



MISSISSIPPI STATE UNIVERSITY™

DEPARTMENT OF ANIMAL AND DAIRY SCIENCES



Our Mission:

Our faculty are committed to serving the citizens of this state through teaching, research and extension programs. Research and extension centers are located strategically throughout the state. Animal research facilities at the Leveck Animal Research Center, Bearden Dairy Cattle Research Center, Prairie Research Unit, Brown Loam Research Station, and the White Sands Unit give faculty opportunities to investigate the challenges facing the livestock industry.

Our Mission is to provide science-based solutions for animal agriculture through innovative and effective education, research and extension programming. Our Vision is Building the Future of Agriculture.

IN THIS ISSUE:

Horseman's Association Sponsors
Louisville Open Horse Show

2019 All East Contest

Equine Graduate Students
Recognized for their Achievements

2019 Spring Undergraduate
Research Symposium

ADS 3221 Students Tour Local
Horse Barn

ADS 2221 Learn From ADS
Graduate Students About
Companion Animal Competition

Dairy Club Doing Great Things

Super Bulldog Weekend BBQ
Cook-Off

2019 Award Recognition

Upcoming Extension Events

2019 Refereed Publications



Pictures left: Horseman's Association President Narsis Whigman Showing at the Southern Bulldog Classic. Photo courtesy of Blayne Stewart and Cachel Caldiero.

Horseman's Association Sponsors Louisville Open Horse Show

Horseman's Association is an equine club based in the Animal & Dairy Sciences Department that is open to all students. The club spends the year volunteering at local shows and uses the experience they gain throughout the year to offer a spring open horse show called the Southern Bulldog Classic. This is the second year the show has been offered at the Louisville Coliseum. In only the second year, the show has more than double in the number of classes offered, number of show sponsors, and the number of entries. Classes offered during the show included halter, pleasure, gaited, and speed event classes with the gaited classes being the largest classes for the show this year. This year the show even included professional photographers Blayne Stewart and Cachel Caldiero taking photos throughout the show. The show was a fundraiser for both the club and the Golden Triangle Horse Rescue. Along with club members running the show, students from ADS 2221 Companion Animal Management Laboratory volunteered their time assisting with the show as a part of their service learning hours. For individuals wanting to learn more about the club, contact club advisor Dr. Molly Nicodemus at mnicodemus@ads.msstate.edu.

**Evaluation Contest:**

3rd Overall High Team

Livestock Judging Contest:

4th Overall High Team

Breeding Animal Selection Contest:

6th Overall High Team

All Three Days Combined:

5th Overall High Team

Team members are:

Cassidy Catrett, Madalyn Jennings, Kirsta Murphree,
Julia Tate and Logan Whipple

2019 All East Contest

The 2019 All East Contest was hosted in Blacksburg, VA last week, and it was a great close to the Spring season! The event has three separate contests over the course of three days testing students' evaluation skills and industry knowledge. The first day, students make carcass estimates on live market animals and calculate carcass prices and efficiency estimates which are then compared to realities with the livestock being immediately harvested. The second contest tests breeding animal knowledge including real-world decisions breeders would make regarding selection and culling strategies. The final day of the event entails a traditional judging contest where students rank and describe livestock testing evaluation and communication skills. The contest is truly all-inclusive and grounded in practicality testing skills that are used in industry on a daily basis.

Eleven universities competed, and Mississippi State and its members were recognized for 13 individual top-ten honors ranking among the top-five teams in 14 of the 17 divisions of the contests!



Pictured Left:

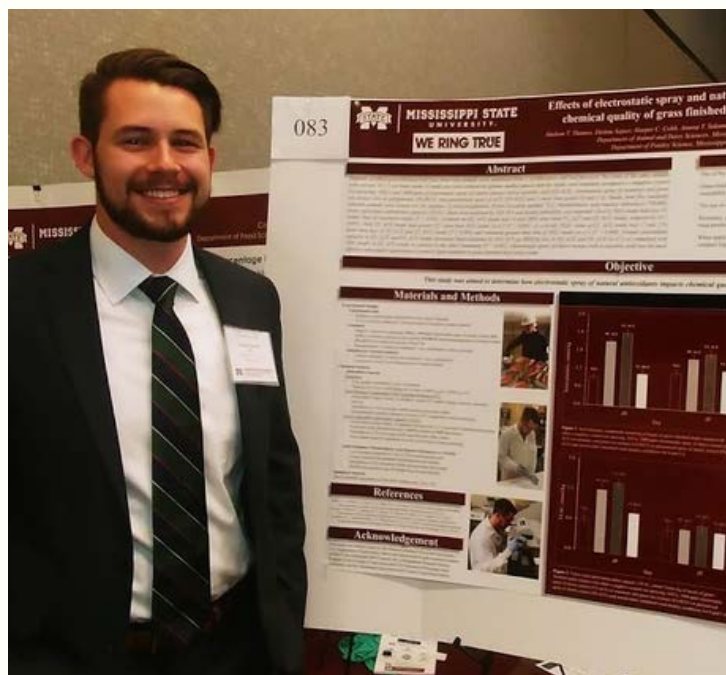
**Courtney Heaton and Holly Evans at the GSA
Banquet**

Equine Graduate Students Recognized for their Achievements

This spring has been a busy semester for ADS equine graduate students Holly Evans, MS student, and Courtney Heaton, PhD student, as they get ready to graduate in the coming semesters. While both are busy finishing up on their research projects and coursework, they have found the time to give back to the ADS undergraduate students as teaching assistants and guest lecturers for various ADS courses. Their contribution to the ADS undergraduate teaching program was acknowledged this month by being nominated by the department for the Donald Zacharias Graduate Teaching Assistant of the Year Award. Each department could nominate one MS student and one PhD student for the award. Both were recognized at the Graduate Student Association Awards Banquet for their nomination and their contributions to teaching. Both Holly and Courtney were also recognized by the Gamma Sigma Delta Chapter at MSU for their academic and research achievements with both receiving a \$500 scholarship. Other equine graduate students receiving the GSD scholarship included Katie Cagle-Holtcamp, PhD student in animal physiology. Holly was also awarded this spring a \$500 Travel Grant from the Graduate School along with other fellow equine graduate students Katie Cagle-Holtcamp and Alicia Gilmore. All three equine graduate students will be using this grant to represent the department and present teaching posters at the Equine Science Society Symposium this June in Asheville, North Carolina.



Harper Cobb



Hudson Thames

2019 Spring Undergraduate Research Symposium

Harper Cobb and Hudson Thames represented Dr. Thu Dinh's research group at the 2019 Spring Undergraduate Research Symposium. Harper is a junior presenting her research on Salmonella reduction in pork trimming.

Hudson is a graduating senior, presenting his findings on the use of electrostatic spray and natural antioxidant to prolong shelf life of grass-finished beef.

Both students are supported by the CALS Undergraduate Research Scholar Program. Their research is funded by the National Pork Board and the Mississippi Beef Council.



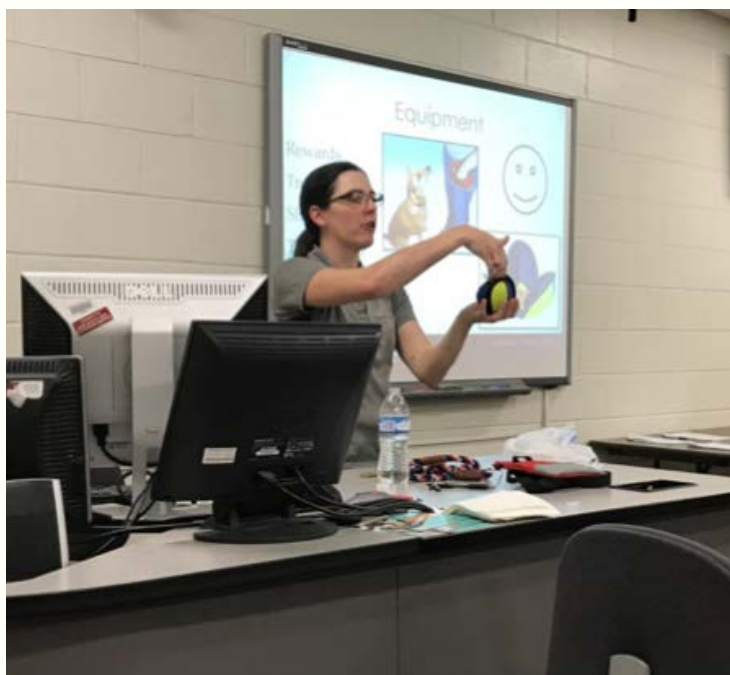
ADS 3221 students touring Hickory Grove Stables



Hickory Grove Stables Manager Ashley Palmer discussing performance shoeing at the ADS 3221 tour

ADS 3221 Students Tour Local Horse Barn

Students in ADS 3221 Practices in Horse Care & Management have spent the semester learning various practices in horse management, but got a chance this month to tour a local horse barn to see these practices being utilized in the real world. Hickory Grove Stables is a local horse barn located off of Artesia Road that is managed by former ADS student Ashley Palmer. Ms. Palmer met with the ADS 3221 students and took them through the barn and it's surrounding facilities discussing her training program and the daily management activities of the barn. Students got to meet some of the horses in her training program and hear about where they came from and future goals for these horses. Students also got to learn about internships and job opportunities working at the barn. ADS 3221 is taught by Dr. Molly Nicodemus and teaching assistant Alicia Gilmore. For further information about ADS 3221 contact Dr. Nicodemus at mnicodemus@ads.msstate.edu.



Courtney Heaton presenting tools for dog agility training in ADS 2221



Holly Evans covering showing Dutch Rabbits in ADS 2221

ADS 2221 Learn From ADS Graduate Students About Companion Animal Competition

As the semester comes to an end for the students in ADS 2221 Companion Animal Management Laboratory, students got a chance to learn about what competitions they can enjoy with their companion animals. While both Courtney Heaton and Holly Evans are ADS graduate students focusing on equine sciences, both have a unique background in competition outside of the horse show arena. Courtney Heaton, assistant coach for the MSU Horse Judging Team, has had a long history of competing in agility with her Border Collies where she has trained and competed with multiple border collies that she has raised. Courtney presented to the ADS 2221 students various tools that she uses for training and showed them various videos of a Border Collie that she is currently working with. Since Courtney is researching nutrition for her dissertation project, she covered in her presentation feeding the performance dog. Holly, assistant coach of the MSU Equestrian Team, grew up showing her Dutch Rabbits in 4-H. She covered in her ADS 2221 presentation rabbit training and basic stance along with faults and disqualifications in the show arena. Since her thesis project focuses on breeding and she has a background breeding rabbits for sale and showing, Holly also discussed breeding practices and genetic selection in the rabbit industry. In addition, ADS 2221 Graduate Teaching Assistant Dr. Muhammet Rasit Ugur met with the ADS 2221 students early in the semester to discuss pet healthcare. As a veterinarian Dr. Ugur was able to give the students valuable advice for a healthy pet. For further information about ADS 2221 contact course instructor Dr. Molly Nicodemus at mnicodemus@ads.msstate.edu.



Dairy Club Doing Great Things

The newly revamped Dairy Club is doing great things! They have 27 members and they're working hard to make sure the word is spread about how great dairy is through Ag Awareness campaigns, fundraisers, helping with events, etc.

We would also like to congratulate the Dairy Clubs new executive committee! In order we have our President Kayla Strandrod, Vice President Jacinda Garner, Secretary Carolina Canestrano, and Treasurer Anna Wilson!! They are ready for a great year!



Dishnu Sajeev and Dr. Thu Dinh with 1st Place and Overall Trophies



Super Bulldog Weekend BBQ Cook-Off

We would like to congratulate Dr. Thu Dinh and Dishnu Sajeev for representing the ADS department and competing in the Super Bulldog Weekend BBQ Cook-Off hosted by the Mississippi Prom Produces. The pair won 1st place in the whole shoulder division and also won the Overall Championship

**MISSISSIPPI STATE
UNIVERSITY.**

Animal and Dairy



Cordially Invites You to Attend the

2019 Award Recognition

in conjunction with our

Alumni South Farm

Hoe-down

Friday April 26



Recognition Program at 6:30

Live music and crawfish at 7:00

Beef Unit—Leveck Animal Research Center, MSU

RSVP by April 19 to M.Quinn@ads.msstate.edu

UPCOMING EXTENSION EVENTS

Beef Extension - Dr. Brandi Karisch

April 26-27: ADS Alumni Weekend, Mississippi State, MS

May 17: Beef 101, MSU Meat Science Laboratory, Mississippi State, MS

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

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

Dairy Extension - Dr. Amanda Stone

July 22-23: 2019 Dairy Cow Camp, Starkville, MS

Phone: (662) 325-8773 Email: amanda.stone@msstate.edu

Website: <http://extension.msstate.edu/dairy>

4-H Events - Dr. Dean Jousan

Phone: (662) 325-2424

Email: dj230@msstate.edu www

Website: <http://extension.msstate.edu/4-h>

Equine Events - Dr. Clay Cavinder

Contact Dr. Cavinder for information about programs and events at (662) 325-7566 or

Email: clay.cavinder@msstate.edu

Website: <http://extension.msstate.edu/agriculture/livestock/equine/upcomingprograms>

2019 Refereed Publications

- El Debaky, Hazem A., Naseer A. Kutchy, Asma Ul-Husna, Rhesti Indriastuti, Shamim Akhter, Bambang Purwantara, and **Erdogan Memili**. Review: Potential of water buffalo in world agriculture: Challenges and opportunities. *Applied Animal Science* 35:255–268. <https://doi.org/10.15232/aas.2018-01810>
- Ferjak, E.N., **C.A. Cavinder**, A.T. Sukumaran, **D.D. Burnett**, **C.O. Lemley**, **T.T.N. Dinh**. Fatty acid composition of mesenteric, cardiac, abdominal, intermuscular, and subcutaneous adipose tissues from horses of three body composition scores. *Livestock Science* 223 (2019) 116-123. <https://doi.org/10.1016/j.livsci.2019.02.01>
- Dutra, G. A., G. M. Ishak, O. Pechanova, T. Pechan, D. G. Peterson, J. C. F. Jacob, **S. T. Willard**, **P. L. Ryan**, E. L. Gastal, and **J. M. Feugang**. Seasonal variation in equine follicular fluid proteome. *Reproductive Biology and Endocrinology*. (2019) 17:29. <https://doi.org/10.1186/s12958-019-0473-z>
- Casey L. Durfey, Sabrina E. Swistek, **Shengfa F. Liao**, **Mark A. Crenshaw**, Henry J. Clemente, Rooban V. K. G. Thirumalai, Christy S. Steadman, **Peter L. Ryan**, **Scott T. Willard** and **Jean M. Feugang**. Nanotechnology-based approach for safer enrichment of semen with best spermatozoa. *Journal of Animal Science and Biotechnology*. (2019) 10:14. <https://doi.org/10.1186/s40104-018-0307-4>.
- Mayo, L. M., W. J. Silvia, D. L. Ray, B. W. Jones, **A. E. Stone**, I. C. Tsai, J. D. Clark, J. M. Bewley, and G. Heersche Jr. Automated estrous detection using multiple commercial precision dairy monitoring technologies in synchronized dairy cows. *Journal of Dairy Sciences*. 2019. J. Dairy Sci. 102:1–12. <https://doi.org/10.3168/jds.2018-14738>
- Yang, Zhongyue, Md. Shamimul Hasan, John K. Htoo, **Derris D. Burnett**, **Jean M. Feugang**, **Mark A. Crenshaw**, and **Shengfa F. Liao**. Effects of dietary supplementation of L-methionine vs. DL-methionine on performance, plasma concentrations of free amino acids and other metabolites, and myogenesis gene expression in young growing pigs. *Translational Animal Science*. Transl. Anim. Sci. 2019.3:113–123. doi: 10.1093/tas/txy109.
- Gastal, G.D.A., **J.M. Feugang**, F.L.N. Aguiar, G.M. Ishak, **C.A. Cavinder**, **S.T. Willard**, **P.L. Ryan**, E.L. Gastal. Effect of cryopreservation techniques on proliferation and apoptosis of cultured equine ovarian tissue. *Theriogenology*. <https://doi.org/10.1016/j.theriogenology.2018.11.034>.