



ANIMAL & DAIRY SCIENCES NEWSLETTER

MISSISSIPPI STATE UNIVERSITY
APRIL 20, 2018 | VOLUME 84



- THIS WEEK'S FEATURES:
- CONGRATS LIVESTOCK JUDGING
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Congrats Live Stock Judging Team

2018 Reserve Champions- "All East Evaluation Contest"

Champion team- Cattle Evaluation
Champion Team- Sheep Evaluation
Reserve Champion Team-Overall Evaluation

Gresham Stephens- 1st in sheep evaluation, 6th overall evaluation, 10th combined sheep (3 contest total)

Abigail Jenkins- 2nd cattle evaluation, 8th sheep evaluation, 7th combined cattle (3 contest total)

Logan Strock- 9th cattle evaluation

Mikaila Walker- 6th cattle evaluation

Cody Maddox- 6th cattle selection



Provost Scholars Visit Department of Animal and Dairy Sciences

Provost Scholars visit Department of Animal and Dairy Sciences

Submitted by Dr.
Erdogan Memili

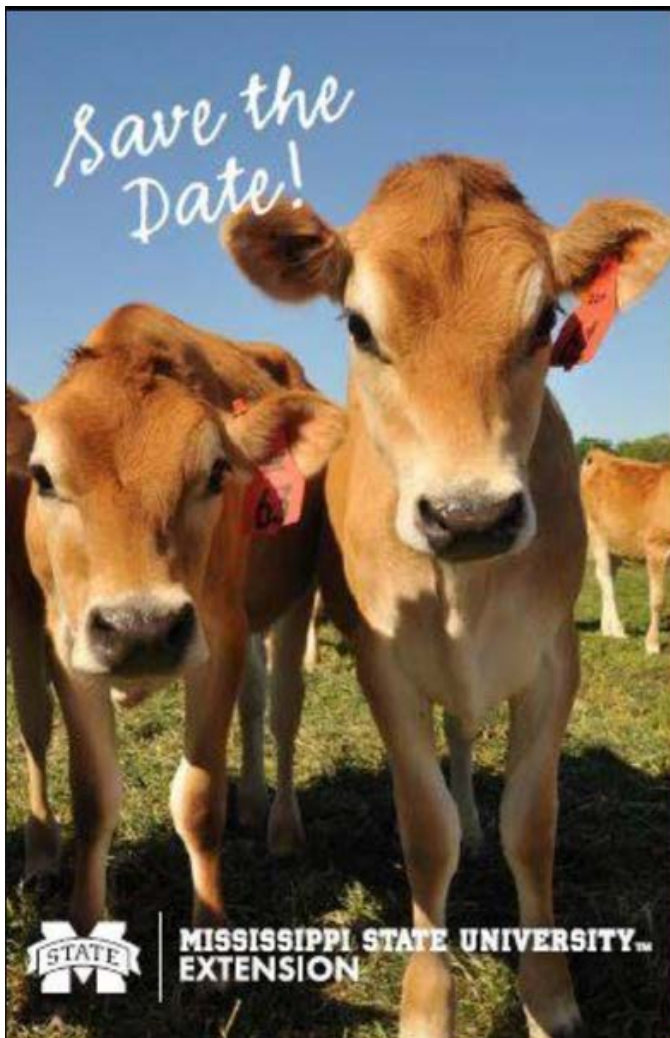
Mississippi State
University's
Provost Scholars
explored frontiers in
science during their
visit to the
Department of
Animal and Dairy
Sciences on
Tuesday April 10, 2018.



Led by their advisor Prof. Seth Oppenheimer, the Provost Scholars are among the brightest minds at Mississippi State University. Information about the Program is available through www.honors.msstate.edu/scholars. Information about MSU's undergraduate research programs and symposia is available through the following links: <https://www.honors.msstate.edu/research/>; http://www.cals.msstate.edu/students/research/undergrad_research.asp; <https://www.honors.msstate.edu/research/undergraduate-research-symposium/>.

The visit started at 5:00 PM with the tour of the research laboratories on the biophotonics, molecular biology, and embryology followed by research presentations by ADS faculty and graduate students. Dr. Jean M. Feugang presented overview on reproductive biology research in relation to biophotonics imaging. Dr. Henry Paz discussed his research on the relationships between nutrient efficiency in dairy cows and rumen microbiome. Dr. Thu Dinh highlighted his research on meat quality, meat safety, and meat product development and the importance of science in the betterment of our society. He encouraged the students to seek mentorship from faculty and actively participate in research as a way to advance their career and professional development and to serve their society. Keelee McCarty of Dr. Caleb Lemley's research group presented on reproductive biology and developmental programming. Holly Evans of Drs. Nicodemus and Memili's shared her research on improving fertility in horses and cattle. Mauricio Xavier of Dr. Amanda Stone's research group gave a summary presentation on research areas and potential future projects on milk quality developed by the Animal and Dairy Science department. I have then provided a presentation on animal biotechnology research and the value of undergraduate research and opportunities.

Breakfast on the Farm



Breakfast on the Farm

BEARDEN DAIRY RESEARCH CENTER
2128 Turkey Creek Road, Starkville, MS 39759

SEPTEMBER 27 & 28 | 9 A.M.-NOON
open to school groups & field trips

SEPTEMBER 29 | 9 A.M.-NOON
open to the public & families

EDUCATIONAL ACTIVITIES
FOR ALL AGES

DAIRY TOUR

ANATOMY & DISSECTION ACTIVITIES

MILK A COW

Registration for a designated date & time will be *required*. Registration opens this fall.

For more information, contact Amanda Stone at amanda.stone@msstate.edu

Horse Tales

The Horse Tales event hosted by Clay Cavinder, at Saltillo Elementary was a huge success. He got to talk to over 500 3rd and 4th graders about "What can horses do?" and they got to meet 2 horses in person.

Horse Tales is a program designed to use horses as an entertainment tool with the overall objective of telling youth about all the opportunities they can have with 4H, with the overall intent of boosting 4H enrollment.



ADS Alumni Weekend

Save the Date
April 27 - 28, 2018



2018 ADS Alumni Weekend & Field Day

We would like to invite you to the 2018 Animal and Dairy Sciences alumni weekend and Field Day. We are excited about what we have going on in the Department and would like to share it with you. We have two days of events planned that will allow you time to catch up with old friends, meet new students in the program and see some of the latest research we have going on at each unit.

For more details please visit ads.msstate.edu/workshops/alumni-reunion to register. Please register by April 13, 2018.

Purchase your baseball tickets at www.hailstate.com or call 888-GO-DAWGS

Agenda

Friday, April 27th

6:30 p.m. South Farm Hoe-Down at the Beef Unit (Crawfish and live music)

Saturday, April 28th

9:00 - 12:00 p.m. MSU Beef, Equine, and Dairy Unit Field Day

12:00 p.m. Lunch at Beef Unit

1:00 p.m. Tour of the new MSU Meat Laboratory

Block & Bridle and Judging Team Alumni Meeting @ Beef Unit following tour

5:00 p.m. Tailgating for MSU vs. TAMU (Game at 6:30)

ADS Awards Banquet

PLEASE JOIN US FOR

The Annual ADS Awards Banquet

Tuesday April 24th, 2018

Bost Building B

6:30 pm

Tickets are Free, but Required for Admission

Pick up tickets in Wise 4025 on April 2nd

WATCH THE FEATURED BAND CRAWLIN' CALEB'S BLUES REVIEW
ON FACEBOOK: [HTTPS://WWW.FACEBOOK.COM/SEARCH/TOP/?
Q=CALEB%27S%20CRAWLIN%27%20REVIEW](https://www.facebook.com/search/top?q=caleb%27s%20crawlin%27%20review)

MSU Horse Judging Camp



MISSISSIPPI STATE UNIVERSITY™
EXTENSION

2018 MSU Horse Judging Camp

What: Horse Judging Camp instructed by Dr. Clay Cavinder and the MSU Horse Judging Team! Up-to-date industry instruction on halter and performance classes to improve the understanding of beginners and advanced judges. Additionally, instruction on reasons will be conducted.

When: June 1-3, 2018

Where: Mississippi State University, Starkville

Who: Youth (experienced or beginners) interested in horse judging

Cost: \$275/person to include: all meals, dorms, and 100+ page judging manual

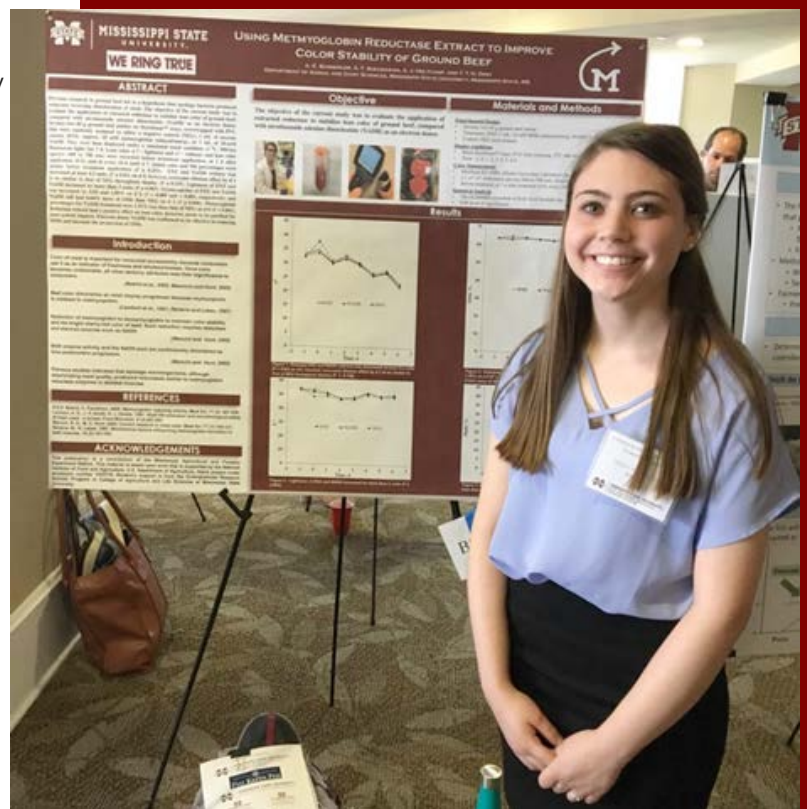
For program itinerary and to register, please visit: <https://techoutreach.msucare.com/annual-msu-horse-judging-camp-registration>

For further information contact Dr. Cavinder, Extension Horse Specialist, Mississippi State University, clay.cavinder@msstate.edu



Congrats Abbey Schnedler

Abbey Schnedler, an ADS junior from Franklin, TN presented her research findings at the Spring 2018 Undergraduate Research Symposium on April 13, 2018. Abbey, under Dr. Thu Dinh's direction, researched metmyoglobin reductase system in a ground beef model. She discovered an innovative source of reductases from spoilage bacteria and attempted to use it to improve meat color stability. Abbey also presented her findings at the Spring 2017 Undergraduate Research Symposium and the Reciprocal Meat Conference, an premier international meeting of everything that is meat. Abbey's research effort is supported by the Undergraduate Research Scholar Program in the College of Agriculture and Life Sciences at Mississippi State University.



Congrats Holly Evans

ADS Graduate Student represents MSU at Zones Competition

This past Saturday Mississippi State University was represented at the Intercollegiate Horse Show Association (IHSA) Zones Competition in Savannah, Georgia. Holly Evans, Animal & Dairy Sciences graduate student and coach of the hunt seat equestrian team, qualified to ride in the alumni flat and over fences classes at the hunt seat show hosted by the Savannah College of Art and Design. After two successful rides on Saturday, Holly placed 3rd overall in her over fences class and 4th overall in her hunt seat flat class. Although this competition season is completed, Holly plans to continue representing MSU next year in the IHSA hunt seat alumni division along with assisting with the equestrian team.



Upcoming Events

Upcoming Events

BEEF EXTENSION - DR. BRANDI KARISCH & COBIE RUTHERFORD

- April 5 to 6 Southeast Cattle Handling for Women Producers



EQUINE EVENTS - DR. CLAY CAVINDER

- June 1-3 MSU Horse Judging Camp



4-H EVENTS - DR. DEAN JOUSAN

-May 19: 4-H Livestock Judging Contest, MSU South Farm



DAIRY EVENTS - DR. AMANDA STONE

-August 25: Ice cream and a Moo-vie
-September 20-21: Calf College
-September 27-29: Breakfast on the Farm
- For more info, contact Dr. Stone at amanda.stone@msstate.edu



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, Eiko 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.

2018 Book Chapters:

- Jain, Sapna, Seong B. Park, Shreekumar 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>.