ISSUE NO. 97

ANIMAL & DAIRY SCIENCES



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MISSISSIPPI STATE UNIVERSITY

EQUESTRIAN TEAM FALL TRYOUT MEETING

If you are a current student or an incoming freshman at MS State and you are interested in trying out for the equestrian team, please join us August 23rd at 6 PM!

The MS State Equestrian Team is an IHSA team that competes in Eq over fences, Eq on the flat, Horsemanship and Reining.

(580) 795-4349 m.me/msuequestriante am



ANIMAL AND DAIRY SCIENCES

consider a major in Animal and Dairy Sciences today!



MSU College of Agriculture and Life Sciences July 17 at 4:37 PM · 🚱

Lea Cornelius, Mississippi State University Animal & Dairy Sciences major enjoys an afternoon with the goats. Do you want hands-on learning? Consider a major in Animal and Dairy Science. #MSUAg http://ads.msstate.edu/



BOW CREEK RED ANGUS

Thank you Bow Creek Angus for allow our students to come and visit.



Alex Farrar is with Michael Agar and 5 others. Admin · July 29 at 8:02 AM

A big thank you to the Hess's at Bow Creek Red Angus in Pennsylvania for taking the time to show us around their operation. It is always a pleasure to visit with passionate producers and share ideas and knowledge. Thanks again for having us!

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SOUTHEAST CATTLE HANDLING AND ADVANCED BQA WORKSHOP

Everyone get ready for the Southeast Cattle Handling and Advanced BQA workshop. Visit extension.msstate.edu/beef



Our next Southeast Cattle Handling and Advanced BQA workshop will be held September 6 and 7 in Hattiesburg, MS. Applications are due by August 24.

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Check out this Farm and Family Radio Program for more information!

Visit extension.msstate.edu/beef for more information.

MSU 2018-2019 EQUESTRIAN TEAM SCHEDULE

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Mississippi State University Equestrian Team July 6 at 1:43 PM · 🚱

2018-2019 Competition Schedule!

September 1st- Scrimmage at MS State against Ole Miss and Bayview Equestrian Teams Oct 7th- at Wills Park Oct 20-21- at Berry College Oct 27-28- at University of Alabama Nov 10-11- at Auburn University Feb 2-3- at Berry College Feb 16th- at Judson College Feb 17th- at University of Alabama Feb 23rd- at Auburn University March 2nd- Regionals at Auburn University March 16-17- Western Semifinals in Florida TBD- Huntseat Zones May 2-5- Nationals in Syracuse, NY

ICE CREAM & A MOO-VIE



Lce Cream & a Moo-vie!

Come watch *Babe* at the Mississippi State University Dairy!

Saturday, August 25, 2018, 7 p.m. Bearden Dairy Research Center 2128 Turkey Creek Road Starkville, MS 39759

Bring your own blankets! Admission: Free \$5 for ice cream and popcorn (*Cash or check only*)

See you at the Moo-vie!

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. For disability accommodation, please contact Amanda Stone at (662) 325-3516 or amanda.stone@msstate.edu.

UPCOMING EXTENSION EVENTS

Beef Extension - Dr. Brandi Karisch & Cobie Rutherford

August 6, 2018 Homeplace Producers Feeder Calf Board Sale, Hattiesburg, MS Oct. 20-21, 2018 MSU Artificial Insemination Insemination School, MSU Campus

Phone: (662) 325-7465 or brandi.karisch@msstate.edu (662) 325-4344 or cobie.rutherford@msstate.edu

Dairy Events - Dr. Amanda Stone

Aug. 25, 2018 Ice Cream & a Moo-vie, Bearden Dairy, Starkville, MS Sept. 20-21, 2018 Cow Calf College 2018, Starkville (20th), Brookhaven (21st) Sept. 27-29, 2018 Breakfast on the Farm, Bearden Dairy, Starkville, MS

Phone: (662) 325-8773 or amanda.stone@msstate.edu Website: http://extension.msstate.edu/dairy

4-H Events - Dr. Dean Jousan

Sept.11-14, 2018 Retinal Image/Classify livestock for 2018 Mississippi State Fair & 2019 District Dixie National Junior Round-Up, Various cities, MS

Phone: (662) 325-2424 or dj230@msstate.edu Website: www.http://extension.msstate.edu/4-h

Equine Events - Dr. Clay Cavinder

Contact Dr. Cavinder for information about programs and events.

Phone: (662) 325-7566 or clay.cavinder@msstate.edu Website http://extension.msstate.edu/agriculture/livestock/equine/upcomingprograms

2018 Refereed Publications

- Ishak, G. M., S. T. Bashir, G. A. Dutra, G. D. A. Gastal, M. O. Gastal, C. A. Cavinder, J. M. Feugang, and E. L. Gastal. In vivo antral follicle wall biopsy: a new research technique to study ovarian function at the cellular and molecular levels. *Reproductive Biology and Endocrinology* (2018) 16:71. https://doi.org/10.1186/s12958-018-0380-8.
- Humphrey, R. M., Z. Yang, M. S. Hasan, M. A. Crenshaw, D. D. Burnett, J. K. Htoo and S. F. Liao. The compensatorily -gained pigs resulted from feeding a methionine-deficient diet had more fat and less lean body mass. *Journal of Applied Animal Nutrition*, Vol. 6; e6; page 1 of 7. https://doi.org/10.1017/JAN.2018.5.
- Griffin, Courtney M., BS; Jenna A. Scott, BS; Brandi B. Karisch, MS, PhD; Amelia R. Woolums, DVM, MVSc, PhD, DACVIM, DACVM; John R. Blanton, MS, PhD; Ray M. Kaplan, DVM, PhD, DEVPC, DACVM; William B. Epperson, DVM, MS, DACVPM (Epidemiology); David R. Smith, DVM, PhD, DACVPM (Epidemiology). A randomized controlled trial to test the effect of on-arrival vaccination and deworming on stocker cattle health and growth performance. *The Bovine Practitioner*, Vol. 52, No. 1.
- Sun, Yuhang, Jin Liu, Gengping Ye, Fang Gan, Mohammed Hamid, Shengfa Liao, Kehe Huang. Protective effects of zymosan on heat stress-induced immunosuppression and apoptosis in dairy cows and peripheral blood mononuclear cells. *Cell Stress and Chaperones*. https://doi.org/10.1007/s12192-018-0916-z.
- Woolums, Amelia R., Brandi B. Karisch, Jonathan G. Frye, William Epperson, David R. Smith, John Blanton Jr., Frank Austin, Ray Kaplan, Lari Hiott, Tiffanie Woodley, Sushim K. Gupta, Charlene R. Jackson, Michael McClelland. Multidrug-resistant Mannheimia haemolytica isolated from high-risk beef stocker cattle after antimicrobial metaphylaxis and treatment of bovine respiratory disease. *Veterinary Microbiology* 221 (2018) 143-152. https:// doi.org/10.1016/jvetmic.2018.06.005.
- Sukumaran, Anuraj T., Alexander J. Holtcamp, Yan L. Campbell, Derris Burnett, Mark W. Schilling, Thu T.N. Dinh. Technological characteristics of pre- and post-rigor deboned beef mixtures from Holstein steers and quality attributes of cooked beef sausage. *Meat Science*. 145 (2018) 71–78. https://doi.org/10.1016/ j.meatsci.2018.06.001.
- Hart, CG, BE Voelz, KE Brockus, **CO Lemley**. Hepatic steroid inactivating enzymes, hepatic portal blood flow and corpus luteum blood perfusion in cattle. *Reproduction in Domestic Animals*. 2018;53:751–758.
- Camacho, L.E., C.O. Lemley, S.T. Dorsam, K.C. Swanson, K.A. Vonnahme. Effects of maternal nutrient restriction followed by realimentation during early and mid-gestation in beef cows. II. Placental development, umbilical blood flow, and uterine blood flow responses to diet alterations. *Theriogenology.* https://doi.org/10.1016/ j.theriogenology.2018.04.013.
- Lemley, C.O., L.E. Camacho, D.M. Hallford, K.A. Vonnahme. Uteroplacental secretion of progesterone and estradiol 17beta in an ovine model of intrauterine growth restriction. *Animal Reproduction Science*. 193 (2018) 68-78. https://doi.org/10.1016/j.anireprosci.2018.04.001.
- T. Williams, B. Rude, S. Liao, C. Mochal-King, M. Nicodemus. Effects of fat supplementation on plasma glucose, insulin and fatty acid analysis in ponies maintained on a forage- based diet. *Journal of Animal Physiology and Animal Nutrition*. 2018;1–8. DOI: 10.1111/jpn.12905.
- Gastal, G.D.A., **J.M. Feugang**, F.L.N. Aguiar, A.P.R. Rodrigues, J.M. Scimeca, G.A. Apgar, W.J. Banz, E.L. Gastal. Cryopreservation and in vitro culture of white-tailed deer ovarian tissue. *Theriogenology*. 113 (2018) 253-260.

2018 Refereed Publications

- Velho, Ana Luiza Cazaux, Einko Topper, Erika Menezes, Thu Dinh, Abdullah Kaya, Arlindo Alencar Moura, Erdogan Memili. Metabolomic markers of fertility in bull seminal plasma. PLOS ONE. https://doi.org/10.1371/ journal.pone.0195279.
- Owen, MPT, EN Ferjak, **CA Cavinder**, KJ McCarty, KC Yankey, CG Hart, **DD Burnett**, **TTN Dinh**, **CO Lemley**. Effects of body condition score (BCS) on steroid- and eicosanoid- metabolizing enzyme activity in various mare tissues during winter anoestrus. *Reproduction in Domestic Animals*. 2018;53:296–303. https://doi.org/10.1111/rda.13104.
- Park, Seong B., Scott T. Willard, Christy S. Steadman, Atul A. Chaudhari, Shreekumar R. Pillai, Shree R. Singh, Peter L. Ryan and Jean M. Feugang. Proteomic analysis of antimicrobial effects of pegylated silver coated carbon nanotubes in Salmonella enterica serovar Typhimurium. *Journal of Nanobiotechnology*. (2018) 16:31 https://doi.org/10.1186/s12951-018-0355-0.
- Cavinder, C. A., PAS, E. N. Ferjak, C. A. Phillips, D. D. Burnett, and T. T. N. Dinh. REVIEW: The importance of overall body fat content in horses. *The Professional Animal Scientist* 34:125–132. https://doi.org/10.15232/pas.2017-01708.
- Sukumaran, Anuraj T., Alexander J. Holtcamp, April K. Englishbey, Yan L. Campbell, Taejo Kim, Mark W. Schilling, Thu T.N. Dinh. Effect of deboning time on the growth of Salmonella, E. coli, aerobic, and lactic acid bacteria during beef sausage processing and storage. *Meat Science* 139 (2018) 49–55.
- Wang, T., M. A. Crenshaw, N. Regmi, B. J. Rude, M. S. Hasan, A. T. Sukumaran, T. Dinh, and S. F. Liao. 2018. Effects of dietary lysine level on the content and fatty acid composition of the intramuscular fat in late-stage finishing pigs. *Canadian Journal of Animal Science*. 98: 241-249. DOI: dx.doi.org/10.1139/cjas-2017-0083.
- Owen, M.P.T., K.J. McCarty, C.G. Hart, C.S. Steadman, C.O. Lemley. Endometrial blood perfusion as assessed using a novel laser Doppler technique in Angus cows. *Animal Reproduction Science*. 190 (2018) 119-126. https:// doi.org/10.1016/j.anireprosci.2018.01.015.
- Feugang, Jean M., Shengfa F. Liao, Scott T. Willard, and Peter L. Ryan. In-depth proteomic analysis of boar spermatozoa through shotgun and gel-based methods. *BMC Genomics*. (2018) 19:62 DOI 10.1186/s12864-018-4442-2.
- Liao, Shengfa F., Naresh Regmi, Guoyao Wu. Homeostatic Regulation of Plasma Amino Acid Concentrations. *Frontiers in Bioscience, Landmark.* 23, 640-655, January 1, 2018.
- Feugang, Jean M., Shengfa F. Liao, Scott T. Willard, and Peter L. Ryan. In-depth proteomic analysis of boar spermatozoa through shotgun and gel-based methods. *BMC Genomics*. (2018) 19:62 DOI 10.1186/s12864-018-4442-2.
- Liao, Shengfa F., Naresh Regmi, Guoyao Wu. Homeostatic Regulation of Plasma Amino Acid Concentrations. *Frontiers in Bioscience, Landmark.* 23, 640-655, January 1, 2018.

2018 Book Chapters:

Jain, Sapna, Seong B. Park, Shreekmar R. Pillai, Peter L. Ryan, Scott T. Willard and Jean M. Feugang. Applications of Fluorescent Quantum Dots for Reproductive Medicine and Disease Detection. In Unraveling the Safety Profile of Nanoscale Particles and Materials—From Biomedical to Environmental Applications, Chapter 6, pp. 133-148, http://dx.doi.org/10.5772/intechopen.72978.