

RIDING THE RANGE

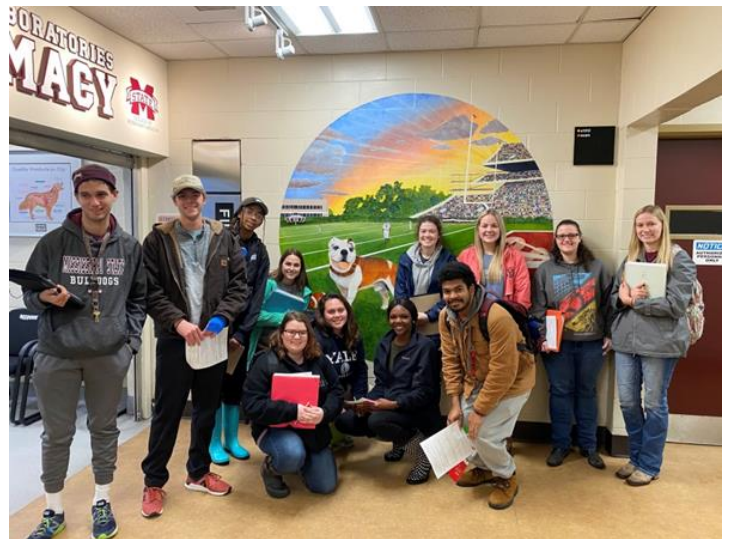
EXPLORE EDUCATION, RESEARCH AND EXTENSION EFFORTS TO BUILD THE FUTURE OF AGRICULTURE

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ADS 2221 Companion Animal students tour the MSU CVM Small Animal Pharmacy.

Submitted by Dr. Molly Nicodemus.



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ADS SCHOLARSHIP RECEIPTS NAMED

The Department of Animal and Dairy Sciences has a rich history of awarding scholarships to students. This year, 31 scholarships were awarded at \$1,000 each. Thanks to Jessica Graves, Brett Crow, Molly Nicodemus, Shengfa Liao, Dean Jousan, and Amanda Stone for reviewing the applications, and to Jamie Larson for overseeing this process. Congratulations to these outstanding ADS students for their achievements.

Glenn Lee McCullough Endowed Scholarship – Julia Bonner

Gerald and Gale Taylor Scholarship – Natalie Stovall

Fuquay Endowed Scholarship – Maya Harlow

Animal and Dairy Sciences Endowed Judging Team Scholarship – James Perrigin

Bryan and Nona Baker Endowed Scholarship – Emily Sherman; Emily Phillips; Elizabeth Wagner

Mississippi State Equine Associate Endowed Scholarship – Sarah-Ashlyn Barber

Dr. Mark Crenshaw Endowed Scholarship – Madeline Ashburn

Bill Diggs Scholarship Fund – Rachael Feeney

Rev. and Mrs. W.P. Brown Memorial Scholarship Fund – Bridget Seghers

Dero and Adelaide Ramsey Scholarship – Catherine Kalmbach; Olivia Cresswell

Bryan Baker and Bill G. Diggs Endowed Scholarship – Addison Balabanis

Linda "Big Lou" Schuerer Scholarship – Alexa Henderson

Tim Edge Memorial Scholarship – Alexis Rowell

W.L. Richmond Scholarship – Sarah Hobbs

Carpenter-McGee-Higgins Endowed Scholarship – Pheobe Bunch

**Henry H. Leveck Memorial Scholarship – Peyton Anderson; Jennifer McCullough; Rachael Feeney;
Sarah-Ashlyn Barber**

**Janice Durff and Alma Liles McCool Scholarship – Julia Bonner; Audrey Littlepage; Allison Hilliard;
Elisabeth Reaux**

**Enoch R. Norton Enowed Scholarship – Madison Henderson; Skylar Campisi; Alexandria Speak;
Peyton Anderson; Tessa McDonald**

Names of Scholarship Recipients submitted by Dr. Jamie Larson.

ADS WELCOMES ERICA CARROLL

Erica Carroll joined ADS on April 16, 2020, as an instructor. Ms. Carroll is the instructor for our companion animal on-line certificate, in addition to her other duties as a faculty member.

Ms. Carroll earned her bachelor's degree in Animal Science from Murray State University. After working for a few years, she returned to school and earned a Master of Science in Interdisciplinary Education in Agriculture from the University of Tennessee Martin. While at UT

Martin, Ms. Carroll was an instructor specializing in companion animal science. Ms. Carroll is also a licensed veterinary medical technician and is certified by the American Society of Veterinary Dentists. She has been working at the MSU College of Veterinary Medicine since 2019.

Ms. Carroll will be working with Dr. Molly Nicodemus and Mrs. Jessica Graves to establish an ADS on-line companion animal certificate as well as develop new options for our students.

Announced by Dr. John Blanton.



ADS STUDENTS LEARN FROM PROFESSIONALS IN THE COMPANION ANIMAL INDUSTRY

Throughout the Spring semester, students in ADS 2221 Companion Animal Laboratory have learned from professionals in the companion animal industry. The first talk came from Dr. Courtney Heaton who is a nutritionist and researcher at MSU. Dr. Heaton introduced students to management and training of the agility dog. She has a long history of training Border Collies she raised to compete in agility competitions. Along with covering training techniques and principles of agility competition, Dr. Heaton discussed feeding the performance canine.

While the ADS 2221 course moved online after spring break, students still got to hear presentations from other industry professionals, including Ms. Carter Clark, veterinary technician at Village Animal Hospital, and Mrs. Katie Cagle-Holtcamp, equine therapist and owner of Dogwood Equine Connection

Dr. Courtney Heaton presented tools for dog agility training to ADS 2221 students.

Therapy Center. Presenters showed pictures and videos from their facilities, with Ms. Clark discussing canine obstructions and Mrs. Cagle-Holtcamp discussing psychotherapy using the horse.

A final presentation came from Ms. Holly Evans, an animal science instructor at Iowa State University, that covered breeding and showing rabbits. Dr. Molly Nicodemus and graduate teaching assistant Ms. Madison Hardcastle taught the laboratory this spring and will be available online through distance education this summer along with the companion animal lecture. Both courses will be taught this summer at a graduate level for the first time. For further information on these courses, individuals can contact Dr. Nicodemus at mnicodemus@ads.msstate.edu.

Submitted by Dr. Molly Nicodemus.



PHOTO CONTRIBUTION FROM SAMMY BLOSSOM



Sammy Blossom is an alumnus of ADS and captured many photos during his 16-year career with the Mississippi Cattlemen's Association. Enjoy the photo.

Photo courtesy of Sammy Blossom Photography: <https://www.sammyblossomphotography.com/>.

MD SHAMIMUL HASAN RECEIVES MSU GAMMA SIGMA DELTA SCHOLARSHIP

Congratulations to Md Shamimul Hasan for winning the prestigious MSU Gamma Sigma Delta Scholarship. Mr. Hasan has been a member of the Swine Science Research team at the Animal and Dairy Science Department since 2015, where he has successfully obtained the degree of Doctor of Philosophy in Agricultural Sciences, with a concentration in Animal and Dairy Sciences.

He has published 6 peer-reviewed papers, 1 book chapter, and 25 conference abstracts that he has presented at both the regional and national level across the

United States. He has also garnered much teaching experience, having taught multiple labs, including swine production and management, swine science, and animal nutrition.

The scholarship was awarded through the Mississippi State University Chapter of Gamma Sigma Delta, a.k.a. the Honor Society of Agriculture, and is awarded to students who show exceptional ability during their studies and work in agriculture. Congratulations!

Submitted by Ms. Rebecca Humphrey.



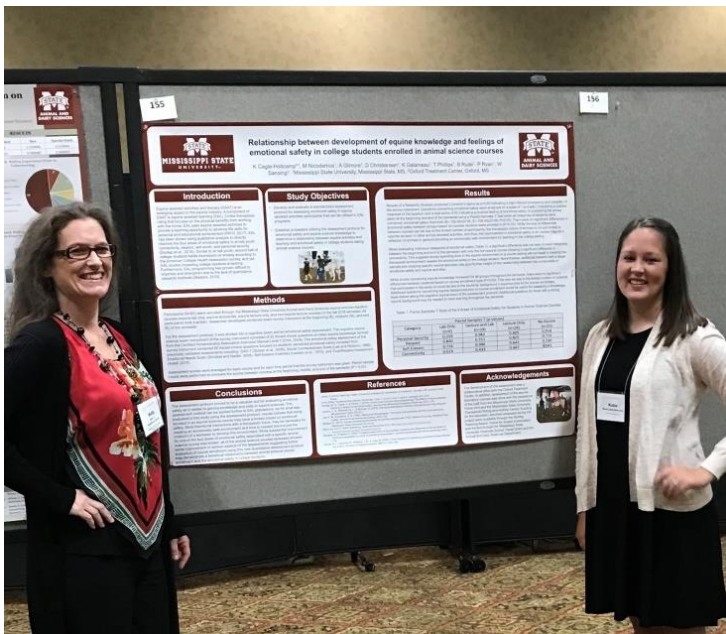
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EQUINE GRADUATE STUDENT RECOGNIZED BY MSU GAMMA SIGMA DELTA

Congratulations to animal physiology graduate student Mrs. Katie Cagle-Holtcamp for winning a \$500 scholarship from the MSU Gamma Sigma Delta Chapter this spring for her academic and research achievements. Mrs. Cagle-Holtcamp is a Ph.D. candidate working with Dr. Molly Nicodemus on research in equine-assisted psychotherapy and learning. Along with her graduate research and coursework, she is assisting Dr. Nicodemus with undergraduate research in equine learning and has guest lectured on animal-assisted activities and therapies in both the companion animal lecture and laboratory courses this semester.

Mrs. Cagle-Holtcamp also supervised students in ADS 3221: Practices in Horse Care & Management by hosting service-learning hours in equine therapy. Outside of her work at with MSU, Mrs. Cagle-Holtcamp has opened Dogwood Equine Connection, an equine therapy center based in Starkville. She is offering internship opportunities this summer and fall for ADS undergraduates who want to learn more about equine therapy. For more information about research and coursework that Dr. Nicodemus and Mrs. Cagle-Holtcamp are doing focused on equine therapy, you can contact Dr. Nicodemus at mnicodemus@ads.msstate.edu.

Submitted by Dr. Molly Nicodemus.



Dr. Molly Nicodemus (left) and Mrs. Katie Cagle-Holtcamp (right) present research on equine assisted psychotherapy and learning.

DNJR MARKET HOG SHOW

The 2020 Dixie National Junior Round-Up Market Hog Show included 615 hogs shown by 320 4-H and FFA youth. The breakdown of hogs shown by breed is as follows: 47 Chester; 138 Crosses; 89 Duroc; 82 Hampshire; 60 Spotted; 61 Yorkshire; 46 Hereford; and 92 MS Bred Barrows.



Grand Champion Hog and Champion MS Bred Barrow – Exhibited by Wyatt & Kylee Cooper, Lincoln 4-H. Buyer: Sanderson Farms.

Reserve Grand Champion Hog and Champion Crossbred Hog – Exhibited by Rex Brown, Jasper 4-H. Buyers: Mac Haik Ford; Gray Daniels Ford.



DNJR COMMERCIAL GILT SHOW

The 2020 Dixie National Junior Round-Up Commercial Gilt Show included 59 gilts shown by 77 4-H and FFA youth. The breakdown of gilts shown by breed-type is as follows: 14 in the Up-Ear Division; 15 in the Down Ear Division; and 30 in the Crossbred Division.



Grand Champion Commercial Gilt: Exhibited by Mary Bradley and Tucker Woods, Covington 4-H.

Reserve Grand Champion Commercial Gilt: Exhibited by Tyler Jones, Stone 4-H.



DNJR MS BRED BARROW SHOW

The 2020 Dixie National Junior Round-Up MS Bred Barrow Show included 92 barrows shown by 127 4-H and FFA youth. Thanks to the Mississippi Pork Producers Association for providing cash awards to the top 5 placing Mississippi Bred pigs in each class in the MS Bred Barrow and Market Hog Shows.

Champion MS Bred Barrow – Exhibited by Wyatt & Kylee Cooper, Lincoln 4-H.



Reserve Champion MS Bred Barrow: Exhibited by Anna Beth and Aimry Blackwell, Raleigh FFA.

ADS 3221 TOURS MSU CVM BLACKSMITH SHOP

ADS 3221 Practices in Horse Care & Management is a laboratory course offered in the spring and fall semesters through the Department of Animal & Dairy Sciences. As part of the course, students get an opportunity to tour horse facilities and meet with equine professionals. Prior to spring break, students toured the Blacksmith Shop at the MSU College of Veterinary Medicine (CVM) with Dr. Ben Nabors, MSU CVM Clinical Instructor and Certified Farrier.

During the tour, Dr. Nabors demonstrated corrective trimming and shoeing of horses. Dr. Nabors discussed

hoof anatomy and various health conditions impacting distal limb health. Students observed Dr. Nabors making shoes for specific hoof shapes and conditions. Students learned what CVM offers veterinary students that want to specialize in farrier sciences. The ADS 3221 laboratory is taught by Dr. Molly Nicodemus and two graduate teaching assistants, Ms. Alicia Gilmore and Ms. Madison Hardcastle. For further information about the course, individuals can contact Dr. Nicodemus at mnicodemus@ads.msstate.edu.

Submitted by Dr. Molly Nicodemus.



ADS 3221 students observe Dr. Ben Nabors performing a corrective shoeing demonstration during their tour of the Blacksmith Shop at CVM.

ADS 2221 TOURS CVM SMALL ANIMAL CLINIC

ADS 2221 Companion Animal Laboratory is offered through the Department of Animal & Dairy Sciences and is focused on the management and care of companion animals. Health care is a vital component to companion animal management, so students toured the MSU CVM Small Animal Clinic. Students met with Mrs. Julie Burt, Clinical Services Coordinator, who educated them about what pet health care is available through the clinic. Students learned about various diagnostic imaging options and specialized physical therapy programs. They observed animals participating in some of the therapeutic options available for companion animals

and visited with some of the staff that specialized in these therapies.

In addition to the clinic tour, students interviewed professionals in the veterinary industry to learn about the companion animal health care. The course is taught by Dr. Molly Nicodemus and graduate teaching assistant Ms. Madison Hardcastle. The course will be offered this summer along with the companion animal lecture course, ADS 2223. Individuals wanting information about the ADS Companion Animal courses can contact Dr. Nicodemus at mnicodemus@ads.msstate.edu.

Submitted by Dr. Molly Nicodemus.



ADS 2221 students touring the MSU CVM small animal rehabilitation room with Mrs. Julie Burt.

2020 REFEREED PUBLICATIONS

- To, K.V., X. Zhang, W. Shao, J.D. Hendrix, M.D. Byron, Y.L. Campbell, T.W. Phillips, **T. Dinh**, and M.W. Schilling. 2020. The effects of dry-cured ham initial water activity on *Tyrophagus putrescentiae* infestations. *Journal of Stored Products Research*. 87:101069. <https://www.sciencedirect.com/science/article/abs/pii/S0022474X20300540?via%3Dihub>
- Bowman, B.A., M.D. Denny, and **A.E. Stone**. 2020. Exploring Producer Innovation Adoption Using an Extension-Led Trialing Program. *Journal of Extension*. 58(1): v58-1rb2. <https://joe.org/joe/2020february/rb2.php>.
- Özbek, M., M. Hitit, E. Ergün, L. Ergün, F. Beyaz, F. Erhan, N. Yildirim, B. Kandil, O. Özgenç, and **E. Memili**. 2020. Expression profile of Toll-like receptor 4 in rat testis and epididymis throughout postnatal development. *First International Journal of Andrologia*. 00:e13518. <https://doi.org/10.1111/and.13518>.
- Gomes, F. P., J. K. Diedrich, A. J. Saviola, **E. Memili**, A. Moura, and J. R. Yates III. 2020. EThcD and 213 nm for top-down analysis of bovine seminal plasma proteoforms on electrophoretic and chromatographic time frames. *Analytical Chemistry*. 92(4): 2979-2987. <https://pubs.acs.org/doi/10.1021/acs.analchem.9b03856>.
- Ugur, M. R., **T. Dinh**, M. Hitit, A. Kaya, E. Topper, B. Didion, and **E. Memili**. 2020. Amino acids of seminal plasma associated with freezability of bull sperm. *Frontiers in Cell and Developmental Biology*. 7(347). <https://www.frontiersin.org/articles/10.3389/fcell.2019.00347/full>.
- Hasan, M.S., **M.A. Crenshaw**, and **S.F. Liao**. 2020. Dietary lysine affects amino acid metabolism and growth performance, which may not involve the GH/IGF- axis, in young growing pigs. *Journal of Animal Science*. 98(1): 1-7. <https://academic.oup.com/jas/article/98/1/skaa004/5700336>.

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