Southern Section
American Society of Animal Science
Scientific Sessions & Business Meeting

Hilton Fort Worth
Fort Worth, TX
February 3 – 6, 2018

Camera, Video Camera and Cell Phone Policy
Use of cameras, video cameras and cell phones (for calls or as cameras) is prohibited during presentations to minimize disruption and unauthorized dissemination of data. Violators may be asked to leave the session/conference. Exceptions to this policy must be approved by the Southern Section Scientific Program Coordinator.

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Sierra Lockwood, Graduate Student Representative
University of Tennessee, Knoxville, TN

Sam Ingram, Graduate Student Representative
North Carolina State University, Clayton, NC
General Information

Meeting Location
Hilton Fort Worth

Registration
Saturday, February 3 9:00 AM – 4:00 PM
Sunday, February 4 7:00 AM – 5:00 PM
Monday, February 5 7:00 AM – 4:30 PM
Tuesday, February 6 7:00 AM – 12:00 PM

Hotel Information

Hilton Fort Worth
815 Main St.
Fort Worth, TX 76102
817-870-2100
tinyurl.com/HiltonFTW

Awards Banquet Location

Lil’ Red’s Longhorn Saloon
121 W. Exchange Ave.
Fort Worth, TX 76164
817-740-0078
tinyurl.com/LonghornFTW

Academic Quadrathlon Location

Tarleton State University
1333 W. Washington St.
Stephenville, TX 76401
Academic Quadrathlon Schedule of Events

Friday, February 2, 2018

9:00 PM  Advisors' Meeting
          Hilton Fort Worth

Saturday, February 3, 2018

All Day  AQ Lab Practicum and Written Exam
          Tarleton State University

Sunday, February 4, 2018

6:30 AM – 12:00 PM  Oral Preparations
                    Room: Citizens A, Citizens C, Texas C, and Metropolitan

8:00 AM – 12:00 PM  Oral Presentations
                    Rooms: Texas B

8:00 AM – 12:00 PM  Quiz Bowl
                    Room: Texas A
Meeting Schedule of Events

Saturday, February 3, 2018

2:00 PM – 5:30 PM  Integrated Pest Management Symposium  
                    Room: Crystal C

5:30 PM – 7:00 PM  Integrated Pest Management Symposium Mixer  
                    Room: Crystal D

Sunday, February 4, 2018

8:00 AM – 4:00 PM  SCC 81: Sustainable Ruminant Production in the Southeastern United States  
                    Room: Continental

1:00 PM – 3:35 PM  SERA 041 Symposium: Round Bale Haylage Production Impacts and Economics  
                    Room: Crystal A

3:35 PM – 6:00 PM  SERA 041 Meeting  
                    Room: Crystal A

4:00 PM – 5:30 PM  Graduate Student Competition, MS  
                    Room: Texas AB

5:45 PM – 7:00 PM  Graduate Student Competition, PhD  
                    Room: Texas AB

5:00 PM – 6:40 PM  Undergraduate Student Competition  
                    Room: Texas CD

Monday, February 5, 2018

8:00 AM – 11:30 AM  Bill E. Kunkle Interdisciplinary Beef Symposium: Recent Advances in Replacement Heifer Development  
                    Room: Texas AB

8:00 AM – 11:05 AM  Small Ruminant Production I  
                    Room: Crystal A

8:00 AM – 10:45 AM  Meats  
                    Room: Crystal B
8:00 AM – 9:30 AM  Breeding and Genetics  
*Room: Texas CD*

9:30 AM – 10:00 AM  Coffee Break  
*Room: West Promenade*

10:00 AM – 11:45 AM  Nonruminant  
*Room: Continental*

1:00 PM – 2:45 PM  Small Ruminant Production II: Parasitology & Health  
*Room: Crystal A*

1:00 PM – 3:00 PM  Pastures and Forages/Conserved Forages  
*Room: Citizens AB*

1:00 PM – 4:30 PM  Physiology I  
*Room: Texas CD*

1:00 PM – 4:00 PM  Ruminant Animal Production: Health  
*Room: Texas AB*

1:00 PM – 4:30 PM  Ruminant Animal Production: Cow/Calf  
*Room: Continental*

2:55 PM – 4:30 PM  Extension I: Demonstrations  
*Room: Crystal A*

4:30 PM – 5:30 PM  Business Meeting  
*Room: Crystal A*

6:00 PM – 7:30 PM  Awards Banquet  
*Offsite: Longhorn Saloon*

8:00 PM – 12:00 AM  Awards Entertainment & Graduate Mixer  
*Offsite: Longhorn Saloon*

7:00 PM – 9:15 PM  Small Ruminant Subcommittee of NAGP  
*Room: Continental*

**Tuesday, February 6, 2018**

6:30 AM – 8:00 AM  Extension Breakfast  
*Room: Texas CD*

8:00 AM – 9:20 AM  Teaching and Undergraduate Education  
*Room: Texas B*
8:00 AM – 10:45 AM Extension II: Programs
   *Room: Crystal A*

8:00 AM – 11:30 AM Pastures and Forages
   *Room: Citizens AB*

8:00 AM – 12:20 PM Physiology II
   *Room: Continental*

8:00 AM – 11:45 AM Ruminant Animal Production: Nutrition
   *Room: Texas A*

9:30 AM – 12:05 PM Ruminant Animal Production: Weaned Calf
   *Room: Texas B*

9:30 AM – 10:00 AM Coffee Break
   *Room: West Promenade*

12:30 PM – 3:00 PM Southern Section Board Meeting
   *Room: Metropolitan*

11:00 AM – 1:00 PM Graduate Student Lunch and Learn
   *Room: Texas CD*

**Uploading Presentation Files**

Only PowerPoint presentations will be accommodated (i.e., no slides, no overheads and no alternative programs allowed).

1. All session rooms will have Master PCs running PowerPoint 2013 or newer in Windows.

2. Individual laptops may not be connected to the projectors in the session rooms.

3. Presentations must be given to the session chair via flash drive at least 15 minutes before the start of the session.
Special Events

Pre-Conference:

Integrated Pest Management Symposium
Saturday, February 3, 2018 * 2:00 PM – 5:30 PM
Room: Crystal C
It is well known that certain insects can be pests of livestock. This symposium will address some of these most economically important insect pest species as well as link some of these insects to disease pathogens of importance that lead to decreased productivity in livestock. It will also aid in providing guidance on developing an effective Integrated Pest Management (IPM) plan for operations and/or producers battling insect pests.

Integrated Pest Management Reception
Saturday, February 3, 2018 * 5:30 PM – 7:00 PM
Room: Crystal D

Business Meeting
Monday, February 5, 2018 * 4:30 PM – 5:30 PM
Room: Crystal A
The Southern Section business meeting will be held independent of the awards banquet.

Awards Banquet
Monday, February 5, 2018 * 6:00 PM – 7:30 PM
Offsite: Lil’ Red’s Longhorn Saloon
Join us for an awards banquet at Lil’ Red’s Longhorn Saloon, for an evening of food, drinks and catching up with friends as we honor the accomplishments of our 2018 Southern Section award winners.

Awards Entertainment and Graduate Mixer
Monday, February 5, 2018 * 8:00 PM – 12:00 AM
Offsite: Lil’ Red’s Longhorn Saloon
Join us at Lil’ Red’s Longhorn Saloon for an evening of food, drinks and catching up with friends.
The Executive Committee of Southern Section is pleased to announce the establishment of an annual invited lectureship to the Physiology Section. Dr. Randel’s contributions to the field of animal physiology and endocrinology have globally benefited animal agriculture. Dedicating his research career to investigating the reproductive physiology of beef cattle, especially for tropically adapted breeds, Dr. Randel evaluated the role of nutrition on reproduction, elucidated the fundamental reproductive biology of Brahman cattle, developed strategies to reduce livestock production risks and resolved practical problems in beef cattle reproduction. This year he will be honored by a two-part lectureship at the beginning of each physiology session.

**Dr. Mike Smith**  
*University of Missouri*  
Ronald D. Randel Lectureship Part I: Reproduction in Domestic Ruminants during the Past 50 Years: Discovery to Application.

**Dr. Carole Mendelson**  
*UTSW Medical Center/UTHSC-Dallas*  

**Extension Breakfast**  
*Tuesday, February 6, 2018 * 6:30 AM – 8:00 AM  
*Room: Texas CD*  
The objective of the extension breakfast is to coordinate collaborative forage and livestock educational efforts in the southeastern United States. The main topics for the 2018 extension breakfast will be:  
1. Discuss the committee structure and approval of the 2017 extension luncheon minutes  
2. Summary of the abstracts and symposium  
3. Planning for the II Forage and Livestock Southeastern Extension Meeting.
Graduate Student Lunch and Learn
Tuesday, February 6, 2018 * 12:00 PM – 2:00 PM
Room: Texas CD
The Southern Section Graduate Student Lunch and Learn will provide a unique opportunity for students to obtain valuable information and advice from academic and industry professionals in an exclusive setting. This year’s theme is “Committed to Science.” During this interactive meeting/workshop with fellow graduate students from colleges and universities across the southern section of ASAS, speakers will provide effective tools and strategies for conducting sound research and for communicating the importance of your research to a broad audience.
Saturday, February 3, 2018

Integrated Pest Management Symposium

Chairs: Nate Brown, Central Life Sciences; Nicky Oosthuizen, University of Florida, North Florida Research and Education Center

2:00 PM – 7:00 PM

Crystal C

2:00 PM  Welcoming Remarks.

2:05 PM  71  Overview of Arthropod Pests of Typical Livestock Production Systems.
C. Holderman*, Central Life Sciences, Dallas, TX

2:35 PM  72  Benefits of Horn Fly Control in Dairy and Beef Heifers.
S. C. Nickerson*, University of Georgia, Athens

3:05 PM  73  The Effect of ClariFly® Larvicide in Purchased Feed on Fly Populations on Dairy Farms in 2008 and 2013.
C. S. Mooney*, Morrisville State College, Morrisville, NY

3:35 PM  Break.

3:50 PM  74  Update on Fly Control Practices for Pastured Cattle.
J. L. Talley*, Oklahoma State University, Stillwater

C. White*, Central Life Sciences, Dallas, TX

4:50 PM  Break.

5:20 PM  Panel Discussion.

6:00 PM  Social.
Sunday, February 4, 2018

**SERA 041**

**Chairs:** Shane Gadberry, University of Arkansas System Division of Agriculture; Caleb P. Weiss, University of Arkansas  
1:00 PM – 6:00 PM

1:00 PM 119 **Anti-Quality Factors with Forage Baleage and Grain Crop Silage.**  
*A. T. Adesogan*, Department of Animal Sciences, IFAS, University of Florida, Gainesville

1:45 PM 120 **Characteristics of and Animal Responses to Warm- and Cool-Season Forage Baleage.**  
*R. S. Walker*¹ and *J. Vendramini*², Noble Research Institute, Ardmore, OK, ¹University of Florida, ²Gainesville

2:30 PM 121 **Economics of Baleage with Consideration for Class of Cattle.**  
*J. R. Pruitt*, University of Tennessee at Martin, Martin

3:15 PM  **Panel Discussion.**

3:35 PM  **SERA 041 Meeting.**

**Graduate Student Competition: MS Division**

**Chair:** Nicole C. Burdick Sanchez, USDA-ARS, Livestock Issues Research Unit  
4:00 PM – 5:30 PM

4:00 PM  **Welcoming Remarks.**

4:05 PM 20 **An Orientation Course with Effort-Based Grading Predicts Undergraduate Student Success in Animal Science.**  
*M. J. Mann* and *C. J. Kojima*, University of Tennessee, Knoxville

4:10 PM 21 **Impact of Different Maturity Stages on Yield and Quality of Ensiled Johnsongrass [Sorghum halepense (L.) Pers].**  
*C. Silva*¹, *M. L. Bass*¹, *D. W. Hancock*², and *R. L. Stewart, Jr.*¹, ¹University of Georgia, Athens, ²Department of Crop and Soil Sciences, University of Georgia, Athens

4:15 PM 22 **Evaluation of a Starter Ration on Growth and Performance of White-Tailed Deer Fawns.**  
*M. A. Sain*¹, *K. J. Statts*¹, *J. K. Suagee-Bedore*¹, *M. J. Anderson*¹, and *J. L. Leatherwood*², ¹Sam Houston State University, Huntsville, TX, ²Texas A&M University, College Station

4:20 PM 23 **Effects of Timing of Weaning on Calf Performance and Maintenance Energy Requirements in Primiparous Beef Cows.**  
*A. R. Wiseman*¹, *M. D. Redden*, *C. M. Spencer*, *A. L. McGee*, *R. Reuter*, and *D. L. Lalman*, Oklahoma State University, Stillwater
4:25 PM 24 Grazing Novel or Endophyte-Infected Tall Fescue during Midgestation Impacts Cow Performance.
M. A. Newsome*, R. E. Monn, K. Mayberry, R. K. Poole, Z. Young, M. H. Poore, and D. H. Poole, North Carolina State University, Raleigh

4:30 PM 25 Prediction of Residual Feed Intake in Feedlot Steers Based on Phenotypic Associations with Feeding Behavior and Carcass Ultrasound Traits.
I. L. Parsons*, J. R. Johnson, W. C. Kayser, M. D. Miller, and G. E. Carstens, Texas A&M University, College Station

4:35 PM 26 The Effect of Feeding Ferric Citrate on Rumen Microbial Communities and Methanogenesis in Growing Beef Steers.
E. A. Melchior1,2, K. E. Hales2, A. K. Lindholm-Perry1, J. E. Wells2, and P. R. Myer3, 1University of Tennessee, Knoxville, 2USDA-ARS, Clay Center, NE, 3USDA-ARS U.S. Meat Animal Research Center, Clay Center, NE

4:40 PM 27 Maternal Stress at Weaning Impacts Calf Growth.
G. C. Ott*, S. R. Freeman, M. H. Poore, and C. L. Pickworth, North Carolina State University, Raleigh

4:45 PM 28 Relationships between Antral Follicle Numbers and Postpartum Interval in Multiparous Brahman Cows.
L. K. Quail1,2, M. E. Mund1,2, D. A. Neuendorff1, R. A. d'Orey Branco1, J. P. Banta1, T. H. Welsh, Jr,1, and R. D. Randel2, 1Texas A&M University, College Station, 2Texas A&M AgriLife Research, Overton, 3Texas A&M AgriLife Extension, Overton

4:50 PM 29 Pre- and Postweaning Injections of Bovine Somatotropin to Optimize Puberty Achievement of Purebred Bos indicus Beef Heifers.
M. Piccolo1,2, B. I. Cappellozza2, R. Cooke1, M. Miranda2, R. Carvalho1, E. A. Colombo2, F. Santilli2, V. Ferreira1, L. Batista1, R. Filho1, J. L. M. Vasconcelos1, and P. Moriel3, 1UF/IFAS Range Cattle Research and Education Center, Ona, FL, 2Elanco Saúde Animal, São Paulo, Brazil, 3Texas A&M University, College Station, TX, 4Department of Animal Production, São Paulo State University, Botucatu, Brazil

4:55 PM 30 Differences in Fecal Egg Count, Performance, Blood Parameters, and Lactate Dehydrogenase Activity of Stocker Calves Treated with Various Anthelmintics.
C. A. Hooks3, N. R. Denney1, M. R. Hovey1, J. F. Miller4, B. M. Papajeski1, J. C. Robertson1, E. A. Backes3, C. A. Porr1, and A. J. Davis3, 1Murray State University, Hutson School of Agriculture, Murray, KY, 2Murray State University, Hutson School of Agriculture, Breathitt Veterinary Center, Hopkinsville, KY, 3Purina Animal Nutrition, LLC, Gray Summit, MO

5:00 PM 31 Prevalence of Internal Parasites in the Feral Hog Population of East Texas.
E. B. Meridian*, D. R. Ulrich, K. J. Stutts, M. J. Anderson, and M. M. Beverly, Sam Houston State University, Huntsville, TX

5:05 PM 32 Effect of Exercise on Calf Productivity, Health, and Behavior.
E. E. Van Raay*, J. E. Sawyer, T. A. Wickersham, R. Gill, and C. L. Daigle, Texas A&M University, College Station

5:10 PM 33 Effect of Supplementing Live Yeast Cultures on the Performance of Weaned Beef Cattle.
G. M. D'Souza1,2, D. R. Eborn1, S. B. Blezinger2, and G. J. Eckerle3, 1Texas A&M University–Commerce, Commerce, 2Reveille Livestock Concepts, Sulphur Springs, TX, 3San Antonio Steel Company, San Antonio, TX
5:15 PM 34  Relationship of Blood-Borne Markers of Subclinical Infection and Residual Feed Intake Status in Brangus Heifers.  

5:20 PM  Networking.

Undergrad Competition

Chair: Janeal W. S. Yancey, Department of Animal Science, University of Arkansas
Division of Agriculture
5:00 PM – 6:40 PM
Texas CD

5:00 PM  Welcoming Remarks.

5:05 PM 140  Effects of Postweaning Mat-Feeding Frequency on Piglet Health and Performance.  
M. A. Nagai* and E. K. Buttrey, University of Tennessee at Martin, Martin

5:10 PM 141  Effects of Winter Wheat Grazing on Subsequent Crop Yield.  
J. M. Curtis* and E. K. Buttrey, University of Tennessee at Martin, Martin

5:15 PM 142  Impact of Protein Supplementation on Physiological Response of Steers Consuming Endophyte-Infected Tall Fescue Seed.  
C. M. Womble*, R. K. Poole, D. H. Poole, and C. L. Pickworth, North Carolina State University, Raleigh

5:20 PM 143  Flushing and Synchronization Protocol Impacts on Out-Of-Season Breeding in Ewes.  
J. Sheffield*, C. Roman, B. L. Roper, R. K. Poole, and C. L. Pickworth, North Carolina State University, Raleigh

5:25 PM 144  Growth Factors Influence Cell Cycle Progression in Equine Satellite Cells.  
M. Gonzalez*, A. M. Brandt, and S. E. Johanson, Virginia Tech, Blacksburg

5:30 PM 145  Determination of the Optimal Stage of Lactation for Infectious Bovine Keratoconjunctivitis Vaccination.  
A. R. Dhom*, L. A. Flatow, M. E. Griffin, W. M. Gribble, and J. C. Stucky, Berry College, Mount Berry, GA

5:35 PM 146  Evaluation of Immune Response in Piglets during Processing.  
M. D. Fuentes*, Tarleton State University, Stephenville, TX

5:40 PM 147  Calpastatin Isoforms Related to Meat Tenderness in Beef Cattle.  
M. K. Stotz*, B. W. Smith*, K. Herrygers*, C. Bidwell*, J. Brady*, and J. Waddell*, 1Tarleton State University, Stephenville, TX, 2Purdue University, Lafayette, IN, 3Texas A&M University, College Station

5:45 PM 148  Measuring the Impact of a Feeder Calf Board Sale Program through a Survey of Producer Attitudes.  
K. S. Hyman*, B. B. Karisch*, and D. J. Peterson*, 1University of Arkansas, Fayetteville, 2Mississippi State University, Mississippi State, 3Mississippi State University, School of Human Sciences, Mississippi State
Using Carbon Emissions, Oxygen Consumption, and Energy Retention to Estimate Dietary ME Intake by Beef Steers.

C. Burrus*, S. A. Gunter, D. W. Sanson, C. A. Moffet, and P. Gregorini,
1Southern Arkansas University, Magnolia, 2USDA-ARS, Woodward, OK, 3Lincoln University, Christchurch, New Zealand

Implementing Shade and Slick Hair Phenotypes Improves Heifer Performance.


Lean Percentage, Storage Times, and Griddle Temperature Affect Raw and Cooked Visual and Instrumental Color and Cooking Loss in Fresh Ground Beef Patties.

Z. M. Hicks*, J. W. S. Yancey, J. A. Apple, T. M. Johnson, and B. E. Jenschke, University of Arkansas, Fayetteville, 2Cargill Protein, Monticello, MN

Effects of Group Housing on Sow Production and Behavior.

M. A. Martino, D. L. Peery, Z. T. Poynter, C. A. Sanders, C. Powers, and A. K. Sexten, Eastern Kentucky University, Richmond

Progesterone Concentration, Follicle Diameter, and Corpus Luteum Volume in Beef Cows Supplemented with Ca Salts of Soybean Oil.


Efficacy of a Fecal DNA-Based Method to Measure Diet Components in Cattle.

M. M. Drakeley* and R. Reuter, Oklahoma State University, Stillwater

Validation of Glucometer Technology for Measurement of Glycemia during Glucose Tolerance Tests and Endotoxin Challenge in Pigs.

M. K. Gohlke*, W. Z. Nunnelley, H. S. Maxwell, J. E. Bayne, and T. D. Brandebourg, Auburn University, Auburn, AL

Networking.

Graduate Student Competition: PhD Division

Chair: Nicole C. Burdick Sanchez, USDA-ARS, Livestock Issues Research Unit

Welcome Remarks.

Effect of Temperament Measures on Feedlot Cattle Performance.


Quantifying Stress and Anxiety: Development and Validation of a Novel Fear Test for Cattle.

A. Mathias*, L. Forehand, G. E. Carstens, and C. L. Daigle, Texas A&M University, College Station
6:00 PM 37  Effects of Feeding Different Levels of Quebracho (Schinopsis balansae) Extract in a High-Roughage Total Mixed Ration on Manure Gas Emissions.  
A. B. Norris1, L. O. Tedeschi1, K. D. Casey2, J. C. B. Dubieux Jr.3, J. L. Foster4, J. P. Muir5, and W. E. Pinchak6, 1Texas A&M University, College Station, 2Texas A&M AgriLife Research, Amarillo, 3University of Florida, North Florida Research and Education Center, Marianna, 4Texas A&M AgriLife Research, Beeville, 5Texas A&M University, College Station, 6Texas A&M AgriLife Research, Vernon

6:05 PM 38  Effect of Forage Source on Digestion and Ruminal Fermentation in Limit-Fed Steers.  
C. N. Truelock1, J. E. Sawyer, and T. A. Wickersham, Texas A&M University, College Station

6:10 PM 39  Effects of Growth-Promoting Implants at Branding in Suckling Steers Prior to Weaning.  
J. J. Ball1, E. B. Kegley, E. A. Palmer, T. D. Lester, W. Gragg, and J. G. Powell, University of Arkansas, Fayetteville

6:15 PM 40  Forms of Selenium in Vitamin–Mineral Mixes Differentially Affect the Expression of Genes Responsible for Prolactin and ACTH Synthesis in Pituitaries of Steers Grazing Endophyte-Infected Tall Fescue.  
Q. Li1, Y. Jia, P. Bridges, and J. C. Matthews, University of Kentucky, Lexington

6:20 PM 41  Effect of Protein Supplementation on Immune Response of Weaned Steers Consuming Endophyte-Infected Tall Fescue Seed.  
R. K. Poole1, C. M. Womble, C. L. Pickworth, and D. H. Poole, North Carolina State University, Raleigh

6:25 PM 42  Performance, Health, and Physiological Responses of Newly Weaned Cattle Supplemented with Feed-Grade Antibiotics or Alternative Feed Additives during Feedlot Receiving.  
K. M. Schubach1,2, R. Cooke1, K. A. Souza1, T. F. Schumaher2, N. S. da Silva2, D. W. Bohnert2, and R. Marques2, 1Texas A&M University, College Station, 2Oregon State University–EOARC Burns, Burns

6:30 PM 43  Evaluation of Dietary Trace Mineral Source on Markers of Cartilage Metabolism in Weaning Horses Challenged with Lipopolysaccharide.  
A. A. Millican1, J. L. Leatherwood1, J. A. Coverdale1, C. E. Arnold1, A. N. Bradbery1, K. Fikes1, M. S. Goehring1, E. C. Dickson1, C. M. Latham1, C. J. Hartz1, C. B. Paulk2, T. H. Welsh, Jr.1, S. H. White1, C. K. Larson1, E. D. Lamprecht1, and T. A. Wickersham1, 1Texas A&M University, College Station, 2Texas A&M University, College Station, 3Texas A&M University, College Station, 4Texas A&M University, College Station, 5Texas A&M University, College Station, 6Texas A&M University, College Station

6:35 PM 44  The Form of Selenium in Free-Choice Vitamin–Mineral Mixes Affects the Percentage of Circulating Neutrophils and Lymphocytes in Beef Calves Subjected to Combined Weaning and Shipping Events.  
Y. Jia1, A. A. Adams1, W. R. Burris1, P. Bridges1, and J. C. Matthews1, 1University of Kentucky, Lexington, 2The Gluck Equine Research Center, University of Kentucky, Lexington, 3University of Kentucky, Lexington

6:40 PM 45  Analysis of the Gastrointestinal Tract–Associated Microbiome of Calves Supplemented during the Suckling Phase.  
J. M. Lourenço1, T. J. Kieran2, J. C. McCann1, T. C. Glenn2, and L. Stewart1, 1University of Georgia, Athens, 2University of Georgia Environmental Health Science, Athens, 3University of Illinois Urbana-Champaign, Urbana

6:45 PM 46  Effects of Packaging Conditions on Volatile Compounds of Raw Beef from Two Muscles.  
T. Cramer1, J. F. Legako, J. A. Ponce, and J. C. Brooks, Texas Tech University, Lubbock

6:50 PM 47  Post–AI Supplementation with Ca Salts of Soybean Oil Increases Pregnancy Success in Bos taurus Beef Cows.
6:55 PM Networking.
Monday, February 5, 2018

Breeding and Genetics

Chairs: Trent Smith, Mississippi State University, Department of Animal and Dairy Sciences; Brittni P. Littlejohn, Texas A&M AgriLife Research and Department of Animal Science
8:00 AM – 9:30 AM
Texas CD

8:00 AM  Welcoming Remarks.

8:05 AM 1  Comparison of Linear Mixed Model and Random Regression Model for Weaning Weight in Hereford Cattle over a United States Longitudinal Gradient.
J. M. Langdon II¹, J. S. Delgadillo¹, A. D. Herring¹, D. G. Riley¹, H. D. Blackburn¹, S. E. Speidel¹, S. Sanders², B. C. Krehbiel³, and D. G. Riley¹,²,³¹Texas A&M University, College Station,²Texas AgriLife Research, College Station,³National Animal Germplasm Program ARS-USDA, Fort Collins, CO, ¹Department of Animal Sciences, Colorado State University, Fort Collins, ³American Hereford Association, Kansas City, MO, ²Texas A&M AgriLife Research, College Station

8:20 AM 2  Genetic Parameters for Lamb Mortality Associated with Pneumonia.
P. W. Holland¹, L. L. Hulsman Hanna², K. A. Vonnahme², L. P. Reynolds², J. B. Taylor³, and D. G. Riley¹,³¹Texas A&M University, College Station,²North Dakota State University, Fargo, ³USDA-ARS, Rangeland Sheep Production Efficiency Research, Dubois, ID

8:35 AM 3  Breed Matters: Consistency of Bull Temperament across Time and Relationship between Temperament and Productivity.
R. M. Park¹, G. Toro², and C. L. Daigle¹,¹Texas A&M University, College Station, ²Sexing Technologies Genetics, Navasota, TX

8:50 AM 4  Heritability Estimations for Intramuscular Fat in Hereford Cattle Using Random Regressions.
J. S. Delgadillo Liberona¹, J. M. Langdon II¹, D. G. Riley¹, H. D. Blackburn², S. E. Speidel¹, B. C. Krehbiel³, S. Sanders³, and A. D. Herring¹,¹Texas A&M University, College Station,³National Animal Germplasm Program ARS-USDA, Fort Collins, CO, ¹Colorado State University, Fort Collins, ³National Animal Germplasm Program, National Laboratory for Genetic Resources Preservation, USDA-ARS, Fort Collins, CO, ²American Hereford Association, Kansas City, MO

9:05 AM 5  Relationships Between Breeding Soundness Exam Parameters and Exam Results in Angus Bulls.
F. W. Harrelson¹, K. R. Vencill, P. Prater, and P. L. Harrelson, Morehead State University, Morehead, KY

9:20 AM  Networking.

Kunkle Symposium

Chairs: Jason P. Banta, Texas A&M AgriLife Extension; Pedro L. P. Fontes, University of Florida, North Florida Research and Education Center
8:00 AM – 11:30 AM
Texas AB
8:00 AM Welcoming Remarks.

8:05 AM 48 Changes in the U.S. Cow Herd and Their Implications on Heifer Development.
D. L. Lalman*, A. L. McGee, C. M. Spencer, and A. R. Wiseman, Oklahoma State University, Stillwater

8:50 AM 49 Lessons Learned from University Heifer Development Programs.
J. D. Rhinehart*, University of Tennessee, Knoxville

9:35 AM Break.

9:45 AM 50 Nutritional Programming of Puberty in Heifers: Developmental, Genomic, and Functional Implications.
G. L. Williams1, B. R. C. Alves2, and R. C. Cardoso3, 1Texas A&M AgriLife Research, Beeville, 2University of Nevada, Reno, 3Texas A&M University, College Station

10:30 AM 51 Target Prebreeding Body Weight and Age in Replacement Heifers – Implications of Environment and Management.
R. S. Walker*, Noble Research Institute, Ardmore, OK

11:15 AM Discussion.

Meats

Chairs: Gregg Rentfrow, University of Kentucky; Berlin S. Howell, University of Arkansas
8:00 AM – 10:45 AM
Crystal B

8:00 AM Welcoming Remarks.

8:05 AM 52 Evaluation of Production Economics and a Value of Carcasses Processed into Wholesale Cuts from Steers Finished in a Conventional System Compared with Carcasses Processed into Ground Beef from Steers Finished on a Grass-Based System.
T. W. Glascock1, J. A. Apple1, J. G. Powell1, P. A. Beck2, J. J. Ball2, T. M. Johnson1, and J. T. Sawyer1, 1University of Arkansas, Fayetteville, 2University of Arkansas Division of Agriculture SWREC, Hope, 3Tarleton State University, Department of Animal Science and Veterinary Technology, Stephenville, TX

8:20 AM 53 Impact of Packaging Types on Cooked Beef Volatile Flavor Compounds.
K. R. Vierck*, J. F. Legako, J. A. Ponce, and J. C. Brooks, Texas Tech University, Lubbock

8:35 AM 46 Effects of Packaging Conditions on Volatile Compounds of Raw Beef from Two Muscles.
T. Cramer*, J. F. Legako, J. A. Ponce, and J. C. Brooks, Texas Tech University, Lubbock

8:50 AM 147 Calpastatin Isoforms Related to Meat Tenderness in Beef Cattle.
M. K. Stotz1, B. W. Smith1, K. Herrygers1, C. Bidwel2, J. Brady3, and J. Waddell1, 1Tarleton State University, Stephenville, TX, 2Purdue University, Lafayette, IN, 3Texas A&M University, College Station

9:05 AM 151 Lean Percentage, Storage Times, and Griddle Temperature Affect Raw and Cooked Visual and Instrumental Color and Cooking Loss in Fresh Ground Beef Patties.
Z. M. Hicks1, J. W. S. Yancey1, J. A. Apple1, T. M. Johnson1, and B. E. Jenschke2, 1University of Arkansas, Fayetteville, 2Cargill Protein, Monticello, MN
9:20 AM 54 Beef Muscle and Packaging Type Influence Descriptive Sensory Attributes.
J. A. Ponce*, J. F. Legako, and J. C. Brooks, Texas Tech University, Lubbock

9:35 AM  Break.

9:50 AM 55 Effect of Two Dietary Crude Protein Levels on Finishing Performance, Carcass Characteristics, and Meat Quality of Lambs.
Y. Huang*, S. Shelby, X. Wang, J. A. Apple, and K. P. Coffey, University of Arkansas, Fayetteville

10:05 AM 56 Proteomic Changes in the Sarcoplasmic Fraction of Three Differentially Color Stable Beef Muscles during Aging.
M. Narayanan Nair*, S. Li, C. Beach, G. Rentfrow, and S. P. Suman, Colorado State University, Fort Collins, University of Kentucky, Lexington

10:20 AM 57 The Impact of Consumer Handling Behaviors in Retail Locations and during Vehicular Transport on Fresh Red Meat Temperature, Color, and Palatability.
D. A. Griffing, S. R. Wilkerson*, and C. L. Bratcher, Auburn University, Auburn, AL

10:35 AM  Networking.

Small Ruminant Production I

Chairs: Steve P Hart, Langston University; Emily A. Melchior, University of Tennessee
8:00 AM – 11:05 AM
Crystal A

8:00 AM  Welcoming Remarks.

8:05 AM 22 Evaluation of a Starter Ration on Growth and Performance of White-Tailed Deer Fawns.
M. A. Sain*, K. J. Stuts, J. K. Suagee-Bedore, M. J. Anderson, and J. L. Leatherwood, Sam Houston State University, Huntsville, TX, Texas A&M University, College Station

8:20 AM 122 Quality Parameters of Goat Meat As Influenced by Peanut Skin Supplementation.
D. Kafle*, J. H. Lee*, and B. R. Min, Fort Valley State University, Fort Valley, GA, Tuskegee University, Tuskegee, AL

8:35 AM 123 Small Ruminant Beginning Farmer Training.

8:50 AM 124 The Effect of Water Restriction at Weaning on Hair Sheep Ewes and Lambs in the Tropics.
R. W. Godfrey*, S. A. Lakos, and S. R. Joseph, Agricultural Experiment Station, University of the Virgin Islands, St. Croix, U.S. Virgin Islands

9:05 AM 125 Assessment of the Effect of Cracked Corn Energy Supplementation on Animal Performance, Rumen Fermentation, and Carcass Traits in Grazing Goats during the Winter Months.
9:20 AM  Break.

  C. L. Maierle, J. J. Garza, E. A. Shepherd, B. Russ, D. Middleton, A. M. Zajac, S. P. Greiner, and S. A. Bowdridge, West Virginia University, Morgantown, Virginia Polytechnic Institute and State University, Blacksburg

9:50 AM 127  Effect of Terminal Sire Breed on Feed Efficiency in Katahdin Crossbred Feedlot-Finished Lambs.
  C. L. Maierle, West Virginia University, Morgantown


  A. R. Weaver, D. L. Wright, A. M. Zajac, S. A. Bowdridge, and S. P. Greiner, Virginia Polytechnic Institute and State University, Blacksburg, West Virginia University, Morgantown

10:35 AM 130  The Effects of Dietary Octacosanol on Ram Semen Quality Parameters.
  C. M. Harris, C. A. Runyan, and J. W. Dickison, Angelo State University, San Angelo, TX

10:50 AM  Networking.

Nonruminant Nutrition

Chair: Bryan Kutz, Department of Animal Science, Division of Agriculture, University of Arkansas; Kaitlyn M. Sarlo, Texas A&M

10:00 AM – 11:45 AM
  Continental

10:00 AM  Welcoming Remarks.

10:05 AM 140  Effects of Postweaning Mat-Feeding Frequency on Piglet Health and Performance.
  M. A. Nagai and E. K. Buttrey, University of Tennessee at Martin, Martin

  M. D. Fuentes, Tarleton State University, Stephenville, TX

10:35 AM 152  Effects of Group Housing on Sow Production and Behavior.
  M. A. Martino, D. L. Peery, Z. T. Poynter, C. A. Sanders, C. Powers, and A. K. Sexten, Eastern Kentucky University, Richmond

10:50 AM 43  Evaluation of Dietary Trace Mineral Source on Markers of Cartilage Metabolism in Weanling Horses Challenged with Lipopolysaccharide.
M. K. Gohlke*, W. Z. Nunnelley, H. S. Maxwell, J. E. Bayne, and T. D. Brandebourg, Auburn University, Auburn, AL

E. B. Merdian*, D. R. Ullrich, K. J. Stutts, M. J. Anderson, and M. M. Beverly, Sam Houston State University, Huntsville, TX

11:35 AM Networking.

**Pastures and Forages: Conserved Forages**

*Chairs: Paul A Beck, University of Arkansas; Jose M. Diaz, University of Arkansas*

1:00 PM – 3:00 PM  
Citizens AB

1:00 PM Welcoming Remarks.

1:05 PM 21 Impact of Different Maturity Stages on Yield and Quality of Ensiled Johnsongrass [Sorghum halepense (L.) Pers].  
C. Silva1, M. L. Bass1, D. W. Hancock2, and R. L. Stewart, Jr.1, 1University of Georgia, Athens, 2Department of Crop and Soil Sciences, University of Georgia, Athens

1:20 PM 58 Comparison of a Full Season and Early Maturing Forage Sorghum Silage with Corn Silage for Growing Cattle.  
S. Ingram* and M. Poore, North Carolina State University, Raleigh

1:35 PM 59 Effects of Delayed Wrapping and Moisture Content on Intake and Digestibility of Ryegrass Silage by Growing Lambs.  
M. A. Hays1, K. P. Coffey1, P. A. Beck2, W. K. Coblentz3, C. P. Weiss1, T. S. Crook1, and D. Philipp1, 1University of Arkansas, Fayetteville, 2University of Arkansas, Hope, 3USDA-ARS, U.S. Dairy Forage Research Center, Marshfield, WI

1:50 PM 60 Evaluating Yield, Nutritive Value, and Storage Length of Tifton-85 Bermudagrass and Tifton-85 Bermudagrass–Alfalfa Mixtures As Baleage in the Southeast.  
T. J. Hendricks1, J. J. Tucker2, D. W. Hancock3, and L. Stewart1, 1University of Georgia, Athens, 2University of Georgia–Tifton, Tifton, 3University of Georgia, Department of Crop and Soil Sciences, Athens

2:05 PM 61 Feeding Alfalfa Hay Improves Nursing Performance of Awassi Ewes and Performance of Growing Lambs When Used as a Source of Roughage Compared with Wheat Straw.  
B. S. Obeidat1, H. S. Subih1, and J. B. Taylor2, 1Jordan University of Science and Technology, Irbid, Jordan, 2USDA-ARS, Rangeland Sheep Production Efficiency Research, Dubois, ID

M. E. Griffin1, K. Mullenix1, L. Roth7, J. B. Elmore1, K. M. Mason1, and L. C. Burdette1, 1Auburn
2:35 PM 63 Evaluation of Warm-Season Annual Baleage in a Cow/Calf Production System.
M. S. Hargaden1, M. K. Mullenix1, C. G. Prevatt2, R. W. Peacock1, S. Moisa1, and R. B. Muntifering1. 1Auburn University, Auburn, AL, 2University of Florida, Ona

2:50 PM Networking.

Physiology I

Chairs: Michelle R. Garcia, Texas A&M University–Kingsville; Rebecca K. Poole, North Carolina State University; Allison A. Millican, Texas A&M University

1:00 PM – 4:30 PM
Texas CD

1:15 PM 76 Fetal-to-Maternal Signaling in the Timing of Birth.
C. R. Mendelson1, A. P. Montalbano1, and L. Gao1. 1Depts. of Biochemistry and Ob-Gyn, Univ. Texas Southwestern Medical Center, Dallas, 2Dept of Physiology, Second Military Medical University, Shanghai, China

2:00 PM 29 Pre- and Postweaning Injections of Bovine Somatotropin to Optimize Puberty Achievement of Purebred Bos indicus Beef Heifers.
M. Piccolo1, B. I. Cappellozzi2, R. Cooke1, M. Miranda1, R. Carvalho1, E. A. Colombo1, F. Santilli1, V. Ferreira1, L. Battista1, R. Filho2, J. L. M. Vasconcelos2, and P. Moriel1. 1Uni/IFAS Range Cattle Research and Education Center, Ona, FL, 2Elanco Saúde Animal, São Paulo, Brazil, 3Texas A&M University, College Station, 4Department of Animal Production, São Paulo State University, Botucatu, Brazil

2:15 PM 77 Effects of Supplementing Various Ratios of Polyunsaturated Fatty Acids to In Vitro Production of Bovine Embryos.
C. L. Timlin1, L. K. Wooldridge, A. D. Ealy, and V. R. G. Mercadante, Virginia Tech, Blacksburg

3:00 PM 70 The Effects of the DFM Clostat® and Experimental Salmonella Challenge on the Microbiome of the Ileum in Weaned Holstein Steer Calves.
3:30 PM 80  Comparison of Three Methods of Determining Feed Efficiency on Productivity of Brahman Heifers.
S. E. O’Daniel1, D. G. Riley1, D. A. Neuendorff3, T. D. Forbes3, J. P. Banta4, T. H. Welsh, Jr5, F. M. Rouquette, Jr2, and R. D. Rande2, 1Texas A&M University, College Station, 2Texas A&M AgriLife Research, Overton, 3Texas A&M AgriLife Research, Uvalde, 4Texas A&M AgriLife Extension, Overton

3:45 PM 81  Effects of IGF1 on Proliferation, Fusion, and Protein Synthesis in Equine Satellite Cells.
A. Pyne1, P. Helsel1, and S. E. Johnson1, 1Virginia Tech, Blacksburg

4:00 PM 82  Equine Trophoderm Cells and Their Role in Fetal–Maternal Recognition.
S. Bonometti1, B. C. Menarim1, A. M. Brandt1, A. D. Ealy1, and S. E. Johnson1, 1Virginia Tech, Blacksburg

4:15 PM 47  Post–AI Supplementation with Ca Salts of Soybean Oil Increases Pregnancy Success in Bos taurus Beef Cows.
A. P. Brandao1,2, R. Cooke1, K. M. Schubach1,2, R. Marquez2, K. G. Pohler1, R. Carvalho3, R. L. A. Cerri1, D. W. Bohner1, and V. R. G. Mercadante3, 1Texas A&M University, College Station, 2Texas AgriLife Research, College Station, 3Texas A&M University–EOARC Burns, Burns, 1University of Tennessee, Knoxville, 4Applied Animal Biology, Faculty of Land and Food Systems, University of British Columbia, Vancouver, BC, Canada, 5Virginia Polytechnic Institute and State University, Blacksburg

Ruminant Animal Production: Cow–Calf

Chairs: Philipe Moriel, UF/IFAS, Range Cattle Research and Education Center; Juliana Ranches, UF/IFAS Range Cattle Research and Education Center
1:00 PM – 4:30 PM
Continental

1:00 PM  Welcoming Remarks.

1:05 PM 93  Production and Economic Effects of Developing Heifers on Three Different Levels of Single Stair-Step Nutrition Programs.
E. J. Stribling1, T. A. Wickersham1, R. C. Cardos1, and J. E. Sawyer1,2, 1Texas A&M University, College Station, 2Texas AgriLife Research, College Station

1:20 PM 150  Implementing Shade and Slick Hair Phenotypes Improves Heifer Performance.
R. E. Monn1, T. P. Shea, K. Mayberry, S. R. Freeman, D. H. Poole, and M. H. Poore, North Carolina State University, Raleigh

1:35 PM 94  Effect of Forage Type and Supplement Frequency on Heifer Growth and Reproductive Performance.
M. J. Hersom1 and J. V. Yelich, Department of Animal Sciences, University of Florida, Gainesville

1:50 PM 96  Effects of Diet Type on Nutrient Utilization and Energy Balance of Limit-Fed Bred Heifers in a Drylot.
J. R. Baber1, T. A. Wickersham1, J. E. Sawyer1, H. C. Freetly2, and K. E. Hales2, 1Texas A&M University, College Station, 2USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE
A. R. Wiseman1, M. D. Redden, C. M. Spencer, A. L. McGee, R. Reuter, and D. L. Lalman, Oklahoma State University, Stillwater

2:20 PM 99 Impacts of Estrus Expression during a Timed-AI Protocol on Variables Associated with Fertility and Pregnancy Success in Bos indicus Beef Cows.
K. M. Schubach1,2, R. Cooke1, A. P. Brandao1,2, R. Marques2, and R. L. A. Cerri1,1Texas A&M University, College Station, 2Oregon State University–EOARC Burns, Burns, 1Applied Animal Biology, Faculty of Land and Food Systems, University of British Columbia, Vancouver, BC, Canada

J. Ranches1, J. S. Drouillard2, L. D. Silva2, G. Zylberlicht2, A. D. Moreira1, J. S. Heldt1, and J. D. Arthington1, 1UF/IFAS Range Cattle Research and Education Center, Ona, FL, 2Kansas State University, Manhattan, 1Micronutrients, Indianapolis, IN

2:50 PM 103 Evaluation of Net Returns to Risk and Management in an Intensified Cow-Calf Production System.
A. L. McGee1, J. R. Cole1, C. L. Bayliff2, M. D. Redden1, C. M. Spencer1, A. R. Wiseman1, J. G. Warren1, R. Reuter1, D. Doye1, G. W. Horn2, and D. L. Lalman1, 1Oklahoma State University, Stillwater, 2Oklahoma Agricultural Experiment Station, Stillwater

3:05 PM 105 Effect of a Hydrolyzed Yeast Product on Body Weight, Body Condition Score, and Hair Coat Score in Cows Grazing Endophyte-Infected Tall Fescue.
P. L. Harrelson1, C. B. Rogers1, R. A. Martin2, B. N. Bosley3, F. M. Kilgallin1, and F. W. Harrelson1, 1Morehead State University, Morehead, KY, 2Gro-Tec Inc., Modoc, IN

3:20 PM 107 Dietary Energy Density and Intake on Energy Requirements in Beef Cows.
L. A. Trubenbach1, T. A. Wickersham, V. P. Briani, and J. E. Sawyer, Texas A&M University, College Station

T. S. Crook1, P. A. Beck2, M. S. Gaudberry1, M. B. Sims2, B. Stewart2, C. Shelton2, D. J. McLean4, J. D. Chapman5, and J. E. Koltes6, 1University of Arkansas, Fayetteville, 2University of Arkansas Division of Agriculture SWREC, Hope, 1University of Arkansas, Little Rock, 1Phibro Animal Health Corporation, Teaneck, NJ, 1Phibro Animal Health Corporation, Quincy, IL, 1Iowa State University, Ames

3:50 PM 109 Effects of Year-Round Supplementation of Sugarcane Molasses and Range Cubes on Growth Performance and Physiological Parameters of Pregnant Beef Cows.
P. Moriel1, M. Piccolo1, M. Vedovato1, J. Warren1, and J. Vendramini1, 1UF/IFAS Range Cattle Research and Education Center, Ona, FL, 2Federal University of Mato Grosso do Sul, Campo Grande, Brazil

4:05 PM 110 Evaluation of Angus Calf Performance Based on Dams’ Tolerance or Susceptibility to Fescue Toxiosis.
K. Mayberry1, P. Khanal1, M. H. Poore1, N. V. L. Serão2, and D. H. Poole1, 1North Carolina State University, Raleigh, 2Iowa State University, Ames

4:20 PM Networking.
Ruminant Animal Production: Health

Chairs: J. Daniel Rivera, Mississippi State University South Branch Experiment Station; Ira L. Parsons, Department of Animal Science, Texas A&M University
1:00 PM – 4:00 PM
Texas AB

1:00 PM  Welcoming Remarks.

1:05 PM 32 Effect of Exercise on Calf Productivity, Health, and Behavior.
E. E. Van Raay, J. E. Sawyer, T. A. Wickersham, R. Gill, and C. L. Daigle, Texas A&M University, College Station

1:20 PM 34 Relationship of Blood-Borne Markers of Subclinical Infection and Residual Feed Intake Status in Brangus Heifers.

1:35 PM 44 The Form of Selenium in Free-Choice Vitamin–Mineral Mixes Affects the Percentage of Circulating Neutrophils and Lymphocytes in Beef Calves Subjected to Combined Weaning and Shipping Events.
Y. Jia, A. A. Adams, W. R. Burris, P. Bridges, and J. C. Matthews, University of Kentucky, Lexington, University of Kentucky, Princeton

1:50 PM 95 Assessment of On-Arrival Vaccination and Deworming on Stocker Cattle Health and Growth Performance.
R. T. Wagner, B. B. Karisch, J. R. Blanton, A. Woolums, D. R. Smith, and R. Kaplan, Mississippi State University, Mississippi State, University of Georgia, Athens

2:05 PM 97 Effect of a Combination of Live Yeast and Yeast Cell Wall Products Supplemented Before and After Weaning on Heifer Growth Performance and Heat Stress.
E. A. Palmer, E. B. Kegley, P. A. Beck, J. J. Ball, J. E. Koltes, S. Chewning, J. A. Hornsby, J. L. Reynolds, B. P. Shoulders, M. D. Cravey, and J. G. Powell, University of Arkansas, Fayetteville, University of Arkansas Division of Agriculture SWREC, Hope, Iowa State University, Ames, Phileo Lesaffre Animal Care, Milwaukee, WI

2:20 PM 98 Effect of Yeast, Astragalus Polyaccharin, and Tulathromycin Administration on Receiving Performance and Physiological Responses of Transported Heifers.
X. Wu, P. A. Beck, and Q. Meng, College of Animal Science and Technology, China Agricultural University, Beijing, China, University of Arkansas, Fayetteville, University of Arkansas Division of Agriculture SWREC, Hope, China Agricultural University, Beijing, China

2:35 PM 101 Effects of Live Yeast Supplementation on Complete Blood Cell Count and Febrile Responses in Heifers After Viral–Bacterial Respiratory Challenge.
W. C. Kayser, G. E. Carstens, K. E. Washburn, S. D. Lawhon, S. M. Reddy, A. L. Skidmore, E. Chevaux, and W. E. Pinchak, Texas A&M University, College Station, Department of Large Animal Clinical Sciences, Texas A&M University, College Station, Department of Veterinary Pathobiology, Texas A&M University, College Station, Lallemand Animal Nutrition, Milwaukee, WI, Texas A&M AgrLife Research, Vernon

2:50 PM 102 Fecal Egg Counts and Performance of Stocker Calves Treated with Various Anthelmintics.
Physiologic and Innate Immunity Responses of Beef Heifers Supplemented with an Immunomodulatory Feed Ingredient during a Lipopolysaccharide Challenge.
A. P. Brandao, R. Cooke, K. M. Schubach, K. A. Souza, T. F. Schumaher, N. S. da Silva, D. W. Bohnert, and R. Marques, Texas A&M University, College Station; Oregon State University–EOARC Burns, Burns

K. Vincent, D. Roper, D. Snyder, T. Jones, and B. Talsma, Tarleton State University, Stephenville, TX

Determination of the Optimal Stage of Lactation for Infectious Bovine Keratoconjunctivitis Vaccination.
A. R. Dhom, L. A. Flatow, M. E. Griffin, W. M. Gribble, and J. C. Stucky, Berry College, Mount Berry, GA

Networking.

Small Ruminant Production II: Parasitology & Health

Chairs: Chelsey A. Ahrens, University of Arkansas; Kelly R. Vierck, Texas Tech University
1:00 PM – 2:45 PM
Crystal A

Genetic Parameters for Ewe Reproductive Performance and Peri-Parturient Fecal Egg Counts and Their Genetic Relationships with Lamb Body Weights and Fecal Egg Counts in Katahdin Sheep.
L. Ngere, J. M. Burke, J. E. Miller, J. L. M. Morgan, and D. R. Notter, USDA-ARS, Booneville, AR; Oak Ridge Institute for Science and Education, Oak Ridge, TN; Louisiana State University, Baton Rouge; Round Mountain Consulting Service, Fayetteville, AR; Katahdin Hair Sheep Institute, Fayetteville, AR; Virginia Polytechnic Institute and State University, Blacksburg

Physical Characteristics to Predict Survivability in Newborn White-Tailed Deer Fawns.
K. J. Stutts, E. E. Evers, J. L. Leatherwood, C. R. Stewart, and M. J. Anderson, Sam Houston State University, Huntsville, TX; Texas A&M University, College Station

Efficacy of Compound X (Bedoukian Research, Inc.) on Reducing Fecal Egg Count in Lambs.
M. M. France, V. E. Kelly, J. E. Miller, J. M. Burke, and K. M. McKenzie, Louisiana State University, Baton Rouge; USDA-ARS, Booneville, AR; Bedoukian Research, Inc., Danbury, CT

Examining Relationships between Production and Gastrointestinal Nematode Measures in Organic and Conventionally Reared Katahdin Lambs.
J. M. Burke, A. T. Pickett, B. S. Howell, E. L. Wood, M. Acharya, and J. E. Miller, USDA-ARS, Booneville, AR; Southern Arkansas University, Magnolia; University of Arkansas, Fayetteville; Oakridge Institute for Science and Education, Oakridge, TN; Louisiana State University, Baton Rouge
S. Wildeus1, and G. Tessema2, 1Virginia State University, Petersburg, 2Virginia Department of Agriculture and Consumer Services, Warrenton, VA

2:20 PM 136 Seasonal Effects on Daily Gain and Fecal Egg Counts in Purebred and Crossbred Hair Sheep Lambs on Pasture.
S. Wildeus2, D. O'Brien1, and C. D. Teutsch2, 1Virginia State University, Petersburg, 2University of Kentucky Research and Education Center, Princeton

2:35 PM Networking.

Extension I Demonstrations

Chairs: Brandi B. Karisch, Mississippi State University; P. A. Gunter, Auburn University
2:55 PM – 4:30 PM
Crystal A

2:55 PM Welcoming Remarks.

3:00 PM 6 A Comparison of Methods for Estimating Forage Mass.
T. Hudspeth1, C. A. Ahrens2, D. S. Hubbell, III, and S. Gadberry4, 1Arkansas State University, Jonesboro, 2University of Arkansas, Little Rock, 3University of Arkansas Division of Agriculture Livestock and Forestry Research Station, Batesville, 4University of Arkansas System Division of Agriculture, Little Rock

3:15 PM 7 Hands-On Workshops Spark Producer Interest in Improving Mineral Programs for Beef Cattle.
M. H. Poore4, A. D. Shaeffer, J. R. Rogers, and S. R. Freeman, North Carolina State University, Raleigh

3:30 PM 8 2017 Winter Forage and Hay Outlook.
C. G. Prevatt1, M. Mullinix2, J. J. Tucker2, D. D. Harmon3, and M. O. Wallau4, 1University of Florida, Ona, 2Auburn University, Auburn, AL, 3University of Georgia–Tifton Campus, Tifton, 4Virginia Polytechnic Institute and State University, Blacksburg, 5University of Florida, Gainesville

3:45 PM 9 Assessment of Performance Tested Bull Characteristics and Their Effect on Price.
B. M. Thinguldstad1, L. Russell1, J. J. Tucker2, G. A. Buono4, and J. R. Segers1, 1University of Georgia, Athens, 2University of Georgia–Tifton, Tifton

4:00 PM 10 Live and Carcass Trends, Houston Livestock Show, Junior Steers, 1974–2017.
S. P. Hammack1 and D. B. Griffin1, 1Texas A&M, Stephenville, 2Texas A&M, College Station

Tuesday, February 6, 2018

Extension II: Programs

Chairs: Mary K. Mullenix, Auburn University; Katie M. Mason, Auburn University

8:00 AM – 10:45 AM

Crystal A

8:00 AM Welcoming Remarks.

8:15 AM 12 Education for Compliance with the Veterinary Feed Directive: A Report of Extension Effort.
H. M. Ward* and S. Gadberry, University of Arkansas System Division of Agriculture, Little Rock

D. A. Tigue1,2, L. A. Kriese-Anderson1, and C. L. Bratcher1,1 Auburn University, Auburn, AL, 2 Alabama Cooperative Extension System, Guntersville

8:45 AM 14 2017 Southeast Women’s Cattle Handling Program: Alabama Results.
C. M. Holland1, L. A. Kriese-Anderson1, M. K. Mullenix1, K. Flanders1, S. L. Dillard1, M. Elmore1, G. L. Thompson2, and A. D. Shaeffer1,1 Auburn University, Auburn, AL, Alabama Cooperative Extension System, Auburn, 2 North Carolina State University, Raleigh

9:00 AM 15 A Stockmanship and Stewardship Regional Event Combined with the Deep South Stocker Conference: Multi-State Extension Programming for Beef Producers.
B. B. Karisch1, W. C. Rutherford1, R. L. Stewart, Jr.2, and M. K. Mullenix1,1 Mississippi State University, Mississippi State, 2 University of Tennessee, Knoxville

9:15 AM Break.

9:30 AM 16 ASAS Southern Section Regional Webinar Series for Extension Agent Training.
M. K. Mullenix1, M. S. Hargaden1, J. D. Rhinehart, J. Vendramini1, R. L. Stewart, Jr.2, B. B. Karisch1, and S. Gadberry6,1 Auburn University, Auburn, AL, 2 University of Tennessee, Knoxville, 3 UF/IFAS Range Cattle Research and Education Center, Ona, FL, 4 University of Georgia, Athens, 5 Mississippi State University, Mississippi State, 6 University of Arkansas System Division of Agriculture, Little Rock

9:45 AM 17 Creating Partnerships with the U.S. Military.
S. R. Freeman1, L. J. Lahti, and M. Poore, North Carolina State University, Raleigh

10:00 AM 18 On-Farm Workshops Improve Producers Understanding of Winter Forage Management Strategies.
J. R. Rogers1, M. Poore, A. D. Shaeffer, and S. R. Freeman, North Carolina State University, Raleigh

10:15 AM 19 Sustainable Pasture Improvement and Grazing Management Education Program for Farmers.
U. Karki, Tuskegee University, Tuskegee, AL

10:30 AM 148 Measuring the Impact of a Feeder Calf Board Sale Program through a Survey of Producer Attitudes.
8:00 AM Welcoming Remarks.

8:05 AM 41 Effect of Protein Supplementation on Immune Response of Weaned Steers Consuming Endophyte-Infected Tall Fescue Seed.
R. K. Poole*, C. M. Womble, C. L. Pickworth, and D. H. Poole, North Carolina State University, Raleigh

8:20 AM 40 Forms of Selenium in Vitamin–Mineral Mixes Differentially Affect the Expression of Genes Responsible for Prolactin and ACTH Synthesis in Pituitaries of Steers Grazing Endophyte-Infected Tall Fescue.
Q. Li*, Y. Jia, P. Bridges, and J. C. Matthews, University of Kentucky, Lexington

8:35 AM 24 Grazing Novel or Endophyte-Infected Tall Fescue during Mid–Gestation Impacts Cow Performance.
M. A. Newsome*, R. E. Monn, K. Mayberry, R. K. Poole, Z. Young, M. H. Poore, and D. H. Poole, North Carolina State University, Raleigh

8:50 AM 64 Meta-Analysis of Endophyte-Infected Tall Fescue Effects on Cattle Growth Rates.
D. M. Liebe* and R. R. White, Virginia Tech, Blacksburg

9:05 AM 65 Effect of Monensin Level on Mineral Intake and Performance of Grazing Steers.
C. P. Weiss*, P. A. Beck, T. S. Crook, S. Gadberry, T. Hess*, and D. S. Hubbell, III*, University of Arkansas, Fayetteville, 1University of Arkansas Division of Agriculture SWREC, Hope, 2University of Arkansas System Division of Agriculture, Little Rock, 3University of Arkansas Division of Agriculture Livestock and Forestry Research Station, Batesville

9:20 AM 66 Effect of Tillage System and Planting Date on Wheat Forage Production and Performance of Grazing Steers.
P. A. Beck”, C. P. Weiss*, T. Hess*, and D. S. Hubbell, III*, University of Arkansas Division of Agriculture SWREC, Hope, 2University of Arkansas, Fayetteville, 3University of Arkansas Division of Agriculture Livestock and Forestry Research Station, Batesville

P. A. Gunter*, R. W. Peacock, R. B. Muntifering, and M. K. Mullenix, Auburn University, Auburn, AL

9:50 AM Break.

10:05 AM 68 Late-Planting of Annual Ryegrass in Northern Alabama.
M. L. Marks1,2, M. K. Stanford1, L. A. Kriese-Anderson, and M. K. Mullenix1, 1Alabama Cooperative Extension System, Centre, AL, 2Auburn University, Auburn, AL, 3Alabama Cooperative Extension System, Crossville
10:20 AM  69  **Supplementing Energy in Conjunction with Monensin Improves Sustainability of Stocker Cattle Grazing Winter Wheat.**
L. R. Thompson¹, M. R. Beck¹, G. D. Williams¹, S. E. Place³, and R. Reuter¹, ¹Oklahoma State University, Stillwater, ²National Cattlemen’s Beef Association, Centennial, CO

10:35 AM  141  **Effects of Winter Wheat Grazing on Subsequent Crop Yield.**
J. M. Curtis* and E. K. Buttrey, University of Tennessee at Martin, Martin

10:50 AM  142  **Impact of Protein Supplementation on Physiological Response of Steers Consuming Endophyte-Infected Tall Fescue Seed.**
C. M. Womble*, R. K. Poole, D. H. Poole, and C. L. Pickworth, North Carolina State University, Raleigh

11:05 AM  70  **Grazing Patch Intensity of Calves Grazing Tall Fescue with Varied Toxicity and Fescue Stand Percentage.**
J. M. Diaz*, University of Arkansas, Fayetteville

11:20 AM  Networking.

**Physiology II**

**Chairs: Michelle R. Garcia, Texas A&M University–Kingsville; Adam L. McGee, Oklahoma State University**

8:00 AM – 12:20 PM  Continental

8:00 AM  **Welcoming Remarks.**

8:05 AM  83  **Reproduction in Domestic Ruminants during the Past 50 Years: Discovery to Application,**
M. F. Smith¹ and R. D. Geiser¹, ¹University of Missouri, Columbia

8:50 AM  84  **Conception Rates in Beef Cattle Inseminated with Either SexedUltra™ or Conventional Semen after Ovulation Is Synchronized for Fixed-Time Artificial Insemination Using a 14-Day Cidr–PG Modified Protocol.**
B. R. Crites¹, R. Vishwanath², A. M. Arnett², P. Bridges¹, W. R. Burris¹, and L. Anderson¹, ¹University of Kentucky, Lexington, ²Sexing Technologies Inc., Navasota, TX, ³University of Kentucky, Princeton

9:05 AM  85  **Conception Rates in Beef Cattle Inseminated with Either SexedUltra™ Sex-Sorted Semen or Conventional Semen after Estrus Is Synchronized for Fixed-Time Artificial Insemination Using 7-Day CO-Synch.**
B. R. Crites¹, R. Vishwanath², A. M. Arnett², P. Bridges¹, W. R. Burris¹, K. R. McLeod³, and L. Anderson¹, ¹University of Kentucky, Lexington, ²Sexing Technologies Inc., Navasota, TX, ³University of Kentucky, Princeton

9:20 AM  86  **Supplementation with an All-Natural Saccharomyces cerevisiae Fermentation Product Alters Intraperitoneal Temperature and Serum Proinflammatory Cytokines Following an Oral Salmonella typhimurium Challenge.**
N. C. Burdick Sanchez³, J. A. Carroll¹, P. R. Broadway¹, B. E. Bass², and J. W. Frank³, ¹USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, ²Diamond V, Cedar Rapids, IA

9:35 AM  Break.
   L. Beckett1, A. Bedford, and R. R. White, Virginia Tech, Blacksburg

10:05 AM 88 Differing Mitochondrial Capacity in Two Separate Skeletal Muscles from Calm and Temperamental Brahman Heifers.
   S. H. White1, C. M. Latham1, C. R. Long3, R. D. Randel1, and T. H. Welsh, Jr.1, 4Texas A&M AgriLife Research and Department of Animal Science, College Station, 2Texas A&M University, College Station, 3Texas A&M AgriLife Research, Overton

10:20 AM 89 Does Postabsorptive Propionate Clearance Influence Reproductive Status in Dairy Heifers?
   A. Bedford1, L. Beckett1, K. N. Hardin1, N. W. Dias1, V. R. G. Mercadante1, A. D. Ealy1, and R. R. White1, 1Virginia Tech, Blacksburg

   L. Beckett1, R. Rosemond1, B. Renquist2, and R. R. White1, 1Virginia Tech, Blacksburg, 2The University of Arizona, Tucson

10:50 AM 91 Influence of Cell Mediated Immune Response of Brahman Cows on Postpartum Interval, Colostral Immunoglobulin Concentration, and Growth of Their Calves.
   M. E. Mund1, 2, L. K. Quaid1, 2, C. L. Cook1, D. A. Neuendorff3, J. P. Banta1, T. H. Welsh, Jr.1, and R. D. Randel1, 1Texas A&M University, College Station, 2Texas A&M AgriLife Research, Overton, 3Texas A&M AgriLife Extension, Overton

11:05 AM 143 Flushing and Synchronization Protocol Impacts on Out-Of-Season Breeding in Ewes.
   J. Sheffield1, C. Roman, B. L. Roper, R. K. Poole, and C. L. Pickworth, North Carolina State University, Raleigh

11:20 AM 144 Growth Factors Influence Cell Cycle Progression in Equine Satellite Cells.
   M. Gonzalez1, A. M. Brandt, and S. E. Johnson, Virginia Tech, Blacksburg

11:35 AM 153 Progesterone Concentration, Follicle Diameter, and Corpus Luteum Volume in Beef Cows Supplemented with Ca Salts of Soybean Oil.

11:50 AM 92 Acute Immunological Responses to a Combined Viral–Bacterial Respiratory Disease Challenge in Heifers Administered Transdermal Flunixin Meglumine.
   A. B. Word1, 1, P. R. Broadway1, Y. L. Liang2, H. Newcomb2, N. C. Burdick Sanchez3, B. P. Holland4, G. B. Ellis5, B. P. Littlejohn6, S. Capik6, A. J. Fusetier7, J. P. Hutcheson1, M. A. Balbuena, and J. A. Carroll1, 1USDA-ARS, Livestock Issues Research Unit, Lubbock, 2Texas Tech University, Lubbock, 3Merck Animal Health, Summit, NJ, 4Cactus Feeders, Amarillo, TX, 5Texas A&M University, College Station, 6Texas A&M AgriLife Research, Amarillo

12:05 PM Networking.
Ruminant Animal Production: Nutrition

Chairs: Stacey A. Gunter, USDA-ARS; Amanda Mathias, Texas A&M University

8:00 AM – 11:45 AM
Texas A

8:00 AM  Welcoming Remarks.

8:05 AM 38 Effect of Forage Source on Digestion and Ruminal Fermentation in Limit-Fed Steers.
C. N. Truelock, J. E. Sawyer, and T. A. Wickersham, Texas A&M University, College Station

8:20 AM 26 The Effect of Feeding Ferric Citrate on Rumen Microbial Communities and Methanogenesis in Growing Beef Steers.
E. A. Melchior, K. E. Hales, A. K. Lindholm-Perry, J. E. Wells, and P. R. Myer, University of Tennessee, Knoxville, USDA-ARS, Clay Center, NE, USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE

8:35 AM 45 Analysis of the Gastrointestinal Tract–Associated Microbiome of Calves Supplemented during the Suckling Phase.
J. M. Lourenço, T. J. Kieran, J. C. McCann, T. C. Glenn, and L. Stewart, University of Georgia, Athens, University of Georgia Environmental Health Science, Athens, University of Illinois Urbana-Champaign, Urbana

8:50 AM 37 Effects of Feeding Different Levels of Quebracho (Schinopsis balansae) Extract in a High-Roughage Total Mixed Ration on Manure Gas Emissions.
A. B. Norris, L. O. Tedeschi, K. D. Casey, J. C. B. Dubeux Jr, J. L. Foster, J. P. Muir, and W. E. Pinchak, Texas A&M University, College Station, Texas A&M AgriLife Research, Amarillo, University of Florida, North Florida Research and Education Center, Marianna, Texas A&M AgriLife Research, Beeville, Tarleton State University, Stephenville, TX, Texas A&M AgriLife Research, Vernon

J. R. Baber, J. E. Sawyer, and T. A. Wickersham, Texas A&M University, College Station

J. R. Baber, J. E. Sawyer, and T. A. Wickersham, Texas A&M University, College Station

9:35 AM  Break.

D. D. Henry, F. M. Ciriaco, S. Mejia, P. L. P. Fontes, N. Oosthuizen, C. D. Sanford, and N. DiLorenzo, University of Florida, North Florida Research and Education Center, Marianna

10:05 AM 114 Establishing the Efficacy of Faecalibacterium prausnitzii As a Probiotic to Enhance Preweaning Health, Growth, and Performance of Beef Calves.
N. W. Dias, C. L. Timlin, F. V. Santili, T. B. Wilson, R. R. White, and V. R. G. Mercadante, Virginia Tech, Blacksburg,

10:20 AM 115 Effects of Intake Restriction on Thoracic and Abdominal Organ Mass and Metabolism in Cows.
10:35 AM  116  Evaluation of Age of Dam and Phytoestrogens on Growth and Semen Quality Measures in Yearling Bulls.
C. A. Runyan*, S. C. Yurrita, J. W. Dickison, and M. W. Salisbury, Angelo State University, San Angelo, TX

10:50 AM  117  Evaluation of the Effects of Dried Live Yeast on Rumen pH and In Situ Digestibility of Dry Matter in Growing Cattle.
C. M. Cagle1, L. O. Tedeschi1, C. A. Runyan2, T. R. Callaway3, and M. D. Cravey4, 1Texas A&M University, College Station, 2Angelo State University, San Angelo, TX, 3USDA-ARS, College Station, TX, 4Phileo Lesaffre Animal Care, Milwaukee, WI

11:05 AM  149  Using Carbon Emissions, Oxygen Consumption, and Energy Retention to Estimate Dietary ME Intake By Beef Steers.
C. Burrus1, S. A. Gunter2, D. W. Sanson1, C. A. Moffet2, and P. Gregorini3, 1Southern Arkansas University, Magnolia, 2USDA-ARS, Woodward, OK, 3Lincoln University, Christchurch, New Zealand

11:20 AM  154  Efficacy of a Fecal DNA-Based Method to Measure Diet Components in Cattle.
M. M. Drakeley* and R. Reuter, Oklahoma State University, Stillwater

11:35 AM  Networking.

Teaching and Undergraduate Education

Chairs: Janeal W. S. Yancey, Department of Animal Science, University of Arkansas Division of Agriculture; Traci Cramer, Texas Tech University

8:00 AM – 9:20 AM
Texas B

8:00 AM  Welcoming Remarks.

8:05 AM  137  A Measure of Science Motivation in an Introduction to Animal Science Course.
M. R. Russell1, B. Chumbley2, and N. L. Bell2, 1University of Arkansas, Fayetteville, 2Texas A&M University Kingsville, Kingsville

8:20 AM  20  An Orientation Course with Effort-Based Grading Predicts Undergraduate Student Success in Animal Science.
M. J. Mann* and C. J. Kojima, Department of Animal Science, University of Tennessee, Knoxville

8:35 AM  138  Evaluation of a Two-Year Assessment of the University of Arkansas Undergraduate Animal Science Program.
J. G. Powell*, E. B. Kegley, K. S. Jogan, and L. R. Thomas, University of Arkansas, Fayetteville

8:50 AM  139  Evaluation of Grit and Resilience in Preprofessional Animal Science Students.
L. R. Thomas1, K. S. Jogan1, K. V. Johnson2, J. J. Ball3, and J. G. Powell1, 1University of Arkansas, Fayetteville, 2University of Arkansas Eleanor Mann School of Nursing, Fayetteville, 3University of Arkansas

9:05 AM  Networking.
Ruminant Animal Production: Weaned Calf

Chairs: Cathryn A. Bandyk, Westway Feed; Kingsley Ekwemalor, North Carolina Agricultural and Technical State University
9:30 AM – 12:05 PM
Texas B

9:30 AM Welcoming Remarks.

9:35 AM 33 Effect of Supplementing Live Yeast Cultures on the Performance of Weaned Beef Cattle.
G. M. D’Souza1, D. R. Eborn1, S. B. Blezinger2, and G. J. Eckerle3; 1Texas A&M - Commerce, Commerce,
2Revelle Livestock Concepts, Sulphur Springs, TX, 3San Antonio Steel Company, San Antonio, TX

9:50 AM 42 Performance, Health, and Physiological Responses of Newly Weaned Cattle Supplemented with Feed Grade Antibiotics or Alternative Feed Additives during Feedlot Receiving.
K. M. Schubach1,2, R. Cooke2, K. A. Souza2, T. F. Schumaher2, N. S. da Silva2, D. W. Bohnert2, and R. Marques2; 1Texas A&M University, College Station, 2Oregon State University–EOARC Burns, Burns

10:05 AM 25 Prediction of Residual Feed Intake in Feedlot Steers Based on Phenotypic Associations with Feeding Behavior and Carcass Ultrasound Traits.
I. L. Parsons1, J. R. Johnson1, W. C. Kayser1, M. D. Miller1, and G. E. Carstens1; 1Texas A&M University, College Station

10:20 AM 30 Differences in Fecal Egg Count, Performance, Blood Parameters, and Lactate Dehydrogenase Activity of Feedlot Calves Treated with Various Anthelmintics.
C. A. Hooks1, N. R. Denney1, M. R. Hovey1, J. F. Miller1, B. M. Papajeski1, J. C. Robertson1, E. A. Backes3, C. A. Porr1, and A. J. Davis1; 1Texas A&M University, College Station, 3Purina Animal Nutrition, LLC, Gray Summit, MO

10:35 AM 35 Effect of Temperament Measures on Feedlot Cattle Performance.
K. Bruno1, L. J. McPhillips1, M. Calvo-Lorenzo1, U. Desilva1, C. R. Krehbiel1, M. M. Rolf4, S. E. Place4, D. L. Step5, R. G. Mateescu1, D. L. VanOverbeke2, and T. C. Husz1; 1Oklahoma State University, Stillwater, 2Elanco Animal Health, Fayetteville, AR, 3Kansas State University, Manhattan, 4National Cattlemen’s Beef Association, Centennial, CO, 5Department of Veterinary Clinical Science, Oklahoma State University, Stillwater, 6University of Florida, Gainesville

10:50 AM Break.

11:05 AM 39 Effects of Growth Promoting Implants at Branding in Suckling Steers Prior to Weaning.
J. J. Ball1, E. B. Kegley, E. A. Palmer, T. D. Lester, W. Gragg, and J. G. Powell; University of Arkansas, Fayetteville

G. C. Ott1, S. R. Freeman, M. H. Poore, and C. L. Pickworth; North Carolina State University, Raleigh

11:35 AM 118 Effects of an Active Dry Yeast Supplement on Ruminal pH, Feeding Performance, and Carcass Characteristics of Feedlot Steers.
W. L. Crossland1, A. B. Norris1, C. M. Cagle1, L. O. Tedeschi1, G. E. Carstens1, J. E. Sawyer1, T. R. Callaway2, and O. AlZahal3; 1Texas A&M University, College Station, 2University of Georgia, Athens, 3AB Vista, Marlborough, United Kingdom
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TN  E.K. Buttrey

Young Animal Scientist – Education Award
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AL  C.E. Huntington
OK  R. Ramanathan

Young Animal Scientist – Research Award
GA  C.L. Bratcher*
FL  G.C. Lamb
FL  N. DiLorenzo
KY  S.P. Suman
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1977–78  R. L. McGuire  Auburn University
1976–77  J. J. Guenther  Oklahoma State University
1975–76  C. J. Brown  University of Arkansas
1974–75  S. L. Hansard  University of Tennessee
1973–74  M. Koger  University of Florida
1972–73  J. P. Fontenot  Virginia Tech University
1970–71  L. S. Pope  Texas A&M University
1969–70  L. C. Ulberg  North Carolina State University
1968–69  R. C. Carter  Virginia Tech University
1967–68  G. L. Robertson  Louisiana State University
1966–67  C. E. Lindley  Mississippi State University
1965–66  R. F. Sewell  University of Georgia
1964–65  W. M. Warren  Auburn University
1963–64  R. F. Wheeler  Clemson University
1962–63  E. J. Warrick  USDA
1961–62  G. K. Davis  University of Florida
1960–61  W. Gifford  University of Arkansas
1959–60  J. A. Whatley  Oklahoma State University
1957–58  B. L. Southwell  University of Georgia
1956–57  W. P. Garrigus  University of Kentucky
1955–56  J. C. Miller  Texas A&M University
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1952–53  C. M. Kincaid  Virginia Tech University
1951–52  R. S. Glasscock  University of Florida
1950–51  H. H. Levek  Mississippi State University
1949–50  J. E. Foster  University of Maryland
1948–49  H. M. Briggs  Oklahoma State University
1947–48  E. C. Godbey  Clemson University
1946–47  J. C. Grimes  Auburn University
1941–42  R. E. Hunt  Virginia Tech University
1940–41  M. G. Snell  Louisiana State University
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1937–38  L. I. Case  North Carolina State University
1936–37  M. P. Jarnigan  University of Georgia
1935–36  J. B. Francioni  Louisiana State University
1934–35  A. L. Shealy  University of Florida
1933–34  L. V. Starkey  Clemson University
1932–33  W. L. Blizzard  Oklahoma State University

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2017  L. W. Greene  Auburn University
2016  G. W. Horn  Oklahoma State University
2015  T. Troxel  University of Arkansas
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<th>Year</th>
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<td>2014</td>
<td>T. Welsh, Jr.</td>
<td>Texas A&amp;M University</td>
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**Extension Award Recipients**

- **2017** J. P. Banta, Texas A&M University
- **2016** J. Lehmkuhler, University of Kentucky
- **2015** M. Hersom, University of Florida
- **2014** L. Anderson, University of Kentucky
- **2013** C. Richards, Oklahoma State University
- **2012** M. S. Gadberry, University of Arkansas
- **2011** R. D. Coffey, University of Kentucky
- **2010** M. T. See, North Carolina
- **2009** E. van Heugten, North Carolina
- **2008** T. McCollum, Texas A&M University
- **2007** M. H. Poore, North Carolina
- **2006** A. F. Harper, Virginia
- **2005** G. Selk, Oklahoma State University
- **2004** R. L. McCraw, North Carolina
- **2003** D. Bullock, Kentucky
- **2002** W. Gill, Tennessee
- **2001** W. R. Burris, Kentucky
- **2000** T. R. Troxel, Arkansas
- **1999** G. V. Davis, Jr., Arkansas
- **1998** G. L. M. Chappel, Kentucky
- **1997** S. H. Umberger, Virginia
- **1996** C. D. Lane, Jr., Tennessee
- **1995** J. T. Johns, Kentucky
- **1994** D. W. Freeman, Oklahoma
- **1993** J. R. Jones, North Carolina
- **1992** J. B. Neel, Tennessee
- **1991** K. Lusby, Oklahoma
- **1990** J. Hughes, Oklahoma
- **1989** H. Webster, Clemson
- **1988** D. R. Gill, Oklahoma
- **1987** H. J. Gerken, Jr., Virginia
- **1986** M. K. Cook, Georgia
- **1985** W. G. Luce, Oklahoma
- **1984** C. Cooper, Virginia
- **1983** C. W. Absher, Kentucky
- **1982** C. M. Triplett, Georgia
- **1981** A. N. Huff, Virginia
- **1980** A. L. Eller, Jr., Virginia
Academic Quadrathlon Winners
2017  Texas Tech University
2016  Texas A&M University
2015  Oklahoma State University
2014  Texas A&M University
2013  Oklahoma State University
2012  Texas A&M University
2010  University of Florida
2009  University of Georgia
2008  University of Kentucky
2007  Texas A&M University
2006  Texas A&M University
2005  North Carolina State University
2004  University of Kentucky
2003  Texas A&M University
2002  University of Florida
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2000  Texas A&M University
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1994  Oklahoma State University
1993  Texas A&M University
1992  Oklahoma State University
1991  University of Kentucky
1990  Virginia Tech University
1989  Oklahoma State University
1988  Texas A&M University
1987  University of Georgia
1986  University of Georgia
1985  University of Kentucky
1984  Texas A&M University

Young Animal Scientist Award Recipients
2017¹  R. Ramanathan  Oklahoma State University
2017²  C. O. Lemley  Mississippi State University
2016¹  C. E. Huntington  Auburn University
2016²  N. DiLorenzo  University of Florida
2015¹  C. Bratcher  Auburn University
2015²  K. Urschel  University of Kentucky
2014¹  K. Stutts  Sam Houston State University
2014²  C. Bratcher  Auburn University
2013¹  E. Wagner  Auburn University
2013²  M. C. Satterfield  Texas A&M University
2012² S. Suman University of Kentucky
2012¹ D. VanOverbeke Oklahoma State University
2011² J. C. Brooks Texas Tech University
2011¹ J. C. Brooks Texas Tech University
2010² T. J. Wistuba Morehead State University
2010¹ D. L. VanOverbeke Oklahoma State University
2009² M. L. Looper USDA-ARS
2009¹ G. Hilton Oklahoma State University
2008² J. Escobar Virginia Tech University
2008¹ J. A. Sterle Texas A&M University
2007² S. W. Kim Texas Tech University
2007¹ L. Anderson University of Kentucky
2006² S. T. Willard Mississippi State University
2006¹ M. L. Looper USDA-ARS
2005² C. Krehbiel Oklahoma State University
2004¹ M. T. See North Carolina State University
2004² T. Van Kempen North Carolina State University
2003¹ S. Jackson Texas Tech University
2003² T. Spencer Texas A&M University
2002² J. Yelich University of Florida
2002¹ B. Kegley University of Arkansas
2001¹ S. Ramsey Texas A&M University
2001² J. Apple University of Arkansas
2000¹ A. D. Herring Texas Tech University
1999² C. C. Chase, Jr. USDA-ARS
1998¹ M. F. Miller Texas Tech University
1998² A. L. Goetsch Langston University
1997¹ T. Marshall University of Florida
1996¹ W. L. Flowers North Carolina State University
1996² M. F. Miller Texas Tech University
1995¹ C. H. Wood University of Kentucky
1995² J. D. Armstrong North Carolina State University
1994¹ D. K. Aaron University of Kentucky
1994² P. J. Hansen University of Florida
1993¹ K. Pond North Carolina State University
1993² R. Geisert Oklahoma State University
1992¹ D. S. Buchanan Oklahoma State University
1992¹ J. L. Sartin Auburn University
1991¹ W. E. Beal Virginia Tech University
1991² W. Greene Texas A&M University
1990¹ J. W. Mabry University of Georgia
1990² T. H. Welsh Texas A&M University
1989 J. W. Spears North Carolina State University
1988 S. B. Smith Texas A&M University
1987 D. L. Thompson, Jr. Louisiana State Univ.
1986 G. J. Hausman USDA-ARS, Athens, GA
1985  J. W. Savell  Texas A&M University
1984  D. R. Notter  Virginia Tech University
1983  T. S. Stahly  University of Kentucky
1982  D. N. Marple  Auburn University

1education
2research

**NPB Swine Industry Award Recipients (*discontinued in 2017)*

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**Emerging Scholar Award Recipients**

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### Joseph P. Fontenot Student Travel Scholarship Recipients

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<td>D. G. Ely</td>
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<td>J. R. Crockett</td>
<td>University of Florida</td>
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**Undergraduate Student Paper Award Recipients**

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<th>Year</th>
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<td>T. C. Rocha</td>
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<td>T. Rocha</td>
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<td>W. B. Smith</td>
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<td>N. Burdick</td>
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1996  K. J. Goodson  Texas A&M University
1995  B. C. Bloom  Auburn University
1994  B. Good  Oklahoma State University
1993  C. J. Kirby  North Carolina State University

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