz Moody, Brianna Nicole Palmer, Lindsey Virginia Pansano, Ryan Matthew Pickle, Laura Marie Schaeffer, Jeneva Ruth Seidl, James Dean Smith, Hannah Faith Stepp, Faisal Amri Satrio, Naseer Ahmad Kutchy, Ed Dechert, Cobie Rutherford, Kipp Brown, Bambang Purwantara, **Erdogan Memili**. Review: Solutions for grand challenges in goat and sheep production industry. *Biotropia*. Vol. 26 No. 1, 2019: 56 - 64. DOI: 10.11598/btb.2019.26.1.944.
- Velho, Ana, Hongfeng Wang, Leslie Koenig, Kamilah E. Grant, Erika S. Menezes, Abdullah Kaya, Arlindo Moura, **Erdogan Memili**. Expression dynamics of integrin subunit beta 5 in bovine gametes and embryos imply functions in male fertility and early embryonic development. *Andrologia*. 2019;00:e13305. <https://doi.org/10.1111/and.13305>
- Carlisle, MS, Leif D., **Erdogan Memili**, DVM, PhD, Robert L. Linford, DVM, PhD, ACVS, Kristen A. Slater, DVM, **Molly C. Nicodemus**, PhD. Relationship between Gate Mechanics and the Speed of the Trot in the Weimaraner Dog Breed. *Topics in Companion Animal Medicine* 35 (2019) 26-30. <http://dx.doi.org/10.1053/j.tcam.2019.03.003>
- El Debaky, Hazem A., Naseer A. Kutchy, Asma Ul-Husna, Rhesti Indriastuti, Shamim Akhter, Bambang Purwantara, and **Erdogan Memili**. Review: Potential of water buffalo in world agriculture: Challenges and opportunities. *Applied Animal Science* 35:255–268. <https://doi.org/10.15232/aas.2018-01810>.

2019 Refereed Publications

- Ferjak, E.N., **C.A. Cavinder**, A.T. Sukumaran, **D.D. Burnett**, **C.O. Lemley**, T.T.N. Dinh. Fatty acid composition of mesenteric, cardiac, abdominal, intermuscular, and subcutaneous adipose tissues from horses of three body composition scores. *Livestock Science* 223 (2019) 116-123. <https://doi.org/10.1016/j.livsci.2019.02.01>
- Dutra, G. A., G. M. Ishak, O. Pechanova, T. Pechan, D. G. Peterson, J. C. F. Jacob, **S. T. Willard**, **P. L. Ryan**, E. L. Gastal, and **J. M. Feugang**. Seasonal variation in equine follicular fluid proteome. *Reproductive Biology and Endocrinology*. (2019) 17:29. <https://doi.org/10.1186/s12958-019-0473-z>
- Casey L. Durfey, Sabrina E. Swistek, **Shengfa F. Liao**, **Mark A. Crenshaw**, Henry J. Clemente, Rooban V. K. G. Thirumalai, Christy S. Steadman, **Peter L. Ryan**, **Scott T. Willard** and **Jean M. Feugang**. Nanotechnology-based approach for safer enrichment of semen with best spermatozoa. *Journal of Animal Science and Biotechnology*. (2019) 10:14. <https://doi.org/10.1186/s40104-018-0307-4>.
- Mayo, L. M., W. J. Silvia, D. L. Ray, B. W. Jones, **A. E. Stone**, I. C. Tsai, J. D. Clark, J. M. Bewley, and G. Heersche Jr. Automated estrous detection using multiple commercial precision dairy monitoring technologies in synchronized dairy cows. *Journal of Dairy Sciences*. 2019. J. Dairy Sci. 102:1–12. <https://doi.org/10.3168/jds.2018-14738>
- Yang, Zhongyue, Md. Shamimul Hasan, John K. Htoo, **Derris D. Burnett**, **Jean M. Feugang**, **Mark A. Crenshaw**, and **Shengfa F. Liao**. Effects of dietary supplementation of L-methionine vs. DL-methionine on performance, plasma concentrations of free amino acids and other metabolites, and myogenesis gene expression in young growing pigs. *Translational Animal Science*. Transl. Anim. Sci. 2019.3:113–123. doi: 10.1093/tas/txy109.
- Gastal, G.D.A., **J.M. Feugang**, F.L.N. Aguiar, G.M. Ishak, **C.A. Cavinder**, **S.T. Willard**, **P.L. Ryan**, E.L. Gastal. Effect of cryopreservation techniques on proliferation and apoptosis of cultured equine ovarian tissue. *Theriogenology*. <https://doi.org/10.1016/j.theriogenology.2018.11.034>.