



Sunday, January 28, 2024

Undergraduate Student Competition

Chair: Sushil Paudyal, Texas A&M

2:00 PM - 3:15 PM

Olmsted 6

2:00 p.m. **Undergraduate Student Competition Introduction and Logistics**

2:10 p.m. 106 **Advancing precision livestock management in the dairy industry: An early exploration of individual cow tracking using YOLOv5-Based computer vision**

Marcus McGee¹, Cierra Clayton¹, Abigail Victory¹, Colby Hardin¹, Christopher Hudson¹

¹Mississippi State University

2:15 p.m. 107 **Bacterial direct-fed microbial mixtures effects on beef cattle ruminal degradability kinetics**

DeAnja A. McLain¹, Jhones O. Sarturi¹, Kaliu G. Silva¹, Bradley J. Johnson¹, Barbara Rodrigues¹, Marie Goulais¹, Juliana Pessoni¹, Beatriz Reis¹

¹Texas Tech University

2:20 p.m. 108 **Discriminating highly resilient spermatozoa during long-term chilled storage**

Kristen M. Johnson¹, Serge L. Kameni¹, Notsile H. Dlamini¹, Shengfa F. Liao¹, Jean M. Feugang¹

¹Mississippi State University

2:25 p.m. 109 **Effectiveness of Fenbendazole in growing Quarter Horses using the Quantitative Modified Wisconsin Technique**

Jamie Lavergne¹, Jessica L. Leatherwood¹, Cecilia Gaulandri¹, Lauren Pavel¹, Brittany L. Paris², Margaret M. Carter², Paige Linne², Grace E. Moore², Carolyn E. Arnold³, Kati G. Glass², Amanda Bradberry⁴, Trinette Jones¹

¹Tarleton State University, ²Texas A&M University, ³Texas Tech University, ⁴Montana State University

2:30 p.m. 110 **Effects of sire selection on puberty and reproduction of offspring selected as replacement heifers**

Terry H. McDonald¹, Chris Johnson², Timothy P. Vining², Mike Major³, Gabriela Lamberti², Maria Lopes², Nicole Bonmann², Joao Moraes¹, Paul A. Beck²

¹Oklahoma State University - Animal Science, ²Oklahoma State University, ³Oklahoma State University - Range Cow Research Center

2:35 p.m. 111 **First Kiko Buck Performance Test in Mississippi**
Nicolas Marchant ¹, Kelsey Mazeris ¹, Jill DeGayner ¹, Alex Shook ², Rhonda C. Vann ¹, Trent Smith ¹, Rocky Lemus ¹, Leyla Rios ³
¹Mississippi State University, ²Mississippi State University-Extension, ³Mississippi State University

2:40 p.m. 112 **In situ evaluation of multiple edible insects as feed for cattle**
Delila Dominguez ¹, Emma Fukuda ¹, Jay Rea ¹, Merritt L. Drewery ¹
¹Texas State University

2:45 p.m. 113 **Investigation of differences in pregnancy associated glycoproteins due to different fetal parameters (sex and number) using commercial tests in multiparous ewes**
Faith Rogers ¹, Jim R. Rhoades ², Lacey K. Quail ³, Jerica J J Rich ¹
¹Arkansas State University - College of Agriculture, ²IDEXX Laboratories, ³Texas A&M University, College Station, TX

2:50 p.m. 114 **The efficacy of a natural fungus (*Duddingtonia flagrans*) in reducing gastrointestinal nematode indicators in lambs**
Jessica Queen ¹, Dahlia J. O'Brien ¹, Stephan A. Wildeus ¹, Javin Davis ¹, MacKenzie Robertson ¹, Kwame Matthews ²
¹Virginia State University, ²Delaware State University

2:55 p.m. 115 **Solubility and degradation of human fertility-promoting molecules in a rumen environment**
Catherine R. Kalmbach ¹, Brian J. Rude ¹, Morgan E. Brown ², Thiago Martins ²
¹Mississippi State University Department of Animal and Dairy Sciences, ²Mississippi State University Brown Loam Branch Experiment Station

3:00 p.m. 116 **In-situ degradability of hemp (*Cannabis sativa* L.) plant components in cattle**
Alyssa Lopez ¹, Emma Fukuda ¹, Greyson Fruge ¹, Merritt L. Drewery ¹
¹Texas State University

3:05 p.m. 117 **Supplementation with soy hull during late gestation and lactation on parasite indicators in hair sheep ewes**
MacKenzie Robertson ¹, Dahlia J. O'Brien ¹, Stephan A. Wildeus ¹, Javin Davis ¹, Kwame Matthews ²
¹Virginia State University, ²Delaware State University

Graduate Student Competition - MS
Chair: Nicole Burdick Sanchez, USDA-ARS
3:00 PM – 5:30 PM
Olmsted 2

3:00 p.m. **Graduate Student Competition – MS Introduction and Logistics**

3:10 p.m. 75 **AI-Enhanced Hematocrit Analysis: Revolutionizing rapid anemia detection in small ruminants**

Seymone Dargan¹, Aftab Siddique², Andres Pech-Cervantes³, Jan van Wyk⁴, Sudhanshu Panda⁵, Ajit Mahapatra², Eric Morgan⁶, Ebonie Appleberry², India Carter², Savana Lewis², Thomas H. Terrill²

¹Fort Valley state University, ²Fort Valley State University, ³University of Maryland, ⁴University of Pretoria, ⁵University of North Georgia, ⁶Queen's University Belfast

3:15 p.m. 76 **An *in-vitro* analysis of hemp as feed for beef cattle**

Greyson Fruge¹, Hannah Boyer¹, Nicole Wagner¹, Merritt L. Drewery¹

¹Texas State University

3:20 p.m. 77 **Assessing abundance of pregnancy markers among fertility-classified beef cows**

Alexandra Bennett¹, Cecilia c. Constantino Rocha¹, Abdul Waheed¹, Morgan Brown¹, Gabriela Dalmaso De Melo², Rubessa Marcello³, Ricardo Chebel¹, Philippe Moriel⁴, Rebecca Krisher³, Ky G. Pohler², Peter J. Hansen¹, Mario Binelli¹

¹University of Florida, ²Texas A&M University, ³Genus PLC, ⁴University of Florida, IFAS – Range Cattle Research and Education Center

3:25 p.m. 78 **Assessing nutrient digestibility in boer×spanish castrated male goats feeding varied levels of hempseed meal.**

Santosh Chaudhary¹, khim B. Ale¹, Frank W. Abrahamsen¹, Nar K. Gurung¹

¹Tuskegee University

3:30 p.m. 79 **Dietary buffer comparison and tannins supplementation modulating subacute ruminal acidosis and fermentation in beef cattle.**

Andres Fernandez Lehmann¹, Liza Garcia¹, Araceli B. Maderal¹, Ignacio Fernandez-Marenchino¹, Federico Tarnonsky¹, Federico Podversich¹, Juan Vargas¹, Wilmer Cuervo², Camila Gomez², Cristian Erazo-Mendes¹, Georgia Dubeux¹, Tessa M. Schulmeister¹, Nicolas DiLorenzo¹

¹University of Florida, ²University of Florida – NFREC – Marianna

3:35 p.m. 80 **Effect of copper bolus administration on circulating copper concentration, blood metabolites and parasite load**

Tyler K. Harmonson¹, Andrew M. Cassens¹, Walter F. Owsley¹, Cheyenne L. Runyan¹, Edward Webb¹, Kimberly B. Wellmann¹

¹Tarleton State University

3:40 p.m. 81 **Effect of thymol on intake and digestion in beef cattle**

Emma Fukuda¹, Merritt L. Drewery¹, Russell Jessup²

¹Texas State University, ²Texas A&M University

3:45 p.m. 82 **Effects of a red-clover containing mineral on heifer behavior and fertility**

Tyler A. Purvis¹, Leslie H. Anderson¹, Jennifer R. Weinert-Nelson², Eric Vanzant¹, Tracy A. Hamilton², Dan Miller³, John Johns⁴, Brittany E. Davis²

¹University of Kentucky, ²USDA-ARS, Forage-Animal Production Research Unit, ³Kentucky Cattleman's Association, ⁴Burkman Feeds

3:50 p.m. 83 **Effects of cottonseed meal supplementation on growth performance of heifers grazing mature summer forage**

Connor R. Kern¹, Whitney L. Crossland¹, Aaron B. Norris¹, Ryan R. Rathmann¹, Jhones O. Sarturi¹

¹Texas Tech University

3:55 p.m. 84 **Efficacy of Livamol with BioWorma for controlling gastrointestinal nematode in nursing Kiko does raised in pastures**

Durga P. Dhakal¹, Uma Karki¹, Santoshi Chaudhary², Sadikshya Lamsal¹

¹Tuskegee University, ²Pennsylvania State University

4:00 p.m. 85 **Evaluation of a *Saccharomyces cerevisiae* fermentation product on performance, plasma metabolites, rumen parameters, and fecal pathogen shedding in feedlot steers**

Wendy Gong¹, Guolong Zhang¹, Andrew P. Foote¹, Blake K. Wilson¹

¹Oklahoma State University

4:05 p.m. 86 **Evaluation of dietary *Saccharomyces cerevisiae* fermentation product on markers of joint inflammation in young, exercising horses following an intra-articular lipopolysaccharide challenge**

Grace E. Moore¹, Jessica L. Leatherwood², Kati G. Glass¹, Carolyn E. Arnold³, Brittany L. Paris¹, Margaret M. Carter¹, James M. George¹, Alyson B. Fontenot¹, Taylor A. Gilcrest¹, Madison K. Blythe⁴, Rafael E. Martinez⁴, Amanda N. Bradbery⁵, Tryon A. Wickersham¹

¹Texas A&M University, ²Tarleton State University, ³Texas Tech University, ⁴Sam Houston State University, ⁵Montana State University

4:10 p.m. **Graduate Student Competition – MS Break**

4:25 p.m. 87 **Functional rumen microbiological survey of triplet-bearing Polypay ewes from parturition to weaning**

Katherine G. Purvis¹, Jennifer R. Weinert-Nelson², Donald G. Ely³, John May¹, Michael D. Flythe², Tracy A. Hamilton², Jessica L. Ferrell⁴, Brittany E. Davis²

¹University of Kentucky, ²USDA-ARS, Forage-Animal Production Research Unit, ³Animal and Food Sciences, University of Kentucky, ⁴USDA-ARS

4:30 p.m. 88 **Impacts of trace mineral source and ancillary drench on steer performance during a 60-day backgrounding phase**

Madeline McKnight¹, Kelsey M. Harvey¹, Brandi B. Karisch², Juan C. Cordero¹, Mason Drewery², Libby S. Durst², Eduardo Colombo³, Reinaldo F. Cooke³, Jason R. Russell²

¹Mississippi State University Prairie Research Unit, ²Mississippi State University, ³Texas A&M University

4:35 p.m. 89 **Improving cattle grazing efficiency with multi-functional cover crops**

Sofia A. Suazo¹, Jose D. Pereira Neto¹, Kimberly Mullenix¹, W. Brandon Smith¹, S. Leanne Dillard¹

¹Auburn University

4:40 p.m. 90 **Interconnecting feed efficiency with molecular mechanisms of muscle growth in beef steers**

Sophia Ascolese¹, Troy N. Rowan², Jonathan E. Beever², Madison T. Henniger¹, Sonia J. Moisa², Taylor B. Ault-Seay², Brynn H. Voy¹, Phillip R. Myer¹

¹Department of Animal Science, University of Tennessee, ²Department of Animal Science, Department of Large Animal Clinical Sciences, University of Tennessee

4:45 p.m. 91 **Mealworm and black soldier fly larvae as protein supplements for beef steers consuming forage**

Mikael Carrasco¹, Merritt L. Drewery¹

¹Texas State University

4:50 p.m. 92 **Rearing system influenced the performance, GI-parasite burden, and immune profile of pregnant does during winter**

Sadikshya Lamsal¹, Uma Karki¹, Santoshi Chaudhary², Durga P. Dhakal¹, Bidur Paneru³

¹Tuskegee University, ²Pennsylvania State University, ³University of Georgia

4:55 p.m. 93 **Red clover as a functional feed: Effects on rumen microbiota of finishing ram lambs**

Macy E. Ragsdale¹, Donald G. Ely², Jennifer R. Weinert-Nelson³, Brittany E. Davis³, Michael D. Flythe³, Tracy A. Hamilton³, Matthew C. Hamilton¹, W. Leann Jacks¹, Sydney Davis¹

¹University of Kentucky, ²Animal and Food Sciences, University of Kentucky, ³USDA-ARS, Forage-Animal Production Research Unit

5:00 p.m. 94 **Smartphone integration in anemia detection for small ruminants with Convolutional Neural Networks**

Reginald J. Randall¹, Andres Pech-Cervantes², Jan van Wyk³, Sudhanshu Panda⁴, Ajit Mahapatra¹, Eric Morgan⁵, Kensley Stegall¹, Davia Brown¹, Ethan Manns¹, Shaylon Saunders⁶, Andrea Rubio villa¹, Aniyah Plummer¹, Thomas H. Terrill¹

¹Fort Valley State University, ²University of Maryland, ³University of Pretoria, ⁴University of North Georgia, ⁵Queen's University Belfast, ⁶Fort Valley state University

5:05 p.m. 96 **The effect of embryo stage and biopsy on embryo viability**

Kenleigh N. Wells¹, Tommy L. Perkins¹

¹West Texas A&M University

5:10 p.m. 97 **Use of genomic testing for predicting performance of finishing steers**

Jacee K. De Vries¹, Emma A. Briggs¹, Paul A. Beck¹, David L. Lalman¹, Chris Johnson¹

¹Oklahoma State University

5:15 p.m. 98 **Using youth hippology contest results as a needs assessment as a framework for a train the trainer program**

Sawyer Main¹, Jennie L. Ivey¹, Lew G. Strickland¹, Justin D. Rhinehart²

¹University of Tennessee, ²University of Tennessee Extension

Graduate Student Competition – PHD

Chair:

3:30 PM – 4:15 PM

Olmsted 6

3:30 p.m. Graduate Student Competition – PHD Introduction and Logistics

3:40 p.m. 99 Diversity of vaginal bacteria in lactating dairy cattle on pregnancy establishment

Dallas R. Soffa¹, Ashton Dodd², Jennifer A. Spencer³, Rebecca K. Poole¹

¹Texas A&M University, ²Texas A&M, ³Texas A&M AgriLife Research and Extension Center

3:45 p.m. 100 Can *in vitro* or *in situ* disappearance predict to *in vivo* digestibility of forages?

Abigail R. Hines¹, Diva N. Rigney¹, Anna G. Underwood¹, Werner G. Bergen¹, M. Kim Mullenix¹, S. Leanne L. Dillard¹, Todd R. Callaway², William B. Smith¹

¹Auburn University, ²University of Georgia

3:50 p.m. 101 Effects of moderate exercise regimen on reproductive development of replacement beef heifers reared in drylots at a high stocking density

Autumn Pickett¹, Reinaldo F. Cooke¹, Logan W. Rahmel², Shea Mackey³, Mason Drewery², Juan C. Cordero⁴, Teegan Mackey¹, Courtney L. Daigle¹, Thiago Martins⁵, Kelsey M. Harvey⁴

¹Texas A&M University, ²Mississippi State University, ³Texas A&M University, Department of Animal Science, ⁴Mississippi State University Prairie Research Unit, ⁵Mississippi State University Brown Loam Branch Experiment Station

3:55 p.m. 102 Estradiol and follicular growth are associated with estrous behavior monitored by an accelerometer in grazing beef cows

Cecilia c. Constantino Rocha¹, Ana B. Montevecchio¹, Mackenzie Mazziotta¹, Alexandra Bennett¹, Abdul Waheed¹, Meghan Campbell¹, Marcello Rubessa², Rebecca Krisher², Philippe Moriel³, Peter J. Hansen¹, Ricardo Chebel¹, Mario Binelli¹

¹University of Florida, ²Genus PLC, ³University of Florida, IFAS – Range Cattle Research and Education Center

4:00 p.m. 103 Goats complement cattle in a woody-plant encroached, diverse Cross Timbers rangeland.

Brittany A. Lippy¹, Cooper Sherrill², Laura Goodman¹, Ryan R. Reuter¹

¹Oklahoma State University, ²Oklahoma State University

4:05 p.m. 104 Maternal pre- and post-partum supplementation of *Bacillus*-based DFM enhanced cow and calf performance

Vinicius S. Izquierdo¹, Bruno I. Cappelozza², João V. L. Silva¹, Giovanna C. M. Santos¹, Andre Miranda¹, João H. J. Bittar³, Autumn Pickett⁴, Shea Mackey⁵, Reinaldo F. Cooke⁴, João M. B. Vendramini¹, Philippe Moriel¹

¹University of Florida, IFAS – Range Cattle Research and Education Center, ²Chr. Hansen A/S,

³University of Florida, College of Veterinary Medicine, ⁴Texas A&M University, ⁵Texas A&M University, Department of Animal Science

SERA 41 Symposium

Chair: Nicolas DiLorenzo, University of Florida

2:30 PM - 5:30 PM

Olmsted 1

2:35 p.m. 1 **Use of the GreenFeed bait system to assist in measuring fecal output and digesta kinetics**

Stacey A. Gunter¹, Emalee J. Friend¹, Matthew R. Beck¹, Corey A. Moffet²

¹USDA-ARS, ²USDA-ARS, Oklahoma and Central Plains Agricultural Research Center

3:15 p.m. 2 **Number of spot samples required when using the GreenFeed System in grazing beef cows**

Elizabeth Dressler¹, Jennifer M. Bormann¹, Robert Weaber¹, Megan M. Rolf¹

¹Kansas State University

3:55 p.m. **SERA 41 Symposium Break**

4:10 p.m. 3 **Measuring feed intake in cows**

David L. Lalman¹, Emma A. Briggs¹, Samuel R. Talley¹, Jay Edens², Paul A. Beck¹, Andrew P. Foote¹, Ryan R. Reuter¹

¹Oklahoma State University, ²Oklahoma State University

4:50 p.m. 4 **Utilizing SmartFeed Pro and SuperSmart Feeders for applied beef cattle research**

Timothy DelCurto¹, Sam Wyffels¹

¹Montana State University

Monday, January 29, 2024

Kunkle Symposium: Sustainability of livestock systems in the southeastern U.S.: Opportunities and research gaps - Sponsored by Elanco

Chair: S. Leanne Dillard, Auburn University; Emma Briggs, Oklahoma State University

8:00 AM - 11:30 AM

Olmsted 2

8:00 a.m. **Kunkle Symposium Introduction**

8:05 a.m. 5 **Farm-level management practices in forage-based beef cattle systems and their influence on sustainability**

M. Kim Mullenix¹, William B. Smith¹, S. Leanne L. Dillard¹, Jose D. Pereira Neto¹

¹Auburn University

8:50 a.m. 7 **Environmental sustainability of livestock systems in the southeastern U.S.: Opportunities and research gaps**

Matthew R. Beck¹, Stacey A. Gunter¹, Emalee J. Friend¹, Corey A. Moffet²

¹USDA-ARS, ²USDA-ARS, Oklahoma and Central Plains Agricultural Research Center

9:35 a.m. **Kunkle Symposium Break**

9:50 a.m. 8 **Opportunities in enteric methane emissions mitigation in beef cattle**
Sara E. Place ¹
¹AgNext, Colorado State University

10:35 a.m. 6 **Identifying research gaps and opportunities to enhance sustainable beef production**
Jessica Gilreath ¹
¹Elanco Animal Health

11:20 a.m. **Kunkle Symposium Closing Remarks**

Small Ruminant Production I: Nutrition

Chair: Joan Burke, USDA, ARS, Dale Bumpers Small Farms Research Center; **Katherine Purvis, University of Kentucky**
8:00 AM - 11:30 AM
Olmsted 5

8:00 a.m. 44 **CANCELLED**

8:15 a.m. 45 **CANCELLED**

8:30 a.m. 46 **Use of soy hull as a supplement during late gestation and lactation for landrace hair sheep ewes in a forage-based system**
Stephan A. Wildeus ¹, Dahlia J. O'Brien ¹, MacKenzie Robertson ¹, Javin Davis ¹
¹Virginia State University

8:45 a.m. 47 **Inclusion of black soldier fly (*Hermetia illucens*) larvae frass as an alternative protein source in the diet of Florida native yearling ewes.**
Britany M. Fernandez-Mora ¹, Carlos NinoDeGuzman-Cerna ¹, Gerald K. Salas-Solís ¹, Kathy Arriola ¹, Jose A. Arce-Cordero ², Diwakar Vyas ¹
¹University of Florida, ²University of Costa Rica

9:00 a.m. 48 **The ruminal microbiome of conventionally and artificially raised lambs fed high-concentrate and high-forage post-weaning diets**
Jennifer R. Weinert-Nelson ¹, Donald G. Ely ², Michael D. Flythe ¹, Tracy A. Hamilton ¹, Katherine G. Purvis ³, Matthew C. Hamilton ³, W. Leann Jacks ³, Brittany E. Davis ¹
¹USDA-ARS, Forage-Animal Production Research Unit, ²Animal and Food Sciences, University of Kentucky, ³University of Kentucky

9:15 a.m. 49 **Red clover as a functional feed: Effects on rumen microbiota of finishing ram lambs**
Macy E. Ragsdale ¹, Donald G. Ely ², Jennifer R. Weinert-Nelson ³, Brittany E. Davis ³, Michael D. Flythe ³, Tracy A. Hamilton ³, Matthew C. Hamilton ¹, W. Leann Jacks ¹, Sydney Davis ¹
¹University of Kentucky, ²Animal and Food Sciences, University of Kentucky, ³USDA-ARS, Forage-Animal Production Research Unit

9:30 a.m. 50 **Effects of cottonseed supplementation on the rumen microbiota of parasite-challenged meat goats**
Peixin Fan ¹, Lindsey N. Dearborn ¹, Chuan-yu Hsu ¹, Bernard Brandon ¹, Leyla Rios de Alvarez ¹
¹Mississippi State University

9:45 a.m. **Small Ruminant Production I Break**

10:00 a.m. 51 **A preliminary study of the effect of dietary cottonseed on the follicular reserve of does artificially infected with *Haemonchus contortus***

Nicolas Marchant¹, Notsile H. Dlamini¹, Serge L. Kameni¹, Jean M. Feugang¹, Leyla Rios²
¹Mississippi State University, ²Mississippi State University

10:15 a.m. 52 **Evaluation of linseed meal on ovarian follicular development after synchronization in preovulatory small ruminants during seasonal anestrus.**

Cameron A. Poole¹, Audrey G. Meyer¹, Chase Runyan¹
¹Angelo State University

10:30 a.m. 53 **CANCELLED**

10:45 a.m. 54 **CANCELLED**

11:00 a.m. 55 **Evaluation of feed efficiency and feeding behavior in Katahdin lambs housed in a Vytelle Sense system**

Nicole K. Valliere¹, Lee L. Wright², Andrew R. Weaver³, Scott A. Bowdridge⁴, Scott P. Greiner¹

¹Virginia Tech, ²Southwest Virginia Agricultural Research and Extension Center, ³NC State University, ⁴West Virginia University

11:15 a.m. 56 **Assessing nutrient digestibility in boer×spanish castrated male goats feeding varied levels of hempseed meal.**

Santosh Chaudhary¹, khim B. Ale¹, Frank W. Abrahamsen¹, Nar K. Gurung¹
¹Tuskegee University

Breeding and Genetics

Chair: Michael Looper, University of Arkansas System Division of Agriculture,
Department of Animal Science Fayetteville, AR

8:30 AM - 10:15 AM

Olmsted 3

8:30 a.m. 118 **Investigation of differences in pregnancy associated glycoproteins due to different fetal parameters (sex and number) using commercial tests in multiparous ewes**

Faith Rogers¹, Jim R. Rhoades², Lacey K. Quail³, Jerica J J Rich¹

¹Arkansas State University - College of Agriculture, ²IDEXX Laboratories, ³Texas A&M University, College Station, TX

8:45 a.m. 119 **Plasma metabolomics and feed behavior patterns in feed efficient or inefficient beef bulls.**

MAURO VENTURINI¹, Daniella C. Heredia², MARIA LOPEZ¹, KAMRYN JOICE¹, MARTIN RUIZ¹, JOSE C B DUBEUX², Nicolas DiLorenzo², Angela M. Gonella-Diaza²

¹UNIVERSITY OF FLORIDA, ²University of Florida

9:00 a.m. 120 **Effects of sire selection on puberty and reproduction of offspring selected as replacement heifers**

Terry H. McDonald¹, Chris Johnson², Timothy P. Vining², Mike Major³, Gabriela Lamberti², Maria Lopes², Nicole Bonmann², Joao Moraes¹, Paul A. Beck²

¹Oklahoma State University - Animal Science, ²Oklahoma State University, ³Oklahoma State University - Range Cow Research Center

9:15 a.m. 121 **Unraveling the biology of bovine conceptus elongation**

Gabriela Lamberti¹, Anna K. Goldkamp¹, Maria Lopes¹, Nicole Bonmann¹, Samuel Van Rhijn¹, Darren E. Hagen¹, Joao Moraes²

¹Oklahoma State University, ²Oklahoma State University - Animal Science

9:30 a.m. 122 **A retrospective analysis of gestational length and its influencers for *Bos taurus* beef cows**

Camille Mitchell¹, Trinity Vidlund¹, Hannah Craun¹, Vitor R G Mercadante², Tracey Redifer³, John Currin³

¹Virginia Tech, ²Virginia Tech - Animal and Poultry Sciences, ³Virginia-Maryland College of Veterinary Medicine

9:45 a.m. 123 **Discriminating highly resilient spermatozoa during long-term chilled storage**

Kristen M. Johnson¹, Serge L. Kameni¹, Notsile H. Dlamini¹, Shengfa F. Liao¹, Jean M. Feugang¹

¹Mississippi State University

10:00 a.m. 124 **The effect of embryo stage and biopsy on embryo viability**

Kenleigh N. Wells¹, Tommy L. Perkins¹

¹West Texas A&M University

Extension

Chair: Vitor Mercadante, Virginia Tech - Animal and Poultry Sciences;
Sawyer Main, University of Tennessee

8:30 AM - 12:00 PM

Olmsted 1

8:30 a.m. 30 **Ethnobotany applied to ruminant feeding inserted in countryside property redesign**

Annelise Aila Gomes Lobo¹, Mariana Campana², Jozivaldo Prudêncio Gomes De Morais³

¹UFSCAR, ²UFSCAR - Federal University of Sao Carlos, ³UFSCAR-Federal University of Sao Carlos

8:45 a.m. 31 **Pastureland Ecology 1 provides hands-on training in grazing management for USDA-NRCS professionals**

Matt H. Poore¹, April D. Shaeffer², Johnny R. Rogers¹, Andrew R. Weaver², Paul Siciliano², Deidre D. Harmon³

¹North Carolina State University, ²NC State University, ³Cargill Corporation

9:00 a.m. 32 **Amazing Grazing webinar and workshop series improves producers understanding of pasture ecology**

Johnny R. Rogers¹, Matt H. Poore¹, April D. Shaeffer², Andrew R. Weaver², Paul Siciliano², Deidre D. Harmon³

¹North Carolina State University, ²NC State University, ³Cargill Corporation

9:15 a.m. 33 **An evaluation of Oklahoma beef producer decision factors regarding the implementation of calf best management practices**

Timothy P. Vining¹, Kellie C. Raper¹, Derrell S. Peel¹, Paul A. Beck¹

¹Oklahoma State University

9:30 a.m. 34 **A survey of the Oklahoma State University Cowculator user preferences**

Samuel R. Talley¹, Paul A. Beck¹, Megan A. Gross¹, Scarlett Kingsley¹, David L. Lalman¹

¹Oklahoma State University

9:45 a.m. 35 **Louisiana cattle pregnancy determination clinic aims to improve reproductive efficiency**

Ashley K. Edwards¹, A. Lee Faulk¹, Jason E. Holmes¹, Randall Mallette¹, Joshua Salley¹

¹Louisiana State University Agricultural Center

10:00 a.m. 36 **Improving cattle grazing efficiency with multi-functional cover crops**

Sofia A. Suazo¹, Jose D. Pereira Neto¹, Kimberly Mullenix¹, Brandon Smith¹, S. Leanne Dillard¹

¹

¹Auburn University

10:15 a.m. **Extension Break**

10:30 a.m. 43 **Using youth hippology contest results as a needs assessment as a framework for a train the trainer program**

Sawyer Main¹, Jennie L. Ivey¹, Lew G. Strickland¹, Justin D. Rhinehart²

¹University of Tennessee, ²University of Tennessee Extension

10:45 a.m. 38 **Assessment of retained ownership extension programming in southeastern beef cattle herds**

S. Maggie Justice¹, M. Kim Mullenix², Shane Gadberry³

¹University of Arkansas System Division of Ag, ²Auburn University, ³University of Arkansas

11:00 a.m. 39 **Effectiveness of an educational program covering on-farm finishing of beef cattle for direct-to-consumer in Kentucky**

Katie VanValin¹, Morgan Hayes¹, Leslie H. Anderson¹, Darrh Bullock¹, Kevin Laurent¹

¹University of Kentucky

11:15 a.m. 40 **Two-week agriculture institute prepares Mississippi teachers to improve agricultural literacy in classrooms**

Stephanie Lemley¹, Riley Messman¹, Rebecca M. Swanson¹, Caleb O. Lemley¹

¹Mississippi State University

11:30 a.m. 41 **Social and institutional trust: A comparison between non-associated and associated producers in Southeast Brazil**

Beatriz Reis¹, Adrieli Casado², Elaine Bernardes², Celso Miasaku², DeAnja A. McLain¹, Otavio France¹, Jhones O. Sarturi¹

¹Texas Tech University, ²Sao Paulo State University

11:45 a.m. 42 **Challenges for agricultural social media influencers engagement with young, non-ag adults**

Samantha Bennett¹, David Martin², Jason T. Sawyer³, Soren P. Rodning², Don R. Mulvaney²

¹RFD-TV, ²Auburn University, ³Auburn University

Ruminant Animal Production I: Management and Physiology I

Chair: Brandi Karisch, Mississippi State University

9:00 AM - 10:15 AM

Olmsted 7

9:00 a.m. 129 **Selenium-form affects de novo cholesterol synthesis and catabolism of cholesterol and progesterone in the liver of beef heifers**

Elizabeth Stamper¹, Jordan Jackson¹, Benjamin Crites¹, Kwangwon Son¹, Sarah Carr¹, Phillip Bridges¹

¹University of Kentucky

9:15 a.m. 130 **Effect of an appeasing substance application on growth, stress, handling quality and reproduction of *Bos indicus* beef heifers synchronized to fixed-time AI**

Eduardo de Assis Lima¹, Marcelo Vedovatto², Fabio Farias¹, Juliana Ranches³, Matheus Ferreira⁴, Bruno I. Cappelozza⁵, Osvaldo Souza⁶, Gumercindo L. Loriani Franco¹

¹Faculdade de Medicina Veterinária e Zootecnia, Universidade Federal de Mato Grosso do Sul,

²Louisiana State University, ³Oregon State University, ⁴Eastern Oregon Agricultural Research Center, Oregon State University, ⁵Chr. Hansen A/S, ⁶Nutricorp

9:30 a.m. 131 **Selenium-form effects on hepatic function and selenoprotein mRNAs in the early pregnant heifer**

Jordan Jackson¹, Elizabeth Stamper¹, Benjamin Crites¹, Kwangwon Son¹, Sarah Carr¹, Phillip Bridges¹

¹University of Kentucky

9:45 a.m. 132 **Effects of supplementing corn silage to fall-calving cows grazing tall fescue on cow and calf performance and physiology**

James Banks¹, Jason Warner¹, Karol E. Fike¹, Jaymelynn K. Farney¹

¹Kansas State University

10:00 a.m. 133 **Effects of supplementing corn silage to fall-calving heifers and cows grazing bermudagrass on cow and calf performance and physiology**

James Banks¹, Jason Warner¹, Karol E. Fike¹, Jaymelynn K. Farney¹

¹Kansas State University

Physiology I

Chair: Nathan Long, Clemson University;
Mary Oliver, Virginia Polytechnic Institute and State University
10:00 AM - 12:00 PM
Olmsted 6

10:05 a.m. 9 **Randel Lecture: In Vivo investigation of pregnancy Physiology**
Russell V. Anthony¹, Amelia R. Tanner¹, Victoria C. Kennedy¹, Quinton A. Winger¹, Paul J. Rozance²

¹Colorado State University, ²University of Colorado School of Medicine

11:00 a.m. 10 **Interconnecting feed efficiency with molecular mechanisms of muscle growth in beef steers**

Sophia Ascolese¹, Troy N. Rowan², Jonathan E. Beever², Madison T. Henniger¹, Sonia J. Moisa², Taylor B. Ault-Seay², Brynn H. Voy¹, Phillip R. Myer¹

¹Department of Animal Science, University of Tennessee, ²Department of Animal Science, Department of Large Animal Clinical Sciences, University of Tennessee

11:15 a.m. 11 **Transcriptomic changes in response to form of selenium on the interferon-tau signaling mechanism in the caruncular tissue of beef heifers at maternal recognition of pregnancy**

Sarah Carr¹, Benjamin Crites¹, Phillip Bridges¹

¹University of Kentucky

11:30 a.m. 12 **Impact of progesterone signaling on tumor necrosis factor-alpha synthesis by luteal macrophages**

Mariam Giurgis¹, Madison McCann-Deshazer¹, John E. Gadsby¹, Daniel H. Poole¹

¹NC State University

11:45 a.m. 13 **Effects of an acclimation protocol during the handling events of the 7 d CO-synch + CIDR protocol on temperament and reproductive performance of *Bos taurus* commercial beef heifers**

Nicholas Wege Dias¹, Sydney Tastad², Joao Victor Chaves Silva³, Santiago Paez Hurtado¹, Andreia Ferreira Machado³, Victor Enrique Gomez-Leon¹, John R. Jaeger⁴, Nicola Oosthuizen⁵, Sandy Johnson¹

¹Kansas State University, ²Kansas state University, ³Universidade Federal de Vicosa, ⁴South Dakota State University, ⁵ABS Global Inc.

Meats

Chair: Alex Tigue, Cargill; Gabriella Johnson, Auburn University
10:30 AM - 11:30 AM
Olmsted 3

10:30 a.m. 125 **Relationship of electrical conductivity to color variables (chroma, hue, L*, a*, b*) of fresh beef loins**

Carolina S. Mesquita¹, Reed Richardson², Christopher Kerth³, Pratheesh Sudhakaran¹

¹Texas State University - San Marcos, ²Texas State University, ³Texas A&M University

10:45 a.m. 126 **Effects of Tall Fescue Seeds and Quercetin on the Meat Quality of Finishing Lambs**

Yongjie Wang¹, Jing Ge², Sarah Shelby³, Yan Huang³, Palika Morse³

¹North Carolina Agricultural and Technical State University, ²Yangzhou University, ³University of Arkansas

11:00 a.m. 127 **Color and oxidative stability of Longissimus lumborum muscles from artificially raised ram lambs finished on a high-concentrate diet**

Koushik Mondal¹, Katherine G. Purvis², Gregg K. Rentfrow¹, Donald G. Ely¹, Brittany E. Davis³, Jennifer R. Weinert-Nelson³, Michael D. Flythe³, Yifei Wang⁴, Surendranath P. Suman¹

¹Animal and Food Sciences, University of Kentucky, ²University of Kentucky, ³USDA-ARS, Forage-Animal Production Research Unit, ⁴Animal Sciences, The Ohio State University

11:15 a.m. 128 **Impact of different levels of dark-cutting severity on the retail color and color stability of beef *longissimus lumborum* steaks**

Keayla M. Harr¹, Madelyn Scott¹, Sunil More¹, Gretchen G. Mafi¹, Morgan Pfeiffer¹, Ranjith Ramanathan¹

¹Oklahoma State University

Ruminant Animal Production II: Management and Physiology II

Chair: Brandi Karisch, Mississippi State University;

Vinicius de Souza Izquierdo, University of Florida

10:30 AM - 11:45 AM

Olmsted 7

10:30 a.m. 134 **A 12-year summary of effects of body weight at breeding and synchronization protocols on reproductive success of *Bos indicus*-influenced beef heifers grazing warm-season grasses.**

Cassio Brauner¹, Vinicius S. Izquierdo², João M. B. Vendramini², Philippe Moriel²

¹Federal University of Pelotas, ²University of Florida, IFAS - Range Cattle Research and Education Center

10:45 a.m. 135 **Effects of intratesticular injectable zinc as an alternative castration method compared to banding one week post weaning in beef bulls: effects on health, inflammation, behavior, and growth during the backgrounding period.**

Lauren K. Solice¹, Reagan N. Sims¹, Beth B. Kegley², Shane Gadberry², Jeremy G. Powell², Sami Dridi², Elizabeth S. Greene²

¹Texas State University, ²University of Arkansas

11:00 a.m. 136 **Evaluation of internal parasite burden in grazing beef cattle in North Carolina over a production lifecycle**

Katherine G. Williams¹, Carrie L. Pickworth², Andrew R. Weaver², Daniel H. Poole²

¹North Carolina, ²NC State University

11:15 a.m. 137 **Impacts of heat stress on the accuracy of an ear-tag sensor for detection of eating and rumination behavior in cattle**

Jennifer R. Weinert-Nelson¹, Jessica Werner², Alayna A. Jacobs¹, Leslie H. Anderson³, Tracy A. Hamilton¹, Carey A. Williams⁴, Brittany E. Davis¹

¹USDA-ARS, Forage-Animal Production Research Unit, ²University of Hohenheim, ³University of Kentucky, ⁴Rutgers, The State University of New Jersey

11:30 a.m. 138 **An examination of cow behavior with an automated brush system in an intensively managed dairy system**

Allison Griffin¹, Colby Hardin¹, Kandy Tilley¹, Maghan Burlison¹, Marcus McGee¹

¹Mississippi State University

Nutrition

Chair: Brian Rude, Mississippi State University Department of Animal and Dairy Sciences;
Jaedyn Rawson, Mississippi State University

2:00 PM - 4:30 PM

Olmsted 2

2:00 p.m. 151 **Dietary buffer comparison and tannins supplementation modulating subacute ruminal acidosis and fermentation in beef cattle.**

Andres Fernandez Lehmann¹, Liza Garcia¹, Araceli B. Maderal¹, Ignacio Fernandez-Marenchino¹, Federico Tarnonsky¹, Federico Podversich¹, Juan Vargas¹, Wilmer Cuervo², Camila Gomez², Cristian Erazo-Mendes¹, Georgia Dubeux¹, Tessa M. Schulmeister¹, Nicolas DiLorenzo¹

¹University of Florida, ²University of Florida - NFREC - Marianna

2:15 p.m. 152 **Effect of thymol on intake and digestion in beef cattle**

Emma Fukuda¹, Merritt L. Drewery¹, Russell Jessup²

¹Texas State University, ²Texas A&M University

2:30 p.m. 153 **Bacterial direct-fed microbial mixtures effects on beef cattle ruminal degradability kinetics**

DeAnja A. McLain¹, Jhones O. Sarturi¹, Kaliu G. Silva¹, Bradley J. Johnson¹, Barbara Rodrigues¹, Marie Goulais¹, Juliana Pessoni¹, Beatriz Reis¹

¹Texas Tech University

2:45 p.m. 154 **Solubility and degradation of human fertility-promoting molecules in a rumen environment**

Catherine R. Kalmbach¹, Brian J. Rude¹, Morgan E. Brown², Thiago Martins²

¹Mississippi State University Department of Animal and Dairy Sciences, ²Mississippi State University Brown Loam Branch Experiment Station

3:00 p.m. 155 **An *in-vitro* analysis of hemp as feed for beef cattle**

Greyson Fruge¹, Hannah Boyer¹, Nicole Wagner¹, Merritt L. Drewery¹

¹Texas State University

3:15 p.m. **Nutrition Break**

3:30 p.m. 156 ***In-situ* degradability of hemp (*Cannabis sativa* L.) plant components in cattle**

Alyssa Lopez¹, Emma Fukuda¹, Greyson Fruge¹, Merritt L. Drewery¹

¹Texas State University

3:45 p.m. 157 **Can *in vitro* or *in situ* disappearance predict to *in vivo* digestibility of forages?**

Abigail R. Hines¹, Diva N. Rigney¹, Anna G. Underwood¹, Werner G. Bergen¹, M. Kim Mullenix¹, S. Leanne L. Dillard¹, Todd R. Callaway², William B. Smith¹

¹Auburn University, ²University of Georgia

4:00 p.m. 158 **In situ evaluation of multiple edible insects as feed for cattle**

Delila Dominguez¹, Emma Fukuda¹, Jay Rea¹, Merritt L. Drewery¹

¹Texas State University

4:15 p.m. 159 **Mealworm and black soldier fly larvae as protein supplements for beef steers consuming forage**

Mikael Carrasco¹, Merritt L. Drewery¹

¹Texas State University

Small Ruminant Production II: Health

Chair: Andrew Weaver, NC State University; Macy Ragsdale, University of Kentucky

2:00 PM - 4:45 PM

Olmsted 5

2:00 p.m. 57 **Impact of Cache Valley Virus in an Arkansas sheep flock**

Joan M. Burke¹, Erin Wood², Charles Lee², Ann Carpenter³, Noah Kojima³, Anna Fagre³, Amanda Calvert³, Elisa Thrasher³, Stacey Martin³, Erin Staples³, Carolyn Gould³

¹USDA, ARS, Dale Bumpers Small Farms Research Center, ²USDA, ARS, ³CDC

2:15 p.m. 58 **United States Department of Agriculture National Animal Health Monitoring System Goat 2019 study: Distribution of gastrointestinal nematodes**

James E. Miller¹, Ryan Avery², Joan M. Burke³

¹Louisiana State University, ²USAID, ³USDA, ARS, Dale Bumpers Small Farms Research Center

2:30 p.m. 59 **Efficacy of Livamol with BioWorma for Controlling Gastrointestinal Nematode in Nursing Kiko Does raised in Pastures**

Durga P. Dhakal¹, Uma Karki¹, Santoshi Chaudhary², Sadikshya Lamsal¹

¹Tuskegee University, ²Pennsylvania State University

2:45 p.m. 60 **The efficacy of a natural fungus (*Duddingtonia flagrans*) in reducing gastrointestinal nematode indicators in lambs**

Jessica Queen¹, Dahlia J. O'Brien¹, Stephan A. Wildeus¹, Javin Davis¹, MacKenzie Robertson¹, Kwame Matthews²

¹Virginia State University, ²Delaware State University

3:00 p.m. 61 **Determining *in vivo* and *in vitro* predatory activity of *Duddingtonia flagrans* and interaction with dietary coccidiostat**

Joan M. Burke¹, Suman Rohila², Katherine Petersson³, Elizabeth Kass³, Adriano Vatta⁴, James E. Miller⁴

¹USDA, ARS, Dale Bumpers Small Farms Research Center, ²USDA, ARS, ³University of Rhode Island, ⁴Louisiana State University

3:15 p.m. **Small Ruminant Production II Break**

3:30 p.m. 62 **Supplementation with soy hull during late gestation and lactation on parasite indicators in hair sheep ewes**

Mackenzie Robertson ¹, Dahlia J. O'Brien ¹, Stephan A. Wildeus ¹, Javin Davis ¹, Kwame Matthews ²

¹Virginia State University, ²Delaware State University

3:45 p.m. 63 **CANCELLED**

4:00 p.m. 64 **The effect of postweaning fecal egg count EBV on colostrum IgG concentration and color in Katahdin dams**

Kelsey Bentley ¹, Andrew R. Weaver ², Lee L. Wright ³, Scott P. Greiner ⁴, Scott A. Bowdridge ¹

¹West Virginia University, ²NC State University, ³Southwest Virginia Agricultural Research and Extension Center, ⁴Virginia Tech

4:15 p.m. 65 **Effect of post-weaning fecal egg count EBV on grazing ewe behavior after weaning.**

Garrett T. Vaughan ¹, Lee L. Wright ², Scott P. Greiner ³, Scott A. Bowdridge ¹

¹West Virginia University, ²Southwest Virginia Agricultural Research and Extension Center, ³Virginia Tech

4:30 p.m. 66 **Effect of copper oxide wire particles on parasitism and growth in Katahdin lambs divergently selected for fecal egg count estimated breeding value**

Victoria Geniac ¹, Lee L. Wright ², Scott P. Greiner ³, Scott A. Bowdridge ⁴, Andrew R. Weaver ¹

¹NC State University, ²Southwest Virginia Agricultural Research and Extension Center, ³Virginia Tech, ⁴West Virginia University

Pastures and Forages

Chair: Stacey Gunter, USDA-ARS; Mason Henson, Auburn University

2:00 PM - 5:00 PM

Olmsted 1

2:00 p.m. 160 **Comparison of native to introduced mixed warm-season grass pastures on heifer weight gain and fecal egg count.**

Nate T. Moss ¹, Eva M. Wray ², Chris Tucker ², Shane Gadberry ²

¹UA Livestock and Forestry Station, ²University of Arkansas

2:15 p.m. 161 **Effects of Sericea Lespedeza Supplementation on Steers Grazing Wild-Type Endophyte-Infected Tall Fescue**

Sanjok Poudel ¹, Gabriel J. Pent ², John H. Fike ¹, Brittany Harlow ³, Wayne Zeller ³

¹Virginia Tech, ²Virginia Tech's Shenandoah Valley Agricultural Research and Extension Center, ³USDA Agricultural Research Service

2:30 p.m. 162 **Nutritive value and dry matter yield of stockpiled tall fescue across plant hardiness zones 7 and 8**

Malerie E. Fancher ¹, Katie Mason ¹, S. Leanne L. Dillard ²

¹University of Tennessee Institute of Agriculture, ²Auburn University

2:45 p.m. 163 **Growth trends in *Bos grunniens* raised in pasture-based systems in Eastern Kentucky**

Amanda L. Lee ¹, Jeffrey Lehmkuhler ¹, Mary McCarty ², Gregory Dike ³

¹University of Kentucky, ²University of Kentucky Cooperative Extension, ³Zhi-ba Shing-ga Yaks

3:00 p.m. 164 **Effect of distillers grains supplementation and fertilization rate on performance of stocker cattle grazing wheat pasture and stand performance**

Cody Gruber ¹, Michelle Johnson ¹, Tom Hess ², Daniel Rivera ³, James Mitchell ¹, Shane Gadberry ¹

¹University of Arkansas, ²UA Livestock and Forestry Station, ³University of Arkansas Southwest Research and Extension Center

3:15 p.m. 165 **Does supplementation of beef cattle impact the agronomy performance of tall fescue and bermudagrass pastures?**

Jaymelynn K. Farney ¹, Jason Warner ¹, James Banks ¹, Junior Yasuoka ¹, Bruno Pedriera ²

¹Kansas State University, ²University of Tennessee

3:30 p.m. **Pastures and Forages Break**

3:45 p.m. 166 **Effect of silo type on fermentation characteristics of laboratory-scale silage**

Macy Rockwell ¹, Lauren M. St. Andrew ¹, Abbigail R. Hines ¹, William P. Tarter ¹, Berman E. Espino ¹, Cecelia N. Sagastume Fernandez ¹, Jose D. Pereira Neto ¹, Aghata E. Moreira da Silva ¹, S. Leanne L. Dillard ¹, Aerial D. Belk ¹, M. Kim Mullenix ¹, William B. Smith ¹

¹Auburn University

4:00 p.m. 167 **Use of plant growth-promoting rhizobacteria in bermudagrass systems of the Southeast US**

Isaac Mirahki ¹, Jennifer Crabtree ¹, Jose D. Pereira Neto ¹, Brandon Smith ¹, Tony Adesemoye ², M. Kim Mullenix ¹, S. Leanne L. Dillard ¹

¹Auburn University, ²USDA ARS National Soil Dynamics Lab

4:15 p.m. 168 **Evaluate the digestibility effects of alfalfa-bermudagrass mixtures on beef cattle in the Deep South**

Mason Henson ¹, Peyton Zessin ¹, S. Leanne L. Dillard ¹, M. Kim Mullenix ¹, William B. Smith ¹

¹Auburn University

4:30 p.m. 169 **Hemp as a forage crop: Harvest date effects on yield and nutritive value**

Swarup Podder ¹, John H. Fike ¹, Bain Wilson ²

¹Virginia Tech, ²Ohio State University

4:45 p.m. 170 **Goats complement cattle in a woody-plant encroached, diverse Cross Timbers rangeland.**

Brittany A. Lippy ¹, Cooper Sherrill ², Laura Goodman ¹, Ryan R. Reuter ¹

¹Oklahoma State University, ²Oklahoma State University

Ruminant Animal Production III: Technology in Ruminant Production

Chair: Brooke Clemmons, Texas A&M University; Keayla Harr, Oklahoma State University

3:00 PM - 4:00 PM

Olmsted 7

3:00 p.m. 139 **Impact of supplementing rumen-protected methionine during the periconceptual period in the post-weaning period in female calves**

Daniella C. Heredia¹, Federico Tarnonsky¹, Maria C. Lopez-Duarte¹, MAURO VENTURINI², Oscar A. Ojeda¹, Daniel D. Luchini³, Peter J. Hansen¹, Dean Pringle¹, Nicolas DiLorenzo¹, Angela M. Gonella-Diaza¹

¹University of Florida, ²UNIVERSITY OF FLORIDA, ³Adisseo USA Inc

3:15 p.m. 140 **High-resolution characterization of the gut microbiota of neonatal dairy calves using full-length 16S rRNA gene amplicon sequencing**

Jalyn G. Hawkins¹, Shelby Carpenter¹, Mackenzie Woody¹, Colby Hardin¹, Jim Brett¹, Marcus McGee¹, Trent Smith¹, Peixin Fan¹

¹Mississippi State University

3:30 p.m. 142 **Advancing precision livestock management in the dairy industry: An early exploration of individual cow tracking using YOLOv5-Based computer vision**

Marcus McGee¹, Cierra Clayton¹, Abigail Victory¹, Colby Hardin¹, Christopher Hudson¹

¹Mississippi State University

3:45 p.m. 143 **Use of genomic testing for predicting performance of finishing steers**

Jacee K. De Vries¹, Emma A. Briggs¹, Paul A. Beck¹, David L. Lalman¹, Chris Johnson¹

¹Oklahoma State University

Physiology II

Chair: Nathan Long, Clemson University;

Madeline McKnight, Mississippi State University Prairie Research Unit

3:00 PM - 5:00 PM

Olmsted 6

3:00 p.m. 14 **Maternal pre- and post-partum supplementation of *Bacillus*-based DFM enhanced cow and calf performance**

Vinicius S. Izquierdo¹, Bruno I. Cappelozza², João V. L. Silva¹, Giovanna C. M. Santos¹, Andre Miranda¹, João H. J. Bittar³, Autumn Pickett⁴, Shea Mackey⁵, Reinaldo F. Cooke⁴, João M. B. Vendramini¹, Philippe Moriel¹

¹University of Florida, IFAS - Range Cattle Research and Education Center, ²Chr. Hansen A/S,

³University of Florida, College of Veterinary Medicine, ⁴Texas A&M University, ⁵Texas A&M University, Department of Animal Science

3:15 p.m. 15 **Influence of early progesterone removal on follicular development, estrus expression, and pregnancy rates in presynchronized beef cows**

Samir Burato¹, Madison B. Walker¹, Lucas M. Goncalves¹, Nicola Oosthuizen², Saulo M. Zoca³, Francine M. Ciriaco⁴, Darren D. H. Henry¹, Juliana Ranches⁵, Pedro L.P. Fontes¹

¹University of Georgia, ²ABS Global Inc., ³University of Tennessee, ⁴Texas Tech University,

⁵Oregon State University

3:30 p.m. 16 **Estradiol and follicular growth are associated with estrous behavior monitored by an accelerometer in grazing beef cows**

Cecilia c. Constantino Rocha ¹, Ana B. Montevecchio ¹, Mackenzie Mazziotta ¹, Alexandra Bennett ¹, Abdul Waheed ¹, Meghan Campbell ¹, Marcello Rubessa ², Rebecca Krisher ², Philippe Moriel ³, Peter J. Hansen ¹, Ricardo Chebel ¹, Mario Binelli ¹

¹University of Florida, ²Genus PLC, ³University of Florida, IFAS - Range Cattle Research and Education Center

3:45 p.m. 17 **Assessing abundance of pregnancy markers among fertility-classified beef cows**

Alexandra Bennett ¹, Cecilia c. Constantino Rocha ¹, Abdul Waheed ¹, Morgan Brown ¹, Gabriela Dalmaso De Melo ², Rubessa Marcello ³, Ricardo Chebel ¹, Philippe Moriel ⁴, Rebecca Krisher ³, Ky G. Pohler ², Peter J. Hansen ¹, Mario Binelli ¹

¹University of Florida, ²Texas A&M University, ³Genus PLC, ⁴University of Florida, IFAS - Range Cattle Research and Education Center

4:00 p.m. 18 **Progesterone and insulin concentrations during pregnancy in slick and wild type-haired Holstein cows**

Anayra I. Tirado-Colón ¹, William D. Feliciano-Figueroa ¹, Héctor L. Sánchez-Rodríguez ¹, Veronica M. Negrón-Pérez ¹, Esbal Jiménez-Cabán ¹

¹University of Puerto Rico- Mayaguez

4:15 p.m. 19 **Evaluation of dietary *Saccharomyces cerevisiae* fermentation product on markers of joint inflammation in young, exercising horses following an intra-articular lipopolysaccharide challenge**

Grace E. Moore ¹, Jessica L. Leatherwood ², Kati G. Glass ¹, Carolyn E. Arnold ³, Brittany L. Paris ¹, Margaret M. Carter ¹, James M. George ¹, Alyson B. Fontenot ¹, Taylor A. Gilcrest ¹, Madison K. Blythe ⁴, Rafael E. Martinez ⁴, Amanda N. Bradbery ⁵, Tryon A. Wickersham ¹

¹Texas A&M University, ²Tarleton State University, ³Texas Tech University, ⁴Sam Houston State University, ⁵Montana State University

4:30 p.m. 20 **Evaluation of a *Saccharomyces cerevisiae* fermentation product on performance, plasma metabolites, rumen parameters, and fecal pathogen shedding in feedlot steers**

Wendy Gong ¹, Guolong Zhang ¹, Andrew P. Foote ¹, Blake K. Wilson ¹

¹Oklahoma State University

4:45 p.m. 21 ***Ancylostoma caninum*-derived neutrophil inhibitory factor impairs ovine neutrophil chemotaxis to *Haemonchus contortus* larval antigen in Suffolk but not St. Croix sheep**

Hannah G. Teddleton ¹, Scott P. Greiner ², Scott A. Bowdridge ¹

¹West Virginia University, ²Virginia Tech

Tuesday, January 30, 2024

Small Ruminant Production III

Chair: Scott Bowdridge, West Virginia University

8:00 AM - 10:00 AM

Olmsted 5

8:00 a.m. 67 **Functional rumen microbiological survey of triplet-bearing Polypay ewes from parturition to weaning**

Katherine G. Purvis¹, Jennifer R. Weinert-Nelson², Donald G. Ely³, John May¹, Michael D. Flythe², Tracy A. Hamilton², Jessica L. Ferrell⁴, Brittany E. Davis²

¹University of Kentucky, ²USDA-ARS, Forage-Animal Production Research Unit, ³Animal and Food Sciences, University of Kentucky, ⁴USDA-ARS

8:15 a.m. 68 **First Kiko Buck Performance Test in Mississippi**

Nicolas Marchant¹, Kelsey Mazeris¹, Jill DeGayner¹, Alex Shook², Rhonda C. Vann¹, Trent Smith¹, Rocky Lemus¹, Leyla Rios³

¹Mississippi State University, ²Mississippi State University-Extension, ³Mississippi State University

8:30 a.m. 69 **Smartphone integration in anemia detection for small ruminants with Convolutional Neural Networks**

Reginald J. Randall¹, Andres Pech-Cervantes², Jan van Wyk³, Sudhanshu Panda⁴, Ajit Mahapatra¹, Eric Morgan⁵, Kensley Stegall¹, Davia Brown¹, Ethan Manns¹, Shaylon Saunders⁶, Andrea Rubio villa¹, Aniyah Plummer¹, Thomas H. Terrill¹

¹Fort Valley State University, ²University of Maryland, ³University of Pretoria, ⁴University of North Georgia, ⁵Queen's University Belfast, ⁶Fort Valley state University

8:45 a.m. 70 **Rearing system influenced the performance, GI-parasite burden, and immune profile of pregnant does during winter**

Sadikshya Lamsal¹, Uma Karki¹, Santoshi Chaudhary², Durga P. Dhakal¹, Bidur Paneru³

¹Tuskegee University, ²Pennsylvania State University, ³University of Georgia

9:00 a.m. 71 **AI-Enhanced Hematocrit Analysis: Revolutionizing rapid anemia detection in small ruminants**

Seymone Dargan¹, Aftab Siddique², Andres Pech-Cervantes³, Jan van Wyk⁴, Sudhanshu Panda⁵, Ajit Mahapatra², Eric Morgan⁶, Ebonie Appleberry², India Carter², Savana Lewis², Thomas H. Terrill²

¹Fort Valley state University, ²Fort Valley State University, ³University of Maryland, ⁴University of Pretoria, ⁵University of North Georgia, ⁶Queen's University Belfast

9:15 a.m. 72 **Comparison of Myotonic, Kiko, and Spanish Sires for Meat Goat Doe-Kid Traits**

Emily G. Hayes¹, Heather Meador¹, Richard Browning¹

¹Tennessee State University

9:30 a.m. 73 **Deworming to improve growth in early-weaned spring born hair sheep lambs**

Dahlia J. O'Brien¹, Stephan A. Wildeus¹, Javin Davis¹, MacKenzie Robertson¹, Kwame Matthews²

¹Virginia State University, ²Delaware State University

9:45 a.m. 74 **Effect of grazing native warm season grasses on parasitism and growth in weaned Katahdin lambs**

Andrew R. Weaver ¹, Lee Holcomb ², Jason Smith ³, Allison Brown ⁴, Der Holcomb ⁴, Johnny R. Rogers ⁴

¹NC State University, ²NRCS, ³NC Wildlife Resources Commission, ⁴North Carolina State University

Ruminant Animal Production IV: Nutrition

Chair: Jeffrey Lehmkuhler, University of Kentucky; Amanda Lee, University of Kentucky

8:15 AM - 10:00 AM

Olmsted 7

8:15 a.m. 144 **Utilizing Invasive Pigweed (*Amaranthus Spinosus*) as a Novel Methane Mitigation Strategy in Beef Cattle Feed: A Sustainable Approach**

Wilmer Cuervo ¹, Camila Gomez ¹, Ignacio Fernandez-Marenchino ², Araceli B. Maderal ², Federico Tarnonsky ², Cristian Erazo-Mendes ², Tessa M. Schulmeister ², Nicolas DiLorenzo ²

¹University of Florida - NFREC - Marianna, ²University of Florida

8:30 a.m. 145 **The effect of a plant secondary metabolite blend on energy metabolism and nutrient balance of beef cattle consuming low-quality warm season grass hay**

Emily A. Petzel ¹, Eric Bailey ¹, Derek W. Brake ¹

¹University of Missouri

8:45 a.m. 146 **Effects of cottonseed meal supplementation on growth performance of heifers grazing mature summer forage**

Connor R. Kern ¹, Whitney L. Crossland ¹, Aaron B. Norris ¹, Ryan R. Rathmann ¹, Jhones O. Sarturi ¹

¹Texas Tech University

9:00 a.m. 147 **Effects of grazing dairy-beef and native beef crossbred steers on native range with supplementation on growth**

Ally J. Grote ¹, Zane N. Grigsby ¹, Tom Fanning ², Dusty Turner ³, Paul A. Beck ¹

¹Oklahoma State University, ²Buffalo Feeders, ³MasterHand Milling

9:15 a.m. 148 **Supplementing Bovacillus to newly weaned beef steers during a 90-d grazing period**

Reinaldo F. Cooke ¹, Shea Mackey ², Autumn Pickett ¹, Eduardo Colombo ¹, Bruno I. Cappellozza ³, Brandi B. Karisch ⁴, Kelsey M. Harvey ⁵

¹Texas A&M University, ²Texas A&M University, Department of Animal Science, ³Chr. Hansen A/S, ⁴Mississippi State University, ⁵Mississippi State University Prairie Research Unit

9:30 a.m. 149 **Using respiratory gas flux and backward dietary energy partitioning to estimate energy intake by beef cattle fed a high concentrate diet**

Emalee J. Friend ¹, Addie Womack ², Stacey A. Gunter ¹, Paul A. Beck ²

¹USDA-ARS, ²Oklahoma State University

9:45 a.m. 150 **Effects of diet type on performance and methane yield in replacement beef heifers**

Emma A. Briggs¹, Kade Horton¹, Mikyla F. Moore¹, Justin Crosswhite¹, Andrew P. Foote¹, Carla Goad¹, Megan M. Rolf², David L. Lalman¹

¹Oklahoma State University, ²Kansas State University

Physiology III

Chair: Nathan Long, Clemson University; Cecilia Constantino Rocha, University of Florida

8:30 AM - 10:30 AM

Olmsted 6

8:30 a.m. 22 **Diversity of vaginal bacteria in lactating dairy cattle on pregnancy establishment**

Dallas R. Soffa¹, Ashton Dodd², Jennifer A. Spencer³, Rebecca K. Poole¹

¹Texas A&M University, ²Texas A&M, ³Texas A&M AgriLife Research and Extension Center

8:45 a.m. 23 **Effectiveness of Fenbendazole in growing Quarter Horses using the Quantitative Modified Wisconsin Technique**

Jamie Lavergne¹, Jessica L. Leatherwood¹, Cecilia Gaulandri¹, Lauren Pavel¹, Brittany L. Paris², Margaret M. Carter², Paige Linne², Grace E. Moore², Carolyn E. Arnold³, Kati G. Glass², Amanda Bradberry⁴, Trinette Jones¹

¹Tarleton State University, ²Texas A&M University, ³Texas Tech University, ⁴Montana State University

9:00 a.m. 29 **Effect of copper bolus administration on circulating copper concentration, blood metabolites and parasite load**

Tyler K. Harmonson¹, Andrew M. Cassens¹, Walter F. Owsley¹, Cheyenne L. Runyan¹, Edward Webb¹, Kimberly B. Wellmann¹

¹Tarleton State University

9:15 a.m. 25 **Impacts of trace mineral source and ancillary drench on steer performance during a 60-day backgrounding phase**

Madeline McKnight¹, Kelsey M. Harvey¹, Brandi B. Karisch², Juan C. Cordero¹, Mason Drewery², Libby S. Durst², Eduardo Colombo³, Reinaldo F. Cooke³, Jason R. Russell²

¹Mississippi State University Prairie Research Unit, ²Mississippi State University, ³Texas A&M University

9:30 a.m. 26 **Effects of a red-clover containing mineral on heifer behavior and fertility**

Tyler A. Purvis¹, Leslie H. Anderson¹, Jennifer R. Weinert-Nelson², Eric Vanzant¹, Tracy A. Hamilton², Dan Miller³, John Johns⁴, Brittany E. Davis²

¹University of Kentucky, ²USDA-ARS, Forage-Animal Production Research Unit, ³Kentucky Cattleman's Association, ⁴Burkman Feeds

9:45 a.m. 27 **Awardee Talk: Effects of moderate exercise regimen on reproductive development of replacement beef heifers reared in drylots at a high stocking density**

Autumn Pickett¹, Reinaldo F. Cooke¹, Logan W. Rahmel², Shea Mackey³, Mason Drewery², Juan C. Cordero⁴, Teegan Mackey¹, Courtney L. Daigle¹, Thiago Martins⁵, Kelsey M. Harvey⁴

¹Texas A&M University, ²Mississippi State University, ³Texas A&M University, Department of Animal Science, ⁴Mississippi State University Prairie Research Unit, ⁵Mississippi State University Brown Loam Branch Experiment Station

10:15 a.m. 28 **Investigating the effects of Chromium Propionate supplementation on reproductive performance of beef cows**

Trinity Vidlund¹, Hannah Craun¹, Camille Mitchell¹, John Currin², Jamie L. Stewart², Sherrie Clark², Tracey Redifer², Vitor R G Mercadante³

¹Virginia Tech, ²Virginia-Maryland College of Veterinary Medicine, ³Virginia Tech - Animal and Poultry Sciences