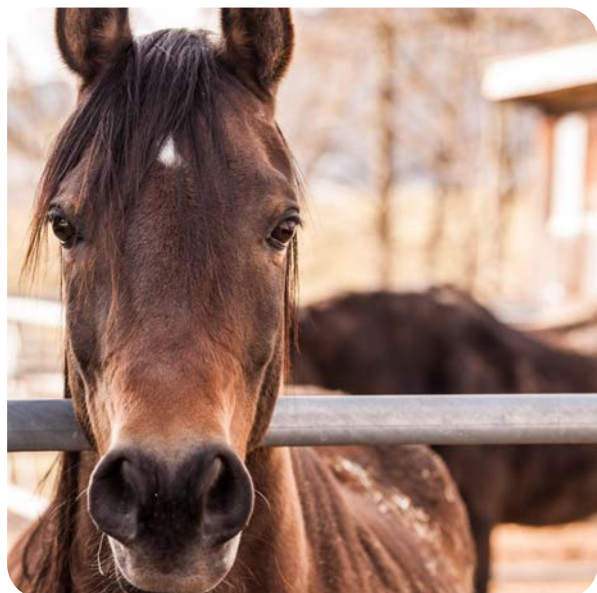


ANIMAL & DAIRY SCIENCES



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MISSISSIPPI STATE UNIVERSITY

STUDENT SPOTLIGHT

Karrigan Bowers is an Animal & Dairy Sciences and Biochemistry double major from Olive Branch, MS. She chose these two majors because she enjoys working closely with animals as well as doing lab work. With these two majors, she gets in depth exposure to both agriculture and biochemistry. The best thing about CALS, for her, is how well the staff help students gain experience in their chosen field! "I've personally been able to complete my own research project within the ADS department through the CALS Undergraduate Research Scholars program my sophomore year. My project entailed injecting sheep with vasoactive compounds in order to examine uterine placental blood perfusion using Doppler ultrasonography. This program helped me to gain so much experience, from learning how to do RNA extractions to performing tissue stains! CALS has really helped to shape me into a well-rounded student ready for the career I plan to pursue upon graduation."



FALL T-SHIRTS



Sydney Taylor Peek ► Mississippi State University Collegiate Cattlemen's Association

Admin · Follow · September 11 ·

T-shirt's proofs are here!!! If you would like to order our fall T-shirt, comment below or text or pm [Alex Pittman](#) with your name and tshirt size. They are comfort color and cost \$20. Money will be due at our next meeting on October 2. We must have your money before ordering! We can also ship T-shirt's for \$8!

MISSISSIPPI STATE UNIVERSITY COLLEGIATE CATTLEMAN'S ASSOCIATION FALL 2018

September 4 - Interest Meeting

October 2 - Meeting *Dues are Due!

October 3-14 - State Fair

November 6 - Meeting

November 10 - Fall Trip

November 30 - Christmas Party

COMMISSIONER OF AGRICULTURE



Mississippi State University
Extension Beef



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Thank you to our Commissioner of Agriculture, Mr. Andy Gipson for addressing the consignor group at the pre-sale meeting!





NORTH MISSISSIPPI BEEF EXPO

PLEASE JOIN US FOR THE 2018 NORTH MISSISSIPPI BEEF EXPO

OCTOBER 26, 8:00 A.M., BATESVILLE CIVIC CENTER
290 CIVIC CENTER DRIVE, BATESVILLE, MS 38606

8:00- Registration

9:00- Gene Lowery

"Preparing Cattle for the Feedlot Stage"

9:45- Dr. Jason Banta: Nutrition

"Pre-Weaning and Pre-Conditioning"

10:30- Break and Trade Show

11:00- Dr. Amelia Woolums: Stocker Health

"Disease Diagnosis and Prevention"

11:45- Lunch and Trade Show

12:45- Andy Berry: MS Cattlemen's Association

1:15- Producer Panel



**MISSISSIPPI STATE UNIVERSITY™
EXTENSION**



For more information, contact Lance Newman at lance.newman@msstate.edu or 662-832-4586.



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BREAKFAST

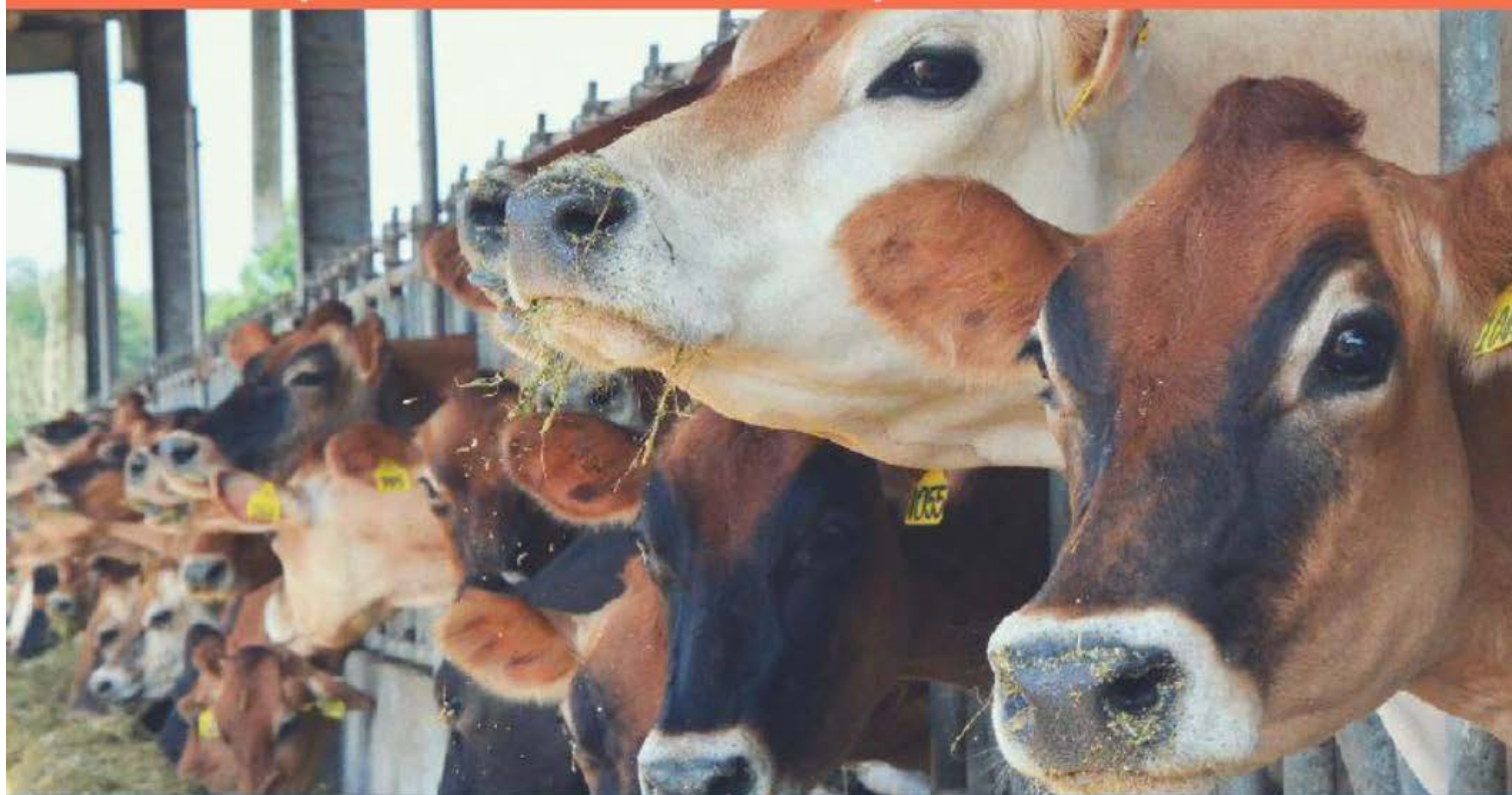
on the

FARM!

Register online at
<http://extension.msstate.edu/breakfast>

Registration is **REQUIRED** by
September 1*.

Bearden Dairy Research Center | 2128 Turkey Creek Rd, Starkville, MS 39759



- September 27 & 28 -

9 a.m. to noon

open to school groups and field trips

Admission is only \$5!!

- free for teachers & children under 2 -

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

Dairy tour

Dissections

Milk a cow

Games

Hands-on activities

- September 29 -

9 a.m. to noon

open to families



UPCOMING EXTENSION EVENTS

Beef Extension - Dr. Brandi Karisch & Cobie Rutherford

Oct. 20-21, 2018 MSU Artificial Insemination Insemination School, MSU Campus

Oct. 26, 2018 North MS Beef Expo, Batesville, MS

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

(662) 325-4344 or cobie.rutherford@msstate.edu

Beef Calendar: <http://extension.msstate.edu/livestock/beef/beef-calendar>

Dairy Events - Dr. Amanda Stone

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

August 2018 Animal Lines Newsletter that focuses on the District, State, and Regional 4-H Horse Shows held from June to last week is online:

<https://extension.msstate.edu/newsletters/4h-animal-lines-newsletters/2018/august-2018-4-h-animal-lines>

(662) 325-2424 or dj230@msstate.edu [www.http://extension.msstate.edu/4-h](http://www.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/upcoming-programs>

2018 Refereed Publications

- Dinh, T.T.N.**, J.F. Legako, M.F. Miller, J.C. Brooks. Effects of USDA quality grade and cooking on water-soluble precursors of beef flavor. *Meat Science*. 146 (2018) 122-130. <https://doi.org/10.1016/j.meatsci.2018.08.008>.
- Littlejohn, Brittni P., David G. Riley, Thomas H. Welsh, Jr, Ronald D. Randel, **Scott T. Willard**, and **Rhonda C. Vann**. Use of random regression to estimate genetic parameters of temperament across an age continuum in a crossbred cattle population. *Journal of Animal Science*. 2018. 96:2607–2621. doi: 10.1093/jas/sky180.
- Vu, P. T. T., A. J. Holtcamp, A. T. Sukumaran, M. V. V. Le, D. H. Nguyen, & **T. T. N. Dinh**. (2018). Effects of market type and time of purchase on oxidative status and descriptive off-odors and off-flavors of beef in Vietnam. *Meat science*, 145, 399-406. <https://doi.org/10.1016/j.meatsci.2018.07.018>.
- 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/j.vetmic.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>.

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- 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.
- 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](https://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.

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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>.