MISSISSIPPI STATE

Vol. 67 Oct. 13, 2017

Animal and Dairy RANGES SCIENCES News& Current Events

Teaching
 Research
 Extension
 Departmental Activities



Mississippi State University Animal & Dairy Sciences shared Mississippi State University Horse Unit's event.

October 5 at 2:10pm · 🚱

The Mississippi State University Horse Unit will be holding an Open House and Sale Preview Day on November 18th from 9-11. Great opportunity to view all sale horses prior to bidding, meet the unit staff and students and learn about all the activities that take place at the MS State Horse Unit.



NOV

MS State University Horse Unit ...

18

Sat 9 AM · Mississippi State University Ho ... 121 people interested

★ Interested



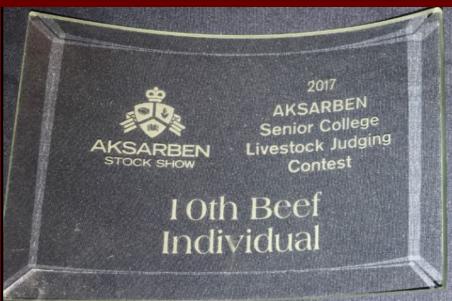




Mississippi State Vniversity Livestock Judging Team

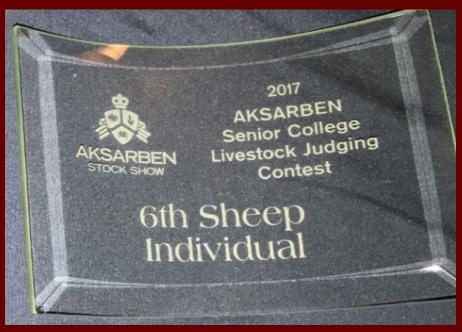
The Livestock Judging Team made a weekend trip competing in two different contests, the Flint Hills Mid-America Classic in Hutchinson, KS and the AKSARBEN contest in Grand Island, NE.

Team member, Kirsten Midkiff, received recognition for her performance at AKSARBEN which drew national participation from 118 senior college contestants representing 15 different universities.



Congratulations to Kirsten on the following accolades:

6th high individual-Sheep/Goat
Division



10th high individual-Cattle Division

13th high individual overall (just 3 points shy of the topten)



Meet the 2017 MSU Horse Judging Team! Introducing Tori Stroupe from Tupelo, MS.

"I am majoring in Agriculture with a concentration of leadership in hopes to pursue a career in Agricultural Law one day. Currently a junior at Mississippi State, I have the privilege to be apart of the 2017 Horse Judging Team. I not only have had the opportunity to meet a wonderful, hard-working group of individuals, but I have improved myself in ways I did not see possible before. For example, I have been imprinted with the confidence not only to give oral reasons of a select equestrian class, but also with the confidence I had been longing for in my everyday life. The team has made me wiser and more observant of the classes I have grown up showing in and how to present myself and voice my opinions respectively and factually. The willingness to learn has promoted my teammates and myself abundantly so far. We cannot wait to see what the rest of the season has in store for us and especially what milestone we will encounter next."



National 4-H Dairy Confrence



Mississippi State University Extension Dairy added 14 new photos.

October 7 at 4:57pm · 🚱

Had the pleasure of spending the week with about 200 smart teenagers interested in potentially pursuing a career in dairy at the National 4H Dairy Conference. As you can see from just one morning of activities, they had the chance to learn a lot! Any time I spend time with young people involved in agriculture, I am always amazed at how respectful, inquisitive, smart, and kind they are - and this event was no different. Grateful for the opportunity to speak with these great young people and spend a couple hours seeing great cows at World Dairy Expo!

Posted on Facebook, Dr. Amanda Stone











Mississippi State University Horse Unit

October 11 at 4:17pm · 🚱

The MS State Horse Sale dates have been set! Online bidding will open on Friday, November 24th and will close on the evening of November 26th. Don't forget to join us on November 18th for a live preview of all sale horses at the MS State Horse Unit!





Comment Share







Breakfast on the Farm!

Breakfast on the Farm



1300!

FRIDAY, OCTOBER 27 19 A.M.-NOON open to school groups & field trips

SATURDAY, OCTOBER 28 1 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



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

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



2017 Refereed Publications

- Durfey, Casey L., Derris D. Burnett, Shengfa F. Liao, Christy S. Steadman, Mark A. Crenshaw, Henry J. Clemente, Scott T. Willard, Peter L. Ryan, Jean M. Feugang. Nanotechnology-based selection of boar spermatozoa: growth development and health assessments of produced offspring. Livestock Science. 205 (2017) 137-142. http://dx.doi.org/10.1016/j.livsci.2017.09.024
- **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 insulincontaining 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.

2017 Refereed Publications:

- 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. PHYSIOIOGY 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.
- 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. Prebreeding 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.animalscincepublications.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.