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RIDING THE RANGE

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

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IN THIS ISSUE:

MISSISSIPPI STATE UNIVERSITY™
DEPARTMENT OF ANIMAL AND DAIRY SCIENCES

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DR. STONE'S LEADERSHIP ROLE WITH ADSA

The mission of the American Dairy Science Association (ADSA) is to promote the creation, dissemination, and exchange of scientific and technical knowledge to improve and sustain the global dairy sector, to the benefit of humankind. The Southern Branch of the ADSA has many objectives, including to bring about a harmonious and sound development of the dairy industry in all its branches in the southern states.

Recently, Dr. Amanda Stone, Extension Dairy Specialist and Assistant Professor in the Department of Animal and Dairy Science, was elected to the position of Secretary/Treasurer for the ADSA Southern Branch. After this term expires, Dr. Stone will continue to serve ASDA Southern Branch as Vice President in 2021 and then President in 2022.

Based on email from Dr. John Blanton and research by Dr. Jousan on ADSA web site: https://www.adsa.org/

DR. JOUSAN'S ROLE IN NATIONAL ASSOCIATIONS

Dr. Dean Jousan is the Extension 4-H Livestock Specialist and Associate Professor in the Department of Animal and Dairy Science. In his role, Dr. Jousan works with numerous regional, and national associations. Recently, Dr. Jousan was elected to serve a two-year term (2020-2022) as Vice Chair for the American Youth Horse Council (AYHC), followed by a two-year term as Chair (2022-2024). AYHC focuses on engaging youth through horses to develop their leadership and life skills. To do this, AYHC empowers adults who teach youth about horses and connects them with resources to foster a thriving horse industry.

In addition, Dr. Jousan is a graduate of Class 13 of LEAD21, whose purpose is to develop leaders in land grant institutions and their strategic partners who link research, academics, and extension in order to lead more effectively in an increasingly complex environment, either in their current position or as they aspire to other positions. Dr. Jousan has served in leadership positions with the LEAD21 Alumni Association, helping to establish a webinar series in his role as Chair of the Education Committee. Recently, Dr. Jousan was selected to serve a Chair Elect (2020-2021) for the LEAD21 Alumni Association and will move to Chair for 2021-2023.

American Youth Horse Council

LEAD21

DR. KARISCH IN GULF COAST CATTLEMAN

In May 2017, the Milton Sundbeck Endowed Professor in Southeastern Cattle Management was created in the MSU Department of Animal and Dairy Science. Dr. Brandi Karisch, an Associate Extension and Research Professor, and Extension Beef Specialist, is the inaugural professor in this position.

In this role, Dr. Karisch focuses on developing science-based solutions to issues facing beef cattle producers in the southeastern United States. The gift is from Milton Sundbeck, owner/operator of Town Creek Farm in West Point, MS, where a variety of operations can be found, including Brangus and Ultrablack cattle, hay, and wildlife.

Recently, an article was published in Gulf Coast Cattleman magazine about Dr. Karisch and how this endowment will benefit small beef cattle producers.

To access the full article, go to http://www.gulfcoastcattleman.com/archive and select the June 2020 edition (pages 14-15).

TOTAL COMMITMENT
TC Town Creek Farm
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Since 1993

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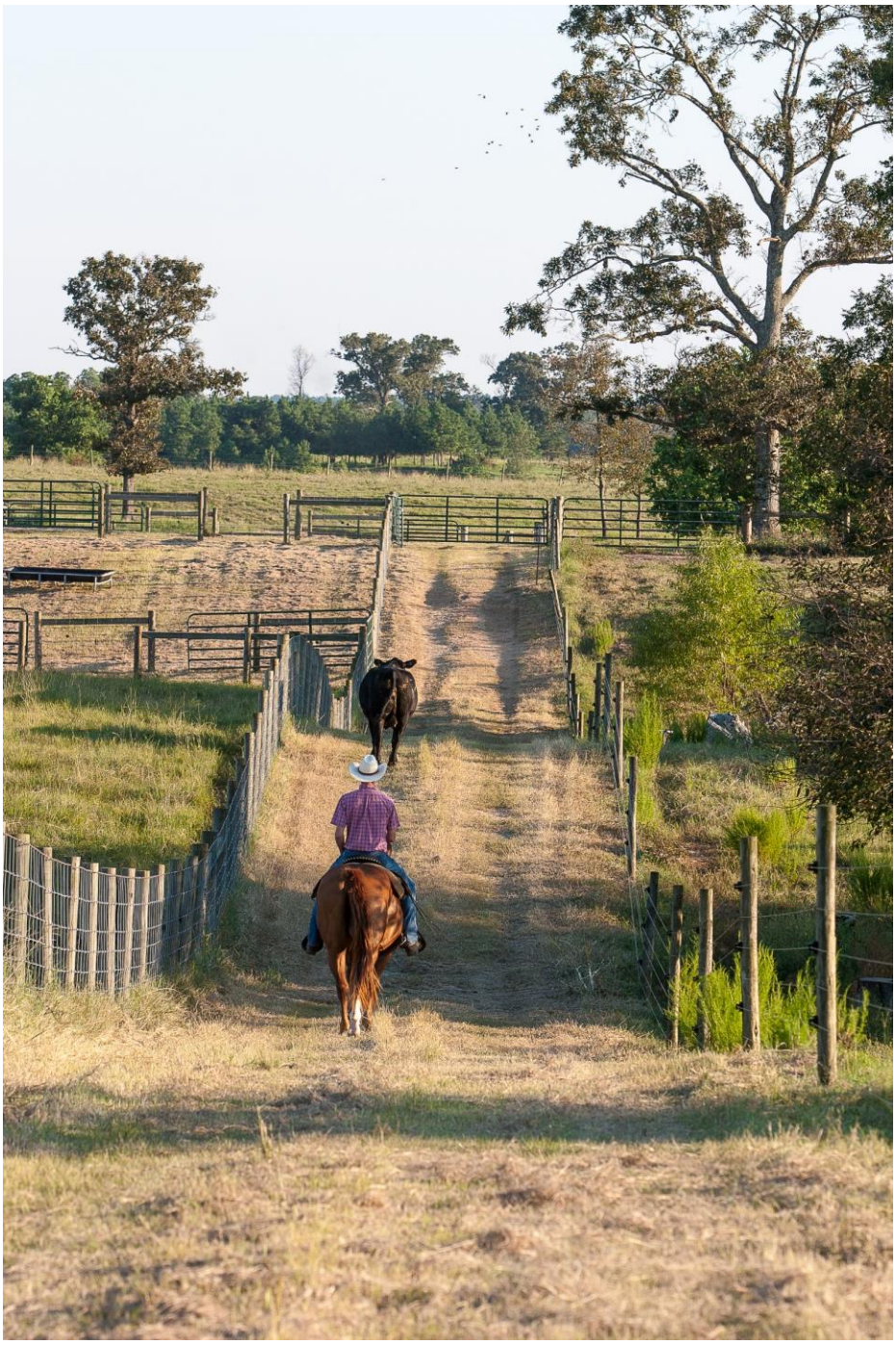
PHOTO CONTRIBUTION FROM SAMMY BLOSSOM



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/.

INNOVATIVE TEACHING HELPS TO TRANSITION ADS 3221 ONLINE

This past spring MSU had to quickly transitioning to online classes due to the COVID-19 Pandemic. This was a challenge for hands-on laboratory courses like ADS 3221 - Practice in Horse Care and Management. ADS 3221 Graduate Teaching Assistant Madison Hardcastle was able to quickly make the transition online due to her graduate assistantship with MSU's Center for Distance Education. With her direct access to resources and professionals in distance education, Madison was able to come up with unique ways to do online laboratory activities that helped her students learn about management of horses.

While no MSU undergraduate equine courses had been offered online prior to this spring, Madison was able to get insights from other laboratory courses taught through the Center for Distance Education to come up with activities ADS 3221 students could do at home. Online activities for ADS 3221 students included building a first aid kit, wound treatment, gait evaluation, and selection and purchasing of horses and tack. As a part of the service learning component of the course, ADS 3221 students also had the opportunity to work with professionals in the horse industry via online interactions, assisting these professionals with activities associated with their business, whether it was analyzing data, promotion of the business, or development of future activities.

The success of the online component of the spring ADS 3221 course has resulted in the fall course scheduled to be taught using a hybrid approach, both online and hands-on. This will help to address not only various learning styles of students taking the course, but it will also help for equine students to get more submersed in the online presence of the horse industry.

(Continued on next page)

INNOVATIVE TEACHING HELPS TO TRANSITION ADS 3221 ONLINE (continued)

In addition to assisting with this course, Madison has been doing research on livestock fertility with guidance from her co-major professors, Drs. Molly Nicodemus and Erdogan Memili, and committee members Drs. Thu Dinh and Dean Jousan. Madison has been able to implement her knowledge of fertility into the course and hopes to expand this area for future labs. For further information about ADS 3221, individuals can contact the ADS 3221 instructor Dr. Molly Nicodemus at mcn16@msstate.edu.

Submitted by Dr. Molly Nicodemus.

Graduate Teaching Assistant Madison Hardcastle demonstrating hoof handling to equine laboratory students.

DIXIE NATIONAL LEGISLATIVE SHOWDOWN

During the 2020 Dixie National Junior Round-Up, Extension Agents and FFA Advisors were asked to pick their best beef showman and pair them with a local Representative or Senator for a Legislative Showdown. Youth had 30 minutes to coach their elected official in the proper way to show beef cattle in competition. Over 25 teams competed this year, with Representatives competing in in one ring and Senators in another ring. All legislators were presented with a rosette for competing in this Showdown. The photo below captures the Top 2 Representatives and the Top 2 Senators with their youth coaches, along with Mississippi Agriculture Commissioner Andy Gipson.

Submitted by Dr. Dean Jousan.

2020 REFEREED PUBLICATIONS

Naseer, A.K., S. Dogan, X. Wang, E. Topper, A. K, and **E. Memili**. 2020. Application of Proteomics to Identify Fertility Markers in Angus Bull Sperm. HAYATI Journal of Biosciences. Vol. 27(No. 2):116-135. https://journal.ipb.ac.id/index.php/hayati.

Tran, T.T.T., N.M.N. Ton, T.T. Nguyen, D. Sajeev, M.W. Schilling, and **T.T. Dinh**. 2020. Application of natural antioxidant extract from guava leaves (Psidium guajava L.) in fresh pork sausage. Meat Science. Vol. 165:article 108106. https://doi.org/10.1016/j.meatsci.2020.108106.

Sharma, M.K., **T.T. Dinh**, and P.A. Adhikari. 2020. Production performance, egg quality, and small intestine histomorphology of the laying hens supplemented with phytogenic feed additive. Journal of Applied Poultry Research. Vol. 29(Issue 2): 362-371. https://doi.org/10.1016/j.japr.2019.12.001.

Rubessaa, M., **J.M. Feugang**, M.E. Kandel, S. Schreiber, J. Hessee, F. Salerno, S. Meyers, I. Chu, G. Popescu, and M.B. Wheeler. 2020. High-throughput sperm assay using label-free microscopy: morphometric comparison between different sperm structures of boar and stallion spermatozoa. Animal Reproduction Science. 219: Article 106509. https://www.sciencedirect.com/journal/animal-reproduction-science/vol/219/suppl/C.

Mazinani, M., A.A. Naserian, **B.J. Rude**, A.M. Tahmasbi, and R. Valizadeh. 2020. Effects of feeding rumen–protected amino acids on the performance of feedlot calves. Journal of Advanced Veterinary and Animal Research. Vol. 7(No. 2): 229–233. http://doi.org/10.5455/javar.2020.g414.

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Paes, V.M., J.R. de Figueiredo, **P.L. Ryan**, **S.T. Willard**, and **J.M. Feugang**. 2020. Comparative Analysis of Porcine Follicular Fluid Proteomes of Small and Large Ovarian Follicles. Biology. 9(5), 101: https://doi.org/10.3390/biology9050101.

Becker, C.A., R.J. Collier, and **A.E. Stone**. 2020. Invited review: Physiological and behavioral effects of heat stress in dairy cows. Journal of Dairy Science. 103(8). https://doi.org/10.3168/jds.2019-17929.

Stone, A.E. 2020. Symposium review: The most important factors affecting adoption of precision dairy monitoring technologies. Journal of Dairy Science. 103(6). https://doi.org/10.3168/jds.2019-17148.

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.

2020 REFEREED PUBLICATIONS

Õzbek, M., M. Hitit, E. Ergün, L. Ergün, F. Beyaz, F. Erhan, N. Yildirim, B. Kandil, O. Õzgenç, 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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