

- Teaching
- Research
- Extension
- Departmental Activities

## 2017 STATE 4-H CONGRESS

Providing positive leadership and educational opportunities for senior 4-H members and to develop young people to their fullest potential. **Dr. Dean Jousan** works tirelessly to developing youth programs, conducting contests, coordinating Dixie National and handing out well-deserved awards.



Dean Jousan & 4-H Award Recipient

Dr. Jousan coordinated activities and contests such as:

- 4-H Dairy Poster
- Beef Visual Presentation
- Dairy Animals; Dairy Foods Visual Presentation
- Sheep; Swine; Meat Goats Visual Presentation
- Dairy Products Judging
- Meats Judging
- Dairy Bowl
- Livestock Bowl



# ANIMAL & DAIRY SCIENCES SUCCESS STORIES



**ADS Alumni Michelle Elmore, recipient of the 2017 BIF Continuing Service of Award with Jane Parrish**



**New ADS Grad, Michael Agar, Director of Industry Relations & Youth Programs for Alabama Cattlemen's Association**



**ADS graduates and sisters, Jessica and Rachel Wilson were featured on FARMWEEK**

**"MSU Vet Sisters Share Their Journey" June 8, 2017**

**Both are enrolled at the College of Veterinary Medicine at Mississippi State University**

**Watch the video posted on the YouTube channel, "MissStateExtension" at this link:**

**[https://youtu.be/dehanzqS\\_il](https://youtu.be/dehanzqS_il)**



# Professor attends Bioethics Workshop

Dr. Erdogan Memili completed the *Agricultural Animal Bioethics* workshop in Indianapolis, IN, June 4-7, 2017. The workshop was funded through a USDA Higher Education Challenge grant to Drs. Candace Croney (PI; Purdue University), and to



**Agricultural Animal Bioethics**

the Co-PIs Drs. Alan Beck (Purdue University) Raymond Anthony (University of Alaska, Anchorage), Ray Stricklin (University of Maryland, College Park), Janice Siegford and Janice Swanson (Michigan State University), and Gary Varner (Texas A & M University) [<https://vet.purdue.edu/CAWS/bioethics/>]. Participating faculty members from many universities were empowered with knowledge on contemporary animal bioethics and best practices in teaching livestock bioethics to undergraduate and graduate students.

## Genomic testing can improve state dairy herds

By Jessica Smith  
MSU Extension Service

STARKVILLE, Miss. -- A Mississippi State University scientist is using genomic testing to help improve the profitability of commercial dairies in Mississippi. Amanda Stone, who became the MSU Extension Service dairy specialist and a researcher with the Mississippi Agricultural and Forestry Experiment station in August, is exploring ways to make dairy herds more efficient. She is studying the advantages of genomic testing in the MSU dairy herd.

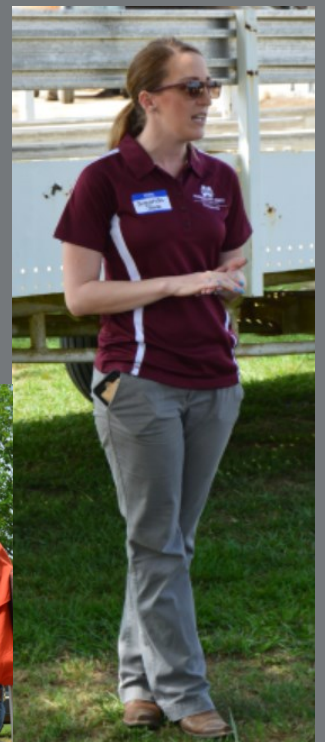


**Amanda Stone**

Read complete article online at : <http://extension.msstate.edu/news/feature-story/2017/genomic-testing-can-improve-state-dairy-herds>



## Dairy Open House Pics



# Upcoming Extension Events

## Beef Extension – Dr. Brandi Karisch Cobie Rutherford



- Warm-season Forage Field Day on June 23, Starkville, MS
- Stockmanship and Stewardship Regional Event, August 3-4, Starkville MS

## Equine Events – Dr. Clay Cavinder



- Upcoming Programs are online at: <http://extension.msstate.edu/agriculture/livestock/equine/upcoming-programs>
- For more info, contact Dr. Cavinder at [clay.cavinder@msstate.edu](mailto:clay.cavinder@msstate.edu)

## 4-H Events – Dr. Dean Jousan



- NE District 4-H Horse Show, June 7-10, Starkville, MS
- Mississippi 4-H State Horse Championship, June 20-24, Jackson, MS

## Dairy Events – Dr. Amanda Stone



- Events and publications are online at: <https://extension.msstate.edu/dairy>

## 2017 Refereed Publications:

- 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.
- 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](http://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.