

# **SOUTHERN SECTION**

**American Society of Animal Science**

## **ANNUAL MEETING**

**January 31 – February 3, 2015  
Atlanta, Georgia**

**In conjunction with the  
2015 Annual Convention of the  
Southern Association of Agricultural  
Scientists**

## **AMERICAN SOCIETY OF ANIMAL SCIENCE OFFICERS 2014-2015**

Dr. Debra K. Aaron  
President  
University of Kentucky  
Lexington, KY

Dr. Michael L. Looper  
President – Elect  
University of Arkansas  
Fayetteville, AR

Dr. Gregory P. Lardy  
Past President  
North Dakota State University  
Fargo, ND

Dr. Todd A. Armstrong  
Foundation Trustee Chair  
Elanco Animal Health  
Greenfield, IN

Dr. Greg S. Lewis  
JAS, Editor-in-Chief  
Champaign, IL

Dr. Phillip S. Miller  
Recording Secretary/  
Midwest Section Director  
University of Nebraska – Lincoln  
Lincoln, NE

Dr. Shawn L. Archibeque  
2015 Program Chair/Director-at-Large  
Colorado State University  
Fort Collins, CO

Dr. Thomas A. Hoagland  
Northeastern Section Director/  
Financial Advisor  
University of Connecticut  
Storrs, CT

Dr. Russ B. Muntifering  
Southern Section Director  
Auburn University  
Auburn, AL

Dr. Jack C. Whittier  
Western Section Director  
University of Nebraska - Lincoln  
Scottsbluff, NE

Dr. Linda C. Martin  
Director-at-Large  
The Ohio State University  
Columbus, OH

Dr. William L. Flowers  
Director-at-Large  
North Carolina State University  
Raleigh, NC

Dr. Dean E. Hawkins  
Director-at-Large  
West Texas A&M University  
Canyon, TX

Dr. Connie K. Larson  
Director-at-Large  
Zinpro Corporation  
Eden Prairie, MN

Dr. Elisabeth J. Huff-Lonergan  
Director-at-Large  
Iowa State University  
Ames, IA

Dr. Chantal Farmer  
Director-at-Large  
AAFC  
Sherbrooke, QC  
Canada

Dr. Mark K. Petersen  
Director-at-Large  
USDA-ARS Ft. Keogh LARRL  
Miles City, MT

Dr. Teresa A. Davis  
Director-at-Large  
Baylor College of Medicine, CNRC  
Houston, TX

Mr. W. Brandon Smith  
Graduate Director  
University of Arkansas  
Fayetteville, AR

Mr. Kyle J. McLean  
Graduate Director  
North Dakota State University  
Fargo, ND

Dr. Meghan C. Wulster-Radcliffe  
CEO  
American Society of Animal Science  
Champaign, IL

Mrs. Jacelyn M. Hemmelgarn  
COO  
American Society of Animal Science  
Champaign, IL

**ASAS SOUTHERN SECTION  
OFFICERS  
2014–2015**

Dr. David Lalman  
President  
Oklahoma State University  
Stillwater, OK

Dr. John Arthington  
President – Elect  
University of Florida Range Cattle  
Research and Education Center  
Ona, FL

Dr. Jane Parish  
Secretary-Treasurer  
Mississippi State University  
Prairie, MS

Dr. Charles Rosenkrans  
Secretary-Treasurer Elect  
University of Arkansas  
Fayetteville, AR

Dr. L. Wayne Greene  
Past President  
Auburn University  
Auburn, AL

Dr. Russ Muntifering  
Southern Section Director  
Auburn University  
Auburn, AL

Ms. Tiffany Hebb  
Graduate Student Representative  
Tuskegee University  
Tuskegee, AL

Ms. Elizabeth Backes  
Graduate Student Representative  
University of Arkansas  
Fayetteville, AR

**Award Sponsors**  
**2015 Southern Section ASAS**

The Southern Section of the American Society of Animal Science expresses appreciation to the following organizations for financial assistance:

**Swine Industry Award for Innovation**

National Pork Board  
Des Moines, IA

**Young Animal Scientist – Research**

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 Westin Peachtree Plaza, Atlanta, GA. Offsite events are noted below.*

### **Friday, January 30**

#### **Academic Quadrathlon (AQ)**

##### **Advisors Meeting**

9:00 PM

Holiday Inn Express  
Athens, GA

### **Saturday, January 31**

#### **AQ Lab Practicum and Written Exam**

All Day

The University of Georgia, Athens

#### **Tall Fescue Summit**

2:00 PM–5:00 PM

Chastain I (6<sup>th</sup> Floor)

### **Sunday, February 1**

#### **AQ Oral Preparation**

6:30 AM–Noon

Peachtree Ballrooms (8<sup>th</sup> Floor)

#### **AQ Oral Presentation**

8:00 AM–Noon

Peachtree Ballroom C (8<sup>th</sup> Floor)

#### **AQ Quiz Bowl**

8:00 AM–1:00 PM

Peachtree Room 2 (8<sup>th</sup> Floor)

#### **AQ Quiz Bowl Championship/Awards and Awards Program**

8:00 AM–4:00 PM

Peachtree Ballroom D (8<sup>th</sup> Floor)

#### **SCC 81: Sustainable Small Ruminant Production IEG**

8:30 AM–12:00 PM

Augusta Room 2 (7<sup>th</sup> Floor)

**Tall Fescue Summit  
Working Session**  
9:00 AM–11:00 AM  
Chastain I (6<sup>th</sup> Floor)

**Registration**  
11:00 AM–4:00 PM  
Chastain Terrace (6<sup>th</sup> Floor)

**Design, Analysis, and  
Execution of Quality Grazing  
Research Symposium,  
in conjunction with SERA 41**  
1:00 PM–6:00 PM  
Augusta Ballroom B (7<sup>th</sup> Floor)

**Genetic Diversity in Small Ruminants  
– Implications for Production and  
Profitability Symposium  
in conjunction with SCC 81**  
1:00 PM–4:45 PM  
Augusta Room 2 (7<sup>th</sup> Floor)

**SAAS Board Meeting**  
2:30 PM–3:30 PM  
Augusta Room 1 (7<sup>th</sup> Floor)

**SAAS Business Meeting**  
4:00 PM–4:15 PM  
Augusta Room 1 (7<sup>th</sup> Floor)

**SAAS General Session**  
4:15 PM–5:30 PM  
Augusta Room 1 (7<sup>th</sup> Floor)

**SAAS Reception/Super Bowl Party**  
5:30 PM–10:00 PM  
TBD

**SS-ASAS Advisory Committee and  
Executive Committee**  
6:00 PM–8:00 PM  
Augusta Ballroom A (7<sup>th</sup> Floor)

## **Monday, February 2**

### **Registration**

7:30 AM–4:00 PM

Chastain Terrace (6<sup>th</sup> Floor)

### **SS-ASAS Coffee Break**

9:30 AM–10:30 AM

Augusta Ballroom Foyer (7<sup>th</sup> Floor)

### **SS-ASAS Business Meeting and Awards Ceremony**

5:30 PM–7:00 PM

Peachtree Ballroom C (8<sup>th</sup> Floor)

### **Small Ruminant Subcommittee of the NAGP**

7:00 PM–9:15 PM

Augusta Ballroom G (7<sup>th</sup> Floor)

## **Tuesday, February 3**

### **SAAS Board Breakfast Meeting**

7:00 AM–10:00 AM

Chastain C (6<sup>th</sup> Floor)

### **Registration**

8:00 AM–Noon

Chastain Terrace (6<sup>th</sup> Floor)

### **Graduate Student Lunch and Learn**

Noon–2:00 PM

Augusta Room 3 (7<sup>th</sup> Floor)

### **Extension Luncheon**

Noon–2:00 PM

Peachtree Room Terrace (8<sup>th</sup> Floor)



# SYMPOSIA AND ORAL SESSIONS

## Sunday, February 1

---

### **Design, Analysis, and Execution of Quality Grazing Research Symposium**

Chair: Paul Beck,  
University of Arkansas SWREC  
Augusta Ballroom B (7<sup>th</sup> Floor)

1:00 PM

**Welcoming Remarks**

1:10 PM

133

**Pros and cons of grazing management options in grazing studies.**

*G. E. Aiken<sup>\*</sup>, USDA-ARS, Lexington, KY*

1:40 PM

134

**The roles of forage management, forage quality, and forage allowance in grazing research.**

*F. M. Rouquette<sup>\*</sup>, Texas A&M AgriLife Research, Overton*

2:40 PM

**Break**

2:55 PM

135

**Designing a grazing experiment that can reliably detect meaningful differences.**

*R. Reuter<sup>\*</sup> and C. A. Moffet, The Samuel Roberts Noble Foundation, Inc., Ardmore, OK*

3:25 PM

136

**Getting more information from your grazing research beyond cattle performance.**

*S. A. Gunter<sup>\*1</sup> and N. A. Cole<sup>2</sup>, <sup>1</sup>USDA-ARS, Woodward, OK, <sup>2</sup>USDA-ARS, Bushland, TX*

3:55 PM

**Making research based extension recommendations from grazing experiments.**

*T. McCollum, Texas AgriLife Extension*

4:25 PM

**Panel Discussion**

5:00 PM

**SERA 41 Meeting**

---

**Genetic Diversity in Small Ruminants –  
Implications for Production and  
Profitability Symposium**

Chair: Harvey Blackburn, USDA-ARS  
Augusta Room 2 (7<sup>th</sup> Floor)

1:05 PM

**Introduction to symposium**

*P. Purdy and H. Blackburn, USDA-ARS, Ft. Collins,  
CO*

1:15 PM

**Assessment of small ruminant genetic diversity:  
Selection approaches, gene bank use, and areas  
of needed progress.**

*D. F. Waldron\*, Texas AgriLife Research, San  
Angelo*

1:45 PM

**Emerging climate change Issues: Health x forage  
x genetic interactions.**

*J. M. Burke\*, USDA-ARS, Booneville, AR*

2:15 PM

**How might small ruminant industries utilize  
genomic tools? RNA Seq and Juniper utilization.**

*P. K. Riggs\*, Texas A&M University, College Station*

2:45 PM

**Break**

3:00 PM

**Emerging reproductive technologies that  
enhance genetic resource use.**

*S. Wildeus\*<sup>1</sup> and P. Purdy<sup>2</sup>, <sup>1</sup>Virginia State  
University, Petersburg, <sup>2</sup>USDA-ARS, Ft. Collins, CO*

3:30 PM

**Improving minor and rare breed competitiveness.**

*A. G. Martin\*, The Livestock Conservancy, Pittsboro,  
NC*

4:00 PM

**Comments on the talks and discussion of how  
the research community might address  
production and genetic diversity issues.**

# Monday, February 2

---

## Bill E. Kunkle Interdisciplinary Beef Symposium

Chair: John D. Arthington, UF/IFAS, Range  
Cattle Research and Education Center  
Chastain Room 1 (6<sup>th</sup> Floor)

8:00 AM

### Welcoming Remarks

8:05 AM

128

### Coping with tall fescue toxicosis: Solutions and realities.

*R. L. Kallenbach<sup>\*</sup>, University of Missouri, Columbia*

8:50 AM

129

### Research efforts aimed at reducing the impact of fescue toxicosis on economically important production measures for beef cattle.

*M. S. Gadberry<sup>\*1</sup>, J. Hawley<sup>2</sup>, and P. Beck<sup>3</sup>,  
<sup>1</sup>Department of Animal Science, University of Arkansas, Little Rock, <sup>2</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, <sup>3</sup>University of Arkansas SWREC, Hope*

9:35 AM

Break

9:45 AM

130

### Genetic resistance to the effects of grazing endophyte-infected tall fescue.

*T. Smith<sup>\*1</sup> and J. P. Cassady<sup>2</sup>, <sup>1</sup>Mississippi State University, Mississippi State, <sup>2</sup>South Dakota State University, Brookings*

10:30 AM

131

### Physiologic effects of ergot alkaloids: What happens when excretion does not equal absorption?

*J. L. Klotz<sup>\*</sup>, USDA-ARS, FAPRU, Lexington, KY*

11:15 AM

132

### Does ergot alkaloids negatively impact bull semen quality and fertility?

*S. L. Pratt<sup>\*</sup> and J. G. Andrae, Clemson University, Clemson, SC*

---

## Graduate Student Competition I

Chair: Joan M. Burke, USDA-ARS  
Augusta Ballroom A (7<sup>th</sup> Floor)

8:00 AM

22

### Grass finishing systems for lambs born in fall and winter.

*E. Smyth<sup>\*1,2</sup>, J. M. Burke<sup>1</sup>, M. Acharya<sup>2</sup>, J. E. Miller<sup>3</sup>, and K. P. Coffey<sup>2</sup>, <sup>1</sup>USDA-ARS, Booneville, AR, <sup>2</sup>University of Arkansas, Fayetteville, <sup>3</sup>Louisiana State University, Baton Rouge*

8:15 AM

23

**Effect of supplemental sericea lespedeza leaf meal pellets on health and productivity of grazing goats.**

*T. N. Hamilton<sup>\*1</sup>, T. H. Terrill<sup>1</sup>, D. S. Kommuru<sup>1</sup>, A. Rivers<sup>1</sup>, J. A. Mosjidis<sup>2</sup>, J. E. Miller<sup>3</sup>, and J. M. Burke<sup>4</sup>, <sup>1</sup>Fort Valley State University, Fort Valley, GA, <sup>2</sup>Auburn University, Auburn, AL, <sup>3</sup>Louisiana State University, Baton Rouge, <sup>4</sup>USDA-ARS, Booneville, AR*

8:30 AM

24

**The effect of CorPet a mushroom derived probiotic on gene expression in goat blood.**

*K. A. Ekwemalor<sup>\*</sup>, E. K. Asiamah, S. Adjei-Fremah, H. Ismail, and M. Worku, North Carolina Agricultural and Technical State University, Greensboro*

8:45 AM

25

**Artificial insulation of goat carcasses to improve tenderness.**

*K. L. Basinger<sup>\*1,2</sup>, J. K. Apple<sup>1</sup>, J. D. Caldwell<sup>2</sup>, B. C. Shanks<sup>2</sup>, T. M. Johnson<sup>1</sup>, J. W. Yancey<sup>1</sup>, L. S. Wilbers<sup>2</sup>, G. R. Pettig<sup>2</sup>, K. M. Jones<sup>2</sup>, E. A. Backes<sup>1</sup> and A. N. Young<sup>1</sup>, <sup>1</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, <sup>2</sup>Department of Agriculture and Environmental Sciences, Lincoln University, Jefferson City, MO*

9:00 AM

26

**In vitro effects of water extracts of sericea lespedeza on goat blood.**

*E. K. Asiamah<sup>\*</sup>, K. A. Ekwemalor, S. Adjei-Fremah, M. Worku, and H. Ismail, North Carolina Agricultural and Technical State University, Greensboro*

9:15 AM

27

**Effect of protein supplementation and forage allowance on heifer growth and reproduction.**

*S. E. Lyons<sup>\*1</sup>, M. H. Poore<sup>1</sup>, D. H. Poole<sup>1</sup>, S. R. Freeman<sup>1</sup>, A. D. Shaeffer<sup>1</sup>, P. M. Kennedy<sup>1</sup>, M. L. Alley<sup>2</sup>, and M. E. Drewnowski<sup>3</sup>, <sup>1</sup>North Carolina State University, Raleigh, <sup>2</sup>Zoetis, Cary, NC, <sup>3</sup>University of Nebraska-Lincoln, Lincoln*

9:30 AM

28

**Impact of milk production level on beef cow-calf productivity in Tennessee.**

*S. R. Edwards<sup>\*1</sup> and J. T. Mulliniks<sup>2</sup>, <sup>1</sup>University of Tennessee, Knoxville, <sup>2</sup>University of Tennessee, Crossville*

9:45 AM

**Break**

10:00 AM

29

**Intensified cow/calf production system in the southern great plains incorporating wheat pasture, semi-confinement and native rangeland.**

*J. R. Cole<sup>\*</sup>, A. L. McGee, S. K. Linneen, C. L. Bayliff, J. G. Warren, G. W. Horn, D. L. Lalman, Oklahoma State University, Stillwater*

10:15 AM 30  
**Canola and calves: An integrated crop-livestock farming system for producing canola and stocker calves in the Southeast.**

*S. H. Ingram\**, *S. L. Dillard*, *R. L. Stewart, Jr.*, and *D. Hancock*, *The University of Georgia, Athens*

10:30 AM 31  
**Utilization of canola and sunflower meals as replacements for soybean meal in a corn silage-based stocker operation.**

*J. M. Lourenço\**, *M. A. Froetschel*, and *R. L. Stewart, Jr.*, *The University of Georgia, Athens*

10:45 AM 32  
**Effects of replacing corn with wet brewers grains on growth performance and trace mineral consumption of beef heifers provided medium-quality tall fescue hay.**

*L. F. Artioli\** and *P. Moriel*, *North Carolina State University - Mountain Research Station, Waynesville*

11:00 AM 33  
**Precision-feeding dairy heifers a high rumen undegradable protein diet with differing forage to concentrate ratios. Effects on protein utilization and N efficiency.**

*L. E. Bowen\** and *G. Lascano*, *Clemson University, Clemson, SC*

11:15 AM 34  
**Effect of inclusion of post-extraction algal residue on nutrient utilization and carcass performance in finishing steers.**

*J. C. Morrill\**, *J. E. Sawyer*, *S. B. Smith*, *J. R. Baber*, and *T. A. Wickersham*, *Texas A&M University, College Station*

---

## **Graduate Student Competition II**

Chair: *Christy L. Bratcher*,  
Auburn University  
Augusta Ballroom G (7<sup>th</sup> Floor)

8:00 AM 35  
**Effects of treating sorghum wet distiller's grains with solubles with fibrolytic enzymes on nutrient digestibility and performance in finishing beef steers.**

*C. L. Brauer*<sup>1,2</sup>, *J. C. MacDonald*<sup>3</sup>, *N. A. Cole*<sup>4</sup>, *F. T. McCollum*<sup>1</sup>, and *J. S. Jennings*<sup>1</sup>, <sup>1</sup>*Texas A & M AgriLife Research and Extension Center, Amarillo*, <sup>2</sup>*West Texas A & M University, Canyon*, <sup>3</sup>*University of Nebraska, Lincoln*, <sup>4</sup>*USDA-ARS, Bushland, TX*

8:15 AM 36  
**The effects of supplementing ruminal bypass unsaturated fatty acids on marbling in early-weaned steers.**

*K. S. Mangrum*<sup>1</sup>, *G. Tuttle*<sup>1</sup>, *S. K. Duckett*<sup>1</sup>, *G. S. Sell*<sup>1</sup>, *C. R. Krehbie*<sup>2</sup>, and *N. M. Long*<sup>1</sup>, <sup>1</sup>*Clemson University, Clemson, SC*, <sup>2</sup>*Oklahoma State University, Stillwater*

8:30 AM

37

**Associations among stress response of male calves, single nucleotide polymorphisms of heat shock protein 70, and anabolic steroids.**

*L. Meyer<sup>\*1</sup>, S. Tabler<sup>2</sup>, M. L. Looper<sup>1</sup>, J. M. Burke<sup>2</sup>, and C. Rosenkrans, Jr.<sup>1</sup>, <sup>1</sup>University of Arkansas, Fayetteville, <sup>2</sup>USDA-ARS, Booneville, AR*

8:45 AM

38

**Serial use of Estroject estrous detection patches as a reproductive management tool.**

*A. J. Davis<sup>\*</sup>, T. D. Lester, E. A. Backes, and R. W. Rorie, Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville*

9:00 AM

39

**Impact of progesterone supplementation on pregnancy rates following timed artificial insemination or embryo transfer in beef cattle consuming endophyte-infected fescue.**

*J. C. Mackey<sup>\*</sup>, J. M. Lektion, A. M. Tyson, M. H. Poore, and D. H. Poole, North Carolina State University, Raleigh*

9:15 AM

40

**Effects of toxic tall fescue on bovine semen cryopreservation.**

*C. R. Burnett<sup>\*</sup>, S. M. Calcaterra, M. A. Dimmick, W. C. Bridges, and S. L. Pratt, Clemson University, Clemson, SC*

9:30 AM

42

**Transcription of Toll-like receptor 2 (TLR2) in bovine blood in response to microbial and plant derived molecular patterns.**

*S. Adjei-Fremah<sup>\*</sup>, E. K. Asiamah, K. A. Ekwemalor, H. Ismail, and M. Worku, North Carolina Agricultural and Technical State University, Greensboro*

9:45 AM

**Break**

10:00 AM

41

**Endogenous cortisol, luteinizing hormone, and testosterone secretion and GnRH-induced luteinizing hormone and testosterone secretion in prenatally stressed sexually mature Brahman bulls.**

*B. P. Littlejohn<sup>\*1,2</sup>, M. C. Roberts<sup>1,2</sup>, M. N. Bedenbaugh<sup>1</sup>, A. W. Lewis<sup>2</sup>, D. A. Neuendorff<sup>2</sup>, D. G. Riley<sup>1,3</sup>, J. A. Carroll<sup>4</sup>, R. C. Vann<sup>5</sup>, M. Amstalden<sup>1</sup>, T. H. Welsh, Jr.<sup>1,3</sup>, and R. D. Rande<sup>2</sup>, <sup>1</sup>Texas A&M University Department of Animal Science, College Station, <sup>2</sup>Texas A&M AgriLife Research, Overton, <sup>3</sup>Texas A&M AgriLife Research, College Station, <sup>4</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock, <sup>5</sup>MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond*

10:15 AM

43

**Toll-like receptor expression and activity in the bovine corpus luteum.**

*A. M. Tyson<sup>\*1</sup>, H. A. Faircloth<sup>1</sup>, M. D'Annibale-Tolhurst<sup>1</sup>, J. Chang<sup>1</sup>, P. W. Farin<sup>1</sup>, I. M. Sheldon<sup>2</sup>, J. E. Gadsby<sup>1</sup>, and D. H. Poole<sup>1</sup>, <sup>1</sup>North Carolina State University, Raleigh, <sup>2</sup>Swansea University, Singleton Park, Swansea, United Kingdom*

10:30 AM

44

**Steroid-dependent regulation of bovine oviductal epithelial cells: A transcriptomal analysis.**

*K. L. Cerny<sup>\*</sup>, E. M. Garrett, L. Anderson, and P. Bridges, University of Kentucky, Lexington*

10:45 AM

45

**Effects of maternal nutrient restriction on bovine fetal growth during mid-gestation.**

*R. K. Taylor<sup>\*</sup>, C. T. LeMaster, K. S. Mangrum, and N. M. Long, Clemson University, Clemson, SC*

11:00 AM

46

**The effects of late gestation maternal nutrient restriction with or without protein supplementation on endocrine regulation of newborn and postnatal beef calves.**

*C. T. LeMaster<sup>\*</sup>, R. K. Taylor, K. S. Mangrum, E. R. Ricks, and N. M. Long, Clemson University, Clemson, SC*

11:15 AM

47

**Plane of nutrition during the preweaned period influences the pathophysiological responses to a combined intranasal bovine herpesvirus-1 and intratracheal Mannheimia haemolytica challenge in post-weaned Holstein calves.**

*K. P. Sharon<sup>\*1</sup>, Y. L. Liang<sup>1</sup>, N. C. Burdick Sanchez<sup>2</sup>, J. A. Carroll<sup>2</sup> and M. A. Ballou<sup>1</sup>, <sup>1</sup>Texas Tech University, Department of Animal and Food Sciences, Lubbock, <sup>2</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock, TX*

---

**Teaching and Undergraduate Education**

Chair: T. Dean Pringle,  
University of Georgia  
Chastain C (6<sup>th</sup> Floor)

8:45 AM

118

**Teaching animals and society: Introducing animal science to non-majors.**

*J. L. Wahrmund<sup>\*</sup>, Texas A&M University, Commerce*

---

## Undergraduate Student Competition

Chair: T. Dean Pringle,  
University of Georgia  
Chastain C (6<sup>th</sup> Floor)

9:00 AM

119

**Impact of visual, auditory, and olfactory cues on circulating concentrations of ghrelin in wethers.**

*M. G. Stockwell-Goering<sup>\*1</sup>, E. Benavides<sup>2</sup>, D. H. Keisler<sup>3</sup>, and J. Daniel<sup>1</sup>, <sup>1</sup>Department of Animal Science, Berry College, Mt. Berry, GA, <sup>2</sup>University of Missouri-Division of Animal Sciences, Columbia, <sup>3</sup>University of Missouri, Columbia*

9:15 AM

120

**Ovine maternal nutrient restriction from mid to late gestation decreases hepatic progesterone inactivating enzyme activity.**

*C. L. Gilfeather<sup>\*1</sup>, C. G. Hart<sup>1</sup>, K. A. Vonnahme<sup>2</sup>, and C. O. Lemley<sup>1</sup>, <sup>1</sup>Mississippi State University, Mississippi State, <sup>2</sup>North Dakota State University, Fargo*

9:30 AM

121

**Relationship between body condition score, follicular activity and postpartum interval in Brahman females.**

*T. C. Rocha<sup>\*1,2</sup>, R. A. d'Orey Branco<sup>2</sup>, R. C. Vann<sup>3</sup>, T. H. Welsh, Jr.<sup>4</sup>, D. A. Neuendorff<sup>2</sup>, A. W. Lewis<sup>2</sup>, and R. D. Rande<sup>2</sup>, <sup>1</sup>Texas A&M University, College Station, <sup>2</sup>Texas A&M AgriLife Research, Overton, <sup>3</sup>MAFES-Brown Loam, Mississippi State University, Raymond, <sup>4</sup>Texas A&M University Department of Animal Science, College Station*

9:45 AM

122

**Effect of level of intake and energy concentration on diet utilization and ruminal fill in beef steers.**

*L. N. Bierschwale<sup>\*1</sup>, T. A. Wickersham<sup>1</sup>, L. A. Trubenbach<sup>1</sup>, and J. E. Sawyer<sup>2</sup>, <sup>1</sup>Texas A&M University, College Station, <sup>2</sup>Texas AgriLife Research, College Station*

10:00 AM

123

**Beta-adrenergic receptor subtype distributions differ across carcass and non-carcass tissues in feedlot steers and heifers.**

*B. K. Riedel<sup>\*</sup>, W. C. Burson, J. O. Baggerman, B. C. Bernhard, and R. J. Rathmann, Texas Tech University, Lubbock*

10:15 AM

**Break**

10:30 AM

124

**Effects of lactic acid and sodium metasilicate on fresh beef quality parameters.**

*G. A. Willhelm<sup>\*</sup>, S. L. DeGeer, and C. L. Bratcher, Auburn University, Auburn, AL*



10:45 AM 125  
**Impact of hydration supplements on vital signs of exercised horses during the summer.**  
*B. L. Green\* and J. L. Wahrmund, Texas A&M University, Commerce*

11:00 AM 126  
**The effect of nonstructural carbohydrate intake on heart rate variability in thoroughbred horses.**  
*A. Gates\*<sup>1</sup> and J. D. Pagan<sup>2</sup>, <sup>1</sup>Georgetown College, Georgetown, KY, <sup>2</sup>Kentucky Equine Research, Versailles, KY*

11:15 AM 127  
**Clock gene expression is altered in adipose tissue during adipogenesis and obesity in mangalica pigs.**  
*S. M. Campbell\*, K. N. Purvis, J. Bartosh, and T. D. Brandebourg, Auburn University, Auburn, AL*

---

### **Breeding and Genetics**

Chair: David G. Riley,  
Texas A&M AgriLife Research  
Chastain Room 1 (6<sup>th</sup> Floor)

1:00 PM 1  
**Heterosis for reproduction of Romosinuano-Angus cows in Arkansas.**  
*D. G. Riley\*<sup>1</sup>, S. W. Coleman<sup>2</sup>, C. C. Chase, Jr.<sup>3</sup>, and J. M. Burke<sup>4</sup>, <sup>1</sup>Texas A&M AgriLife Research, College Station, <sup>2</sup>USDA ARS, El Reno, OK, <sup>3</sup>USDA, ARS, U.S. Meat Animal Research Center, Clay Center, NE, <sup>4</sup>USDA-ARS, Booneville, AR*

1:15 PM 2  
**Birth weight, calving rate, and weaning rate in second generation reciprocal Brahman-Angus crosses.**  
*J. K. Bohac\*<sup>1</sup>, A. D. Herring<sup>2</sup>, D. G. Riley<sup>2</sup>, and J. O. Sanders<sup>3</sup>, <sup>1</sup>Texas A&M University, College Station, TX <sup>2</sup>Texas A&M AgriLife Research, College Station, <sup>3</sup>Texas A&M University, Department of Animal Science, College Station*

1:30 PM 3  
**Growth performance of calves from two lines of Angus cows separated by frame size in Alabama.**  
*K. Nadarajah\*<sup>1</sup>, D. L. Kuhlert<sup>1</sup>, G. L. Thompson<sup>2,3</sup>, C. Norris<sup>3</sup>, and H. D. Harkins<sup>3</sup>, <sup>1</sup>Auburn University, Auburn, AL, <sup>2</sup>Alabama Cooperative Extension System, Auburn, <sup>3</sup>Tennessee Valley Research and Extension Center (TVREC), Belle Mina, AL*

1:45 PM

4

**Assessment of genetic variation in fecal egg counts for multiple species of internal parasites in growing crossbred *Bos indicus*-*Bos taurus* cattle.**

*L. Ngere*<sup>\*1</sup>, *D. G. Riley*<sup>1</sup>, *A. D. Herring*<sup>1</sup>, *J. O. Sanders*<sup>1</sup>, and *T. M. Craig*<sup>2</sup>, <sup>1</sup>Texas A&M University, Department of Animal Science, College Station, <sup>2</sup>Texas A&M University, Department of Veterinary Pathobiology, College Station

2:00 PM

5

**Detection of the prosaposin gene in different breeds of goats.**

*A. Robertson Byers*<sup>\*</sup> and *M. Worku*, North Carolina Agricultural and Technical State University, Greensboro

---

**Ruminant Animal Production I**

Chair: Gordon E. Carstens,  
Texas A&M University  
Augusta Ballroom G (7<sup>th</sup> Floor)

1:00 PM

77

***In vitro* and *in situ* degradation of alkali treated sorghum wet distillers grains alone or in combination with corn stalks to increase their nutritive value.**

*W. W. Gentry*<sup>\*1,2</sup>, *C. P. Weiss*<sup>1,2</sup>, *C. L. Brauer*<sup>2</sup>, *F. T. McCollum*<sup>2</sup>, *N. A. Cole*<sup>3</sup>, and *J. S. Jennings*<sup>2</sup>, <sup>1</sup>West Texas A&M University, Canyon, <sup>2</sup>Texas A&M AgriLife Research and Extension Center, Amarillo, <sup>3</sup>USDA-ARS, Bushland, TX

1:15 PM

78

**Effects of an injectable hay additive on hay quality and feeding preference of mature beef cows.**

*J. D. Rivera*<sup>\*1</sup>, *R. W. Lemus*<sup>2</sup>, *J. A. White*<sup>2</sup>, and *P. J. Slusher*<sup>1</sup>, <sup>1</sup>Mississippi State University, South Mississippi Branch Experiment Station, Poplarville, <sup>2</sup>Mississippi State University, Plant and Soil Sciences, Mississippi State

1:30 PM

79

**Effects of prepartum mineral supplement source on composition of colostrum and milk in Brangus (BN) and Angus (AN) cows.**

*D. M. Price*<sup>1</sup>, *J. M. Guevara*<sup>2</sup>, *C. R. Trcalek*<sup>2</sup>, *K. K. Arellano*<sup>3</sup>, *D. M. Irsik*<sup>2</sup>, *D. O. Rae*<sup>2</sup>, *M. J. Hersom*<sup>1</sup>, and *J. V. Yelich*<sup>1</sup>, <sup>1</sup>University of Florida, Gainesville, <sup>2</sup>College of Veterinary Medicine, University of Florida, Gainesville, <sup>3</sup>University of Florida, Montverde

1:45 PM

80

**Effects of prepartum mineral supplement source on cow colostrum and neonatal calf serum immunoglobulin concentration.**

*D. M. Price<sup>\*1</sup>, J. M. Guevara<sup>2</sup>, C. R. Trcalek<sup>2</sup>, K. K. Arellano<sup>3</sup>, D. M. Irsik<sup>2</sup>, M. J. Hersom<sup>1</sup>, J. V. Yelich<sup>1</sup>, and D. O. Rae<sup>2</sup>, <sup>1</sup>University of Florida, Gainesville, <sup>2</sup>College of Veterinary Medicine University of Florida, Gainesville, <sup>3</sup>University of Florida, Montverde*

2:00 PM

81

**Evaluation of hair coat shedding and cow/calf performance of two sources of Angus cattle under Florida subtropical conditions.**

*J. D. Arthington<sup>\*</sup> and J. M. B. Vendramini, UF/IFAS, Range Cattle Research and Education Center, Ona, FL*

2:15 PM

**Break**

2:30 PM

82

**Effectiveness, reproducibility, and repeatability of estimating beef cattle age via dentition.**

*T. F. Best<sup>\*1</sup>, J. A. Parish<sup>1</sup>, R. C. Vann<sup>2</sup>, and J. D. Rivera<sup>3</sup>, <sup>1</sup>North Mississippi Research and Extension Center, Prairie Research Unit, Prairie, MS, <sup>2</sup>MAFES-Brown Loam, Mississippi State University, Raymond, <sup>3</sup>Coastal Research and Extension Center, White Sand Unit, Poplarville, MS*

2:45 PM

83

**Benchmarking beef quality assurance defect rates in market cows sold at public auctions in Mississippi.**

*J. A. Parish<sup>\*</sup> and T. F. Best, North Mississippi Research and Extension Center, Prairie Research Unit, Prairie, MS*

3:00 PM

84

**Performance and activity of fall-born calves weaned in the morning or evening.**

*T. S. Begley<sup>\*1</sup>, J. T. Richeson<sup>1</sup>, J. G. Powell<sup>2</sup>, S. L. Roberts<sup>1</sup>, B. C. Shanks<sup>3</sup>, J. D. Caldwell<sup>3</sup>, and E. A. Bailey<sup>1</sup>, <sup>1</sup>Department of Agricultural Sciences, West Texas A&M University, Canyon, <sup>2</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, <sup>3</sup>Department of Agriculture and Environmental Sciences, Lincoln University, Jefferson City, MO*

3:15 PM

85

**Increasing the metabolizable protein supply enhanced growth performance and led to variable results on innate and humoral immune response of preconditioning beef steers.**

*P. Moriel<sup>\*1</sup>, L. F. Artioli<sup>1</sup>, M. H. Poore<sup>2</sup>, D. H. Poole<sup>2</sup>, R. Marques<sup>3</sup>, and R. F. Cooke<sup>4</sup>, <sup>1</sup>North Carolina State University - Mountain Research Station, Waynesville, <sup>2</sup>North Carolina State University, Raleigh, <sup>3</sup>Oregon State University, Burns, <sup>4</sup>Oregon State University - EOARC Burns, Burns*

3:30 PM

86

**Effect of crude protein levels and metaphylaxis during the stocker receiving phase on feedlot and carcass performance.**

*T. J. Braud\*, B. B. Karisch, D. R. Smith, C. L. Huston, and S. G. Genova, Mississippi State University, Mississippi State*

---

**Graduate Student Competition III**

Chair: Joan M. Burke, USDA-ARS

Augusta Ballroom A (7<sup>th</sup> Floor)

1:30 PM

48

**Use of statistical process control procedures to identify deviations in feeding behavior patterns preceding an acute spontaneous BRD outbreak.**

*K. S. Jackson<sup>1</sup>, G. E. Carstens<sup>1</sup>, L. O. Tedeschi<sup>1</sup>, Y. Fu<sup>1</sup>, A. Banerjee<sup>1</sup>, W. E. Pinchak<sup>2</sup> and J. Wall<sup>1</sup>,*

*<sup>1</sup>Texas A&M University, College Station, <sup>2</sup>Texas A&M Agrilife Research, Vernon*

1:45 PM

49

**Evaluation of long-acting eprinomectin or a combination of moxidectin and oxfendazole on post-weaning heifer growth and fecal egg counts.**

*E. A. Backes\*, J. G. Powell, E. B. Kegley, J. A. Hornsby, J. L. Reynolds, K. S. Anschutz, D. L. Galloway, and W. L. Galyen, Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville*

2:00 PM

50

**Effects of Ralgro implants administered at branding on growth performance of steer calves through weaning.**

*C. L. Bayliff<sup>1</sup>, M. D. Redden<sup>1</sup>, J. R. Cole<sup>1</sup>, A. L. McGee<sup>1</sup>, C. Stansberry<sup>1</sup>, D. L. Lalman<sup>1</sup>, M. E. Corrigan<sup>2</sup>, and W. Burdett<sup>2</sup>, <sup>1</sup>Oklahoma State University, Stillwater, <sup>2</sup>Merck Animal Health, DeSoto, KS*

2:15 PM

51

**Impact of between-animal variation in performance, carcass-quality and feed efficiency on profitability of Brangus steers.**

*K. S. Jackson\*, G. E. Carstens, A. G. Cupples, D. S. Hale, M. L. Jenks, J. R. Johnson, and R. K. Miller, Texas A&M University, College Station*

2:30 PM

52

**Establishing relaxin as a novel adipokine affecting adipose tissue remodeling in pigs.**

*M. M. Roberts<sup>1</sup>, J. Bartosh<sup>1</sup>, A. K. McNee<sup>2</sup>, and T. D. Brandebourg<sup>1</sup>, <sup>1</sup>Auburn University, Auburn, AL, <sup>2</sup>USDA, ARS, U.S. Meat Animal Research Center, Clay Center, NE*

2:45 PM

53

**Effects of alkaline electrically oxidized water on pork loin enhancement.**

*M. Rigdon\* and A. M. Stelzleni, The University of Georgia, Athens*

---

## Meats

Chair: Jason Scheffler,  
Virginia Tech  
Chastain C (6<sup>th</sup> Floor)

2:00 PM

54

**Timing of exposure to high-concentrate diets vs. pasture on carcass traits and meat quality of steers.**

*B. M. Koch<sup>\*</sup>, G. Volpi Lagreca, M. Alende, J. G. Andrae, and S. K. Duckett, Clemson University, Clemson, SC*

2:15 PM

55

**Carcass characteristics and meat quality of steers fed high-concentrate diets at an early backgrounding phase or at finishing.**

*C. S. Maglietti<sup>1</sup>, M. L. Testa<sup>1</sup>, M. J. Cimminell<sup>2,3</sup>, A. Pordomingo<sup>4</sup>, and E. Pavan<sup>\*1</sup>, <sup>1</sup>Instituto Nacional de Tecnología Agropecuaria, Balcarce, Argentina, <sup>2</sup>Universidad Nacional de Mar del Plata, Facultad de Ciencias Agrarias, Balcarce, Argentina, <sup>3</sup>Comisión de Investigaciones Científicas de la Prov. de Buenos Aires, Balcarce, Argentina, <sup>4</sup>Instituto Nacional de Tecnología Agropecuaria, Anguil, Argentina*

2:30 PM

56

**Supplementation of glycerol or fructose via drinking water to enhance marbling deposition and meat quality in finishing cattle.**

*G. Volpi Lagreca<sup>\*1</sup>, M. Alende<sup>1</sup>, A. C. Fluck<sup>2</sup>, and S. K. Duckett<sup>1</sup>, <sup>1</sup>Clemson University, Clemson, SC, <sup>2</sup>Universidade Federal de Pelotas, Pelotas, Brazil*

2:45 PM

57

**Effects of animal age, pasture or feedlot finishing and postmortem aging of Angus steers in central Argentina: I. Performance, carcass traits, and tenderness and color of the longissimus dorsi muscle (LM).**

*A. Pordomingo<sup>\*1</sup>, A. Pordomingo<sup>2</sup>, E. Pavan<sup>3</sup>, and S. K. Duckett<sup>4</sup>, <sup>1</sup>INTA, Anguil, Argentina, <sup>2</sup>Instituto Nacional de Tecnología Agropecuaria, Anguil, Argentina, <sup>3</sup>Instituto Nacional de Tecnología Agropecuaria, Balcarce, Argentina, <sup>4</sup>Clemson University, Clemson, SC*

3:00 PM

58

**Effects of animal age, pasture or feedlot finishing and postmortem aging of Angus steers in central Argentina: II. Proximate composition and fatty acid profile of longissimus dorsi muscle (LM).**

*A. Pordomingo<sup>\*1</sup>, A. Pordomingo<sup>2</sup>, E. Pavan<sup>3</sup>, and S. K. Duckett<sup>4</sup>, <sup>1</sup>INTA, Anguil, Argentina, <sup>2</sup>Instituto Nacional de Tecnología Agropecuaria, Anguil, Argentina, <sup>3</sup>Instituto Nacional de Tecnología Agropecuaria, Balcarce, Argentina, <sup>4</sup>Clemson University, Clemson, SC*

3:15 PM

59

**Determining the prevalence and antimicrobial susceptibility of *salmonella* serovars isolated from U.S. retail ground pork.**

*P. R. Broadway*<sup>\*1</sup>, *J. C. Brooks*<sup>2</sup>, *D. F. Mollenkopf*<sup>3</sup>, *M. A. Calle*<sup>2</sup>, *G. H. Loneragan*<sup>2</sup>, *M. F. Miller*<sup>2</sup>, *J. A. Carroll*<sup>4</sup>, and *T. E. Wittum*<sup>3</sup>, <sup>1</sup>Texas Tech University, Wolforth, <sup>2</sup>Texas Tech University, Lubbock, <sup>3</sup>Ohio State University, Columbus, <sup>4</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock

3:30 PM

60

**Sous vide beef cookery.**

*D. A. Griffing*<sup>\*1</sup>, *D. D. Johnson*<sup>2</sup>, *K. Schneider*<sup>2</sup>, *C. L. Bratcher*<sup>1</sup>, and *C. Carr*<sup>2</sup>, <sup>1</sup>Auburn University, Auburn, AL, <sup>2</sup>University of Florida, Gainesville

# Tuesday, February 3

---

## Small Ruminant Production I

Chair: Dahlia O'Brien,  
Virginia State University  
Augusta Ballroom C (7<sup>th</sup> Floor)

8:00 AM

94

**Effects of method of determining heat energy: heart rate of confined and grazing Boer goats.**

*M. E. Brassard<sup>1,2</sup>, R. Puchala<sup>2</sup>, T. A. Gipson<sup>2</sup>, T. Sahl<sup>2</sup>, and A. L. Goetsch<sup>2</sup>, <sup>1</sup>Universite Laval, Quebec City, QC, Canada, <sup>2</sup>American Institute for Goat Research, Langston University, Langston, OK*

8:15 AM

95

**Effects of creep feeding on weaning weight and market value of meat goat kids.**

*R. Browning, Jr.<sup>1</sup>, R. V. Lourençon<sup>2</sup>, J. L. Groves<sup>1</sup>, D. Garcia<sup>3</sup>, L. Wang<sup>1</sup>, and A. Aldridge<sup>1</sup>, <sup>1</sup>Tennessee State University, Nashville, <sup>2</sup>Universidade Estadual Paulista, Botucatu, Brazil, <sup>3</sup>USDA-AMS, Montgomery, AL*

8:30 AM

96

**Effects of supplemental concentrate level and forage source on intake and digestion by growing and yearling Boer goat wethers and evaluation of a method of predicting negative feedstuff associative effects.**

*A. T. Dolebo<sup>1,2</sup>, R. Puchala<sup>1</sup>, T. A. Gipson<sup>1</sup>, L. J. Dawson<sup>1,3</sup>, T. Sahl<sup>1</sup>, and A. L. Goetsch<sup>1</sup>, <sup>1</sup>American Institute for Goat Research, Langston University, Langston, OK, <sup>2</sup>Southern Agricultural Research Institute, Hawassa, Ethiopia, <sup>3</sup>Center of Veterinary Health Sciences, Oklahoma State University, Stillwater*

8:45 AM

97

**Enhancing the fatty acid composition of lamb via oral oil supplementation.**

*S. K. Duckett<sup>1</sup>, R. Arnon<sup>2</sup>, G. Volpi Lagreca<sup>1</sup>, and M. Alende<sup>1</sup>, <sup>1</sup>Clemson University, Clemson, SC, <sup>2</sup>Universidade Federal de Pelotas, Pelotas, Brazil*

9:00 AM

98

**Grazing/browsing behavior and distribution patterns of meat goats confined in small plots.**

*U. Karki<sup>\*</sup>, D. Jenkins, N. K. Gurung, W. H. McElhenney, and A. S. Kumi, Tuskegee University, Tuskegee, AL*

9:15 AM

99

**Effects of mixing different breeds to evaluate electric fence strand additions to barbwire fence to contain meat goat does.**

*Y. Tsukahara<sup>\*1</sup>, T. A. Gipson<sup>1</sup>, J. Hayes<sup>1</sup>, R. Puchala<sup>1</sup>, M. E. Brassard<sup>1,2</sup>, T. Sahl<sup>1</sup>, and A. L. Goetsch<sup>1</sup>, <sup>1</sup>American Institute for Goat Research, Langston University, Langston, OK, <sup>2</sup>Universite Laval, Quebec City, QC, Canada*

9:30 AM

100

**Impact of different stocking rates of goats under loblolly pine plantation on changes on occurrence of understory vegetation and animal productivity.**

*I. M. Howard<sup>\*</sup>, A. S. Kumi, N. K. Gurung, B. R. Min, A. W. Elliott, R. Davis, U. Karki, and W. H. McElhenney, Tuskegee University, Tuskegee, AL*

9:45 AM

**Break**

10:00 AM

101

**Health, performance, and carcass characteristics of pen-fed vs. pasture-raised meat goats.**

*S. Schoenian<sup>\*1</sup>, J. Semler<sup>2</sup>, D. Gordon<sup>3</sup>, M. B. Bennett<sup>4</sup>, and D. O'Brien<sup>5</sup>, <sup>1</sup>University of Maryland, Keedysville, <sup>2</sup>University of Maryland, Boonsboro, <sup>3</sup>University of Maryland, Derwood, <sup>4</sup>West Virginia University, Martinsburg, <sup>5</sup>Virginia State University, Petersburg*

10:15 AM

102

**Effects of using ground woody plants in lamb feedlot diets on growth performance and wool and carcass characteristics.**

*J. L. Glasscock<sup>\*1</sup>, T. R. Whitney<sup>1</sup>, J. R. Roper<sup>1</sup>, A. R. Holmes<sup>1</sup>, S. G. Marrs<sup>1</sup>, and J. T. Sawyer<sup>2</sup>, <sup>1</sup>Texas A&M AgriLife Research, San Angelo, <sup>2</sup>Tarleton State University, Department of Animal Science and Veterinary Technology, Stephenville, TX*

10:30 AM

103

**Effects of level and length of water restriction on body weight, feed intake, and plasma osmolality of Katahdin sheep and Boer and Spanish goat wethers.**

*M. Urge<sup>\*1,2</sup>, R. Puchala<sup>2</sup>, T. A. Gipson<sup>2</sup>, T. Sahl<sup>2</sup>, and A. L. Goetsch<sup>2</sup>, <sup>1</sup>School of Animal and Range Sciences, Haramaya University, Dire Dawa, Ethiopia, <sup>2</sup>American Institute for Goat Research, Langston University, Langston, OK*

10:45 AM

104

**Energy supplementation of purebred and crossbred hair sheep lambs grazing stockpiled fescue.**

*S. Wildeus<sup>\*1</sup> and C. D. Teutsch<sup>2</sup>, <sup>1</sup>Virginia State University, Petersburg, <sup>2</sup>Virginia Tech, Blackstone*



11:00 AM 105  
**Effect of breed and sex on gain and fecal egg count of meat goat kids grazed on fescue pastures.**

*F. Bebe\* and K. M. Andries, Kentucky State University, Frankfort*

11:15 AM 106  
**Effect of breed type, supplementation and sex in rotationally-grazed hair and wool x hair sheep lambs: Growth and gastrointestinal parasites.**

*S. Wildeus\*<sup>1</sup>, J. Lee<sup>2</sup>, C. D. Teutsch<sup>3</sup>, and T. J. Nartea<sup>1</sup>, <sup>1</sup>Virginia State University, Petersburg, <sup>2</sup>Fort Valley State University, Fort Valley, GA, <sup>3</sup>Virginia Tech, Blackstone*

---

### **Extension I**

Chair: Walter R. Burris,  
University of Kentucky  
Augusta Ballroom E (7<sup>th</sup> Floor)

8:30 AM 6  
**Management education through YouTube.**

*B. M. Freking\*, Oklahoma State University, Ada*

8:45 AM 7  
**Delivering beef cattle Extension programming through YouTube.**

*B. B. Karisch<sup>1</sup>, J. A. Parish<sup>2</sup>, and T. J. Braud\*<sup>1</sup>, <sup>1</sup>Mississippi State University, Mississippi State, <sup>2</sup>North Mississippi Research and Extension Center, Prairie Research Unit, Prairie*

9:00 AM 8  
**The ability of the Animal Science blog to transfer information.**

*T. R. Troxel<sup>1</sup> and M. S. Gadberry\*<sup>2</sup>, <sup>1</sup>University of Arkansas, Little Rock, <sup>2</sup>Department of Animal Science, University of Arkansas, Little Rock*

9:15 AM 9  
**The Southeast Cattle Advisor: Utilizing mobile application and social media to improve risk management.**

*R. L. Stewart, Jr.\*<sup>1</sup>, R. C. Lacy<sup>2</sup>, D. Hancock<sup>1</sup>, G. C. Lamb<sup>3</sup>, N. DiLorenzo<sup>3</sup>, D. E. Mayo<sup>4</sup>, B. Beer<sup>5</sup>, and J. B. Elmore<sup>6</sup>, <sup>1</sup>The University of Georgia, Athens, <sup>2</sup>University of Georgia, Tifton, <sup>3</sup>North Florida Research and Education Center, Marianna, <sup>4</sup>University of Florida, Extension, Marianna, <sup>5</sup>University of Clemson Extension, Lancaster, SC, <sup>6</sup>Alabama Cooperative Extension System, Auburn*

9:30 AM 10  
**Use of a clicker-based response tool for enhancing Extension programming in beef cattle production systems.**

*M. K. Mullenix\*<sup>1</sup>, G. L. Thompson<sup>2</sup>, J. B. Elmore<sup>2</sup>, and J. M. Johnson<sup>1</sup>, <sup>1</sup>Auburn University, Auburn, AL, <sup>2</sup>Alabama Cooperative Extension System, Auburn*

9:45 AM 11  
**Mud, horseduds & soapsuds: Encouraging youth responsibility for animal disaster preparedness.**  
*N. L. Walker<sup>1</sup>, R. McConnico<sup>2</sup>, and M. Mirza<sup>2</sup>,*  
*<sup>1</sup>Louisiana State University Agricultural Center, Baton Rouge, <sup>2</sup>Louisiana State University School of Veterinary Medicine, Baton Rouge*

10:00 AM **Break**

10:15 AM 12  
**The 2013-14 Georgia Bull Evaluation Program: Education through investment.**  
*J. R. Segers<sup>1</sup>, J. Duggin<sup>2</sup>, R. L. Stewart, Jr.<sup>3</sup>, R. E. Silcox<sup>3</sup>, and P. T. Cannon<sup>1</sup>,* *<sup>1</sup>The University of Georgia, Tifton, <sup>2</sup>The University of Georgia, Calhoun, <sup>3</sup>The University of Georgia, Athens*

10:30 AM 13  
**The Georgia Heifer Evaluation and Reproductive Development Program.**  
*J. Duggin<sup>\*</sup>, The University of Georgia, Calhoun*

10:45 AM 14  
**Development and implementation of an advanced, multi-session extension training program in beef cattle production.**  
*J. D. Rhinehart<sup>1</sup>, J. B. Nee<sup>2</sup>, D. Kirkpatrick<sup>2</sup>, G. E. Bates<sup>2</sup>, A. Griffith<sup>2</sup>, and L. Strickland<sup>2</sup>,* *<sup>1</sup>University of Tennessee, Spring Hill, <sup>2</sup>University of Tennessee, Knoxville*

11:00 AM 15  
**A hands-on ranch management workshop for cattle producers in the Tennessee Valley region of Alabama.**  
*G. L. Thompson<sup>1</sup>, L. L. Jury<sup>2</sup>, M. K. Mullenix<sup>3</sup>, J. B. Gladney<sup>1</sup>, S. P. Rodning<sup>3</sup>, B. S. Glover<sup>1</sup>, and L. H. Robinson<sup>1</sup>,* *<sup>1</sup>Alabama Cooperative Extension System, Auburn, <sup>2</sup>Micro Technologies, Amarillo, TX, <sup>3</sup>Auburn University, Auburn, AL*

11:15 AM 16  
**Hands-on workshops improve producers' understanding of soils and temporary fencing in the Carolinas.**  
*P. M. Kennedy<sup>1</sup>, M. H. Poore<sup>1</sup>, J. G. Andrae<sup>2</sup>, M. Burns<sup>3</sup>, A. D. Shaeffer<sup>1</sup>, S. R. Freeman<sup>1</sup>, and J. R. Rogers<sup>1</sup>,* *<sup>1</sup>North Carolina State University, Raleigh, <sup>2</sup>Clemson University, Clemson, SC, <sup>3</sup>Clemson University, Pendleton, SC*

---

**Pastures and Forages  
Joint Session with Agronomy**

*(The first six presentations are a selection from the Agronomy program/abstracts.)*

Chair: Mark Reiter, Virginia Tech  
Chastain F (6<sup>th</sup> Floor)

8:15 AM 90988

**Application of gypsum to control P runoff from poultry litter fertilization of pasture.**

*H.A. Torbert\* and D.B. Watts, National Soil Dynamics Laboratory, USDA-ARS, Auburn, AL*

8:30 AM 91019

**A proposed NRCS conservation practice standard: Amending soil properties with gypsiferous products.**

*H.A. Torbert\*<sup>1</sup>, D.B. Watts<sup>1</sup>, and M.S. Reiter<sup>2</sup>,  
<sup>1</sup>National Soil Dynamics Laboratory, USDA-ARS, Auburn, AL, <sup>2</sup>Eastern Shore AREC, Virginia Tech, Painter*

8:45 AM 91020

**Harvest date and N application impact in bermudagrass forage production and quality.**

*R.W. Lemus\* and J.A. White, Plant and Soil Sciences, Mississippi State University, Mississippi State*

9:00 AM 90953

**Agronomic characteristics of dual-purpose canola grown in piedmont soils of north Georgia.**

*S.L. Dillard\*<sup>1</sup>, D.W. Hancock<sup>1</sup>, L. Stewart<sup>2</sup>, and S. Ingram<sup>3</sup>, <sup>1</sup>Crop and Soil Sciences, The University of Georgia, Athens, <sup>2</sup>Animal and Dairy Sciences, The University of Georgia, Athens, <sup>3</sup>Extension, University of Georgia, Springfield*

9:15 AM 90967

**Behavioral thermoregulation: Sheep moderation of core temperature through shade utilization.**

*G. Pent\* and J.H. Fike, Dept. of CSES, Virginia Tech, Blacksburg*

9:30 AM 91052

**Ecology of grazing lands systems - a novel learning experience.**

*J.H. Fike\*<sup>1</sup>, R.L. Kallenbach<sup>2</sup>, C. Villalobos<sup>3</sup>, and B. McIntosh<sup>4</sup>, <sup>1</sup>Dept. of CSES, Virginia Tech, Blacksburg, <sup>2</sup>University of Missouri, Columbia, <sup>3</sup>Range Management, Texas Tech, Lubbock, and <sup>4</sup>Animal and Poultry Sciences, Virginia Tech, Middleburg*

9:45 AM

**Break.**

*(The Pastures and Forages session will continue in the Augusta Ballroom G on the 7<sup>th</sup> Floor.)*

---

## Pastures and Forages

Chair: Deke O. Alkire,  
The Samuel Roberts Noble Foundation  
Augusta Ballroom G (7<sup>th</sup> Floor)

10:00 AM

61

**Seeding method and clover species for grazing calves in southern Arkansas.**

*P. Beck*<sup>1</sup>, *B. Stewart*<sup>1</sup>, *C. Shelton*<sup>1</sup>, *A. McWilliams*<sup>1</sup>, *M. Sims*<sup>1</sup>, and *J. Jennings*<sup>2</sup>, <sup>1</sup>University of Arkansas SWREC, Hope, <sup>2</sup>Department of Animal Science, University of Arkansas, Little Rock

10:15 AM

62

**Performance of stocker cattle grazing 'Tifton 85' bermudagrass supplemented with distillers' dried grains.**

*W. B. Smith*<sup>1</sup>, *F. M. Rouquette*<sup>1</sup>, *J. L. Kerby*<sup>1</sup>, *L. O. Tedesch*<sup>2</sup>, *J. L. Foster*<sup>3</sup>, *J. P. Banta*<sup>4</sup>, *K. C. McCuiston*<sup>5</sup>, and *T. J. Machado*<sup>5</sup>, <sup>1</sup>Texas A&M AgriLife Research, Overton, <sup>2</sup>Texas A&M University, College Station, <sup>3</sup>Texas A&M AgriLife Research, Beeville, <sup>4</sup>Texas A&M AgriLife Extension, Overton, <sup>5</sup>Texas A&M University, Kingsville

10:30 AM

63

**Effect of grazing management on performance of steers grazing mixed alfalfa and bermudagrass pastures.**

*W. Galyen*<sup>1</sup>, *E. B. Kegley*<sup>2</sup>, *J. G. Powell*<sup>2</sup>, *P. Beck*<sup>3</sup>, *D. S. Hubbell, III*<sup>4</sup>, *T. Hess*<sup>4</sup>, *T. Butler*<sup>5</sup>, and *J. Rogers*<sup>5</sup>, <sup>1</sup>University of Arkansas, Fayetteville, <sup>2</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville, <sup>3</sup>University of Arkansas SWREC, Hope, <sup>4</sup>University of Arkansas Livestock and Forestry Research Station, Batesville, <sup>5</sup>The Samuel Roberts Noble Foundation, Ardmore, OK

10:45 AM

64

**Production characteristics of stockpiled 'Alicia' bermudagrass in Louisiana.**

*G. Scaglia*<sup>1</sup>, *G. T. Gentry*<sup>2</sup>, and *J. Gurie*<sup>2</sup>, <sup>1</sup>LSU AgCenter, Jeanerette, <sup>2</sup>LSU AgCenter Dean Lee Research Station, Alexandria

11:00 AM

65

**Forage and sweet sorghum silages as alternatives to corn silage for growing cattle.**

*M. H. Poore*<sup>\*</sup>, *K. R. Caffrey*, *M. S. Chinn*, and *M. W. Veal*, North Carolina State University, Raleigh

11:15 AM

66

**Impact of nitrogen source and rate on yield and nutritive value of stockpiled tall fescue.**

*B. T. Campbell*<sup>\*</sup>, *C. D. Teutsch*, and *N. T. Shireman*, Virginia Tech, Blackstone

11:30 AM

67

**Animal performance, in vivo forage digestibility and forage intake of beef steers grazing annual ryegrass varieties differing in water soluble carbohydrate content, with and without corn supplementation.**

*J. G. Andrae<sup>1</sup>, M. Alende<sup>\*1,2</sup>, S. K. Duckett<sup>1</sup>, G. Volpi Lagreca<sup>1,2</sup>, and A. C. Fluck<sup>3</sup>, <sup>1</sup>Clemson University, Clemson, SC, <sup>2</sup>INTA, Anguil, Argentina, <sup>3</sup>Universidade Federal de Pelotas, Brazil, Pelotas, Brazil*

11:45 AM

68

**Supplementing soybean hulls to stocker cattle grazing wheat during periods of high N prices.**

*J. T. Biermacher<sup>\*</sup>, J. Rogers, C. A. Moffet, and R. Reuter, The Samuel Roberts Noble Foundation, Inc., Ardmore, OK*

---

## Physiology

Chair: Jeffery A. Carroll, USDA-ARS,  
Livestock Issues Research Unit  
Augusta Ballroom A (7<sup>th</sup> Floor)

9:00 AM

69

**Effect of lipid sources, lysophospholipids and organic acids on the performance of broilers fed wheat-based diets.**

*G. D. V. Polycarpo<sup>\*1</sup>, P. D. A. P. Ribeiro<sup>1</sup>, J. C. Dadalt<sup>1</sup>, L. F. D'Abreu<sup>1</sup>, T. C. Lagassi<sup>1</sup>, K. D. S. Andrade<sup>1</sup>, M. F. D. C. Burbarelli<sup>1</sup>, C. D. P. Carão<sup>1</sup>, C. E. B. Merseguel<sup>1</sup>, V. C. Cruz-Polycarpo<sup>2</sup>, and R. D. Albuquerque<sup>1</sup>, <sup>1</sup>University of São Paulo - USP, Pirassununga, Brazil, <sup>2</sup>São Paulo State University - UNESP, Dracena, Brazil*

9:15 AM

70

**Exposure to lipopolysaccharide in utero alters preweaning growth performance of calves.**

*P. A. Lancaster<sup>\*1</sup>, J. A. Carroll<sup>2</sup>, and N. C. Burdick Sanchez<sup>2</sup>, <sup>1</sup>UF/IFAS Range Cattle Research and Education Center, Ona, FL, <sup>2</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock*

9:30 AM

71

**Altered postnatal acute phase response in heifers exposed to lipopolysaccharide in utero.**

*J. A. Carroll<sup>\*1</sup>, N. C. Burdick Sanchez<sup>1</sup>, K. P. Sharon<sup>2</sup>, J. D. Arthington<sup>3</sup>, and P. A. Lancaster<sup>3</sup>, <sup>1</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock, <sup>2</sup>Texas Tech University, Lubbock, <sup>3</sup>UF/IFAS, Range Cattle Research and Education Center, Ona, FL*

9:45 AM

72

**In utero exposure to lipopolysaccharide alters the postnatal metabolic response in heifers.**

*N. C. Burdick Sanchez<sup>\*1</sup>, J. A. Carroll<sup>1</sup>, K. P. Sharon<sup>2</sup>, J. D. Arthington<sup>3</sup>, and P. A. Lancaster<sup>3</sup>, <sup>1</sup>USDA-ARS, Livestock Issues Research Unit, Lubbock, <sup>2</sup>Texas Tech University, Lubbock, <sup>3</sup>UF/IFAS, Range Cattle Research and Education Center, Ona, FL*

10:00 AM

Break

10:15 AM

73

**Effect of elevated systemic concentrations of urea nitrogen in crossbred heifers on in vitro fertilization (IVF).**

*C. C. Chase, Jr.<sup>1</sup>, O. L. Asmundson<sup>2</sup>, R. A. Cushman<sup>1</sup>, H. C. Freetly<sup>1</sup>, A. K. McNeel<sup>1</sup>, E. C. Wright-Johnson<sup>1</sup>, G. A. Perry<sup>3</sup>, D. D. Sypherd<sup>1</sup>, and J. R. Miles<sup>1</sup>, <sup>1</sup>USDA, ARS, U.S. Meat Animal Research Center, Clay Center, NE, <sup>2</sup>South Dakota State University, Brookings, <sup>3</sup>South Dakota State University; Department of Animal Sciences, Brookings*

10:30 AM

74

**Evaluation of hair cortisol in beef cattle of divergent temperaments.**

*R. C. Vann<sup>1</sup>, S. T. Willard<sup>2</sup>, M. Robinson<sup>2</sup>, A. W. Lewis<sup>3</sup>, T. H. Welsh, Jr.<sup>4</sup>, and R. D. Randel<sup>3</sup>, <sup>1</sup>MAFES - Brown Loam Experiment Station, Mississippi State University, Raymond, <sup>2</sup>Department Animal and Dairy Sciences, Mississippi State University, Mississippi State, <sup>3</sup>Texas A&M AgriLife Research, Overton, <sup>4</sup>Department of Animal Science, Texas A&M University, College Station*

10:45 AM

75

**Influence of prolactin single nucleotide polymorphisms and anabolic steroid type on stress response of beef calves.**

*P. Dias Morse<sup>1</sup>, S. Tabler<sup>2</sup>, M. L. Looper<sup>1</sup>, J. M. Burke<sup>2</sup>, and C. Rosenkrans, Jr.<sup>1</sup>, <sup>1</sup>University of Arkansas, Fayetteville, <sup>2</sup>USDA-ARS, Booneville, AR*

11:00 AM

76

**Microarray studies in high and low RFI cattle reveal a potential role for inflammation within the arcuate nucleus in regulating feed efficiency.**

*K. N. Purvis<sup>1</sup>, C. Foradori<sup>1</sup>, A. K. McNeel<sup>2</sup>, L. A. Kriese-Anderson<sup>1</sup>, and T. D. Brandebourg<sup>1</sup>, <sup>1</sup>Auburn University, Auburn, AL, <sup>2</sup>USDA, ARS, U.S. Meat Animal Research Center, Clay Center, NE*

11:15 AM

Emerging Young Scholar

**Nutritional value of dietary lipids in lactating sow diets.**

*D. S. Rosero<sup>1,2\*</sup>, J. Odle<sup>1</sup>, R. D. Boyd<sup>1,2</sup>, and E. van Heugten<sup>1</sup>, <sup>1</sup>Department of Animal Sciences, North Carolina State University, Raleigh and <sup>2</sup>Hanor Company, Inc., Franklin, KY*

---

## **Ruminant Animal Production II**

Chair: Gordon E. Carstens,  
Texas A&M University  
Augusta Ballroom D (7<sup>th</sup> Floor)

9:00 AM

87

**Effects of excess dietary sulfur on growth performance, sulfhemoglobin concentrations, and tissue mineral concentrations in growing-finishing beef cattle.**

*J. Hawley, E. B. Kegley<sup>\*</sup>, J. L. Reynolds, D. L. Galloway, and J. A. Hornsby, Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville*

9:15 AM

88

**Effect of residual feed intake classification on energy metabolism in growing heifers.**

*T. P. Vining<sup>\*1</sup>, P. A. Lancaster<sup>1</sup>, N. DiLorenzo<sup>2</sup>, H. Monaco<sup>1</sup>, S. Cross<sup>2</sup>, and G. C. Lamb<sup>2</sup>, <sup>1</sup>Range Cattle Research and Education Center, Ona, FL, <sup>2</sup>North Florida Research and Education Center, Marianna*

9:30 AM

89

**Developing heifers on stockpiled, dormant native forages delays gain without altering reproductive performance.**

*S. R. Edwards<sup>\*1</sup>, J. D. Rhinehart<sup>2</sup>, R. L. Nave<sup>3</sup>, and J. T. Mulliniks<sup>3</sup>, <sup>1</sup>University of Tennessee, Knoxville, <sup>2</sup>University of Tennessee, Spring Hill, <sup>3</sup>University of Tennessee, Crossville*

9:45 AM

90

**Effects of offering cows mineral containing Altosid<sup>®</sup> IGR on growth of beef calves.**

*T. D. Harrison<sup>\*</sup> and E. Felton, Division of Animal and Nutritional Sciences, West Virginia University, Morgantown*

10:00 AM

**Break**

10:15 AM

91

**Validation of skin biomarkers for copper deficiency in beef cattle.**

*J. G. Carter<sup>1</sup>, J. Haffner<sup>1</sup>, J. Carlton<sup>1</sup>, S. Cui<sup>1</sup>, J. D. West<sup>2</sup>, and W. W. Gill<sup>\*1</sup>, <sup>1</sup>Middle Tennessee State University, Murfreesboro, <sup>2</sup>Vanderbilt University, Nashville, TN*

10:30 AM

92

**Associations among cytochrome P450 3A28 polymorphisms, anabolic steroids, and stress response of calves.**

*M. A. Sales<sup>\*1</sup>, S. Tabler<sup>2</sup>, M. L. Looper<sup>1</sup>, J. M. Burke<sup>2</sup>, and C. Rosenkrans, Jr.<sup>1</sup>, <sup>1</sup>University of Arkansas, Fayetteville, <sup>2</sup>USDA-ARS, Booneville, AR*

---

## Small Ruminant Production II

Chair: Dahlia O'Brien,  
Virginia State University  
Augusta Ballroom C (7<sup>th</sup> Floor)

1:00 PM

107

**Effects of protein supplementation on parasitism in grazing lambs.**

*C. Crawford*<sup>1</sup>, *D. Mata-Padrino*<sup>1</sup>, *D. P. Belesky*<sup>1</sup>, *E. Felton*<sup>2</sup>, and *S. Bowdridge*<sup>1</sup>, <sup>1</sup>West Virginia University, Morgantown, <sup>2</sup>Division of Animal and Nutritional Sciences, West Virginia University, Morgantown

1:15 PM

108

**Influence of sericea lespedeza on relationships between gastrointestinal nematode infection and hematology, serum biochemistry, and trace minerals in lambs.**

*J. M. Burke*<sup>1</sup>, *M. Acharya*<sup>2</sup>, *J. E. Miller*<sup>3</sup>, *T. H. Terrill*<sup>4</sup>, *E. Smyth*<sup>1</sup>, *G. R. Huff*<sup>6</sup>, *E. B. Kegley*<sup>6</sup>, *K. P. Coffey*<sup>2</sup>, and *C. F. Rosenkrans*<sup>2</sup>, <sup>1</sup>USDA-ARS, Booneville, AR, <sup>2</sup>University of Arkansas, Fayetteville, <sup>3</sup>Louisiana State University, Baton Rouge, <sup>4</sup>Fort Valley State University, Fort Valley, GA, <sup>5</sup>USDA-ARS, Fayetteville, AR, <sup>6</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville

1:30 PM

109

**The effects of combining condensed tannin-rich diets from sericea lespedeza pellets and pine bark powder on experimentally infected goats with drug-resistant *Haemonchus contortus*, weight gain, and carcass quality in meat goats.**

*C. Wright*<sup>1</sup>, *B. R. Min*<sup>1</sup>, *T. H. Terrill*<sup>2</sup>, *D. Perkins*<sup>1</sup>, *T. Vines*<sup>2</sup>, *W. H. McElhenney*<sup>1</sup>, *N. K. Gurung*<sup>1</sup>, *D. S. Kommuru*<sup>2</sup>, and *S. Howell*<sup>3</sup>, <sup>1</sup>Tuskegee University, Tuskegee, AL, <sup>2</sup>Fort Valley State University, Fort Valley, GA, <sup>3</sup>The University of Georgia, Athens

1:45 PM

110

**In vitro effects of water extracts of sericea lespedeza on goat blood.**

*E. K. Asiamah*<sup>\*</sup>, *K. A. Ekwemalor*, *S. Adjei-Fremah*, *H. Ismail*, and *M. Worku*, North Carolina Agricultural and Technical State University, Greensboro

2:00 PM

111

**Influence of *Moringa oleifera* on fecal egg counts and packed cell volume in meat goats.**

*N. C. Whitley*<sup>\*</sup>, *S. H. Oh*, *K. Moulton*, *R. Franco*, *S. B. Routh*, *D. King*, *C. Kyle*, and *J. Idassi*, North Carolina A&T State University, Greensboro

2:15 PM

112

**Effect of weaning age on parasite burdens of hair sheep lambs and ewes in an accelerated lambing system in the tropics.**

*R. Godfrey*<sup>\*</sup>, *S. Joseph*, *L. LaPlace*, and *W. George*, University of the Virgin Islands, St. Croix, US Virgin Islands

2:30 PM

Break



2:45 PM 113  
**Efficacy of copper oxide wire particles from three sources to control *Haemonchus contortus* in lambs.**

*J. M. Burke<sup>1</sup>, J. E. Miller<sup>2</sup>, T. H. Terrill<sup>3</sup>, E. Smyth<sup>1,4</sup>, and M. Acharya<sup>4</sup>, <sup>1</sup>USDA-ARS, Booneville, AR, <sup>2</sup>Louisiana State University, Baton Rouge, <sup>3</sup>Fort Valley State University, Fort Valley, GA, <sup>4</sup>University of Arkansas, Fayetteville*

3:00 PM 114  
**Relationship between preweaning performance and parent expected breeding value for meat goat kids.**

*K. M. Andries<sup>\*</sup>, S. Harrod, and F. Bebe, Kentucky State University, Frankfort*

3:15 PM 115  
**Terminal sire mating of Landrace hair sheep ewes with Dorset rams: Ewe and pre-weaning lamb performance.**

*S. Wildeus<sup>\*</sup>, Virginia State University, Petersburg*

3:30 PM 116  
**Effect of breed type, supplementation and sex in rotationally-grazed hair and wool x hair sheep lambs: Carcass characteristics.**

*J. Lee<sup>1</sup>, S. Wildeus<sup>2</sup>, T. J. Nartea<sup>2</sup>, B. Lemma<sup>1</sup>, and B. Kouakou<sup>1</sup>, <sup>1</sup>Fort Valley State University, Fort Valley, GA, <sup>2</sup>Virginia State University, Petersburg*

3:45 PM 117  
**Preliminary evaluation of the effect of a mushroom (*Coriolus versicolor*) probiotic on gene expression in goat blood.**

*K. A. Ekwemalor<sup>\*</sup>, H. Ismail, and M. Worku, North Carolina Agricultural and Technical State University, Greensboro*

---

## **Extension II**

**Chair: Walter R. Burris,  
University of Kentucky  
Augusta Ballroom E (7<sup>th</sup> Floor)**

2:00 PM 17  
**Determination of knowledge gained following an animal handling and control training workshop.**

*M. R. Russell<sup>1</sup>, T. R. Troxel<sup>1</sup>, M. L. Looper<sup>2</sup>, J. Cater<sup>1</sup>, B. Kutz<sup>2</sup>, and B. Chumbley<sup>3</sup>, <sup>1</sup>University of Arkansas, Little Rock, <sup>2</sup>University of Arkansas, Fayetteville, <sup>3</sup>Eastern New Mexico University, Portales*

2:15 PM

18

**Feedback regarding animal handling training for Department of Animal Science faculty, staff and students at the University of Arkansas.**

*M. L. Thomas<sup>\*1</sup>, J. S. Newberry<sup>1</sup>, and M. L. Looper<sup>2</sup>,*

*<sup>1</sup>Department of Animal Science, University of Arkansas Division of Agriculture, Fayetteville,*

*<sup>2</sup>University of Arkansas, Fayetteville*

2:30 PM

19

**Saving for a wintery day: Three seasons of workshops to promote managed grazing of stockpiled tall fescue.**

*S. R. Freeman<sup>\*</sup>, M. H. Poore, A. D. Shaeffer, and J.*

*T. Green, North Carolina State University, Raleigh*

2:45 PM

20

**Evaluation of four summer annuals for southeastern forage finished beef production systems: Animal performance, carcass traits, and valuation.**

*A. M. Stelzleni<sup>\*</sup>, R. L. Stewart, Jr., and D. Hancock,*

*The University of Georgia, Athens*

3:00 PM

21

**Prevalence of shiga-toxin producing *Escherichia coli* on beef cattle farms in eastern Arkansas.**

*T. Breckenridge<sup>\*</sup>, D. Kennedy, D. Gilmore, S. E.*

*Choi, M. Yarbrough, S. Pulley, and H. Kaur,*

*Arkansas State University, Jonesboro*