SOUTHERN SECTION
American Society of Animal Science

ANNUAL MEETING

February 1-4, 2014
Dallas, Texas

In conjunction with the 2014 Annual Convention of the Southern Association of Agricultural Scientists

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**Swine Industry Award for Innovation**
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Elanco Animal Health
Greenfield, IN

**Extension Award**
Boehringer Ingelheim, Vetmedica Division
St. Joseph, MO

**Young Animal Scientist – Education**
Alltech
Thomasville, GA

**Undergraduate Paper Competition**

**Graduate Student Research Abstract Competition**
PROGRAM EVENTS

Most events will take place at the Sheraton Dallas Hotel (SH) and the Downtown Dallas Conference Center (DDCC); these two buildings are connected via skywalk. Please make note of which building the listed room is located in.

Friday, January 31
Academic Quadrathlon (AQ)
9:00 PM Advisors Meeting
Courtyard by Marriott
College Station, TX

Saturday, February 1
AQ Lab Practicum and Written Exam
Department of Animal Science
Texas A&M University
College Station, TX

Sunday, February 2
AQ Oral Preparation
6:30 AM–noon
Pearl Rooms 1, 2, 3, 4 (SH)

AQ Oral Presentation
8:00 AM–Noon
Pearl Room 5 (SH)

AQ Quiz Bowl
8:00 AM–1:00 PM
Austin Ballroom 2 (SH)

AQ Quiz Bowl Championship/Awards and Awards Program
8:00 AM–4:00 PM
Austin Ballroom 1 (SH)

SCC 81: Sustainable Small Ruminant Production IEG
8:30 AM–4:00 PM
Majestic Room 1 (SH)

Registration
11:00 AM–4:00 PM
Grand Hall Preconvene (DDCC)

SERA 41: Beef Cattle Production Using Forages in the Southeast
1:00 PM–4:00 PM
Pearl Room 5 (SH)
SAAS Board Meeting
2:30 PM–3:30 PM
Dallas Ballroom A1 (DDCC)

SAAS Business Meeting
4:00 PM–4:15 PM
Dallas Ballroom A1 (DDCC)

SAAS Current Sessions and Graduate Student Mixer
4:15 PM–5:30 PM
Dallas Ballrooms A1, A2, A3 (DDCC)

SAAS Reception/Super Bowl Party
5:30 PM–10:00 PM
Eddie Deen’s Ranch - Offsite
(Continuous Bus Shuttle will start at 5 PM – Outside Draft Lounge)

SS-ASAS Advisory Committee and Executive Committee
6:00 PM–8:00 PM
Majestic Room 2 (SH)

**Monday, February 3**

*Interested in taking the ARPAS exam at the ASAS Southern Section meeting? Contact ARPAS at arpas@assochq.org for information or to schedule an exam.*

Registration
7:30 AM–4:00 PM
Grand Hall Preconvene (DDCC)

SS-ASAS Coffee Break
9:30 AM–10:30 AM

SS-ASAS Business Meeting and Awards Ceremony
5:00 PM–7:00 PM
Dallas Ballroom A2 (DDCC)

Small Ruminant Subcommittee of the NAGP
7:00 PM–9:15 PM
Majestic Room 5 (SH)
**Tuesday, February 4**
SAAS Board Breakfast Meeting
7:00 AM–10:00 AM
Chef’s Table (SH)

Registration
8:00 AM–Noon
Grand Hall Preconvene (DDCC)

Graduate Student Lunch and Learn
Noon–2:00 PM
Kitchen’s Garden (SH)

Extension Luncheon
Noon–2:00 PM
Dallas Ballroom C (DDCC)
SYMPOSIA AND ORAL SESSIONS

Monday, February 3

Bill E. Kunkle Interdisciplinary Beef Symposium from NOVUS International

Chair: Jeffrey W. Lehmkuhler, University of Kentucky
Majestic Room 6, Sheraton Dallas Hotel

8:00 AM
Introduction.
J. W. Lehmkuhler, University of Kentucky, Lexington

8:10 AM
1 Bill E. Kunkle Interdisciplinary Beef Symposium.
J. D. Arthington*1 and M. H. Poore*2, *UF/IFAS Range Cattle Research and Education Center, Ona, FL, 2North Carolina State University, Raleigh

8:30 AM
2 Practical developments in managing animal welfare in beef cattle. What does the future hold?
M. S. Calvo-Lorenzo*, Oklahoma State University, Stillwater

9:15 AM
3 Integrating physiological responses with endocrine biomarkers to effectively evaluate stress and well-being in beef cattle.
J. A. Carroll*, USDA-ARS, Livestock Issues Research Unit, Lubbock, TX

10:00 AM
Break

10:15 AM
4 Animal welfare concerns for livestock exposed to adverse environmental conditions.
T. L. Mader*, University of Nebraska, Lincoln

11:00 AM
5 Temperament and training influences growth and reproduction in Bos taurus and B. indicus cattle.
R. F. Cooke*, Oregon State University - EOARC Burns, Burns

This symposium was sponsored by:
Graduate Student Competition I

Chair: Matthew J. Hersom,
University of Florida
Majestic Room 5, Sheraton Dallas Hotel

8:00 AM
Relationalship between the rumen microbiome and residual feed intake-efficiency of Brahman Bulls stocked on Bermudagrass pastures
J. C. McCann, L. M. Wiley, T. D. Forbes, F. M. Rouquette and L. O. Tedeschi, University, College Station, Texas A&M AgriLife Research, Uvalde, Texas A&M AgriLife Research, Overton

8:15 AM
Evaluation of lactic acid and sodium metasilicate on microbial parameters of fresh beef
S. L. DeGeer, L. Wang, M. Singh and C. Bratcher, Auburn University, Auburn, AL, Purdue University, West Lafayette, IN

8:30 AM
Learning and memory recall of horses tranquilized with acepromazine maleate.
L. N. Powell, C. A. McCall, W. H. McElhenney and P. J. Tyler, Auburn University, Auburn, AL, Tuskegee University, Tuskegee, AL

8:45 AM
Prenatal stress influences the insulin response to a glucose challenge in yearling Brahman Heifers.
S. E. Schmidt, M. C. Roberts, D. M. Price, B. P. Littlejohn, R. C. Vann, J. A. Carroll, N. C. Burdick Sanchez, D. A. Neuendorff, A. W. Lewis, T. H. Welsh, Jr. and R. D. Randel, Texas A&M University, College Station, Texas A&M AgriLife Research, Overton, Texas A&M Department of Animal Science, College Station, MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond, USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, Texas A&M AgriLife Research, College Station

9:00 AM
The effects of a tannin-rich pine bark pellet diet on parasitic nematode infections and carcass characteristics of grazing meat goats.
D. Reynolds, B. R. Min, O. Bolden-Tiller, N. K. Gurung, W. H. McElhenney, E. Rhoden, J. E. Miller, J. H. Lee and J. K. Shin, Tuskegee University, Tuskegee, AL, Tuskegee University, Tuskegee Institute, AL, Louisiana State University, Baton Rouge, Fort-Valley State University, Fort-Valley, GA

9:15 AM
Effects of stacking technologies on hay consumption, waste and performance in a cow/calf enterprise.
A. M. Rippe, J. D. Sparks, S. K. Linneen, A. L. McGee and D. L. Lalman, Oklahoma State University, Stillwater
Effect of surgical castration with or without oral meloxicam on the acute inflammatory response in yearling beef bulls.
S. L. Roberts†, H. D. Hughes†, N. C. Burdick Sanchez‡, J. A. Carroll‡, J. G. Powell‡, D. Hubbell§ and J. T. Richeson§, 1Department of Agricultural Sciences, West Texas A&M University, Canyon, 2USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, 3Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, 4Livestock and Forestry Research Station, University of Arkansas Division of Agriculture, Batesville

Using performance data and reproductive measurements to predict fertility in replacement beef heifers.
M. W. Studstill†, L. Stewart, A. L. Jones, R. D. Berghaus and P. T. Cannon, University of Georgia, Athens

Production, digestion and ruminal fermentation by beef cattle limit-fed co-product feedstuffs.
W. B. Smith†, K. P. Coffey†, J. D. Tucker‡, D. S. Hubbell, III‡, R. T. Rhein†, E. B. Kegley†, D. Philipp†, J. D. Caldwell§ and A. N. Young§, 1Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, 2Livestock and Forestry Research Station, University of Arkansas Division of Agriculture, Batesville, 3Department of Agriculture and Environmental Sciences, Lincoln University, Jefferson City, MO

Survival comparison of shiga toxin producing Escherichia coli (STEC) O26 and farm isolated O26 in ground beef and the environment.
C. E. Palmer†, C. L. Bratcher†, M. Singh‡ and L. Wang†, 1Auburn University, Auburn, AL, 2Purdue University, West Lafayette, IN

Stocker cattle performance on cereal rye and rye-based cool season annual mixtures.
E. M. Ford†, D. Hancock and L. Stewart, University of Georgia, Athens

Utilization of by-product feeds to decrease feed cost while maintaining performance of yearling beef bulls.
J. M. Lourenço†, N. DiLorenzo‡, A. M. Stelzeni† and R. L. Stewart, Jr., 1University of Georgia, Athens, 2University of Florida, Quincy

Effects of dam cow size on subsequent female offspring dry matter and residual feed intake.
R. Martin, B. Buttrey and R. Walker, Hill Farm Research Station, LSU AgCenter, Homer, LA
National Pork Board Swine Industry Award for Innovation: The economic impact of removing ractopamine from pork production.
M. D. Johnson*1, D. P. Anderson1, T. A. Wickersham1 and J. E. Sawyer*, 1Texas A&M University, College Station, 2Texas AgriLife Research, College Station

Undergraduate Student Competition

Chair: James R. Strickland,
USDA - ARS, Forage Animal Prod Res Unit
Majestic Room 4, Sheraton Dallas Hotel

9:00 AM
Palatability of teff grass by horses.
R. R. Cummins*1, K. P. Coffey1, N. E. Jack1, K. Jogan1, E. E. Gbur1, R. T. Rhein1, D. Philipp1, M. Adams1, W. B. Smith1 and K. N. Clayton1
1Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, 2Dept. of Agri. Statistics, Univ. of Arkansas Division of Agriculture, Fayetteville

9:15 AM
Effect of Hydration Hay™ on water intake, blood urea nitrogen to creatinine ratio and vital signs of horses transported long distances during the summer.
H. M. Huff1, J. L. Wahrmund1, H. N. Graham1, M. E. Gordon2, K. R. Vineyard2 and K. L. Dowdle1, 1Texas A&M University-Commerce, Commerce, 2Purina Animal Nutrition LLC, St. Louis, MO

9:30 AM
Neuropeptide and adipokine gene expression profiles differ between lean and obese Mangalica pigs.
M. Marvin1, S. Perkins, J. Bartosh, C. Foradori and T. D. Brandebourg, Auburn University, Auburn, AL

9:45 AM
Relationship between circulating concentrations of bovine pregnancy associated glycoproteins (bPAGs) and embryonic growth during early gestation.
K. M. Doran*1, K. G. Pohler2 and M. F. Smith2, 1Berry College, Mount Berry, GA, 2University of Missouri, Columbia

10:00 AM
Magnesium bioavailability from dolomitic limestone using ram lambs.
T. N. Drane1, W. B. Smith1, J. D. Caldwell2, K. P. Coffey1, A. N. Young1, E. A. Backes1,2, B. C. Shanks2 and J. Scaggs3, 1Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, 2Department of Agriculture and Environmental Sciences, Lincoln University, Jefferson City, MO, 3Ozark Minerals, LLC, Patterson, MO

10:15 AM
Break
10:30 AM 115
Influence of ambient temperature on exercise performance in young horses,
K. S. Carlson\textsuperscript{1}, M. J. Anderson\textsuperscript{2}, K. N. Walter\textsuperscript{2} and J. L. Lucia\textsuperscript{2}, \textsuperscript{1}Sam Houston State University, Huntsville, TX, \textsuperscript{2}Sam Houston State University, Huntsville, TX, \textsuperscript{3}Truman State University, Kirksville, MO

10:45 AM 116
The alleviation of pain associated with disbudding,
A. Mathias\textsuperscript{1}, J. Gilliam\textsuperscript{2}, D. R. Stein\textsuperscript{1} and M. S. Calvo-Lorenzo\textsuperscript{1}, \textsuperscript{1}Oklahoma State University, Stillwater, \textsuperscript{2}Oklahoma State University Center for Veterinary Health Sciences, Stillwater

11:00 AM 117
Hair shedding scores relating to maternal traits and productivity in beef cattle,
L. D. Watson\textsuperscript{1}, A. H. Brown, Jr.\textsuperscript{2}, J. G. Powell\textsuperscript{2}, K. Anschutz\textsuperscript{2}, B. R. Lindsey\textsuperscript{1} and C. F. Rosenkranz\textsuperscript{2}, \textsuperscript{1}University of Arkansas, Fayetteville, AR, \textsuperscript{2}Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville

11:15 AM 118
Isoflupredone acetate as ancillary therapy for bovine respiratory disease in high-risk stocker calves.
C. E. Crews\textsuperscript{1}, J. G. Powell\textsuperscript{2}, E. B. Kegley\textsuperscript{2}, J. L. Reynolds\textsuperscript{1} and P. Hornsby\textsuperscript{2}, \textsuperscript{1}University of Arkansas, Fayetteville, \textsuperscript{2}Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville

Breeding and Genetics
Chair: Matthew D. Garcia
Baton Rouge, LA
Majestic Room 6, Sheraton Dallas Hotel

1:00 PM 6
Growth and reproductive performances in F1 crossbred heifers from Hereford, Braford, and Bonsmara sires and Angus and Brangus dams.
W. E. Wyatt\textsuperscript{1}, R. J. Collier\textsuperscript{2}, D. C. Blouin\textsuperscript{1}, G. Scaglia\textsuperscript{1} and J. L. Collier\textsuperscript{2}, \textsuperscript{1}LSU AgCenter, Jeanerette, LA, \textsuperscript{2}University of Arizona, Tucson, \textsuperscript{3}LSU AgCenter, Baton Rouge, LA

1:15 PM 7
Evaluation of SNP’s located on three candidate genes with milk production and fertility traits in dairy cattle.,
M. D. Garcia\textsuperscript{1}, LSU, Baton Rouge, LA

1:30 PM 8
Penalization of treated records for use in the estimation of genetic parameters in Dorper sheep.
L. Ngepa\textsuperscript{1}, D. G. Riley\textsuperscript{2} and J. VanWyk\textsuperscript{3}, \textsuperscript{1}Texas A & M University, College Station, \textsuperscript{2}Texas A&M AgriLife Research, College Station, \textsuperscript{3}University of Pretoria, Onderstepoort, South Africa
Breed and sex influence on calf birth weight in purebred and crossbred Angus and Nellore calves.
L. W. Bauer*, J. O. Sanders¹, D. G. Riley¹ and A. D. Herring², ¹Texas A&M University, College Station, ²Texas AgriLife Research, College Station

Influence of inclusion of genomic or pedigree relatedness and designed family structure on association analyses of calf birth weight.
D. G. Riley¹, A. D. Herring¹, P. K. Riggs¹, C. A. Gill¹, J. E. Sawyer¹ and J. O. Sanders¹, ¹Texas A&M University, College Station, ²Texas AgriLife Research, College Station

Estimation of genetic parameters for performance traits in Brahman stocker cattle.
M. R. Woolfolk, Texas A&M University, College Station

Relationships between temperament and hematological responses of crossbred steers following bovine viral diarrhea virus challenge.
X. Fang¹, E. D. Downey¹, C. A. Runyan¹, T. B. Hairgrove¹, J. E. Sawyer¹, W. Mwangi¹, C. A. Gill¹ and A. D. Herring¹, ¹Texas A&M University, College Station, ²Texas AgriLife Extension, College Station, ³Texas AgriLife Research, College Station

Carcass weight and behavior of Angus- and Angus-Hereford crossbred steers are associated with heat shock protein 70 genetic polymorphisms.
M. L. Thomas¹, Y. V. Thaxton², A. H. Brown, Jr.¹, J. T. Richeson², J. G. Powell¹ and C. F. Rosenkrans¹, ¹Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, ²Center for Food Animal Wellbeing, University of Arkansas, Fayetteville, ³Department of Agricultural Sciences, West Texas A&M University, Canyon

Effect of hair shedding on performance in Angus, Hereford, and Charolais dams and the relationship to surface temperatures.
S. R. Plank¹, T. Smith, S. T. Willard and N. B. Simmons, Mississippi State University, Mississippi State
Graduate Student Competition II

Chair: Matthew J. Hersom,
University of Florida
Majestic Room 5, Sheraton Dallas Hotel

1:00 PM  43
Sampling post-scalding does not impair RNA integrity or real-time PCR in market weight Yorkshire pigs.
A. E. Bohan, M. Marvin, S. Perkins, J. Bartosh, C. Bratcher, W. G. Bergen and T. D. Brandebourg, Auburn University, Auburn, AL

1:15 PM  44
Effects of sugar substitutes on feed intake and growth performance of broiler chicks.
A. A. Zender, M. D. Hudson and C. I. Shipps, 1Missouri State University, Springfield, 2Missouri State University, Brighton

1:30 PM  45
Effects of increasing levels of distillers dried grains on in vitro ruminal gas production.
C. I. Shipps, A. A. Zender and M. D. Hudson, 1Missouri State University, Dadeville, 2Missouri State University, Springfield, 3Missouri State University, Brighton

1:45 PM  46
Age influences the expression of estrogen receptor isoforms alpha and beta in the choroid plexus of developing gilts.

2:00 PM  47
Changes in trace minerals in lambs fed sericea lespedeza and administered sodium molybdate.
M. Acharya, J. M. Burke, J. E. Miller, T. H. Terrill, K. P. Coffey, E. Smyth and C. F. Rosenkranz, 1University of Arkansas, Fayetteville, 2USDA, ARS, Booneville, AR, 3Louisiana State University, Baton Rouge, 4Fort Valley State University, Fort Valley, GA, 5Department of Animal Sciences, University of Arkansas Division of Agriculture, Fayetteville

2:15 PM  48
Microbial diversity of deli roast beef and survival of Listeria monocytogenes.
J. W. Broady, M. Liles, C. L. Bratcher, E. Schwartz and L. Wang, Auburn University, Auburn, AL

2:30 PM  49
Effect of dietary starch level on muscle glycogen replenishment in performance horses.
C. E. Vonderohe, S. I. Valšek, B. R. McKim, C. A. Cavinder, J. D. Fluckey and D. H. Sigler, 1Purdue University, West Lafayette, IN, 2Texas A&M University, College Station

2:45 PM  Break
3:00 PM  50
Impact of receiving bovine respiratory disease
and ancillary therapy utilization on steer finishing
performance, efficiency, carcass characteristics,
and lung scores.
and C. R. Krehbiel, Oklahoma State University,
Stillwater

3:15 PM  51
Performance and behavioral measurements by
fall-born heifer calves traditionally weaned with
or without companion goats 1-year summary.
E. A. Backes*1,2, J. G. Powell*, J. D. Caldwell1, E. B.
Kegley*, A. W. Ryan*, P. Hornsby*, J. L. Reynolds*,
M. L. Thomas*, K. Anschutz* and B. C. Shanks*1,
1Department of Agriculture and Environmental
Sciences, Lincoln University, Jefferson City, MO,
2Department of Animal Science, University of
Arkansas Division of Agriculture, Fayetteville

3:30 PM  52
Site of prostaglandin injection does not alter
effectiveness of estrous synchronization
protocols.
L. K. Mabry*1, W. Greene2, D. M. Kniffen3, C. L.
Pickworth Poole1,2 and D. H. Poole1, 1North Carolina
State University, Raleigh, 2The Ohio State
University/ATI, Wooster, 3The Pennsylvania State
University, University Park

3:45 PM  53
Effects of meal timing on ghrelin, growth
hormone, and insulin sensitivity in male holstein
calves.
E. L. Chartier*, C. C. Williams, B. F. Jenny, D. L.
Thompson, S. Blair, J. Anderson and A. H.
Dolejsiova, Louisiana State University, Baton Rouge

4:00 PM  54
Vaccinated Angus-Nellore yearling steers have
reduced platelet and lymphocyte decline
following bovine viral diarrhea virus type 1b
challenge.
E. D. Downey*1, X. Fang1, C. Runyan1, J. E.
Sawyer1,2, T. B. Hairgrove1, J. F. Ridpath4 and A. D.
Herring4, 1Texas A&M University, College Station,
2Texas AgriLife Research, College Station, 4Texas
AgriLife Extension, College Station, 4National Animal
Disease Center, USDA-ARS, Ames, IA

4:15 PM  55
Effect of Hydration Hay™ on blood metabolites,
packed cell volume, and vital signs of horses
transported long distances during summer
conditions.
H. N. Graham*1, J. L. Wahrmund4, M. E. Gordon2, K.
R. Vineyard2, K. L. Dowdle1 and L. L. Walton1,
1Texas A&M University-Commerce, Commerce,
2Purina Animal Nutrition LLC, St. Louis, MO
Relationship between single nucleotide polymorphisms of the bovine IL-8, NOS2, and NOS3 genes with disease resistance and performance in newly received beef calves.
A. J. Davis*, D. L. Kreider1, E. B. Kegley1, J. T. Richeson2, D. L. Galloway1, R. W. Rorie3 and J. Hawley3, 1Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, AR, 2Department of Agricultural Sciences, West Texas A&M University, Canyon, TX

Ruminant Animal Production I
Chair: Ryan Reuter,
The Noble Foundation, Inc.
Dallas Ballroom A2, Downtown Dallas Conference Center

1:00 PM
77
Starch utilization in cattle fed SFC-based finishing diets containing post-extraction algal residue for nitrogen supplementation.
C. L. Brauer*, J. O. Sartury2, J. C. MacDonald3, T. A. Wickersham4, N. A. Cole5, B. Clark6 and F. T. McCollum7, 1West Texas A&M University, Canyon, 2Texas Tech University, Lubbock, 3University of Nebraska-Lincoln, Lincoln, 4Texas A&M University, College Station, 5USDA ARS, Bushland, TX, 6Texas A&M AgriLife Research and Extension Center, Amarillo

1:15 PM
78
Prevalence of E. coli O157:H7 shedding at weaning and post-weaning in Brahman calves.
E. Gart*, T. H. Welsh, Jr2, R. D. Randel3, R. Vann4 and S. D. Lawhon3, 1College of Veterinary Medicine, Texas A&M University, College Station, 2Texas A&M Department of Animal Science, College Station, 3Texas A&M AgriLife Research, Overton, 4MAFES-Brown Loam, Mississippi State University, Raymond

1:30 PM
79
Effects of creep feeding a protein supplement on performance of cows and calves grazing limipogras pastures.
P. A. Lancaster*, J. M. B. Vendramini2, A. D. Aguiar2, O. F. R. Cunha3, G. Caputti2, C. Bazzo2 and J. D. Arthington2, 1Oklahoma Agricultural Experiment Station, Stillwater, 2UF/IFAS Range Cattle Research and Education Center, Ona, FL

1:45 PM
80
Assessment of copper deficiency in beef cattle through blood and skin biomarkers.
J. G. Carter*, J. Haffner2, J. D. West3 and W. W. Gill4, 1Middle Tennessee State Univ, Murfreesboro, 2Middle Tennessee State University, Murfreesboro, 3Vanderbilt University, Nashville, TN, 4MTSU, Murfreesboro, TN
2:00 PM

The effects of prenatal stress and temperament on feeding behavior in post-weaning Brahman bulls.

M. C. Roberts*1,2, R. C. Vann2, J. P. Banta2, D. G. Riley3, J. A. Carroll4, B. P. Littlejohn1,2, D. M. Price2,5, T. H. Welsh4 and R. D. Randel5, 1Texas A&M University, College Station, 2Texas A&M AgriLife Research, Overton, 3MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond, 4USDA-ARS, Livestock Issues Research Unit, Lubbock, 5Texas A&M Department of Animal Science, College Station

2:15 PM
Break

2:30 PM

Effects of Rumensin and Fenbendazole administration on measures of gastrointestinal parasite load and performance of early weaned beef calves.

P. G. M. D. A. Martins1, J. D. Arthington1, G. P. Caputti1, O. F. R. Cunha1, A. C. J. Pereira2 and J. M. B. Vendramini1, 1UF/IFAS Range Cattle Research and Education Center, Ona, FL, 2Elanco Animal Health, Greenfield, IN

2:45 PM

Effect of protein supplementation and forage allowance on heifer growth and reproductive development.

S. E. Lyons1, M. H. Poore1, D. H. Poole1, S. R. Freeman1, A. D. Shaeffer1, M. L. Alley1 and M. E. Drewnoski2, 1North Carolina State University, Raleigh, 2University of Idaho, Moscow

3:00 PM

Effect of replacing dried distillers' grains with post extraction algal residue on performance of growing steers.

C. J. Hayes, Texas A&M University, College Station

3:15 PM

Evaluation of weight gain and rectal temperature across vaccine type in Bos indicus crossbred steers challenged with bovine viral diarrhea virus.

C. A. Runyan1, X. Fang2, E. D. Downey2, J. E. Sawyer4, T. B. Hairgrove4, J. F. Ridpath5 and A. D. Herring1, 1Angelo State University, San Angelo, TX, 2Texas A&M University, College Station, 3Texas AgriLife Research, College Station, 4Texas AgriLife Extension, College Station, 5National Animal Disease Center, ASDA-ARS, Ames, IA

3:30 PM

Supplementation of monensin to beef cows consuming low-quality forage during late gestation and early lactation.

S. K. Linneen1, J. D. Sparks, A. L. McGee, D. L. Lalman, D. R. Stein and G. W. Horn, Oklahoma State University, Stillwater
Effect of stocker production systems on estimated greenhouse gas emissions.

Meats
Chair: Susan K. Duckett,
Clemson University
Majestic Room 3, Sheraton Dallas Hotel

Beef cattle carcass characteristics from continuously stocked pastures of wheat, triticale and ryegrass mixtures.
C. J. Weissend*, K. B. Marchant and C. Bratcher,
Auburn University, Auburn, AL

Fatty acid analysis of specific adipose locations when steers were fed corn by-products.
S. E. Belanger*, L. Stewart, J. O. Segers, R. J. Kersey and A. M. Stelzleni, University of Georgia, Athens

Characterizing growth performance and meat quality in Mangalica pigs.
M. McMurray*, S. Perkins, M. Marvin, J. Bartosh, C. Bratcher and T. D. Brandebourg, Auburn University, Auburn, AL
Tuesday, February 4

Extension I

Chair: R. Lawton Stewart, Jr.,
University of Georgia
Dallas Ballroom D3, Downtown Dallas
Conference Center

8:30 AM 15
**Hands-On workshop for women cattle producers:** advanced BQA training and truck/trailer safety.
A. D. Shaeffer*, M. H. Poore and M. L. Alley, North Carolina State University, Raleigh

8:45 AM 16
**Evaluation of internet traffic on a statewide beef cattle extension website.**
J. A. Parish* and B. B. Karisch, Mississippi State University, Mississippi State

9:00 AM 17
**Hands-on workshop presents alternative forages for North Carolina beef cattle producers.**
P. M. Kennedy*, M. H. Poore, S. E. Lyons, A. D. Shaeffer and S. R. Freeman, North Carolina State University, Raleigh

9:15 AM 18
**Impact of a beef cattle youth leadership camp.**
B. B. Karisch*, J. A. Parish*, L. L. Peters* and S. B. Blossum*, 1Mississippi State University, Mississippi State, 2Mississippi Cattlemen’s Association, Jackson, MS

9:30 AM 19
**Stakeholder feedback regarding the Department of Animal Science teaching programs at the University of Arkansas.**
T. R. Troxel*, M. L. Looper*, R. Poling* and B. Butler*, 1University of Arkansas, Little Rock, 2University of Arkansas, Division of Agriculture, Fayetteville, 3University of Arkansas, Fayetteville

9:45 AM 20
**Break**

10:00 AM 21
**Stakeholder feedback regarding the Department of Animal Science extension programs at the University of Arkansas.**
T. R. Troxel*, M. L. Looper*, R. Poling* and B. Butler*, 1University of Arkansas, Little Rock, 2University of Arkansas, Division of Agriculture, Fayetteville, 3University of Arkansas, Fayetteville

10:15 AM 22
**Stakeholder feedback regarding the Department of Animal Science research programs at the University of Arkansas.**
M. L. Looper*, T. R. Troxel*, R. Poling* and B. Butler*, 1University of Arkansas, Division of Agriculture, Fayetteville, 2University of Arkansas, Little Rock, 3University of Arkansas, Fayetteville
10:30 AM
Impact of a 4-H Replacement Beef Heifer Development Contest.
F. D. Jousan1, B. B. Karisch1, R. D. Higdon, III2 and J. A. Parish1, Mississippi State University, Mississippi State, *Mississippi State University Extension Service, Quitman

10:45 AM
Assessment of an environmental stewardship clinic series and a partnership among agencies to deliver watershed management education.
M. L. Marks1, N. V. Haley1, D. S. Miller1, M. K. Stanford1, C. M. Becker1, J. M. Johnson1,2, E. F. Brantley1,2 and C. P. Landrem3, Alabama Cooperative Extension System, Auburn, AL, Auburn University, Auburn, AL, Cherokee County Soil and Water District, Centre, AL

Pastures and Forages
Chair: Vanessa A. Corriher
Texas A&M University
Pearl Room 5, Sheraton Dallas Hotel

9:00 AM
Beef cattle performance from grazed mixtures of triticale and wheat with ryegrass.
K. B. Marchant1, C. M. Holland1, B. E. Gamble2, S. P. Schmidt1 and R. B. Muntifering1, Auburn University, Auburn, AL, Wiregrass Research and Extension Center, Headland, AL

9:15 AM
Stockpiled ‘Tifton 85’ bermudagrass for cow-calf production as influenced by nitrogen fertilization. I: Productivity and nutritive value.
C. M. Holland1, K. B. Marchant1, L. A. Kriese-Anderson1, B. E. Gamble2 and R. B. Muntifering1, Auburn University, Auburn, AL, Wiregrass Research and Extension Center, Headland, AL

9:30 AM
Stockpiled ‘Tifton 85’ bermudagrass for cow-calf production as influenced by nitrogen fertilization. II: Cow and calf performance.
C. M. Holland1, K. B. Marchant1, L. A. Kriese-Anderson1, B. E. Gamble2 and R. B. Muntifering1, Auburn University, Auburn, AL, Wiregrass Research and Extension Center, Headland, AL

9:45 AM
Evaluation of wheat and triticale forage for stocker production in the Gulf Coast region.
S. L. Dillard1, M. K. Mullenix2, B. E. Gamble3, C. M. Lin4 and R. B. Muntifering1, Auburn University, Auburn, AL, University of Florida, Gainesville, Wiregrass Research and Extension Center, Headland, AL, Auburn University, Auburn, AL

10:00 AM
Break
S. R. Freeman* and M. H. Poore, NC State University, Raleigh, North Carolina State University, Raleigh

Setting stocking rate of wheat pasture based on forage allowance.
P. Beck, T. Hess, and D. Hubbell, University of Arkansas SWREC, Hope, University of Arkansas LFRS, Batesville, Livestock and Forestry Research Station, University of Arkansas Division of Agriculture, Batesville

Addition of clovers to tall fescue pastures improves nitrogen status of animals, forages and soils.

The effects of mixed or sequential grazing on performance and reproductive measurements of Katahdin ewes and fall-calving Angus cows grazing stockpiled toxic tall fescue – 1 year summary.
R. E. Daugherty Jr., J. D. Caldwell, B. C. Shanks, C. L. Boeckman, C. A. DeOrnellis and A. N. V. Stewart, Lincoln University, Jefferson City, MO, Department of Agriculture and Environmental Sciences, Lincoln University, Jefferson City, MO

**Physiology**

Chair: Jamie E. Larson, Mississippi State University
Pearl Room 4, Sheraton Dallas Hotel

Growth and reproduction of replacement beef heifers is influenced by growth-promoting implants.
T. Devine, C. F. Rosenkrans, D. Philipp, D. Hubbell, E. A. Backes, A. Davis, T. Lester, R. W. Rorie, C. Orr, R. T. Rhein and M. L. Looper, University of Arkansas, Division of Agriculture, Fayetteville, Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, Livestock and Forestry Research Station, University of Arkansas Division of Agriculture, Batesville
9:15 AM
Endophyte-infected fescue alters components of the acute phase response to lipopolysaccharide in beef heifers.
A. W. Altman¹, N. C. Burdick Sanchez², J. A. Carroll³, T. B. Schmidt⁴, K. R. McLeod¹, G. E. Aiken⁴ and E. S. Vanzant¹, ¹University of Kentucky, Lexington, ²USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, ³University of Nebraska, Lincoln, ⁴USDA-ARS, Lexington, KY

9:30 AM
Form of selenium (Se) in free-choice mineral mix fed to maturing beef heifers differentially affects hepatic expression of genes responsible for Se metabolism.
J. D. Patterson and J. C. Matthews, University of Kentucky, Lexington

9:45 AM
Effects of maternal nutrient restriction during mid-to late gestation on uterine blood flow in beef cows.
A. R. Coley⁴, K. E. Brockus, C. G. Hart, L. V. Durst, S. R. Plank, T. Smith, J. E. Larson, B. J. Rude and C. O. Lemley, Mississippi State University, Mississippi State

10:15 AM
The grazing of toxic tall fescue negatively impacts bull fertility.
N. M. Long, J. G. Andrae, S. K. Duckett and S. L. Pratt, Clemson University, Clemson, SC

10:30 AM
Yeast cell wall supplementation alters immune parameters in response to a Salmonella challenge in weaned pigs.
N. C. Burdick Sanchez¹, J. A. Carroll⁴, J. R. Corley², J. O. Buntyn⁴, T. B. Schmidt³, P. R. Broadway⁴ and T. R. Callaway⁴, ¹USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, ²Lesaffre Feed Additives, Iola, TX, ³Saf Agri/Lesaffre Feed Additives, Iola, TX

10:45 AM
Variations in the preferential binding of yeast probiotics to gram positive or gram negative bacteria.
G. Posadas¹, J. A. Carroll⁴, J. R. Corley², A. Lawrence¹ and J. R. Donaldson¹, ¹Mississippi State University, Mississippi State, ²USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, ³Saf Agri/Lesaffre Feed Additives, Iola, TX
Influence of a prenatal stressor on ACTH-induced cortisol secretion in yearling Brahman heifers.
S. E. Schmidt1,2, M. C. Roberts1,2, D. M. Price1,3, B. P. Littlejohn1,3, R. C. Vann1, J. A. Carroll3, N. C. Burdick Sanchez2, D. A. Neuendorff, A. W. Lewis1, T. H. Welsh, Jr.3,6 and R. D. Randel1, 1Texas A&M AgriLife Research, Overton, 2Texas A&M University, College Station, 3Texas A&M Department of Animal Science, College Station, 4MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond, 5USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, 6Texas A&M Agrilife Research, College Station

Ruminant Animal Production II

Chair: Ryan Reuter,
The Noble Foundation, Inc.
Austin Ballroom 2, Sheraton Dallas Hotel

9:00 AM
SS-ASAS Emerging Scholar Award: Influence of Horn Flies and breed type on milk production, calf performance, and pasture behavior of beef cattle.
A. R. Mays1, M. A. Brown2 and C. F. Rosenkrans, Jr.1, University of Arkansas, Fayetteville, ARS, USDA, Grazinglands Research Laboratory, El Reno, OK

9:45 AM
Evaluation of two sugarcane molasses feeding systems on measures of performance of replacement beef heifers.
P. G. M. D. A. Martins*, J. D. Arthington, P. Moriel and J. M. B. Vendramini, UF/IFAS Range Cattle Research and Education Center, Ona, FL

10:00 AM
Performance and carcass traits of different Guzerat-based beef cattle genetic groups.
S. D. J. Villela1,2, F. B. Diniz1, M. H. F. Mourthé1, P. V. R. Paulino1, C. A. Boari2, J. Ribeiro1 and P. G. M. D. A. Martins3, Universidade Federal dos Vales do Jequitinhonha e Mucuri, Diamantina, Brazil, 2Texas A&M University, College Station 3Nutron Alimentos Ltda, Campinas, Brazil, 4Universidade Federal de Alagoas, Arapiraca, Brazil, 5UF/IFAS Range Cattle Research and Education Center, Ona, FL

10:15 AM
Relationships among age and body weight at puberty and rate of gain in developing beef heifers: A meta-analysis.
P. A. Lancaster, UF/IFAS Range Cattle Research and Education Center, Ona, FL

10:30 AM
Break
Factors influencing preweaning ultrasound body composition of Brahman calves.
B. P. Littlejohn*1,2, D. M. Price1,2, A. W. Lewis1, D. A. Neuendorff1, J. P. Banta1, D. G. Riley2,3, J. A. Carroll1, T. H. Welsh, Jr.2,3, R. D. Randel1 and R. C. Vann5, 1Texas A&M AgriLife Research, Overton, 2Texas A&M Department of Animal Science, College Station, 3Texas A&M Agrilife Research, College Station, 4USDA-ARS, Livestock Issues Research Unit, Lubbock, TX, 5MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond

Effect of growth implant timing on health, performance, and immunity of beef stocker cattle.
H. D. Hughes1, P. A. Beck2, D. Hubbell2, S. Gadberry2, E. B. Kegley2, J. G. Powell2, F. L. Prouty5 and J. T. Richeson1, 1Department of Agricultural Sciences, West Texas A&M University, Canyon, 2Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, 3Livestock and Forestry Research Station, University of Arkansas Division of Agriculture, Batesville, 4Department of Animal Science, University of Arkansas Division of Agriculture, Little Rock, 5Zoetis, Louisburg, KS

Effects of increasing levels of distillers dried grains on intake and apparent digestibility of moderate quality fescue Hay.
C. I. Shipps1, A. A. Zender2 and M. D. Hudson3, 1Missouri State University, Dadeville, 2Missouri State University, Springfield, 3Missouri State University, Brighton

Application of technologies in cattle finishing programs.
M. H. Poore*, A. D. Sheaffer and G. L. Sheaffer, North Carolina State University, Raleigh

Methodology to measure void space and bulk density of feed ingredients.
C. J. Boardman1, C. J. Hayes1, T. A. Wickersham1, and J. E. Sawyer1, 1Texas A&M University, College Station, 2Texas AgriLife Research, College Station
Small Ruminant Production I

Chair: Steven Jones,
University of Arkansas
Austin Ballroom 3, Sheraton Dallas Hotel

9:00 AM 96
Evaluating the impact of breed and pregnancy on body temperature of hair sheep ewes in the tropics.
R. W. Godfrey¹, W. D. Preston¹, A. M. Jung¹, S. Joseph¹, L. LaPlace¹, P. E. Hillman², K. G. Gebremedhin², C. N. Lee³ and R. J. Collier⁴,
¹University of the Virgin Islands, St Croix, US Virgin Islands, ²Cornell University, Ithaca, NY, ³University of Hawaii, Manoa, HI, ⁴University of Arizona, Tucson

9:15 AM 97
Response to increasing levels of soy hull supplementation in hair sheep lambs grazing fescue pasture.
S. Wildeus¹ and C. D. Teutsch², ¹Virginia State University, Petersburg, ²Virginia Tech, Blacksburg

9:30 AM 98
Evaluating the impact of breed, hair coat and pregnancy on sweating rate of hair sheep ewes in the tropics.
R. W. Godfrey¹, W. D. Preston¹, A. M. Jung¹, S. Joseph¹, L. LaPlace¹, P. E. Hillman², K. G. Gebremedhin², C. N. Lee³ and R. J. Collier⁴,
¹University of the Virgin Islands, St Croix, US Virgin Islands, ²Cornell University, Ithaca, NY, ³University of Hawaii, Manoa, HI, ⁴University of Arizona, Tucson

9:45 AM 99
Effects of protein supplementation on growth of parasitized organic lambs while grazing.
C. Crawford¹, D. Mata-Padrino, D. Belesky and S. Bowdridge, West Virginia University, Morgantown

10:00 AM Break

10:15 AM 100
Evaluation of forage yield in sequential grazing of cattle and goats under an intensive rotational system.
Y. Ghebreiyessus¹, M. Berhane, R. Marshall, C. Adams, E. Runles and S. Gebrelul, Southern University Ag. Center, Baton Rouge, LA

10:30 AM 101
Effect of feeding sericea lespedeza leaf meal pellets on Eimeria spp and gastrointestinal nematodes in lambs and kids.
T. Vines¹, D. S. Kommuru¹, T. Barker¹, J. M. Burke², J. E. Miller³, J. A. Mosjidis⁴, N. Kamisetti¹ and T. H. Terrill¹, ¹Fort Valley State University, Fort Valley, GA, ²USDA-ARS, Booneville, AR, ³Louisiana State University, Baton Rouge, ⁴Auburn University, Auburn, AL
10:45 AM
Quebracho tannins aid in the control of Eimeria spp. and alter serum concentrations of trace minerals in lambs.
J. M. Burke	extsuperscript{1}, J. E. Miller	extsuperscript{2}, T. H. Terrill	extsuperscript{3}, M. Acharya	extsuperscript{4} and C. F. Rosenkrans	extsuperscript{5}, \textsuperscript{1}USDA-ARS, Booneville, AR, \textsuperscript{2}Louisiana State University, Baton Rouge, \textsuperscript{3}Fort Valley State University, Fort Valley, GA, \textsuperscript{4}University of Arkansas, Fayetteville, \textsuperscript{5}Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville

103 Withdrawn by Author

11:15 AM
Sire breed differences in pregnancy rate of hair sheep ewes following liquid semen vaginal artificial insemination.
S. Wildeus	extsuperscript{1}, Virginia State University, Petersburg

Extension II
Chair: R. Lawton Stewart, Jr., University of Georgia
Dallas Ballroom A2, Downtown Dallas
Conference Center

1:30 PM
Beef programming across state lines: SERA 41 webinars.
L. Stewart	extsuperscript{1}, J. W. Lehmkuhler	extsuperscript{2}, M. H. Poore	extsuperscript{3}, J. D. Arthington	extsuperscript{4} and D. L. Rankins	extsuperscript{5}, \textsuperscript{1}University of Georgia, Athens, \textsuperscript{2}University of Kentucky, Lexington, \textsuperscript{3}North Carolina State University, Raleigh, \textsuperscript{4}UF/IFAS Range Cattle Research and Education Center, Ona, FL, \textsuperscript{5}Auburn University, Auburn, AL

1:45 PM
All Things Equine: a unique opportunity to teach youth about equine management topics.
N. L. Walker and L. Keating, Louisiana State University Agricultural Center, Baton Rouge

2:00 PM
Response of beef cows, not exposed to mineral supplements, to an injectable trace mineral supplement.
M. S. Gadberry	extsuperscript{1} and K. Simon	extsuperscript{2}, \textsuperscript{1}University of Arkansas Coop. Ext. Srv., Little Rock, \textsuperscript{2}University of Arkansas, Cooperative Extension Service, Little Rock

2:15 PM
Response of beef calves, not exposed to free-choice mineral supplements, to an injectable trace mineral supplement
M. S. Gadberry	extsuperscript{1} and K. Simon	extsuperscript{2}, \textsuperscript{1}University of Arkansas Coop. Ext. Srv., Little Rock, \textsuperscript{2}University of Arkansas, Cooperative Extension Service, Little Rock

2:30 PM
Evaluation of warm season annuals for forage finishing in the piedmont region on animal performance and meat quality.
E. M. Ford	extsuperscript{2}, A. M. Stelzleni, D. Hancock and L. Stewart, University of Georgia, Athens
Implants for short-term heifer grazing in Northeast Oklahoma.
E. Ward¹, R. Pirtle², K. Swanson³, G. Milliman⁴, W. Cubbage⁵, K. Long⁶, R. Sproul¹ and C. Richards⁴,
¹Oklahoma State University, Muskogee, ²Oklahoma State University, Bartlesville, ³Oklahoma State University, Bartlesville, ⁴Oklahoma State University, Nowata, ⁵Oklahoma State University, Pawhuska,
⁶Oklahoma State University, Vinita, ⁷Oklahoma State University, Jay, ⁸Oklahoma State University, Stillwater

Small Ruminant Production II
Chair: Steven Jones,
University of Arkansas
Austin Ballroom 3, Sheraton Hotel Dallas

1:30 PM  105
Sustainable year-round forage system for goat production in southern USA.
B. R. Min*, S. Solaiman, N. K. Gurung and W. H. McElhenney, Tuskegee University, Tuskegee, AL

1:45 PM  106
The effect of sequential grazing on the performance of does under an intensive rotational system.

2:00 PM  107
The effect of sequential grazing on the performance of kids under an intensive rotational system.
S. Manuel¹, R. Marshall, C. Adams, E. Runles, M. Berhane and S. Gebrelul, Southern University Ag. Center, Baton Rouge, LA

2:15 PM  108
Suitable winter forages for goats: Productivity, quality, and goats' preference.
U. Karki¹, L. B. Karki², N. K. Gurung¹ and A. W. Elliott¹, ¹Tuskegee University, Tuskegee, AL,
²PadmaDal Memorial Foundation, Auburn, AL

2:30 PM  109
Using webinar short courses to educate small ruminant producers.
S. Schoenian¹, J. Semler² and R. J. Brzozowski³,
¹University of Maryland, Keedysville, ²University of Maryland, Boonsboro, ³University of Maine, Falmouth