

MISSISSIPPI STATE
UNIVERSITY.

Animal and Dairy SCIENCES

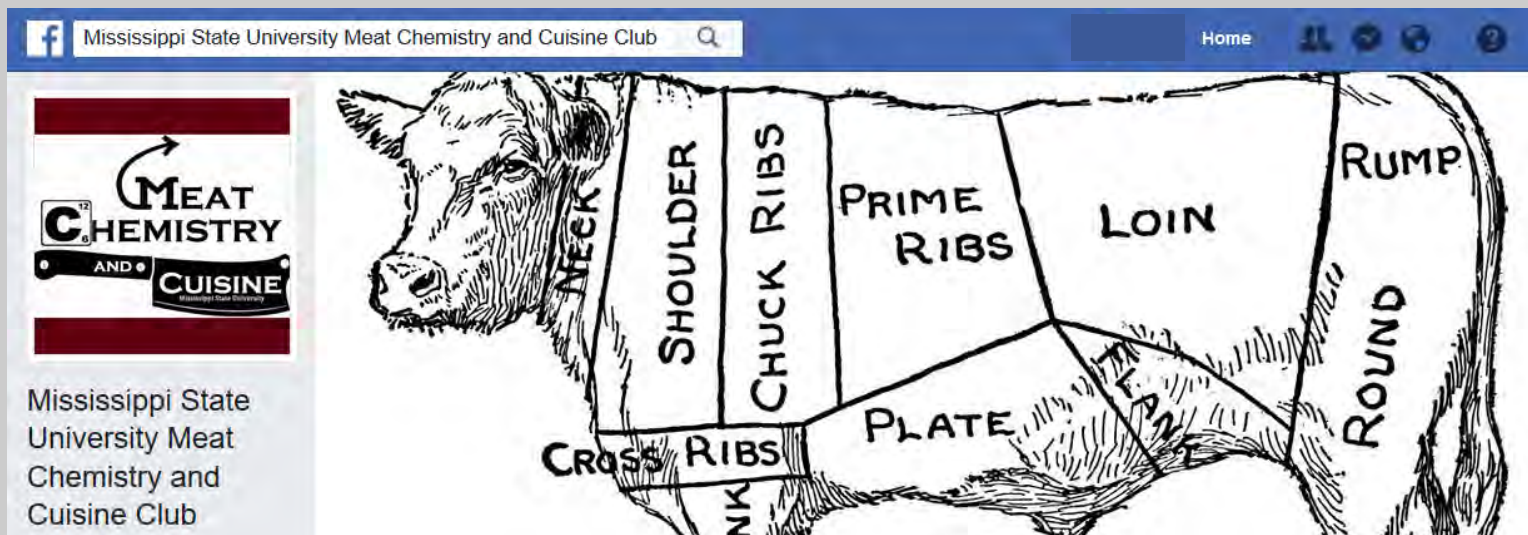


NEWS & *Current Events*

Vol. 64 September 22, 2017

• Teaching • Research • Extension • Departmental Activities

Mississippi State University Meat Chemistry and Cuisine Club



FUNDRAISER:

T-shirts and Meat Sale

Contact: Tori Morris at vem42@msstate.edu or Faith Anderson at fma36@msstate.edu

**Tshirt sale ends September 20th and the meat sale ends September 22nd!

MISSISSIPPI STATE UNIVERSITY COLLEGIATE CATTLEMEN'S ASSOCIATION

National Cattlemen's Beef Association

August 22 at 1:03pm

Like Page

It's time to apply to become an intern for the 2018 Cattle Industry Convention & NCBA Trade Show! #CattleCon18 interns will have a unique opportunity to gain experience within the cattle industry while networking with industry leaders from every segment of the beef industry. Apply today: [https://goo.gl/CyCxjp!](https://goo.gl/CyCxjp)

And don't forget, registration for the convention opens October 2!



**2018
CATTLE INDUSTRY
CONVENTION
& NCBA TRADE SHOW
JANUARY 31-FEBRUARY 2, 2018**

Get Connected
**BECOME AN
INTERN**

#BEEFMEET
www.BeefUSA.org

Sponsored By  Tyson







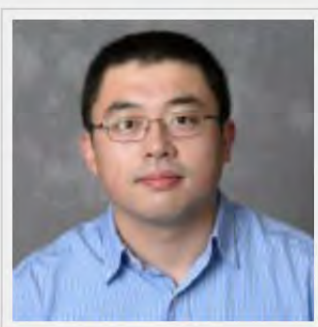




SEC Faculty Travel Program



Mississippi State University

		
Ganesh Kumar Forestry	Yucheng Liu Mechanical Engineering	Zhujun Pan Kinesiology
		
Eric Sparks Marine Sciences	Alyssa Sullivant Veterinary Medicine	Rhonda Vann Animal Sciences
		
Xu Zhang Mathematics		

Congratulations, **Rhonda Vann** for being selected as a 2017-2018 SEC Faculty Travel Program Participant.

Thad
Cochran
AGRICULTURAL LEADERSHIP
PROGRAM

Program By:



“Developing early career leaders in agriculture and rural communities across Mississippi through rigorous instruction, personal development, and educational excursions.”

Congratulations, **William White** for being accepted into the Thad Cochran Leadership program!!



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HORSE UNIT HORSE UNIT HORSE UNIT HORSE UNIT



Mississippi State University Horse Unit
added 5 new photos.

September 19 at 5:47pm · 🌐

The MSU Horse Sale is quickly approaching! Here is a preview of the 2 year olds that will be available. Pictures and videos will be posted soon!

AMERICAN PAINT HORSE ASSOCIATION
CERTIFICATE of REGISTRATION

Registered Name MSU LEO CHICK BAR	Registration Number 1,054,063	Type of Registration REGULAR
Color GRULLO	Pattern Type TOB/OVR	Sex STALLION
Foaling Date APRIL 30, 2015	State/Province Foaled MISSISSIPPI	
Breeder (Owner of Dam at Time of Breeding) MISSISSIPPI STATE UNIV MISSISSIPPI STAT, MISSISSIPPI		ID# - 7244000
Original Owner MISSISSIPPI STATE UNIV MISSISSIPPI STAT, MISSISSIPPI		ID# - 7244000
Current Owner MISSISSIPPI STATE UNIV MISSISSIPPI STAT, MISSISSIPPI		ID# - 7244000

Sire DUN BAR LEO
424,270
GRULLO/TOBIANO

- DUN BAR DOC 225,126 DUN/TOBIANO
- LEOTA ETERNAL BARS 209,523 BLACK/TOBIANO
- OH CHICKS 244,938 SORREL/OVERO
- COPPER PINE FLOWER (QH) 2,047,741 SORREL
- KING BAR SIMON 66,820 DUN/TOBIANO
- UNO MARIA LEO (QH) 1,528,792 SORREL
- KERSEY DANDY BAR (QH) 1,388,720 SORREL
- MISS ETERNAL LADY 68,540 BLACK/TOBIANO
- CC TRIPLE LOOT 147,508 SORREL/OVERO
- OH FANCY GIRL (QH) 1,679,127 SORREL
- BOOMER PINE (QH) 1,032,140 SORREL
- EARLY FLOWER (QH) 1,436,460 BLACK

Dam COPPER PINE CHICK
511,205
SORREL/OVERO

Remarks:
Left eye blue

Date Registered
OCTOBER 01, 2015

Executive Director

Transfer Record

MSU LEO CHICK BAR

AMERICAN PAINT HORSE ASSOCIATION

Transfer Record

MSU LEO CHICK BAR

AMERICAN PAINT HORSE ASSOCIATION

AMERICAN QUARTER HORSE ASSOCIATION
CERTIFICATE OF REGISTRATION

MSU WOODY ACRES

AMERICAN QUARTER HORSE ASSOCIATION

MSU WOODY ACRES

AMERICAN QUARTER HORSE ASSOCIATION

Facebook: <https://www.facebook.com/Mississippi-State-University-Horse-Unit-230050543736303/>

Website: www.msstate.edu/Equine

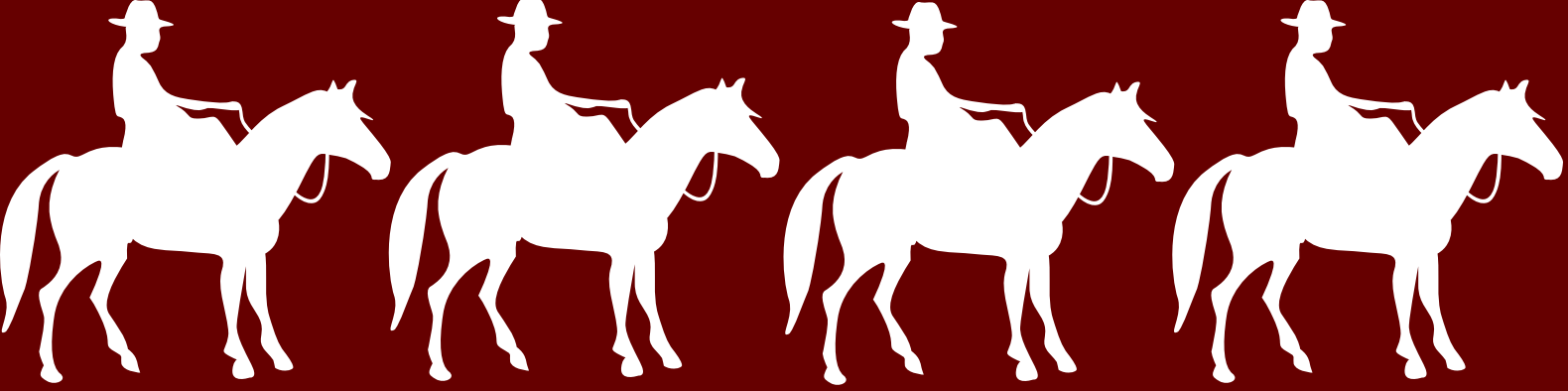
Dairy Cattle Quiz Bowl

2017 Junior 4-H Dairy Cattle Quiz Bowl Competition scheduled to be conducted at 4:00 p.m. Thursday, October 12th during the Mississippi State Fair in the Kirk Fordice Equine Center on the State Fairgrounds in Jackson.

Go to:

<http://extension.msstate.edu/publications/publications/how-get-started-4-h-dairy-quiz-bowl> for more information!

The Dairy Quiz Bowl contest requires four 4-H members for a team, but it is ideal to have five team members (one member is an alternate). Teams will compete in a series of one-on-one matches against another team in a single-elimination format. In each match, you compete with other 4-H members from your county in three phases to answer questions related to the dairy industry. Phase A is a written exam, Phase B consists of team questions, and Phase C is a toss-up round.



Mississippi State University Animal & Dairy Sciences



Yesterday at 9:09am · 🌐

<https://www.youtube.com/watch?v=VhPRCiyotaE>



Horse Scrimmage

Mississippi State's Equestrian club prepares for its upcoming season by...

YOUTUBE.COM

Mississippi State's Equestrian club prepares for its upcoming season by hosting a scrimmage.

Scrimmage covered by WCBI. Watch the full clip at: <https://www.youtube.com/watch?v=VhPRCiyotaE>

Breakfast on the Farm



MISSISSIPPI STATE UNIVERSITY
DEPARTMENT OF ANIMAL
AND DAIRY SCIENCES

BOO!

FRIDAY, OCTOBER 27 | 9 A.M.-NOON

open to school groups & field trips

SATURDAY, OCTOBER 28 | 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



MISSISSIPPI STATE UNIVERSITY™
EXTENSION

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:

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 insulin-containing 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.

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. PHYSIOLOGY 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.

2017 Refereed Publications:

- 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. Pre-breeding 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.animalsciencepublications.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.