

SOUTHERN SECTION

American Society of Animal Science

ANNUAL MEETING

February 1-3, 2009

Atlanta, Georgia

**In conjunction with the 106th
Annual Convention of the Southern
Association of Agricultural Scientists**

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2008-2009**

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**Award Sponsors
2009 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

Undergraduate Paper Competition

Graduate Student Awards Competition

PROGRAM EVENTS

Friday, January 30

Academic Quadrathlon (AQ)
9:00 PM Advisor's Mtg. Athens, GA

Saturday, January 31

AQ Lab Practicum & Written Exam
Athens, GA

Westin Peachtree Plaza Atlanta, Georgia

Sunday, February 1

AQ Oral Preparation
6:30 am — noon Atlanta Ballroom A

AQ Oral Presentation
6:30 am — noon Atlanta Ballroom H

AQ Oral Presentation
8:00 am — noon Atlanta Ballroom G

AQ Quiz Bowl
8:00 am — 1:00pm Atlanta Ballroom F

AQ Quiz Bowl Championship/
Awards & Awards Program
8:00 am — 2:00 pm Atlanta Ballroom B

SCC-81 Sustainable Small Ruminant
Production
10:00 am — 4:00 pm Atlanta Ballroom D

Registration
11:00 am — 4:00 pm Atlanta Ballroom
Balcony

Beef-Cattle/Forage Production and
Management
Information Exchange Group
(formerly SERA-36)
1:00 pm — 4:00 pm Atlanta Ballroom F

SCC-72 – Enhancing Reproductive Efficiency
1:00 pm — 4:00 pm Atlanta Ballroom A

SAAS Board Meeting
2:30 pm – 3:00 pm Tower Room 1401

SAAS Ag Renewable Energy Opening
Session and General Business Meeting
3:30 pm – 5:00 pm Vinings Rooms

SS-ASAS Advisory Committee and Executive
Committee
5:00 pm — 6:00 pm Atlanta Ballroom D

“Super Bowl Party”/SAAS Reception
Sponsored by Southern Farm Bureau Life
Insurance Co.
Jackson, Mississippi and Affiliates
Social begins at 5:00 pm Kickoff 6 pm
Come watch the game!
Peachtree Ballroom

Monday, February 2

***Interested in taking an ARPAS exam at the
ASAS Southern Section Meeting? If so
contact, contact ARPAS at
arpas@assoqh.org for information or to
schedule an exam.***

Registration
7:30 am — 4:00 pm Atlanta Ballroom
Balcony

Extension/Ruminant Animal Production
Symposium:
Beef Management Strategies to Adjust to
High Input Costs
8:00 am — noon Atlanta Ballroom G

Graduate Student Competition
8:00 am — 11:15 am Atlanta Ballroom H

Teaching and Undergraduate Education
Enhancing Teaching and Learning
9:00 am — 11:00 am Atlanta Ballroom F

Continuation of SAAS Opening Session
A separate/concurrent multi-disciplinary track
Ag Renewable Energy
10:00 am – 4:30 pm Vinings Rooms

Breeding and Genetics
1:00 pm — 4:15 pm Atlanta Ballroom G

Ruminant Animal Production I
1:00 pm — 3:00 pm Atlanta Ballroom F

Undergraduate Student Research
Competition I

1:00 pm — 2:15 pm Atlanta Ballroom H

Physiology I

Growth and Development in Ruminants

1:30 pm — 3:30 pm Atlanta Ballroom C

Extension Discussion Session on Programs
to Help Beef Producers Deal With
High Input Costs

1:30 pm — 2:45 pm Atlanta Ballroom A

Undergraduate Student Research
Competition II

2:30 pm — 4:00 pm Atlanta Ballroom H

Pasture and Forages I

3:00 pm — 5:00 pm Atlanta Ballroom A

Small Ruminant Production I

General Production and Management

3:15 pm — 5:00 pm Atlanta Ballroom F

SS-ASAS Business Meeting and Awards
Ceremony

5:10 pm — 7:10 pm Atlanta Ballroom H

Extension Reception/Dinner
By Invitation Only

6:30 pm — 9:30 pm Atlanta Ballroom B

Small Ruminant Subcommittee of the NAGP
7:15 pm — 9:15 pm Atlanta Ballroom A

Dr. Gary Hill Retirement Reception

9:00 pm — 11:00 pm Atlanta Ballroom G

Tuesday, February 3

SAAS Board Breakfast Meeting

7:30 am – 9:30 am Vinings Room I

Registration

8:00 am — noon Atlanta Ballroom Balcony

Extension I

8:15 am — 11:30 am International Room D

Physiology II

Stress and Immunity

8:30 am — 11:30 am International Room H

Ruminant Animal Production II

8:00 am — 9:45 am International Room E

Small Ruminant Production II
Internal Parasite Control
8:30 am — 11:30 am International Room B

Pastures and Forages II
10:00 am — noon International
Room E

Extension Luncheon
12:00 pm — 2:00 pm Vinings II

Meat Science
1:30 pm — 3:30 pm International
Room F/G

Physiology III
Reproduction
1:30 pm — 3:00 pm International Room B

Extension II
2:30 pm — 3:30 pm International Room D

**ASAS Southern Section Meeting
February 1-3, 2009**

Monday, February 2

Registration
Atlanta Ballroom Balcony
7:30 AM - 4:00 PM

SYMPOSIA AND ORAL SESSIONS

**Extension/Ruminant Animal Production
Symposium: Beef Management Strategies
to Adjust to High Input Costs**
Chair: **Les Anderson, University of
Kentucky, Lexington**
Atlanta Ballroom G

8:00 AM Invited

Introduction.

Les Anderson, University of Kentucky,
Lexington.

8:05 AM Invited

**Strategic Planning for Profitability in the
High Input Era.**

Barry Dunn, King Ranch Institute for Ranch
Management, Texas A & M University,
Kingsville.

8:55 AM Invited **Forage Systems to
Reduce Nitrogen Application.**

John Andrae, Clemson University, Clemson,
SC.

9:45 AM **Break.**

10:00 AM Invited

RFI and Cow Herd Efficiency.

Gordon Carstens, Texas A & M University,
College Station.

10:50 AM Invited

**Selection Programs to Enhance Cow Herd
Efficiency.**

Joe Cassady, North Carolina State
University, Raleigh.

11:40 AM

Discussion with Panel of Speakers.

Graduate Student Competition
Chair: **Ken Coffey, University of Arkansas,**
Fayetteville
Atlanta Ballroom H

9:00 AM 29

Effect of nutraceutical grade colostrum on cell growth and transcription in *E. coli*.

S. Schepis* and M. Worku, *North Carolina Agricultural & Technical State University, Greensboro.*

9:15 AM 30

Evaluation of a novel, non-toxic, endophyte-infected tall fescue cultivar, AGRFA-144, as a safe forage for pregnant mares.

H. A. Al Rashed*, D. L. Christiansen, F. K. Walters, R. M. Hopper, A. Musselwhite, E. L. Schenck, and P. L. Ryan, *Mississippi State University, Mississippi State.*

9:30 AM 31

Performance of Katahdin lambs is improved by strategic de-worming followed by grazing pastures with lower nematode parasite contamination.

S. A. Bowdridge*, G. P. Smith, S. P. Greiner, A. M. Zajac, and D. R. Notter, *Virginia Polytechnic Institute and State University, Blacksburg.*

9:45 AM 32

The effects of season and milk source on pubertal development in doe kid goats.

E. A. Aguirre*¹, K. Collard¹, R. A. Katchko¹, J. R. Wiles¹, M. D. Mahan¹, E. Gonzales¹, C. W. O'Gorman¹, E. J. Tilly¹, D. H. Keisler³, R. L. Stanko^{1,2}, and M. R. Garcia¹, ¹*Texas A&M University, Kingsville,*, ²*Texas A&M University AgriLife Research Station, Beeville,*, ³*University of Missouri, Columbia.*

10:00 AM **Break.**

10:15 AM 33

Influence of temperament on inflammatory cytokine responses of cattle to a lipopolysaccharide (LPS) challenge.

L. H. Hulbert*^{1,5}, J. A. Carroll¹, N. C. Burdick³, J. W. Dailey¹, L. C. Cadwell³, R. C. Vann⁴, M. A. Ballou⁵, T. H. Welsh, Jr.³, and R. D. Randel², ¹*Livestock Issues Research Unit, USDA-ARS, Lubbock, TX,* ²*Texas AgriLife Research, Texas A&M System, Overton,* ³*Texas AgriLife Research, Texas A&M*

System, College Station, ⁴MAFES,
Mississippi State University, Raymond,
⁵Texas Tech University, Lubbock.

10:30 AM 34

Effects of PGF₂ and 15-keto-PGF₂ in the presence of E₂ or P₄ on leptin and PGF₂ receptor gene expression in adipose tissue in cycling heifers.

M. D. Mahan^{*1}, E. Gonzales¹, C. W. O'Gorman¹, E. A. Aguirre¹, E. J. Tilly¹, R. A. Katchko¹, J. R. Wiles¹, R. L. Stanko^{1,2}, and M. R. Garcia¹, ¹Texas A&M University, Kingsville, ²Texas A&M University AgriLife Research Station, Beeville.

10:45 AM 35

Influence of forage characteristics on grazing behavior of weaned calves.

S. Arriola^{*1}, G. Scaglia², B. F. Tracy¹, and A. O. Abaye¹, ¹Virginia Polytechnic Institute and State University, Blacksburg, ²LSU AgCenter Iberia Research Station, Jeanerette.

11:00 AM 36

Supplementation of dried distiller's grains with solubles to beef cows consuming low-quality forage during late gestation and early lactation.

S. J. Winterholler^{*}, C. P. McMurphy, G. L. Mourer, and D. L. Lalman, *Oklahoma State University, Stillwater.*

**Teaching and Undergraduate Education
Enhancing Teaching and Learning**
Chair: **Charles Rosenkrans, University of
Arkansas, Fayetteville**
Atlanta Ballroom F

9:00 AM Invited

Innovations and approaches in teaching that make a difference.

D. Mulvaney^{*1}, C. Rosenkrans², B. Rude³, J. Blanton⁴, R. Miller⁵, ¹Auburn University, ²University of Arkansas, ³Mississippi State University, ⁴Nobel Foundation, ⁵Texas A&M University.

9:40 AM Invited

Showcasing Second Life for virtual instruction applications in animal and poultry sciences.

M. Kloepper, Auburn University.

10:10 AM 112

Capstone experiences in undergraduate agriculture.

B. D. Whitaker*, D. A. Bowman, M. A. Gazdik, B. R. Pohlrad, and C. L. Thomas, *Ferrum College, Ferrum, VA.*

10:25 AM 113

Evolution of an animal science learning community: Design, experiences and progress.

S. Shaw*, D. A. Coleman, and D. R. Mulvaney, *Auburn University, Auburn, AL.*

10:40 AM Invited

Teaching and scholarship in animal sciences curricula: challenges for adaptive leadership.

J. Groccia* and D. Mulvaney, Biggio Center for the Enhancement of Teaching and Learning, Auburn University.

Breeding and Genetics

Chair: **Michael A. Brown, USDA-ARS, Grazinglands Research Laboratory Atlanta Ballroom G**

1:00 PM 1

Breed effects and heterosis for rectal temperature and coat score in Brahman, Angus, and Romosinuano pure and crossbred cows and calves.

D. G. Riley*¹, C. C. Chase¹, S. W. Coleman¹, and T. A. Olson², ¹USDA, ARS, Brooksville, FL, ²University of Florida, Gainesville.

1:15 PM 2

Effect of shade on summer body temperature and respiration rate of Angus, Brahman, and Romosinuano heifers.

C. C. Chase, Jr.*¹, L. J. Waters¹, J. R. Davis¹, D. G. Riley¹, S. W. Coleman¹, J. A. Carroll², and T. A. Olson³, ¹USDA, ARS, STARS, Brooksville, FL, ²USDA, ARS, LIRU, Lubbock, TX, ³University of Florida, Gainesville.

1:30 PM 3

Post-weaning growth of tropically adapted purebred and crossbred calves when finished in a temperate climate.

S. W. Coleman*¹, W. A. Phillips², D. G. Riley¹, and C. C. Chase¹, ¹USDA ARS Subtropical Agricultural Research Station,

Brooksville, FL, ²USDA ARS Grazinglands
Research Laboratory, El Reno, OK.

1:45 PM 4

**Evaluation of birth weight, weaning
weight, and gestation length in *Bos
indicus/Bos taurus* cross calves.**

A. J. Cooper*, J. O. Sanders, A. D. Herring,
C. A. Gill, D. K. Lunt, and J. E. Sawyer,
Texas A&M University, College Station.

2:00 PM 5

**Genetic effects on liveweight gain, hair
coat score, temperament, and parasite
resistance traits in Angus and Brahman-
influenced replacement heifers.**

W. E. Wyatt*¹, D. E. Franke², J. E. Miller²,
and D. C. Blouin², ¹*Louisiana State University
Agricultural Center, Jeanerette*, ²*Louisiana
State University Agricultural Center, Baton
Rouge.*

2:15 PM 6

**Relationships between prolactin promoter
polymorphisms and Angus calf
temperament scores and fecal egg
counts.**

A. B. Rayfield*¹, A. H. Brown, Jr.¹, Z. B.
Johnson¹, J. G. Powell¹, J. L. Reynolds¹, S.
T. Reiter¹, M. L. Looper², and C. F.
Rosenkrans, Jr.¹, ¹*University of Arkansas,
Fayetteville*, ²*ARS/USDA, Booneville, AR.*

2:30 PM **Break.**

2:45 PM 7

**Evaluation of calf size and growth, udder
and teat characteristics, and reproduction
in young *Bos indicus-Bos taurus* cows.**

C. J. Gladney, A. D. Herring*, J. O. Sanders,
D. K. Lunt, and C. A. Gill, *Texas A&M
University, College Station.*

3:00 PM 8

**Calf growth as a characteristic of cow
from two lines of Angus cows separated
by frame size.**

D. L. Kuhlert*¹, K. Nadarajah¹, G. L.
Thompson^{2,3}, B. E. Norris³, H. D. Harkins³,
and L. Kriese-Anderson^{1,2}, ¹*Auburn
University, Auburn, AL*, ²*Alabama
Cooperative Extension System, Auburn, AL*,
³*Tennessee Valley Research and Extension
Center, Belle Mina, AL.*

3:15 PM 9

A comparison of milk production and milk composition traits for three breed types of dairy cattle.

A. H. Brown, Jr., D. W. Kellogg*, Z. B. Johnson, C. F. Rosenkrans, Jr., and K. S. Anschutz, *University of Arkansas, Fayetteville.*

3:30 PM 10

Milk yield and quality in cows sired by different beef breeds.

M. A. Brown*¹, J. W. Holloway², and D. L. Lalman³, ¹*USDA-ARS, Grazinglands Research Laboratory, El Reno, OK*, ²*Texas AgriLife Research, Uvalde, TX*, ³*Oklahoma State University, Stillwater.*

3:45 PM 11

A case-study: Meta-analyses of performance data on meat goat kids gathered by producers in Alabama using an on-farm electronic record keeping software tool.

K. Nadarajah*¹, R. D. Spencer², D. M. Gimenez^{1,2}, D. L. Kuhlert¹, and D. L. Rankins^{1,2}, ¹*Auburn University, Auburn, AL*, ²*Alabama Cooperative Extension System, AU and Alabama A&M, AL.*

4:00 PM 12

Detection of Alu of repetitive sequences in caprine DNA.

L. Lane*, I. Hammid, and M. Worku, *North Carolina Agricultural and Technical State University, Greensboro.*

Ruminant Animal Production I

Chair: **Adegbola T. Adesogan, University of Florida, Gainesville**
Atlanta Ballroom F

1:00 PM 79

Effects of Megalac-R[®] supplementation on measures of performance and the acute phase reaction in transported beef heifers.

D. B. Araujo*, R. F. Cooke, and J. D. Arthington, *University of Florida, Ona.*

1:15 PM 86

The effect of high-starch diets fed to beef cows during late gestation on the feedlot performance and carcass characteristics of offspring.

S. A. Gunter*¹, J. R. Jaeger², and P. A. Beck³, ¹USDA-ARS-SPRRS, Woodward, OK, ²KSU Agricultural Research Center, Hay, ³University of Arkansas, Hope.

1:30 PM 80

Supplemental trace minerals from injection (Inject-A-Min[®] vs. Mineral Max[®] II) for shipping-stressed cattle.

J. T. Richeson*, E. B. Kegley, D. L. Galloway, Sr., and J. A. Hornsby, *University of Arkansas, Fayetteville.*

1:45 PM 81

Evaluation of performance and immune response in steers of known background challenged with bovine viral diarrhea (BVD) virus.

C. A. Runyan*¹, A. D. Herring¹, J. E. Sawyer¹, W. J. Horne¹, and J. F. Ridpath², ¹Texas A&M University, College Station, ²USDA-ARS, Ames, IA.

2:00 PM 82

Effects of Mannheimia haemolytica vaccination (One Shot[®]) on feed intake, feed efficiency, and the acute-phase protein response of heifers.

J. D. Arthington*¹, T. D. Maddock², and G. C. Lamb², ¹University of Florida, Ona, ²University of Florida, Marianna.

2:15 PM 83

Evaluation of feed efficiency and carcass traits in Bos indicus composite and Angus finishing heifers.

E. D. M. Mendes*, G. E. Carstens, L. O. Tedeschi, Z. D. Paddock, R. K. Miller, and B. Bennett, *Texas A&M University, College Station.*

2:30 PM 84

Effect of selection for residual feed intake on postpartum performance of Brahman cows.

A. N. Loyd*^{1,2}, A. W. Lewis¹, D. A. Neuendorff¹, K. J. Matheney^{1,2}, T. D. A. Forbes³, T. H. Welsh, Jr.², and R. D. Randel¹, ¹Texas AgriLife Research, Overton, TX, ²Texas AgriLife Research, College Station, ³Texas AgriLife Research, Uvalde.

2:45 PM 85

Comparison of poured protein block, liquid supplement, and whole cottonseed fed with hay to beef cows during winter.

G. M. Hill¹, M. H. Poore³, M. E. Pence², D. J. Renney¹, K. C. Halbig¹, and B. G. Mullinix, Jr.¹, ¹*University of Georgia, Tifton*, ²*University of Georgia Vet. Diagnostic Center, Tifton*, ³*North Carolina State University, Raleigh*.

**Undergraduate Student Research
Competition I**

Chair: **John Blanton, Ag-Division of the
Noble Foundation, Ardmore, OK
Atlanta Ballroom H**

1:00 PM 114

**The growth potential of tropical forage
legumes grown in a semi arid region of
Honduras.**

K. Gregory¹, F. N. Mhlanga¹, J. Brown², and
G. Betancourt², ¹*Abilene Christian University,
Abilene, TX*, ²*Mission Lazarus, Choluteca,
Honduras*.

1:15 PM 115

**Smallholder livestock production in
Zambia: Constraints and opportunities.**

J. Ferguson* and F. N. Mhlanga, *Abilene
Christian University, Abilene, TX*.

1:30 PM 116

**Sustainability and grazing livestock in the
Appalachian region.**

T. M. Garnett* and B. D. Whitaker, *Ferrum
College, Ferrum, VA*.

1:45 PM 117

**Effect of RADEX on the utilization of poor
quality roughages by small ruminants.**

K. M. Kirkpatrick¹, F. N. Mhlanga¹, B. E.
Brokaw¹, E. Pierce¹, R. H. Anderson², and W.
Kent³, ¹*Abilene Christian University, Abilene,
TX*, ²*Andersons Consulting & Training
Service Inc., Garden City, KS*, ³*Burrmiester,
Inc., Sweetwater, TX*.

2:00 PM 118

**Bioavailability of iron in mined humate for
nursery pigs.**

C. M. Ballou*, J. W. Spears, and S. W. Kim,
North Carolina State University, Raleigh.

**Extension Discussion on Programs to
Help Beef Producers Deal With High Input
Costs**

Chair: **Les Anderson, University of
Kentucky, Lexington
Atlanta Ballroom A
1:30 PM – 2:45 PM**

Physiology I
Growth and Development in Ruminants
Chair: **Jeff Carroll, Livestock Issues**
Research Unit, USDA-ARS, Lubbock, TX
Atlanta Ballroom C

1:30 PM Invited

Kisspeptin as a regulator of growth hormone in ruminants.

Dr. James Sartin, *Auburn University, Auburn, AL.*

2:30 PM 59

Influence of tropical adaptation on plasma insulin-like growth factor-I and residual feed intake in purebred and crossbred beef cattle.

L. C. Caldwell^{*1,4}, C. C. Chase, Jr.², D. G. Riley², S. W. Coleman², W. A. Phillips³, T. H. Welsh, Jr.¹, and R. D. Randel⁴, ¹*Texas AgriLife Research, College Station, TX*, ²*USDA-ARS, Subtropical Agricultural Research Station, Brooksville, FL*, ³*USDA-ARS, Grazinglands Research Laboratory, El Reno, OK*, ⁴*Texas AgriLife Research, Overton, TX.*

2:45 PM 60

Evaluation of residual feed intake, insulin-like growth factor-I, and puberty in Brahman bulls.

K. J. Matheney^{*1,2}, A. W. Lewis¹, D. A. Neuendorff¹, L. C. Caldwell², A. N. Loyd^{1,2}, T. D. A. Forbes³, T. H. Welsh, Jr.², and R. D. Randel¹, ¹*Texas AgriLife Research, Overton, TX*, ²*Texas AgriLife Research, College Station, TX*, ³*Texas AgriLife Research, Uvalde, TX.*

3:00 PM 61

Residual feed intake of beef heifers and ovulation during acute nutritional restriction.

C. A. Lents¹, A. M. Stelzleni¹, R. D. Randel², A. W. Lewis², N. L. Heidorn^{*1}, C. J. Rogers¹, and M. W. Overton¹, ¹*University of Georgia, Athens*, ²*Texas A&M University, Overton.*

3:15 PM 62

Utilization of cottonseed products in bull development programs.

R. C. Vann^{*1}, S. T. Willard², and M. K. Dowd³, ¹*MAFES-Brown Loam Experiment Station, Raymond, MS*, ²*Department of*

Biochemistry & Molecular Biology, Starkville, MS, ³SRRC-ARS-USDA, New Orleans, LA.

**Undergraduate Student Research
Competition II**

Chair: **Brian Rude, Mississippi State
University, Mississippi State
Atlanta Ballroom H**

2:30 PM 119

**The effect of initial market grade on linear
measurements and carcass
characteristics of feeder goats.**

J. Robinette*, R. Miculinich, B. Galbreath, T. Platt, and T. Wistuba, *Morehead State University, Morehead, KY.*

2:45 PM 120

**Effects of corn processing method and
wet distiller's grains plus solubles
inclusion and source on ruminal pH and
in situ digestibility of crossbred steers.**

J. B. Lewis*^{1,2}, K. J. Jenkins², J. M. Patterson², N. A. Cole³, J. B. Osterstock^{2,4}, L. O. Tedeschi⁴, and J. C. MacDonald^{1,2}, ¹*West Texas A&M University, Canyon, TX*, ²*Texas AgriLife Research, Amarillo, TX*, ³*USDA-ARS, Bushland, TX*, ⁴*Texas A&M University, College Station.*

3:00 PM 121

**Effects of intra-nasal or oral
administration of a zinc solution on health
and growth performance of newly-
received stocker cattle.**

A. R. Guernsey*, E. B. Kegley, J. G. Powell, D. L. Galloway, A. C. White, and S. W. Breeding, *University of Arkansas, Fayetteville.*

3:15 PM 122

**Mifepristone (RU486) modulation of
dexamethasone induced suppression of
immunoglobulin M (IgM) production by
equine lymphocytes.**

K. A. Gutierrez*¹, N. C. Burdick¹, J. G. Lyons¹, C. L. Barton¹, J. C. Laurenz², N. D. Cohen¹, N. H. Ing¹, and T. H. Welsh, Jr.¹, ¹*Texas A&M University, College Station,*, ²*Texas A&M University, Kingsville.*

3:30 PM 123

**Serum concentrations of cortisol induced
by exogenous adrenocorticotrophic
hormone (ACTH) are not predictive of**

residual feed intake (RFI) in Brahman cattle.

B. J. Agado*^{1,3}, K. O. Curley, Jr.^{1,2}, J. G. Lyons², D. A. Neuendorff³, A. W. Lewis³, T. D. A. Forbes⁴, T. H. Welsh, Jr.², and R. D. Randel³, ¹*Texas A&M University, College Station*, ²*Texas AgriLife Research, College Station, TX*, ³*Texas AgriLife Research, Overton, TX*, ⁴*Texas AgriLife Research, Uvalde, TX*.

3:45 PM Invited

Innovations and tested approaches in coordinating undergraduate research experiences.

C. Rosenkrans*¹, B. Rude² and D. Mulvaney³, ¹*University of Arkansas*, ²*Mississippi State University*, ³*Auburn University*.

Pasture and Forages I

Chair: **Stacey Gunter, USDA-ARS, Southern Plains Range Research Station, Woodward, OK**
Atlanta Ballroom A

3:00 PM 45

Productivity and nutritive quality of tall fescue (*Festuca arundinacea*) spring growth as influenced by fertilizer source, application schedule and harvest frequency.

M. K. Cline*, E. J. Bungenstab, J. L. Holliman, A. C. Pereira, S. L. Dillard, and R. B. Muntifering, *Auburn University, Auburn, AL*.

3:15 PM 46

Productivity and nutritive quality of tall fescue spring growth as influenced by interseeded ladino clover and fertilization with commercial fertilizer or broiler litter.

S. L. Dillard*, L. E. Sturgeon, C. W. Wood, J. L. Holliman, R. B. Muntifering, and W. F. Owsley, *Auburn University, Auburn, AL*.

3:30 PM 47

Productivity and nutritive quality of dallisgrass as influenced by rate of fertilization with broiler litter or commercial fertilizer.

E. J. Bungenstab*, J. C. Lin, J. L. Holliman, A. C. Pereira, and R. B. Muntifering, *Auburn University, Auburn, AL*.

3:45 PM 48

Soluble carbohydrate concentrations in annual cool-season forages in north Florida.

R. O. Myer*, C. L. Mackowiak, A. R. Blount, and R. D. Barnett, *University of Florida, Marianna.*

4:00 PM **Break.**

4:15 PM 49

Selection of perennial peanut, annual peanut, and alfalfa hays by horses.

J. V. Eckert*, R. O. Myer, L. K. Warren, J. H. Brendmuhl, and J. L. Foster, *University of Florida, Gainesville.*

4:30 PM 50

Intake, digestibility and passage of sericea lespedeza hay in wether goats.

V. Wolc*, S. Solaiman, and N. Gurung, *Tuskegee University, Tuskegee, AL.*

4:45 PM 51

Effect of wheat forage maturity and preservation on the performance of and digestion kinetics in growing beef calves fed 40% roughage diets.

P. Beck*¹, B. Stewart¹, and S. A. Gunter²,
¹*University of Arkansas, Hope,* ²*USDA/ARS SPRRS, Woodward, OK.*

Small Ruminant Production I

General Production and Management

Chair: **Richard Browning, Jr., Tennessee State University, Nashville**
Atlanta Ballroom F

3:15 PM 93

Performance of suckling kids and their dams control-grazed on three tall fescue cultivars.

J-M. Luginbuhl*, J. P. Mueller, and H.M. Glennon, *North Carolina State University, Raleigh.*

3:30 PM 95

The effect of weaning age on lamb growth and ewe productivity in an accelerated lambing system in the tropics.

R. W. Godfrey* and A. J. Weis, *University of the Virgin Islands, St Croix, VI.*

3:45 PM 96

Intake and growth of hair sheep and goats pen-fed in single and mixed species

groups of different sizes.

S. Wildeus, R. A. Stein, and J. R. Collins*,
Virginia State University, Petersburg.

4:00 PM 97

The effects of free choice protein supplementation on growth of lambs and meat goat kids grazing warm season grasses.

S. Nusz^{*1,3}, M. A. Brown², K. R. Weathers³,
and E. L. Walker¹, ¹*Missouri State University,
Springfield, MO,* ²*USDA Grazinglands
Research Center, El Reno, OK,* ³*Redlands
Community College, El Reno, OK.*

4:15 PM 98

Effects of feeding peanut skins on intake, digestibility and passage rates in meat goats.

A. L. Kendricks^{*1}, N. K. Gurung¹, D. L.
Rankins, Jr.², S. G. Solaiman¹, G. M.
Abdrahim³, and W. H. McElhenney¹,
¹*Tuskegee University, Tuskegee, AL,*
²*Auburn University, Auburn, AL,* ³*Alabama A
& M University, Normal.*

4:30 PM 99

Sire and dam breed effects on carcass characteristics of meat goat kids from a three-breed diallel.

R. Browning, Jr.^{*1}, W. Getz², O. Phelps³, and
C. Chisley⁴, ¹*Tennessee State University,
Nashville,* ²*Fort Valley State University, Fort
Valley, GA,* ³*USDA-AMS, Lakewood, CO,*
⁴*Southern University, Baton Rouge, LA.*

4:45 PM 100

Influence of cattle grazing alone and with goats on forage biomass, botanical composition and browse species.

A. Abaye^{*1}, D. Schlueter¹, D. Webb¹, J. M.
Luginbuhl², and G. Scaglia³, ¹*Virginia
Polytechnic and State University, Blacksburg,*
²*North Carolina State University, Raleigh,*
³*Louisiana State University, Jeanerette.*

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

Atlanta Ballroom H

5:10 PM - 7:10 PM

**Extension Reception/Dinner. By Invitation
Only.**

Atlanta Ballroom B

6:30 PM - 9:30 PM

**Small Ruminant Subcommittee of the
NAGP
Atlanta Ballroom A
7:15 PM - 9:15 PM**

**Dr. Gary Hill Retirement Reception
Atlanta Ballroom G
9:00 PM - 11:00 PM**

Tuesday, February 3

**Registration
Atlanta Ballroom Balcony
8:00 AM - 12:00 PM**

SYMPOSIA AND ORAL SESSIONS

Extension I

Chair: **Matt Hersom, University of Florida,
Gainesville
International Room D**

8:15 AM 13

**Integration of an internet-based hay
directory into livestock extension
programming.**

J. A. Parish* and J. D. Rhinehart, *Mississippi
State University, Mississippi State.*

8:30 AM 14

**Development of extension programming
for feeder cattle marketing: assessment of
need, demonstration and education.**

J. D. Rhinehart* and J. A. Parish, *Mississippi
State University, Mississippi State.*

8:45 AM 15

**Ways for specialists to better serve
county extension agents.**

T. R. Troxel*, *University of Arkansas, Little
Rock.*

9:00 AM 16

**Results of TTAR survey to determine
attitudes of Tennessee beef producers on
antimicrobial use and recommended
animal health practices.**

C. D. Lane*¹, A. Green², M. Welborn¹, R.
Carpenter², and J. Dunn^{2, 1}, *University of
Tennessee, Knoxville, ²Tennessee
Department of Health, Nashville, TN.*

9:15 AM 17

Effect of age of cow-calf producers on application of nutrition practices.

J. B. Neel*¹, B. T. Campbell¹, C. D. Lane¹, F. D. Kirkpatrick¹, and W. W. Gill², ¹*The University of Tennessee, Knoxville*, ²*Middle Tennessee State University, Murfreesboro*.

9:30 AM 18

Effect of age of beef producers on type of operation and use of computers.

B. T. Campbell*¹, J. B. Neel¹, C. D. Lane¹, F. D. Kirkpatrick¹, and W. W. Gill², ¹*The University of Tennessee, Knoxville*, ²*Middle Tennessee State University, Murfreesboro*.

9:45 AM **Break.**

10:00 AM 19

Use of an audience response system in extension programs.

B. L. Barham*, *University of Arkansas, Little Rock*.

10:15 AM 20

Operation No Fences: Extension's response to beef cattle producers impacted by hurricane Ike.

J. J. Cleere*¹, J. P. Banta², and M. C. Dozier¹, ¹*Texas AgriLife Extension, Texas A&M University System, College Station*, ²*Texas AgriLife Extension, Texas A&M University System, Overton*.

10:30 AM 21

Use of alternative funding sources to promote nontraditional educational programs for beef producers.

J. Turner*¹ and C. Lane², ¹*North Carolina State University, Raleigh*, ²*University of Tennessee, Knoxville*.

10:45 AM 22

Efficacy of growth promoting implants during a simulated 45-d preconditioning period.

J. Turner*, M. Poore, and G. Benson, *North Carolina State University, Raleigh*.

11:00 AM 23

Carcass trait characterization of Alabama feeder calves fed in four regions of the United States.

J. B. Elmore*, M. S. Hittle, W. C. Rutherford, L. A. Kriese-Anderson, and M. F. Elmore, *Auburn University, Auburn, AL*.

11:15 AM 24

Attitudinal survey of producers involved in a meat goat artificial insemination clinic.

E. L. Walker*¹, W. D. Walker², S. R. Nusz³, and C. Levesque-Bristol¹, ¹Missouri State University, Springfield, ²WalkerAgriServices, Dadevill, MO, ³Redlands Community College, El Reno, OK.

**Physiology II
Stress and Immunity**

Chair: **Mike Looper, USDA, ARS, Boonville, AR**

International Room H

8:30 AM 63

Sexually dimorphic secretion of cortisol but not catecholamines in response to an endotoxin challenge in beef calves.

N. C. Burdick*^{1,2}, J. A. Carroll², R. D. Randel³, R. C. Vann⁴, L. C. Caldwell¹, L. H. Hulbert², J. W. Dailey², M. A. Ballou⁵, and T. H. Welsh, Jr.¹, ¹Texas A&M System, College Station, ²USDA-ARS Livestock Issues Research Unit, Lubbock, TX, ³Texas A&M System, Overton, ⁴Mississippi State University, Raymond, ⁵Texas Tech University, Lubbock.

8:45 AM 64

Bovine exhibit a sexually dimorphic innate immune response following an endotoxin challenge.

J. A. Carroll*¹, L. H. Hulbert¹, N. C. Burdick^{1,2}, L. C. Caldwell^{2,3}, J. W. Dailey¹, M. A. Ballou⁴, R. C. Vann⁵, T. H. Welsh, Jr.², and R. D. Randel³, ¹Livestock Issues Research Unit, USDA-ARS, Lubbock, TX, ²Texas A&M University System, College Station, ³Texas A&M University System, Overton, ⁴Texas Tech University, Lubbock, ⁵Mississippi State University, Raymond.

9:00 AM 65

Temporal effects on bovine neutrophil function following an intravenous endotoxin challenge.

M. A. Ballou*¹, L. R. Schwertner¹, J. A. Carroll², L. H. Hulbert², J. W. Dailey², N. C. Burdick^{2,3}, R. C. Vann⁴, T. H. Welsh, Jr.³, and R. D. Randel⁵, ¹Texas Tech University, Lubbock, ²Livestock Issues Research Unit, USDA-ARS, Lubbock, TX, ³Texas A&M System, College Station, ⁴Mississippi State

University, Raymond, ⁵Texas A&M System, Overton.

9:15 AM 66

Evaluation of immunological and physiological parameters associated with an infectious bovine rhinotracheitis viral challenge in beef steers.

S. M. Behrends*¹, J. A. Carroll², J. O. Buntyn¹, K. M. Cooley¹, D. J. Sykes¹, L. H. Hulbert², J. W. Daily², M. A. Ballou³, and T. B. Schmidt¹, ¹Mississippi State University, Mississippi State, ²Livestock Issues Research Unit, USDA-ARS, Lubbock, TX, ³Texas Tech University, Lubbock.

9:30 AM 67

In vitro characterization and detection of photonic emissions of Staphylococcus aureus in inoculated bovine milk.

J. Curbelo*, K. Moulton, and S. Willard, Mississippi State University, Starkville.

9:45 AM **Break.**

10:15 AM 68

Relationships between heat shock protein 70 promoter polymorphisms and bull immune responses.

D. G. Holtz*¹, M. L. Looper², J. M. Demotto¹, S. T. Reiter¹, D. M. Hallford³, and C. F. Rosenkrans, Jr.¹, ¹University of Arkansas, Fayetteville, ²ARS/USDA, Booneville, AR, ³New Mexico State University, Las Cruces.

10:30 AM 69

Relationships between follicle stimulating hormone promoter polymorphisms and bull immune responses.

C. F. Rosenkrans, Jr.*¹, M. L. Looper², S. T. Reiter¹, D. L. Kreider¹, and D. M. Hallford³, ¹University of Arkansas, Fayetteville, ²ARS/USDA, Booneville, AR, ³New Mexico State University, Las Cruces.

10:45 AM 70

Using stable isotope analysis of hair samples to differentiate between pre-weaning and post-weaning states in dairy calves.

K. Cooley*¹, T. Beck¹, D. Moore¹, B. Rude¹, S. Brookes², A. Kouba³, R. Hansen³, and S. Willard¹, ¹Mississippi State University, Mississippi State, ²Iso-Analytical Limited, Sandbach, Cheshire, UK, ³Memphis Zoo, Memphis, TN.

11:00 AM 71

Pharmacokinetics of steer liver cytochrome P450 3A metabolism of ergot alkaloids.

A. S. Moubarak*¹, S. Nabhan¹, Z. B. Johnson¹, M. L. Looper², and C. F. Rosenkrans, Jr.¹, ¹University of Arkansas, Fayetteville, ²USDA, ARS, Booneville, AR.

11:15 AM 72

Responses of captive elephants to changes in environmental conditions.

S. Dray*¹, C. Johnson¹, A. Smith², D. Barkle², A. Fisher², A. Kouba², and S. Willard¹, ¹Mississippi State University, Mississippi State, ²Memphis Zoo, Memphis, TN.

Ruminant Animal Production II

Chair: **Gary M. Hill, University of Georgia, Tifton**
International Room E

8:00 AM 87

Supplementation interval effects on development of yearling *Bos indicus* x *Bos taurus* (Brangus) and *Bos taurus* (Angus) beef heifers. I. Performance response and plasma metabolites.

B. R. Austin*, M. J. Hersom, and J. V. Yelich, University of Florida, Gainesville, FL.

8:15 AM 88

Supplementation interval effects on development of yearling *Bos indicus* x *Bos taurus* (Brangus) and *Bos taurus* (Angus) beef heifers. II. Puberty and reproductive performance.

B. R. Austin*, M. J. Hersom, and J. V. Yelich, University of Florida, Gainesville.

8:30 AM 89

Influence of ivermectin and long-acting moxidectin on the growth, reproductive efficiency, and offspring performance in replacement beef heifers.

J. G. Powell*, A. H. Brown, Jr., T. A. Yazwinski, Z. B. Johnson, and E. B. Kegley, University of Arkansas, Fayetteville.

8:45 AM 90

Utilization of dried distillers grains for developing beef heifers grazing ryegrass-bermudagrass pastures.

R. C. Vann*¹, E. L. Schenck², S. T. Willard³, and J. D. Rhinehart², ¹MAFES-Brown Loam

Experiment Station, Raymond, MS,
²*Department of Animal & Dairy Science,*
Starkville, MS, ³Department of Biochemistry
& Molecular Biology, Starkville, MS.

9:00 AM 91

**Feedlot performance, carcass merit, and
conception rates of Brahman influenced
heifer calves wintered on corn silage.**

W. A. Storer*, F. M. LeMieux, T. H. Shields,
and C. E. Ferguson, *McNeese State*
University, Lake Charles, LA.

9:15 AM 92

**Effect of time of supplementation on
grazing behavior of beef calves grazing
annual ryegrass.**

G. Scaglia*¹, W. E. Wyatt¹, and H. T.
Boland², ¹*Louisiana State University,*
Jeanerette, ²Virginia Polytechnic Institute and
State University, Blacksburg.

9:30 AM 94

**Comparison of four different methods of
calf birth weight data collection.**

T. Smith*¹, J. A. Parish¹, J. R. Parish¹, T. F.
Best³, and J. T. Best⁴, ¹*Mississippi State*
University, Mississippi State, ²Mississippi
State University, Mississippi State, MS, USA,
³*Prairie Research Unit, Mississippi*
Agricultural and Forestry Experiment Station,
MS, ⁴Leveck Animal Research Station,
Mississippi Agricultural and Forestry
Experiment Station, MS.

**Small Ruminant Production II
Internal Parasite Control**

Chair: **Will Getz, Fort Valley State**
University, Fort Valley, GA
International Room B

8:30 AM 101

**Anthelmintic resistance in small
ruminants in the Delmarva region.**

E. K. Crook*¹, D. J. O'Brien¹, N. C. Whitley²,
R. Kaplan³, and J. L. Eierman¹, ¹*Delaware*
State University, Dover, ²North Carolina A&T
State University, Greensboro, ³University of
Georgia, Athens.

8:45 AM 102

**Use of copper oxide wire particles
(COWP) to control gastrointestinal
nematodes (GIN) in stressed lambs or
kids.**

J. M. Burke*¹, J. E. Miller², and T. H. Terrill³,
¹USDA, Agricultural Research Service,
Booneville, AR, ²Louisiana State University,
Baton Rouge, ³Fort Valley State University,
Fort Valley, GA.

9:00 AM 103

Administration of copper oxide wire particles as a bolus or in feed for gastrointestinal nematode control in yearling or peri-parturient does.

J. M. Burke*¹, J. E. Miller², S. Wildeus³, and T. H. Terrill⁴, ¹USDA, Agricultural Research Service, Booneville, AR, ²Louisiana State University, Baton Rouge, ³Virginia State University, Petersburg, ⁴Fort Valley State University, Fort Valley, GA.

9:15 AM 104

Effect of copper oxide wire particles incorporated into feed pellets on the peri-parturient rise in ewe fecal egg count.

S. T. Orlik*¹, J. E. Miller¹, J. M. Burke², and T. H. Terrill³, ¹Louisiana State University, Baton Rouge, ²USDA-ARS, Booneville, AR, ³Fort Valley State University, Fort Valley, GA.

9:30 AM 105

Effect of copper oxide wire particles as a bolus or in feed on indicators of gastrointestinal parasitism in goat kids of two breeds.

S. Wildeus*¹, J. E. Miller², and J. M. Burke³, ¹Virginia State University, Petersburg, ²Louisiana State University, Baton Rouge, ³USDA-ARS, Booneville, AR.

9:45 AM 106

Use of garlic as a potential natural dewormer in small ruminants.

D. J. O'Brien¹, M. C. Gooden*², N. C. Whitley³, and S. Schoenian⁴, ¹Delaware State University, Dover, ²University of Maryland Eastern Shore, Princess Anne, ³North Carolina A&T State University, Greensboro, ⁴University of Maryland, Keedysville.

10:00 AM **Break.**

10:15 AM 107

Effect of parasite management practices on fecal egg counts and fiber characteristics in alpacas.

S. Wildeus*¹, A. M. Zajac², C. J. Lupton³, and J. R. Collins¹, ¹Virginia State University,

Petersburg, ²VA-MD Regional College of Veterinary Medicine, Blacksburg, VA, ³Texas AgriLife Research, San Angelo, TX.

10:30 AM 108

Factors affecting indicators of *Haemonchus contortus* infection in Polypay and percentage White Dorper ewes.

D. K. Aaron*, D. G. Ely, E. Fink, B. T. Burden, and M. M. Simpson, *University of Kentucky, Lexington.*

10:45 AM 109

Evaluation of *Sericea lespedeza* as a summer forage and for helminth control of grazing goats.

J-M. Luginbuhl*¹, J. E. Miller², T. H. Terrill³, and H. M. Glennon¹, ¹*North Carolina State University, Raleigh*, ²*Louisiana State University, Baton Rouge*, ³*Fort Valley State College, Fort Valley GA.*

11:00 AM 110

Influence of chicory in a rotational grazing system on gastrointestinal nematodes (GIN) in sheep.

J. M. Burke¹, P. L. Casey*², A. Wells², and R. Paddock², ¹*USDA, Agricultural Research Service, Booneville, AR*, ²*Heifer International, Perryville, AR.*

11:15 AM 111

Immune status of lambs, born of protein-supplemented periparturient ewes and creep-grazed in spring, against *Haemonchus contortus*.

O. J. Gekara*¹, W. B. Bryan², and E. A. Basweti², ¹*University of Arkansas, Pine Bluff, AR*, ²*West Virginia University, Morgantown.*

Pasture & Forages II

Chair: **Paul Beck, University of Arkansas, Hope International Room E**

10:00 AM 52

Management strategies to improve development of replacement heifers on tall fescue-based systems.

M. Miller*, J. Andrae, J. Schmidt, S. Duckett, and S. Pratt, *Clemson University, Clemson, SC.*

10:15 AM 53

Performance of forage-finished beef cattle grazing ryegrass, rye, or oats pastures.

A. C. Pereira*, E. J. Bungenstab, S. P. Schmidt, C. R. Kerth, J. C. Lin, B. Gamble, and R. B. Muntifering, *Auburn University, Auburn, AL.*

10:30 AM 54

Evaluation of two warm-season legumes for creep-grazing of beef calves.

J. L. Foster*¹, A. T. Adesogan¹, J. N. Carter², L. E. Sollenberger¹, A. R. Blount², R. O. Myer², and M. K. Maddox², ¹*University of Florida, Gainesville*, ²*University of Florida, Marianna.*

10:45 AM **Break.**

11:00 AM 55

Response of summer stockers grazing bermudagrass to distillers grains supplementation.

M. S. Gadberry*¹, M. Morgan², P. A. Beck³, D. S. Hubbell⁴, T. Hess⁴, J. W. Butterbaugh⁵, B. C. Rudolph⁵, and M. Smith⁵, ¹*University of Arkansas, Little Rock*, ²*University of Arkansas, Fayetteville*, ³*University of Arkansas, Hope*, ⁴*University of Arkansas, Batesville*, ⁵*Furst-McNess Company, Freeport, IL.*

11:15 AM 56

Influence of a single-dose, moderate term implant and supplementation type on performance of stocker cattle grazing summer grass.

C. P. McMurphy*, E. D. Sharman, S. J. Winterholler, D. A. Cox, G. W. Horn, and D. L. Lalman, *Oklahoma State University, Stillwater.*

11:30 AM 57

Interaction of hay nutritive value and byproduct supplement in growing heifers.

J. K. Evans and R. R. Reuter*, *The Noble Foundation, Agricultural Division, Ardmore, OK.*

11:45 AM 58

Two-year performance of steers finished on ryegrass pastures with supplemental corn oil.

V. A. Corriher*, G. M. Hill, and B. G. Mullinix, Jr., *University of Georgia, Tifton.*

**Extension Luncheon
Vinings II
12:00 PM - 2:00 PM**

Meat Science

Chair: **Gregg Rentfrow, University of
Kentucky, Lexington
International Room F/G**

1:30 PM 37

**Characterizing grass-fed enhanced steaks
using modified atmosphere packaging.**

L. M. Sledge¹, C. R. Kerth¹, K. E.
McMurtrie^{*1}, K. R. Willian², M. Singh¹, and C.
L. Bratcher¹, ¹*Auburn University, Auburn, AL*,
²*Tuskegee University, Tuskegee, AL*.

1:45 PM 38

**Effects of Ractopamine HCL on growth
and carcass traits fed to yearling heifers
with different days on feed.**

M. S. Hittle^{*1}, J. K. Grubbs¹, S. P. Rodning¹,
W. C. Rutherford¹, S. V. Free¹, A. L.
Schroeder², D. G. McClary², and L. A. Kriese-
Anderson¹, ¹*Auburn University, Auburn, AL*,
²*Elanco Animal Health, Greenfield, IN*.

2:00 PM 39

**Effect of ractopamine and days on feed on
plasma leptin concentrations in crossbred
yearling heifers.**

J. K. Grubbs^{*1}, D. H. Kiesler², J. L. Sartin¹, S.
P. Rodning¹, M. H. Hittle¹, W. C. Rutherford¹,
S. V. Free¹, A. L. Schroeder³, D. G.
McClary³, D. R. Mulvaney¹, and L. A. Kriese-
Anderson¹, ¹*Auburn University, Auburn, AL*,
²*University of Missouri, Columbia*, ³*Elanco
Animal Health, Greenfield, IN*.

2:15 PM 40

**Forage-type effects on carcass
characteristics of fall-born forage-finished
steers.**

C. W. Rowe^{*1}, C. R. Kerth¹, A. N. Crow¹, C.
L. Bratcher¹, R. B. Muntifering¹, and K. R.
Willian², ¹*Auburn University, Auburn, AL*,
²*Tuskegee University, Tuskegee, AL*.

2:30 PM 41

**Winter annual forage species and year
effects on fatty acid profile of forage-
finished steers.**

A. N. Frank-Crow^{*1}, C. R. Kerth¹, K. R.
Willian², M. Singh¹, and C. L. Bratcher¹,

¹Auburn University, Auburn, AL, ²Tuskegee University, Tuskegee, AL.

2:45 PM 42

Characterizing grass-fed ground beef using modified atmosphere packaging.

L. M. Sledge¹, C. R. Kerth¹, E. N. Hunter*¹, K. R. William², M Singh¹, and C. L. Bratcher¹,
¹Auburn University, Auburn, AL, ²Tuskegee University, Tuskegee, AL.

3:00 PM 43

Forage type effects on beef cattle carcass traits.

A. N. Frank¹, C. R. Kerth¹, D. F. Johns*¹, K. R. William², M. Singh¹, and C. L. Bratcher¹,
¹Auburn University, Auburn, AL, ²Tuskegee University, Tuskegee, AL.

3:15 PM 44

Fatty acid composition of commercial and organic ground beef.

G. Davila-El Rassi* and V. Banskalieva,
Oklahoma State University, Stillwater.

Physiology III

Reproduction

Chair: **Peter Ryan, Mississippi State University, Mississippi State International Room B**

1:30 PM 73

Pregnancy rates following fixed-time AI in Brahman cows after administration of CIDR-based estrous synchronization protocols.

K. J. Stutts*¹, D. W. Forrest¹, and C. R. Looney², ¹Texas AgriLife Research, College Station, TX, ²OvaGenix, Inc., Bryan, TX.

1:45 PM 74

Comparison of timed AI pregnancy rates in south Texas beef heifers following the CO -Synch+CIDR protocol.

S. P. Pothula*¹, J. Ramirez², S. Moore², R. Silguero², K. D. Arnold¹, and R. L. Stanko^{1,3},
¹Texas A & M University, Kingsville, ²King Ranch, Inc., Kingsville, TX, ³Texas AgriLife Research, Beeville, TX.

2:00 PM 75

Comparison of a Select Synch/CIDR + timed-AI (TAI) to a modified Co-Synch/CIDR synchronization protocol in suckled *Bos indicus* □ *Bos taurus* cows.

R. D. Esterman*, B. R. Austin, E. M. McKinniss, and J. V. Yelich, *University of Florida, Gainesville.*

2:15 PM 76

Effects of body condition and forage type on endocrine factors and calving rate of Brahman-influenced cows.

M. L. Looper*¹, S. T. Reiter², D. M. Hallford³, and C. F. Rosenkrans, Jr.², ¹*USDA, ARS, Booneville, AR*, ²*University of Arkansas, Fayetteville*, ³*New Mexico State University, Las Cruces.*

2:30 PM 77

Evaluation of two progestogen based estrous synchronization protocols in yearling heifers of *Bos indicus* □ *Bos taurus* breeding.

E. N. McKinniss*, R. D. Esterman, S. A. Woodall, B. R. Austin, and J. V. Yelich, *University of Florida, Gainesville.*

2:45 PM 78

Growth characteristics and age at puberty in female offspring are affected by the type of accommodations in which gestating sows are kept.

M. J. Estienne* and A. F. Harper, *Virginia Polytechnic and State University, Blacksburg.*

Extension II

Chair: **Jason Banta, Texas A&M University System, Overton International Room D**

2:30 PM 25

The efficiency of refrigerators in storing animal health products.

T. R. Troxel* and B. L. Barham, *University of Arkansas, Little Rock.*

2:45 PM 26

Effect of trenbolone acetate on lot feedlot performance and *Certified Angus Beef*[®] acceptance rate of beef steers and heifers.

G. D. Fike* and M. E. King, *Certified Angus Beef LLC, Manhattan, KS.*

3:00 PM 27

Ingestion of an osmolite included in a free choice mineral and its effect on body condition score, hair retention and temperature of beef cattle grazing fescue pastures.

T. L. Perkins¹, R. K. Dew², A. B. Chestnut²,
A. M. McCorkill^{*1}, S. E. Cantrell², and L. P.
Watkins², ¹*Missouri State University,*
Springfield, ²*Vigortone Ag Products,*
Hiawatha, IA.

3:15 PM 28

**Value of combustion ash from swine
waste as a phosphorus supplement in
swine diets.**

E. van Heugten^{*1}, N. Muley², J. Koger¹, P.
Burnette¹, and T. van Kempen^{1,3}, ¹*North*
Carolina State University, Raleigh, ²*Venky's*
India Limited, Pune, India, ³*Provimi RIC,*
Brussels, Belgium.