

# ANIMAL & DAIRY SCIENCES



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# MISSISSIPPI STATE UNIVERSITY

# BREAKFAST ON THE FARM

Registration for Breakfast on the Farm is now open! Please see the flier below for dates, times, and more information on what this event will entail! Please register online at <https://register.extension.msstate.edu/breakfast-farm> or go to [extension.msstate.edu/breakfast](http://extension.msstate.edu/breakfast) and click "Registration." You may pay by credit card, e-check, or mail a check. REGISTRATION AND PAYMENT MUST BE RECEIVED BY SEPTEMBER 1 or your spot will be released to someone else. Please contact Amanda Stone at [amanda.stone@msstate.edu](mailto:amanda.stone@msstate.edu) with any questions.



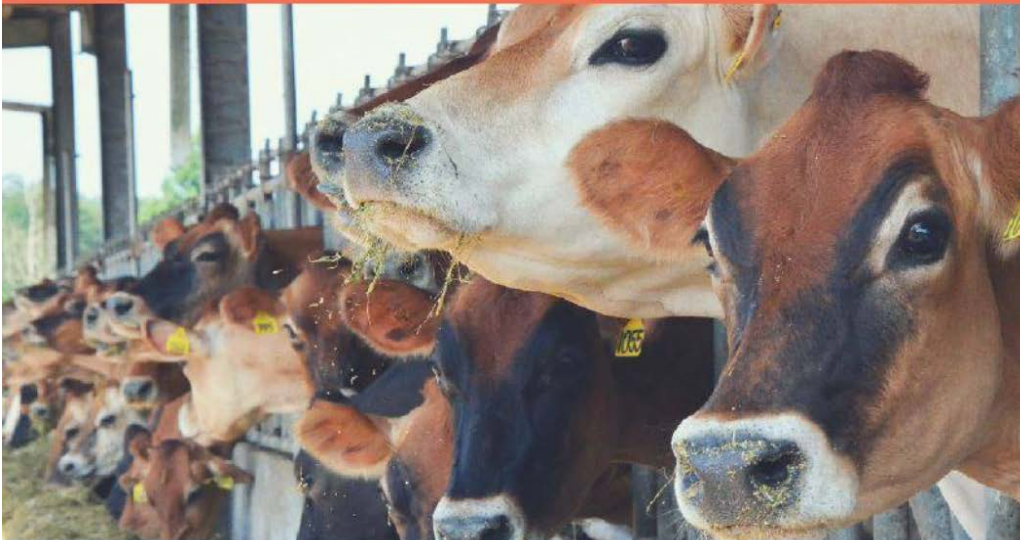
MISSISSIPPI STATE UNIVERSITY™  
EXTENSION

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

## BREAKFAST on the FARM!

Registration is REQUIRED by  
September 1\*

Bearden Dairy Research Center | 2125 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](mailto:amanda.stone@msstate.edu)

Dairy tour  
Milk a cow  
Games  
Dissections  
Hands-on activities

- September 29 -  
**9 a.m. to noon**  
open to families

# EQUINE ASSISTED THERAPY COURSE OFFERS RESEARCH OPPORTUNITIES TO GRADUATE STUDENTS

ADS 3233 Equine Assisted Therapy (EAT) is a course offered both in the fall and spring semesters by the Animal & Dairy Sciences Department (ADS). A part of the course has the students assist with the therapeutic riding program coordinated through the MSU 4-H Extension Programs at the Elizabeth A. Howard Riding Arena in West Point, Mississippi. Students work with a variety of disabilities, both youths and adults, as they interact and ride horses. While the course is taught at the undergraduate level, graduate students have the chance to assist with the course and the therapy activities, which allows them an opportunity to also conduct research in EAT. Two of these graduate students, Holly Evans, an ADS MS student, and Katie Cagle-Holtcamp, an Animal Physiology PhD student, presented last month their EAT research at the Mississippi Academy of Sciences 2nd Annual Summer Student Science Symposium and plan to present this same research at the 2018 Professional Association of Therapeutic Horsemanship International Conference this October. Further EAT research and greater student participation will be possible this fall semester with the addition of another laboratory section to the ADS 3233 course and a recent grant awarded to course instructor Dr. Molly Nicodemus by the Schillig Special Teaching Projects Program. Individuals interested in the course or the associated EAT research can contact Dr. Nicodemus at [mnicodemus@ads.msstate.edu](mailto:mnicodemus@ads.msstate.edu).

Katie Cagle-Holtcamp at the MAS 2nd Annual Summer Student Science Symposium



Holly Evans at the MAS 2nd Annual Summer Student Science Symposium



# 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/msuequestrianteam



## Equestrian Team

### Fall Tryout Meeting

Aug 23<sup>rd</sup> in Wise 4043 @ 6PM

Questions: contact Coach Ashley Shiffler

[Aes779@msstate.edu](mailto:Aes779@msstate.edu)



# SOUTHEAST CATTLE HANDLING AND ADVANCED BQA WORKSHOP

Everyone get ready for the Southeast Cattle Handling and Advanced BQA workshop. Visit [extension.msstate.edu/beef](http://extension.msstate.edu/beef)



**Mississippi State University Extension Beef**



Yesterday at 12:50 PM · 🌐

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.

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

Visit [extension.msstate.edu/beef](http://extension.msstate.edu/beef) for more information.

# MSU 2018-2019 EQUESTRIAN TEAM SCHEDULE



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



*Ice 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!*



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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](mailto:amanda.stone@msstate.edu).



# ICE CREAM & A MOO-VIE REGISTRATION

<https://register.extension.msstate.edu/breakfast-farm>



**Mississippi State University Extension Dairy**



1 hr · 🌐

Breakfast on the Farm registration spots are going fast! There are only two tour times left open on Thursday, 4 on Friday, and all 6 on Saturday. If you're planning on coming, please register soon to make sure you reserve your spot!

<https://register.extension.msstate.edu/breakfast-farm>

REGISTER.EXTENSION.MSSTATE.EDU

## **Breakfast on the Farm | Extension Registration Portal**

Dr. Amanda Stone Mississippi State University – ADS Department  
Box 9815 Mississippi State, MS 39762 Checks need to be made out to "MSU"



# EMANUEL MIRELES



**MSU College of Agriculture and Life Sciences**



July 19 at 11:21 AM · 🌐

Just horsing around. Emanuel Mireles, a Mississippi State University Animal & Dairy Sciences major, has been spending the summer working for the #MAFES Equine Unit. Opportunities abound for #MSUAg students. Find out more at <http://cals.msstate.edu/students/prospective.asp>



# 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](mailto:brandi.karisch@msstate.edu)

(662) 325-4344 or [cobie.rutherford@msstate.edu](mailto:cobie.rutherford@msstate.edu)

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

## **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](mailto: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](mailto:dj230@msstate.edu)    [www.http://extension.msstate.edu/4-h](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](mailto:clay.cavinder@msstate.edu)

Website <http://extension.msstate.edu/agriculture/livestock/equine/upcoming-programs>

## 2018 Refereed Publications

- 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>.
- 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.



## 2018 Refereed Publications

- 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.
- 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>.