

April 5-8, 2025
Sheraton Arlington Hotel
Arlington, Texas



American Society of Animal Science

SOUTHERN SECTION/WESTERN SECTION JOINT MEETING

Saturday, April 5, 2025

Extension Symposium

Chair: Joao Vendramini, Texas A&M AgriLife Research

8:00 AM - 12:00 PM

Champions 1

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

8:10 a.m. 77 **Foundations for the future: Harnessing the history of the Cooperative Extension System to drive modern impact**

Justin D. Rhinehart ¹

¹University of Tennessee

8:50 a.m. 78 **Like a hand in a glove: Integrating applied research and extension recommendations**

Paul A. Beck ¹

¹Oklahoma State University

9:30 a.m. 79 **Promoting extension scholarship and navigating the tenure and promotion process in extension**

Kim Mullenix ¹

¹Auburn University

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

10:30 a.m. 80 **Achieving distinction in extension through successful educational programs**

Saqib Mukhtar ¹

¹University of Florida

11:10 a.m. 81 **Developing meaningful extension programs with relevant impact on producers**

Ron Gill ¹

¹Texas A&M University, Texas A&M AgriLife Extension

11:50 a.m. **Extension Symposium Closing**

Joint SERA 41 and Western Section Beef Symposium

Chair: Juliana Ranches, Oregon State University

2:30 PM - 5:30 PM

Champions 1

2:30 p.m. **Joint SERA 41 and Western Section Beef Symposium Introduction**

2:35 p.m. 82 **Health matters: Addressing feedlot cattle challenges across the U.S.**

Nicole C. Burdick Sanchez ¹

¹United States Department of Agriculture, Agriculture Research Service, Livestock Issues Research Unit

3:15 p.m. 83 **Considerations for finishing dairy beef**

Casey Maxwell ¹

¹Cactus Feeders

3:55 p.m. **Joint SERA 41 and Western Section Beef Symposium Break**

4:10 p.m. 84 **Preventing acidosis with bunk management and impacts of grain processing on small-scale, farmer-feeder feedlots**

Federico Podversich ¹

¹South Dakota State University

4:50 p.m. 85 **Grain, roughage, and byproducts in feedlot diets: Playing with energy values**

Vinícius N. Gouvêa ¹

¹Department of Animal Science, Texas A&M University

Sunday, April 6, 2025

Southern Graduate Student Competition PHD

Chair: Brittini Littlejohn, University of Arkansas System Division of Agriculture,
Department of Animal Science

1:30 PM - 3:15 PM

Champions 3

1:35 p.m. **Southern Graduate Student Competition PHD Introduction and Logistics**

1:40 p.m. 28 **Investigating bovine blood bacterial populations through 16S V4 sequencing, dPCR, and qPCR with specific focus on Hemotrophic Mycoplasma Wenyonii**

Nicole A. Bloch ¹, Cheyenne L. Runyan ¹, Jeffrey A. Brady ², Janice Speshock ¹, Kimberly Wellmann ¹

¹Tarleton State University, ²Texas A&M AgriLife Center at Stephenville

1:45 p.m. 30 **PGPR, drought, and nitrogen effects in *Schedonorus arundinaceus* on yield, CP, ADF, aNDF, and Lignin**

Jennifer Crabtree ¹, Alvaro Sanz-Saez ¹, Leanne Leanne Dillard ¹, William B. Smith ¹, A.O. Adesemoye ², Ian Ingram ¹, Sajid Hanif ¹

¹Auburn University, ²Auburn University/ARS

1:50 p.m. 31 **Metabolomic analysis of boar seminal plasma identifies sperm-quality related metabolites**

Notsile H. Dlamini ¹, Serge L. Leugoue Kameni ¹, Jean M. Feugang ²

¹Department of Animal and Dairy Sciences, Mississippi State University, ²Mississippi State University

1:55 p.m. 32 **Effects of late gestational melatonin supplementation on behavior and growth characteristics in Angus beef cows and calves**

Kasey A. Elder¹, Katherine Kennedy¹, Christie Miller¹, Justin Maynard¹, Chayse Culbert¹, Jady Snider¹, Thomas Brister¹, Marcus McGee¹, Caleb O. Lemley¹

¹Mississippi State University

2:00 p.m. 33 **Dose-dependent impacts of thymol on rumen microbial populations in beef steers fed forage analyzed via whole genome shotgun sequencing**

Emma Fukuda¹, Yuan Lu¹, Russell Jessup², Merritt L. Drewery¹

¹Texas State University, ²Texas A&M University

2:05 p.m. 34 **Understanding the contribution of colostrum microbiota on colostrum metabolomics and calf gut microbiota development**

Jalyn G. Hawkins¹, Shelby Carpenter¹, Rita Ugoh¹, Parker Harrington¹, Caleb O. Lemley¹, Peixin Fan¹

¹Mississippi State University

2:10 p.m. 35 **Byproduct feeds and interseeded red clover as supplemental diets affecting animal performance in 'KY31' tall fescue pastures**

Mason B. Henson¹, Macy L. Rockwell¹, Leanne Leanne Dillard¹, William B. Smith¹, Kimberly Kimberly Mullenix¹

¹Auburn University

2:15 p.m. **Southern Graduate Student Competition PHD Break**

2:30 p.m. 36 **In vitro assessment of the neuroactive potential of the rumen microbiome**

Himani Joshi¹, Brandon Bernard¹, Caleb O. Lemley¹, Brian J. Rude¹, Peixin Fan¹

¹Mississippi State University

2:35 p.m. 37 **Integrating camera and microphone monitoring to evaluate immune responses and behavioral indicators in beef cattle using lipopolysaccharide administration as a model**

Arnaldo Limede¹, Rodrigo S. Marques², Fernando Cidriani², Gilyard Souza², Vinicius Alves Cruz³, Xiaohui Wu², C.P. James Chen⁴

¹Virginia Polytechnic and State University, ²Virginia Tech, ³Virginia Tech - School of Animal Sciences, ⁴Virginia Polytechnic Institute and State University

2:40 p.m. 38 **Effects of feeding high levels of a corn milling product on lactation performance of mid-lactation dairy cows**

Avianna A. Liuzzo¹, Mikael Prado¹, Caio Soares¹, Ricardo Sousa¹, Yasmin Barreto², Matheus Cordeiro¹, Artur Grando Pilati¹, João P. Mittelsted¹, Juan M. Piñeiro³, Matthew R. Beck³, Vinícius N. Gouvêa³

¹Texas A&M University, ²Texas A&M AgriLife Research and Extension Center - Amarillo, ³Department of Animal Science, Texas A&M University

2:45 p.m. 39 **Maternal chromium propionate supplementation on growth and liver transcriptomics of beef calves**

Hiam Marcon¹, Marcelo Vedovatto¹

¹Louisiana State University Agricultural Center

2:50 p.m. 40 **Economic impact of selling goat kids at weaning or after an extended feeding period**

Carson J. Millican ¹, Jake W. Thorne ²

¹Texas A&M University, ²Texas A&M AgriLife Research Center

2:55 p.m. 41 **Impact of oral melatonin supplementation on sperm quality and testicular artery hemodynamics in the bull**

Megan Mills ¹, Notsile H. Dlamini ², Serge L. Leugoue Kameni ², Justin Maynard ¹, Thomas Brister ¹, Hala El Daous ¹, Shiveeli Rajput ¹, Darcie R. Sidelinger ¹, Heath H. King ¹, Jean M. Feugang ¹, Caleb O. Lemley ¹

¹Mississippi State University, ²Department of Animal and Dairy Sciences, Mississippi State University

3:00 p.m. 43 **Relationship between reproductive parameters and residual feed intake in yearling beef bulls**

Mauro Venturini ¹, JOAO de AGOSTINI LOSANO ², Daniella C. Heredia ², MARIA C. LOPEZ DUARTE ², JOSE L. INFANTE ³, Federico Podversich ⁴, MAURA MCGRAW ², SOHAIL MUHAMMAD ², JILLIAN GUERTIN ², Brette D. Poliakowski ⁵, Damon Smith ⁵, Ky G. Pohler ⁶, Nicolas DiLorenzo ⁷, BRADFORD DAIGNEAULT ², Angela M. Gonella ²

¹University of Florida, ²UNIVERSITY OF FLORIDA, ³jinfantecangrejo@ufl.edu, ⁴South Dakota State University, ⁵Department of Animal Science, Texas A&M University, ⁶Department of Animal Sciences, Texas A&M University, ⁷Florida University

Southern Graduate Student Competition MS

Chair: Rebecca Poole, North Carolina State University

2:00 PM - 4:45 PM

Super Bowl 1 & 2

2:00 p.m. **Southern Graduate Student Competition MS Introduction and Logistics**

2:05 p.m. 1 **Effect of supplemental protein degradability on nitrogen metabolism and performance of beef steers grazing dormant tallgrass prairie**

TW Beiswanger ¹, Andrew P. Foote ¹, Paul A. Beck ¹

¹Oklahoma State University

2:10 p.m. 2 **Assessing the effects of parasitism and long-term freezing on quality of goat meat using Bioelectrical Impedance Analysis**

Davia Brown ¹, Aaron Klingler ¹, Phaneendra Batchu ¹, Priyanka Gurrupu ¹, Aftab Siddique ¹, Govind Kannan ², Thomas H. Terrill ¹

¹Fort Valley State University, ²Auburn University

2:15 p.m. 3 **Impact of N Fertilization and Inoculation on Nutritive Value and Nitrate Levels of Sorghum-Sudangrass Baleage**

Reagan Bustabad ¹, Katie Mason ¹, Bruno Pedreira ¹, Jennie L. Ivey ¹, David McIntosh ¹, Malerie Fancher ¹

¹University of Tennessee

2:20 p.m. 4 **Supplementation of *Bacillus*-based direct-fed microbials for grazing *Bos indicus*-influenced beef heifers**

Conner A. Crawford ¹, Vinicius S. Izquierdo ¹, Joao M. B. Vendramini ², Bruno Cappellozza ³, Philipe Moriel ¹

¹University of Florida, IFAS / Range Cattle Research and Education Center, ²Texas A&M AgriLife Research, ³Novonesis

2:25 p.m. 5 **Evaluating the reproductive performance of beef cattle based on horn fly infestation**

Ashley Di Agostino ¹, Kris Giles ¹, Justin Talley ¹, Mellissa Crosswhite ¹

¹Oklahoma State University

2:30 p.m. 6 **Whole genome characterization of microorganisms associated with solid or liquid rumen microenvironments**

Delila Dominguez ¹, Emma Fukuda ¹, Yuan Lu ¹, Merritt L. Drewery ¹

¹Texas State University

2:35 p.m. 7 **Student Perspective: Critical thinking and issues facing animal agriculture**

Ian C. Dunn ¹, Marcy M. Beverley ¹, Stanley F. Kelley ¹

¹Sam Houston State University

2:40 p.m. 8 **Automated classification of FAMACHA scores using Machine Learning Models for Anemia detection in small ruminants**

Cornelius Ellington ¹, Andrea Villa ¹, Anurag Singh ¹, Aftab Siddique ², Jan Van Wyk ³, Thomas H. Terrill ²

¹fort valley state university, ²Fort Valley State University, ³University of Pretoria

2:45 p.m. 9 **Effect of N fertilization provided as biosolids on bahiagrass yield and *in-situ* degradability**

Sabrina Fortunatti Rodriguez ¹, Tyrone Bowman ¹, Jordan Suter ¹, Jodi Cox ², Tryon A. Wickersham ², Merritt L. Drewery ¹

¹Texas State University, ²Texas A&M University

2:50 p.m. 10 **Investigating the effects of mixed condensed and hydrolyzable tannin extract inclusion rate on greenhouse gas production and diet digestibility using the *in vitro* gas production technique**

Clarice Francis ¹, Jordan M. Adams ¹, Luis O. Tedeschi ¹

¹Texas A&M University

2:55 p.m. 11 **Effects of limit fed diets with varying levels of a roughage pellet on performance of growing beef cattle**

Marie E. Goulais ¹, Cody Shelton ², Clyde C. Jones ², Grayson Gourley ³, Henry Hilscher ⁴, Cody Welchons ⁵, Daniel Rivera ²

¹University of Arkansas, ²Southwest Research and Extension Center, University of Arkansas System Division of Agriculture, ³Southwest Research and Extension Center, University of Arkansas, ⁴Livestock Nutrition Center LLC, ⁵Livestock Nutrition Center

3:00 p.m. 12 **Effects of partially replacing steam-flaked corn with high moisture rolled sorghum on dry matter intake and rumination time of finishing beef steers**

Artur Grando Pilati ¹, João P. Mittelstedt ¹, Avianna A. Liuzzo ¹, Vitoria Ribeiro ¹, Matthew R. Beck ², Juan M. Piñeiro ², Vinícius N. Gouvêa ²

¹Texas A&M University, ²Department of Animal Science, Texas A&M University

3:05 p.m. 13 **Effect of supplementation frequency of cottonseed meal to pre-pubertal heifers consuming low quality forage**

Faith Harms ¹, Emma Fukuda ², Aaron B. Norris ¹, Ryan R. Rathmann ¹, Whitney L. Crossland ¹

¹Texas Tech University, ²Texas State University

3:10 p.m. 14 **Dietary fatty acid profile and choline altered the transcriptome of peripheral white blood cells of pregnant beef cows**

Allyson McCarty ¹, Megan Bahr ¹, Matt H. Poore ¹, Daniel H. Poole ¹, Christian Maltecca ¹, Felipe A.C.C. Silva ¹, Ky G. Pohler ², Zaeem Sarwar ³, Jose E. P. Santos ³, Thomas R. Hansen ⁴, Jeanette Bishop ⁴, Damon Smith ⁵, Nadia Ashrafi ⁶, Roman A. Mimi ⁷, Stewart F. Graham ⁷

¹North Carolina State University, ²Department of Animal Sciences, Texas A&M University,

³University of Florida, ⁴Colorado State University, ⁵Department of Animal Science, Texas A&M University, ⁶Metabolomics Department, Beaumont Research Institute, ⁷Corewell Health

3:15 p.m. **Southern Graduate Student Competition MS Break**

3:30 p.m. 15 **Effects of replacing steam-flaked corn with high-moisture rolled sorghum on in situ dry matter digestibility of finishing diets**

João Guilherme Petter Mittelstedt ¹, Vitoria Aparecida M. Ribeiro ¹, Artur Grando Pilati ², Matthew R. Beck ¹, Reinaldo F. Cooke ¹, Vinícius N. Gouvêa ¹

¹Department of Animal Science, Texas A&M University, ²Texas A&M University

3:35 p.m. 16 **Comparison of sheep and cattle rumen microbiological responses to an abrupt transition from a high-forage to a high-concentrate diet.**

Katherine G. Purvis ¹, Jennifer Weinert-Nelson ², Alysa M. Farrell ¹, Samantha Pavlecic ¹, Tracy A. Hamilton ³, Tyler A. Purvis ¹, Michael D. Flythe ⁴, Donald G. Ely ¹, Brittany E. Davis ²

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

3:40 p.m. 17 **Effects of body condition score change on breeding interval in commercial beef herds in Western Oklahoma**

Richard Prather ¹, Jordyn L. Hensley ², Mellissa Crosswhite ², David L. Lalman ²

¹Ellis County Animal Hospital, ²Oklahoma State University

3:45 p.m. 18 **Feeding behavior of naïve and adapted heifers grazing endophyte-infected or endophyte-free tall fescue pastures**

Tyler A. Purvis ¹, Leslie H. Anderson ¹, Thomas W. Geary ², Richard C. Waterman ³, Jennifer Weinert-Nelson ⁴, Eric A. Vanzant ¹, Tracy A. Hamilton ⁵, Brittany E. Davis ⁴

¹University of Kentucky, ²USDA-ARS Fort Keogh LARRL, ³USDA Livestock and Range Research Laboratory, ⁴USDA-ARS Forage-Animal Production Research Unit, ⁵USDA Forage-animal Production Research

3:50 p.m. 19 ***In Vitro* true digestibility and fat composition of whole cottonseed**
Diva N. Rigney ¹, Sejal J. Patel ¹, Jenny C. Koebernick ¹, Kimberly Kimberly Mullenix ¹, William B. Smith ¹
¹Auburn University

3:55 p.m. 20 **Evaluating bee pollen supplementation for enhancing health parameters in crossbred goats: A focus on complete blood count (CBC)**
Adriana Rojas ¹, Lauren K. Solice ¹, Reagan N. Sims ¹, Brian L. Bruner ¹, Rodolfo C. Cardoso ², Cesar A. Rosales-Nieto ¹
¹Texas State University, ²Texas A&M University

4:00 p.m. 21 **Anti-rhodococcal antibodies are negatively correlated with serum concentration of cortisol in newborn foals**
Kira C. Sayre ¹, Alexandra B. Wethington ², Patricia Flores-Ahlschwede ³, Josy M. Bray ², Kerstin K. Landrock ², Susanne K. Kahn ², Scott Ahlschwede ³, Devynn K. Volding ², Angela I. Bordin ², Noah D. Cohen ², Thomas H. Welsh ²
¹Texas A&M University System, ²Texas A&M University, ³Rood & Riddle Equine Hospital

4:05 p.m. 22 **Eggshell waste as a substitute for limestone in beef cattle diets: A preliminary investigation**
Allison Serda ¹, Jimena Farfan ², Jordan Suter ², Sabrina Fortunatti Rodriguez ², Merritt L. Drewery ²
¹Texas State University, ²Texas State University

4:10 p.m. 23 **Effect of species on yield potential and nutritive value of cool- and warm-season forage for species**
Cynthia Siziba ¹, Micayla H. West ², Aghata Silva ³, Kimberly Kimberly Mullenix ¹, Leanne Leanne Dillard ¹, James P. Muir ⁴, William B. Smith ¹
¹Auburn University, ²Department of Animal sciences, Auburn University, ³University of Alberta, ⁴Tarleton State University; Texas A&M AgriLife Research

4:15 p.m. 24 **Effects of stocking density on growth, physiological responses, and puberty attainment of beef heifers reared in drylots**
Izadora de Souza ¹, Reinaldo F. Cooke ¹, Camila Prado ¹, Shea Mackey ¹, Kelsey M. Harvey ²
¹Texas A&M University, ²Mississippi State University

4:20 p.m. 25 **Exploring brown mushroom stem as a sustainable soybean meal alternative in layer chicks diet**
Kayla Stamps ¹, Ahmed A.A. Abdel-Wareth ¹, MD Salahuddin ¹, Venkatesh Balan ², Maedeh Mohammadi ², Woo Kyun Kim ³, Weihang Zhu ², Ahmed Ahmed ¹, Cassandra Gray ¹, Adrian Avina ¹, Taylor Rounds-Carter ¹, Trahmilla Carr ¹, Amri Williams ¹, Adebawale Bakare ¹, Jayant Lohakare ⁴
¹PVAMU, Prairie View, TX, ²University of Houston, ³University of Georgia, Athens, GA, ⁴PVAMU, Prairie View, TX, USA

4:25 p.m. 26 **Evaluating the effect of Livamol with BioWorma in controlling gastrointestinal nematodes and improving performance in does during late pregnancy and early lactation**
Eryn White ¹, Uma Karki ¹, Sadikshya Lamsal ¹, Durga P. Dhakal ¹, Arjun Acharya ¹
¹Tuskegee University

4:30 p.m. 27 **A preliminary study: Investigating the impacts of semen collection method on semen quality and physiological parameters in Boer goats**

Ragan Whitley ¹, Carly Hoffmann ¹, Kyle Stutts ¹, Citlally Covarrubias ¹, Jake W. Thorne ²
¹Sam Houston State University, ²Texas A&M AgriLife Research Center

Southern Undergraduate Student Competition

Chair: Carrie Pickworth, NC State University

3:15 PM - 5:00 PM

Champions 2

3:15 p.m. **Southern Undergraduate Student Competition Introduction and Logistics**

3:20 p.m. 44 **Evaluating the effects of N-carbamylglutamate and melatonin supplementation in carotid artery hemodynamics and other physiological variables of heat stressed Dorper rams**

Isabella Becerra ¹, Hannah Blasingame ¹, Mackenzie Hodge ¹, Anna West ¹, Hector L. Sanchez-Rodriguez ², Zully Contreras-Correa ¹

¹Tarleton State University, ²University of Puerto Rico-Mayaguez

3:25 p.m. 45 **The effects of N-carbamylglutamate and melatonin supplementation on testicular morphometrics of peripubertal Dorper lambs experiencing heat stress**

Hannah Blasingame ¹, Isabella Becerra ¹, Mackenzie Hodge ¹, Anna West ¹, Rafael E. Martinez ¹, Zully Contreras-Correa ¹

¹Tarleton State University

3:30 p.m. 46 **Exploring the immune enhancing potential of *Spirulina platensis* and its impact on gut microbial diversity in laying hens**

Trahmilla Carr ¹, Kayla Stamps ¹, MD Salahuddin ¹, Ahmed A.A. Abdel-Wareth ¹, Taylor Rounds-Carter ¹, Jayant Lohakare ²

¹PVAMU, Prairie View, TX, ²PVAMU, Prairie View, TX, USA

3:35 p.m. 47 **Student consumption preferences of various meat and meat-type products: A university wide survey**

Charle Cooper ¹, Carly Hoffmann ¹, Stanley F. Kelley ¹, Kristin Nicholson ¹, Kamlynn Wise ¹, Kaylee Greiner ²

¹Sam Houston State University, ²Beef Loving Texans, Texas Beef Council

3:40 p.m. 48 **Red clover leaf can partially attenuate fescue toxicosis-related heat stress in cattle**

Alysa M. Farrell ¹, Tracy A. Hamilton ², Jennifer Weinert-Nelson ³, Ronald J. Trotta ¹, Daraja Maye ⁴, Allison Serda ⁵, Kiana Rivera ⁶, Brittany E. Davis ³

¹University of Kentucky, ²USDA Forage-animal Production Research, ³USDA-ARS Forage-Animal Production Research Unit, ⁴Alabama A&M University, ⁵Texas State University, ⁶New Mexico State University

3:45 p.m. 49 **Transdermal effects of melatonin on horses experiencing transport stress**

Jeanine H. Fassbender ¹, Whitney L. Crossland ¹, Jaci Brown ¹

¹Texas Tech University

3:50 p.m. 50 **Experiential learning improves understanding and changes perceptions of beef production in college students studying agricultural sciences**

Victoria Garcia ¹, Alice P. Poggi Brandao ², Tryon A. Wickersham ², Merritt L. Drewery ¹

¹Texas State University, ²Texas A&M University

3:55 p.m. 51 **Effect of height of blood drops on novel blood biosensor for predicting Anemia in goats**

ava Mincey ¹, Andrea Villa ², Cornelius Ellington ², Davia Brown ¹, Rocquel Tunner ¹, Phaneendra Batchu ¹, Aftab Siddique ¹, Jan Van Wyk ³, Thomas H. Terrill ¹

¹Fort Valley State University, ²fort valley state university, ³University of Pretoria

4:00 p.m. **Southern Undergraduate Student Competition Break**

4:15 p.m. 52 **Effect of a probiotic microbial gel jointly with two versions of supplemental direct-fed microbials in receiving cattle diets on growth performance and health**

John D. Mitchell ¹, Robin A. Cheek ², Beth B. Kegley ³, Jana L. Reynolds ³, Alexis Harness ³, Larry Roth ⁴, Jeremy G. Powell ³

¹Department of Animal Science, University of Arkansas System Division of Agriculture,

²University of Arkansas, ³University of Arkansas, ⁴Agrarian Solutions

4:20 p.m. 53 **Assessing the effects of menthol-based heat stress mitigation strategy via vagus nerve stimulation on the behavior of dairy cattle**

Lindsey J. Reon ¹, Himani Joshi ¹, Jalyn G. Hawkins ¹, Brandon Bernard ¹, Abigail McBride ¹, Aravind Bethini ¹, Caleb O. Lemley ¹, Amelia Woolums ¹, James Brett ¹, Isaac Isaac Jumper ¹, Marcus McGee ¹, Peixin Fan ¹

¹Mississippi State University

4:25 p.m. 54 **Evaluating white mushroom stem as a sustainable alternative to soybean meal in poultry nutrition**

Taylor Rounds-Carter ¹, Kayla Stamps ¹, Ahmed A.A. Abdel-Wareth ¹, MD Salahuddin ¹, Venkatesh Balan ², Maedeh Mohammadi ², Woo Kyun Kim ³, Weihang Zhu ², Ahmed Ahmed ¹, Cassandra Gray ¹, Adrian Avina ¹, Trahmilla Carr ¹, Adebowale Bakare ¹, Amri Williams ¹, Jayant Lohakare ¹

¹PVAMU, Prairie View, TX, ²University of Houston, ³University of Georgia, Athens

4:30 p.m. 55 **Beef steers acceptance of increasing doses of thymol to a basal forage diet**

Jordan Suter ¹, Greyson Fruge ¹, Emma Fukuda ¹, Russell Jessup ², Merritt L. Drewery ¹

¹Texas State University, ²Texas A&M University

4:35 p.m. 56 **Investigating bee pollen's role in fecal parasite management and FAMACHA scoring in crossbred goats**

Adriana Rojas ¹, Bianca Trochez ¹, Lauren K. Solice ¹, Reagan N. Sims ¹, Brian L. Bruner ¹, Rodolfo C. Cardoso ², Cesar A. Rosales-Nieto ¹

¹Texas State University, ²Texas A&M University

4:40 p.m. 57 **Leveraging bioelectrical impedance analysis and machine learning for early detection of parasitic infections in dairy goats**

Rocquel Tunner¹, Lauren Wartley¹, Aftab Siddique¹, Phaneendra Batchu¹, Priyanka Gurrapu¹, Tharun Erukulla¹, Jan Van Wyk², David Shapiro-Ilan³, Govind Kannan⁴, Thomas H. Terrill¹
¹Fort Valley State University, ²University of Pretoria, ³USDA ARS, ⁴Auburn University

4:45 p.m. 58 **Pilot: Tag weight capacity of cattle ears**

Brock Van Cleave¹, Isaac Manley¹, Alayna Gerhardt¹, Mark G. Trotter², Ryan R. Reuter¹
¹Oklahoma State University, ²CQUniversity

4:50 p.m. 59 **Identification of parasitic dairy goats using Bio-Electrical Impedance Analysis**

Andrea Villa¹, Lauren Wartley², Tharun Erukulla², Phaneendra Batchu², Davia Brown², Aftab Siddique², Jan Van Wyk³, Thomas H. Terrill²
¹fort valley state university, ²Fort Valley State University, ³University of Pretoria

Monday, April 7, 2025

Teaching and Undergraduate Education

Chair: Cheyenne Runyan, Tarleton State University

8:00 AM - 8:30 AM

Champions 1

8:00 a.m. 75 **Assessment of the Steer-A-Year Program at Montana State University**

Teo Sinks¹, Hannah DelCurto-Wyffels¹, Kaylen A. Stearns¹, Tucker Lytton¹, Shannon Arnold¹
¹Montana State University

8:15 a.m. 76 **Preliminary study on animal science students experiences with practical goat management sessions**

Larry Leon-Medina¹, Kelsey R. Mazeres², Caelin Hodges¹, Maxwell Mkunga¹, Asia Irons¹, Ellen Haas¹, Leyla Rios¹
¹Mississippi State University, ²CREC-White Sand Beef Unit, Mississippi State University

Kunkle Symposium

Chair: Nicolas DiLorenzo, University of Florida

8:00 AM - 11:30 AM

Hall of Fame

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

8:05 a.m. 193 **Cattle & Climate: Unpacking the science, uncovering the gaps, and exploring ideas for methane mitigation in the Western U.S.**

Juliana Ranches¹

¹Oregon State University

8:50 a.m. 194 **SMART Foodscapes: Advancing sustainable beef production in Western U.S.**

Juan J. Villalba¹

¹Utah State University

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

9:55 a.m. 195 **Mitigating enteric methane emissions from grazing beef cattle: Preliminary findings of the implementation of climate-smart practices in South Carolina**

Matias J. Aguerre ¹, Culler Hannah ¹, Wilmer Cuervo-Vivas ²

¹Clemson University, ²University of Florida, Animal Sciences department

10:40 a.m. 196 **Adapting forage systems for climate-smart beef production in the Southeast**

S. Leanne Dillard ¹

¹Auburn University

11:25 a.m. **Kunkle Symposium Closing**

Extension I

Chair: Ashley Edwards, Louisiana State University Agricultural Center

8:45 AM - 9:45 AM

Super Bowl 1 & 2

8:45 a.m. 64 **Estimating enteric methane emissions in grazing livestock: a practical approach with fecal NIRS/Nutbal System**

Barbara Rodrigues ¹, Jessica Dudak ², Taylor Winkler ³, Douglas R. Tolleson ⁴

¹Texas A&M University, ²Texas A&M Agrilife / Grazingland Animal Nutrition Lab, ³Texas A&M AgriLife / Grazingland Animal Nutrition Laboratory, ⁴Texas A&M AgriLife

9:00 a.m. 61 **Animal performance in small ruminant grazing systems on semi-arid savanna rangelands**

Jessica Dudak ¹, Erika S. Campbell ², Barbara Rodrigues ³, Kathryn Wardlaw ⁴, Douglas R. Tolleson ⁴

¹Texas A&M Agrilife / Grazingland Animal Nutrition Lab, ²Texas A&M AgriLife Sonora Research Station, ³Texas A&M University, ⁴Texas A&M AgriLife

9:15 a.m. 62 **Stocking rate during gestation and lactation on subsequent offspring performance in southeastern US beef cattle: implications for management.**

Douglas R. Tolleson ¹, Dan Quadros ², Charles Long ¹, Kelli Norman ³, Monte M. Rouquette ¹

¹Texas A&M AgriLife, ²University of Arkansas System Division of Agriculture, ³Texas A&M University

9:30 a.m. 63 **Cow Efficiency Measured by Performance Metrics 2019-2023: The Alabama Beef Cattle Improvement Association and the Alabama Cooperative Extension System**

Michelle F. Elmore ¹, Kimberly Kimberly Mullenix ¹

¹Auburn University

Physiology I

Chair: George Perry, Texas A&M AgriLife Research

10:00 AM - 12:00 PM

Champions 3

10:00 a.m. 86 **Randel Lecture: Bovine Embryo Evaluation—From Optics to Omics: My Journey**

Matthew B. Wheeler ¹

¹University of Illinois at Urbana-Champaign

11:00 a.m. 87 **Metabolomic insights into preserved boar semen: Differential profiles in high-survival and low-survival semen during liquid storage**

Serge L. Leugoue Kameni ¹, Notsile H. Dlamini ¹, Jean M. Feugang ²

¹Department of Animal and Dairy Sciences, Mississippi State University, ²Mississippi State University

11:15 a.m. 88 **Dietary supplementation modulates the epithelial luminal transcriptome in multiparous pregnant beef cows**

Megan Bahr ¹, Allyson McCarty ¹, Matt H. Poore ¹, Damon Smith ², Ky G. Pohler ³, Christian Maltecca ¹, Felipe A.C.C. Silva ¹

¹North Carolina State University, ²Department of Animal Science, Texas A&M University,

³Department of Animal Sciences, Texas A&M University

11:30 a.m. 89 **Integrated fetal testicular transcriptomic and epigenomic profiles during maternal nutrient restriction with dietary melatonin intervention**

Hala El Daous ¹, Zully Contreras-Correa ², Caleb O. Lemley ¹, Shiveeli Rajput ¹, Darcie R. Sidelinger ¹, Heath H. King ¹, Mark A. Arick ³, Brittni P. Littlejohn ⁴

¹Mississippi State University, ²Tarleton State University, ³Institute for Genomics, Biocomputing & Biotechnology, Mississippi State University, Mississippi State, MS, ⁴University of Arkansas System Division of Agriculture, Department of Animal Science

11:45 a.m. 90 **The evaluation of source and level of rumen undegradable protein on growth performance and ovarian parameters in beef heifers developed in dry-lots**

Taylor N. Andrews ¹, Eric J. Scholljegerdes ¹, Robert A. Cushman ², Alexandria P. Snider ², George A. Perry ³, Shad H. Cox ⁴, Richard L. Dunlap ⁴, Joyce Anne Cooper ¹, Clayton Bedke ¹, Katylyn Richardson ¹, Adam F. Summers ¹

¹Animal and Range Sciences Department, New Mexico State University, ²U.S. Meat Animal Research Center, USDA-ARS, ³Texas A&M AgriLife Research, ⁴Corona Range and Livestock Research Center, New Mexico State University

Western Graduate Student Poster Competition

Chair: Patrick Doyle, Colorado State University

2:00 PM - 3:00 PM

Ballroom Pre-Function

2:00 p.m. PS-9 **Behavioral patterns at the feed bunk as indicators of feed efficiency in yearling Angus bulls**

Amelia R. G. Katz ¹, Jason P. Dubowsky ¹, Julie M. Huzzey ¹, Zachary D. McFarlane ¹

¹California Polytechnic State University

2:00 p.m. PS-11 **Competition: Salt-limited trace mineral and/or protein supplement intake behavior and subsequent performance of yearling heifers grazing summer/early fall dryland pastures**

Jacqueline Pondolfino ¹, Noah Davis ², Tim DelCurto ², Sam Wyffels ²

¹Montana State University, ²Montana State University

2:00 p.m. PSV-14 **Effect of sericea lespedeza (*lespedeza cuneata*) on gastrointestinal nematode parasite egg count, body weight and scrotal circumference in weaned beef calves.**

Terra D. Odom ¹, Niki C. Whitley ¹, Lauren Wartley ¹, Rocquel Tunner ¹, Davia Brown ¹, Clay Nodes ¹, Seymone Dargon ¹, Tyler Connell ¹, Thomas H. Terrill ¹

¹Fort Valley State University

2:00 p.m. PS-3 **Effects of a *Bacillus*-based direct-fed microbial on feeder cattle performance during a preconditioning program**

Arnaldo Limede ¹, Rodrigo S. Marques ², Fernando Cidri ², Gilyard Souza ², Vinicius Alves Cruz ³, Mariane Beline ⁴, Bruno Cappellozza ⁵

¹Virginia Polytechnic and State University, ²Virginia Tech, ³Virginia Tech - School of Animal Sciences, ⁴School of Animal Sciences- Virginia Tech, ⁵Novonesis

2:00 p.m. PS-5 **Effects of branched chain amino acid supplementation on complete blood cell counts of pre-weaned dairy calves following immune challenge**

Keira M. Cruickshank ¹, Cassie L. Smithyman ¹, Tanna Crisp ¹, Clint A. Löest ¹

¹New Mexico State University

2:00 p.m. PS-2 **Effects of protein supplementation to backgrounding cattle in a winter bale grazing system on growth performance, forage production and soil health**

Jaime Chambers ¹, Grady Gullickson ¹, Madeliene Nichols ¹, Yssi L. Enztie ¹, Jessica G. Syring ¹, Joshua Wianeki ¹, Lydia E. Trandem ¹, Garrett Havelka ¹, Kendall C. Swanson ², Miranda Meehan ¹, Zachary Carlson ¹

¹North Dakota State University, ²Department of Animal Sciences, Center for Nutrition and Pregnancy, North Dakota State University

2:00 p.m. PS-4 **Effects of transportation on serum cortisol concentrations and laparoscopic artificial insemination pregnancy rates in Boer goats**

Joyce Anne Cooper ¹, Taylor N. Andrews ¹, Clayton Bedke ¹, Katylyn Richardson ¹, Kristie L. Gallacher ², Jennifer A. Hernandez Gifford ³, Shad H. Cox ⁴, Richard L. Dunlap ⁴, Adam F. Summers ¹, Eric J. Scholljegerdes ¹

¹Animal and Range Sciences Department, New Mexico State University, ²NMSU, ³New Mexico State University, ⁴Corona Range and Livestock Research Center, New Mexico State University

2:00 p.m. PS-13 **Evaluation of innate immune responses between beef and beef × dairy cross steers under an immune challenge**

M. M. M. Smithyman ¹, P. Rand Broadway ², Samantha N. Barker ³, Jerrad F. Legako ⁴, Nicole C. Burdick Sanchez ²

¹New Mexico State University, Clayton Livestock Research Center, ²United States Department of Agriculture, Agriculture Research Service, Livestock Issues Research Unit, ³Graduate Student, Texas Tech University, ⁴Texas Tech University

2:00 p.m. PS-10 **Influence of vegetative diversity during the stocker phase on feedlot performance, carcass characteristics and economic returns of beef steers**

Sydni E. Borders ¹, Logan R. Vandermark ¹, Jameson R. Brennan ², Christina Bakker ¹, Keith Underwood ¹, Judson Grubbs ¹, John R. Jaeger ¹, Kenneth Olson ¹, Amanda Blair ¹

¹South Dakota State University, ²ASAS

2:00 p.m. PS-6 **Predictability of heat stress susceptibility: Correlations between baseline biomarkers and performance indicators in chronically heat-stressed feedlot wethers**

Samantha Ekstrom ¹, Melanie R. White ², Micah Most ², Pablo C. Grijalva ², Rebecca M. Swanson ¹, Dustin T. Yates ², Rachel L. Gibbs ¹

¹North Dakota State University, ²University of Nebraska-Lincoln

2:00 p.m. PS-12 **Supplementation with selenium during pregnancy and postpartum to support ewe health**

Rebecka A. Sadler ¹, Nicole P. Moran ¹, Umesh K. Shandilya ¹, Niel A. Karrow ¹

¹University of Guelph

2:00 p.m. PS-1 **Using GPS enabled smart ear-tags to determine cow movement predictability and associations with cow/calf interactions and production metrics**

Emily R. Barr ¹, Lilly R. Masopust ¹, Chase D. Markel ¹, Kelly Woodruff ¹, Hannah C. Cunningham-Hollinger ¹, Sean Field ²

¹Department of Animal Science; University of Wyoming, ²School of Computing; University of Wyoming

2:00 p.m. PS-8 **Validating the use of dataloggers to measure standing behavior of yearling Angus Bulls on hilly terrain**

Amelia R. G. Katz ¹, Amanda Burdett ¹, Jason P. Dubowsky ¹, Julie M. Huzzey ¹, Zachary D. McFarlane ¹

¹California Polytechnic State University

2:00 p.m. PS-7 **Vitamin and mineral supplementation to gestating F0 beef heifers and the multigenerational impacts on organ weights and circulating hormones and metabolites in the F1 Dam and F2 Fetus**

Jennifer L. Hurlbert ¹, Kerri A. Bochantin-Winders ², Kathryn R. M. Slavick ², Ana B. Clara B. Menezes ³, James D. D. Kirsch ², Kendall C. Swanson ⁴, Kevin K. K. Sedivec ², Carl Robertson Dahlen ¹

¹North Dakota State University Department of Animal Sciences Center for Nutrition and Pregnancy, ²North Dakota State University, ³South Dakota State University, ⁴Department of Animal Sciences, Center for Nutrition and Pregnancy, North Dakota State University

Pastures and Forages I

Chairs: S. Leanne Dillard, Auburn University; Ashlyn Hurst, Auburn University

2:00 PM - 3:45 PM

Super Bowl 1 & 2

2:00 p.m. 104 **Factors affecting supplement intake by cattle grazing riparian Montane pastures**

David W. Bohnert¹, Ryan Nielson², Mary Rowland³, Michael Wisdom³, Bryan A. Endress⁴

¹Oregon State University, ²Eagle Environmental, Inc., ³U.S. Forest Service, Pacific Northwest Research Station, ⁴Eastern Oregon Agricultural Research Center/Oregon State University

2:15 p.m. 105 **The use of supplemental feed in pasture-based stocker cattle systems for increased nutrient cycling**

Macy L. Rockwell¹, Mason B. Henson¹, Kesner Auguste¹, Josh Maples², Kimberly Kimberly Mullenix¹, Leanne Leanne Dillard¹, William B. Smith¹

¹Auburn University, ²Mississippi State University

2:30 p.m. 106 **Influence of timing of grazing during the growing season on forage utilization, foraging efficiency, botanical composition, and diet quality in semi-arid rangelands**

Cooper W. Simmons¹, Caroline Gatschet¹, Noah Davis¹, Thomas Hamilton¹, Jeremiah Peterson¹, Kaylen A. Stearns¹, Gavin Haines¹, Madysn Mangum¹, Tucker Lytton¹, Emily Partee¹, Paul Nugent¹, Brett Griesbaum¹, Sam Wyffels¹, Tim DelCurto¹

¹Montana State University

2:45 p.m. 107 **Use of virtual fences to co-fence two groups of cattle with a shared virtual boundary**

Thomas Aquino¹, Mary E. Drewnoski², Biquan zhao², Pedro Henrique Jota Fernandes², Isaque Vicci², Mitchell Stephenson¹, Yijie Xiong²

¹UNL, ²University of Nebraska-Lincoln

3:00 p.m. 108 **Economic performance of stocker cattle grazing wheat pasture supplemented with distiller's grains compared to varied nitrogen fertilizer rates**

Cody E. Gruber¹, Michelle Johnson², Tom Hess³, Doug L. Galloway², Daniel Rivera⁴, James Mitchell⁵, Beth B. Kegley², Paul A. Beck¹, Shane Shane Gadberry⁶

¹Oklahoma State University, ²University of Arkansas, ³Livestock and Forestry Station, University of Arkansas System Division of Agriculture, ⁴Southwest Research & Extension Center, University of Arkansas System Division of Agriculture, ⁵Department of Agricultural Economics and Agribusiness, University of Arkansas Division of Agriculture, ⁶University of Arkansas System Division of Agriculture

3:15 p.m. 109 **In vitro and in situ digestibility of warm-season grass and legume mixtures in the Southeast**

Ashlyn J. Hurst¹, Leanne Leanne Dillard¹, Kimberly Kimberly Mullenix¹, William B. Smith¹, Micayla H. West²

¹Auburn University, ²Department of Animal sciences, Auburn University

3:30 p.m. 111 **Grazing cool-season annual species: Effects on soil health and crop productivity**

Leanne Leanne Dillard¹, William B. Smith¹, Kim Mullenix¹, Jose D. Pereira², Sofia A. Suazo¹

¹Auburn University, ²Auburn

Small Ruminant Production I: Animal Health and Reproduction

Chair: Scott Bowdridge, West Virginia University

2:00 PM - 4:15 PM

Champions 3

2:00 p.m. 118 Determining interaction between *Duddingtonia flagrans* and dietary lasalocid on in vitro recovery of *Haemonchus contortus* larvae

Joan M. Burke ¹, Suman Rohila ², Adriano Vatta ³, James E. Miller ³, Scott A A. Bowdridge ⁴

¹USDA, ARS, Dale Bumpers Small Farms Research Center, ²USDA, Agricultural Research Service, ³Louisiana State University, ⁴West Virginia University

2:15 p.m. 119 Analysis of seasonal, sex, and age group effects on weight and parasitic load in a Spanish goat herd in Mississippi

Larry Leon-Medina ¹, Kelsey R. Mazeres ², Caelin Hodges ¹, Ke'Daja Freelon ¹, Maxwell Mkunga ¹, Nicolas Marchant ¹, Kipp Brown ¹, Leyla Rios ¹

¹Mississippi State University, ²CREC-White Sand Beef Unit, Mississippi State University

2:30 p.m. 120 Effect of copper oxide wire particles on parasitism and growth in Katahdin lambs divergently selected for fecal egg count estimated breeding value: Year 2

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

¹NC State University, ²Virginia Tech, ³West Virginia University, ⁴North Carolina State University

2:45 p.m. 121 *Haemonchus contortus* alters the colostrum metabolome and lipidome profile in Florida Cracker ewes

Sola Ikuejamoye-Omotore ¹, John O. Adebayo ², Zaira M. Estrada-Reyes ¹, Makenzie Harrison ³, Ibukun M M. Ogunade ⁴, Thomas H. Terrill ⁵, Andres Alfredo Pech Cervantes ⁶

¹North Carolina Agricultural and Technical State University, ²North Carolina A&T State University, ³North Carolina A&T State University, ⁴West Virginia University, ⁵Fort Valley State University, ⁶Prairie View A&M University

3:00 p.m. 122 The influence of supplementation type and mating season on parasite indicators in landrace hair sheep ewes during late gestation and lactation

Dahlia J. O'Brien ¹, Stephan A. Wildeus ¹, Niki C. Whitley ², Kwame Matthews ³

¹Virginia State University, ²Fort Valley State University, ³Delaware State University

3:15 p.m. Small Ruminant Production I: Animal Health and Reproduction Break

3:30 p.m. 126 RNA-Sequencing reveals adaptation to heat stress in Florida Cracker sheep

Zaira M. Estrada-Reyes ¹, John O. Adebayo ², Sola Ikuejamoye-Omotore ¹, Makenzie Harrison ³, Ibukun M M. Ogunade ⁴, Andres Alfredo Pech Cervantes ⁵, Thomas H. Terrill ⁶

¹North Carolina Agricultural and Technical State University, ²North Carolina A&T State University, ³North Carolina A&T State University, ⁴West Virginia University, ⁵Prairie View A&M University, ⁶Fort Valley State University

3:45 p.m. 124 Breeds, breeding practices, and health management of sheep flocks in Arkansas, USA

Dan Quadros ¹, Andrew Milsom ¹

¹University of Arkansas System Division of Agriculture

4:00 p.m. 125 **Reproductive performance with two CIDRs permanencies for estrus synchronization in Spanish goats**

Caelin Hodges ¹, Kelsey R. Mazeres ², Ke'Daja Freelon ¹, Larry Leon-Medina ¹, Maxwell Mkunga ¹, Rhonda C. Vann ³, Juan Romano ⁴, Leyla Rios ¹

¹Mississippi State University, ²CREC-White Sand Beef Unit, Mississippi State University,

³Department of Animal and Dairy Sciences, Mississippi State University, ⁴3R Ranch Livestock Co

Extension II

Chair: Ashley Edwards, Louisiana State University Agricultural Center

2:00 PM - 4:45 PM

Champions 1

2:00 p.m. 65 **Regenerating Public Health**

Peter J. Ballerstedt ¹

¹Grass Based Health, LLC

2:15 p.m. 66 **Four-day teacher professional development increases agricultural literacy awareness, tackles food science and poultry science misconceptions**

Stephanie M. Lemley ¹, Carley Morrison ¹, Courtney Crist ¹, Shecoya White ¹, Kelley Wamsley ¹, Jessica Wells ¹

¹Mississippi State University

2:30 p.m. 67 **Hands on nutritional monitoring of grazing livestock as a teaching tool.**

Kathryn Wardlaw ¹, Douglas R. Tolleson ¹, Jessica Dudak ², Erika S. Campbell ³, Barbara Rodrigues ⁴

¹Texas A&M AgriLife, ²Texas A&M Agrilife / Grazingland Animal Nutrition Lab, ³Texas A&M AgriLife Sonora Research Station, ⁴Texas A&M University

2:45 p.m. 68 **Educating producers to reduce anthelmintic resistance in small ruminants**

Cassidy J. Dossin ¹, Alicia Halbritter ¹, Lizzie Whitehead ², Paulette Tomlinson ², Cindy Sanders ³

¹UF/IFAS Extension, ²UF/IFAS Extension Bradford County, ³UF/IFAS Extension Alachua County

3:00 p.m. 69 **Exploring implementation of sustainable practices by Alabama beef producers**

Gabriella Johnson ¹, Jason T. Sawyer ¹, David Martin ², Don Mulvaney ¹

¹Department of Animal Sciences, Auburn University, ²School of Hospitality Management, Auburn University

3:15 p.m. **Extension II Break**

3:30 p.m. 70 **Solar grazing schools create opportunity for sheep production in solar arrays**

Johnny R. Rogers ¹, Andrew R. Weaver ¹, Matt H. Poore ¹, Camren L. Maierle ²

¹North Carolina State University, ²American Lamb Board

3:45 p.m. 71 **Forage Basics: Educational Impact of Free, Online Extension Education Course in Alabama Cooperative Extension System**

Duncan McSorley ¹, William B. Smith ¹, Kimberly Kimberly Mullenix ¹, Leanne Leanne Dillard ¹
¹Auburn University

4:00 p.m. 72 **Teaching advanced reproductive technologies to ranchers**

John B. Hall ¹, Sidney Stratton ², Alynn Harder ¹, Ody Holder ³, Troy Cassel ⁴
¹University of Idaho, ²Montana State University, ³Select Sires Member Cooperative, ⁴ReproScan

4:15 p.m. 73 **Beef Cattle Calving School improves producer confidence in calving management**

Libby S. Durst ¹, Brandi B. Karisch ², William I. Jumper ²
¹Mississippi State University Dept. of Ani. & Dairy, ²Mississippi State University

4:30 p.m. 74 **Bull Breeding Soundness Exam Haul-In Days: an Extension program to increase the adaption of a best management practice**

Shanna Reynolds ¹, Pedro Fontes ², Thomas McNair ³, Lawton Stewart ²
¹The University of Georgia, ²University of Georgia, ³Wilkes County Veterinary Services

Ruminant Animal Production I: Management

Chair: Brandi Karisch, Mississippi State University

2:00 PM - 4:45 PM

Champions 2

2:00 p.m. 137 **Effect of arrival fecal egg count on health, performance, and reinfection rate in stocker steers during a 90-d grazing period**

Tanner N. Danos ¹, Brandi B. Karisch ¹, Kelsey M. Harvey ¹, Tyler Barlow ², Trevor Haney ¹, Shea Mackey ³, Reinaldo F. Cooke ⁴, Harold Newcomb ⁵
¹Mississippi State University, ²Louisiana State University, ³Texas A&M University, ⁴Department of Animal Science, Texas A&M University, ⁵Merck Animal Health

2:15 p.m. 177 **Impact of feed and drench multi-additive formulations on animal health, performance and water intake in high-risk beef cattle**

Federico Tarnonsky ¹, Daniella C. Heredia ², Araceli B. Maderal ¹, Ignacio Fernandez-Marenchino ¹, Tomas Andres Soto ¹, Camila Gomez-Lopez ¹, Federico Podversich ¹, Andres Fernandez-Lehmann ¹, Tessa M. Schulmeister ¹, Willard Lemaster ³, Bob Simon ³, robert G. Bondurant ³, Fredrik Sandberg ³, Nicolas DiLorenzo ⁴
¹University of Florida, ²UNIVERSITY OF FLORIDA, ³Furst McNess, ⁴Florida University

2:30 p.m. 139 **Evaluating effectiveness of several cattle anthelmintics via two fecal egg count reduction tests on ranch raised and auction market calves**

Jacy L. Riddle ¹, Jeremy G. Powell ¹, Beth B. Kegley ¹, Christopher Tucker ², Jana L. Reynolds ¹, Alexis Harness ¹, Eva M. Wray ²
¹University of Arkansas, ²Department of Animal Science, University of Arkansas System Division of Agriculture

2:45 p.m. 140 **Gastrointestinal parasite prevalence and anthelmintic efficacy on beef cattle farms in Kentucky**

Amanda L. Lee ¹, Michelle Arnold ¹, Eric A. Vanzant ¹, Grant I. Crawford ², Kevin Johnson ², Gilbert Myers ³, Jeffrey W. Lehmkuhler ¹

¹University of Kentucky, ²Merck Animal Health, ³Myers Parasitology Services

3:00 p.m. 141 **Administering the maternal appeasing substance to *Bos taurus* and *Bos indicus* finishing cattle**

Shea Mackey ¹, Reinaldo F. Cooke ¹, Izadora de Souza ¹, Ingo Mello ², Guilherme Monteiro ¹, Camila Prado ¹, Yasmin Barreto ³, Vinícius N. Gouvêa ⁴

¹Texas A&M University, ²Ourofino Saúde Animal, ³Texas A&M AgriLife Research and Extension Center - Amarillo, ⁴Department of Animal Science, Texas A&M University

3:15 p.m. **Ruminant Animal Production I: Management Break**

3:30 p.m. 142 **Administering the maternal bovine appeasing substance improves finishing performance and overall productivity of feedlot cattle**

Shea Mackey ¹, Reinaldo F. Cooke ¹, Guilherme Monteiro ¹, Izadora de Souza ¹, Camila Prado ¹, Autumn Pickett ¹

¹Texas A&M University

3:45 p.m. 143 **Influence of Comfort on performance and carcass characteristics in Akaushi steers and heifers in the feedyard**

Taylor Husz ¹, Elizabeth McGibbon ², Carson Scharlau ¹, W. Jeff J. Hill ¹, Jordan R. Beeman ³, Tommy L. Perkins ²

¹Ralco Agriculture, ²West Texas A&M University, ³Heartbrand Beef

4:00 p.m. 144 **Assessment of supplementation feeding strategies on stocker calf performance grazing mixed grass prairie in Western Oklahoma**

Timothy P. Vining ¹, Charles Worthington ¹, Eric A. DeVuyst ¹, Matt Harrison ², Donovan Smith ², Tom Fanning ³, Paul A. Beck ¹

¹Oklahoma State University, ²Pellet Technology USA, ³Buffalo Feeders

4:15 p.m. 145 **Effects of trace mineral injection at weaning on growth, inflammatory and immune responses in implanted and non-implanted beef calves**

Geovanne Silva ¹, Hiam Marcon ², Matheus Fellipe Lana Ferreira ³, Juliana Ranches ⁴, Marcelo Vedovatto ², Barbara Roqueto do Reis ¹

¹CREC-White Sand Beef Unit, Mississippi State University, ²Louisiana State University Agricultural Center, ³Louisiana State University, ⁴Oregon State University

4:30 p.m. 146 **Injectable zinc as an alternative castration method at weaning in beef bulls: effects on growth performance and carcass characteristics**

Olivia S. Brummett ¹, Reagan N. Sims ¹, Beth B. Kegley ², Sami Dridi ², Michael B. Sims ¹, Paul A. Beck ³, Jeremy G. Powell ²

¹Texas State University, ²University of Arkansas, ³Oklahoma State University

**Western Undergraduate Student Poster Competition
- Supported by Dr. Glenn and Donna Duff**

Chair: Patrick Doyle, Colorado State University

4:00 PM - 5:00 PM

Ballroom Pre-Function

4:00 p.m. PS-15 Effects of source and level of ruminal undegradable protein on serum glucose, insulin, and urea nitrogen in developing beef heifers fed in a dry-lot

Taylor N. Andrews¹, Ashton Henington², Clayton Bedke¹, Joyce Anne Cooper¹, Katylyn Richardson¹, Robert A. Cushman³, Alexandria P. Snider³, Pedro Fontes⁴, Molly Sloan Smith⁴, Adam F. Summers¹, Eric J. Scholljegerdes¹

¹Animal and Range Sciences Department, New Mexico State University, ²New Mexico State University-Animal and Range Sciences Department, ³U.S. Meat Animal Research Center, USDA-ARS, ⁴University of Georgia

4:00 p.m. PS-21 Evaluation of a rapid immunity test for morbidity and mortality in newly received feedlot cattle

Cassie L. Smithyman¹, M. M. M. Smithyman², M. E. E. Branine³, Glenn C. Duff², Clint A. Löest¹

¹New Mexico State University, ²New Mexico State University, Clayton Livestock Research Center, ³Zinpro Corporation

4:00 p.m. PS-17 Evaluation of different methods to determine pregnancy in beef cattle

Jade N. Lassaga¹, Tommy L. Perkins¹

¹West Texas A&M University

4:00 p.m. PS-16 Glucogenic precursor source impacts reproductive performance in young range cows

Wiley Lang¹, Jacki A. Musgrave², Kacie L. McCarthy³, Travis Mulliniks¹

¹Oregon State University, ²University of Nebraska, ³University of Nebraska - Lincoln

4:00 p.m. PS-18 Impact of implant strategy and backgrounding rate of gain on yearling performance, feedlot performance, and carcass characteristics

Grace Lindemann¹, Kelton Adair², Jim C. MacDonald³, Jacki A. Musgrave², Travis Mulliniks¹

¹Oregon State University, ²University of Nebraska, ³University of Nebraska-Lincoln

4:00 p.m. PS-20 Investigating potential relationships among key selection metrics of feed efficiency, pulmonary arterial pressure, and fertility metrics in beef bulls at high elevation

Lilly R. Masopust¹, Chase D. Markel¹, Emily R. Barr¹, Scott L. Lake¹, Shelby L. Rosasco¹, Kelly Woodruff¹, Timothy N. Holt², Benjamin Hollinger³, Hannah C. Cunningham-Hollinger¹

¹Department of Animal Science; University of Wyoming, ²Colorado State University, ³Laramie Research and Extension Center; University of Wyoming

4:00 p.m. PS-19 Precision agriculture in beef cattle production: Using GPS and activity monitors to assess beef bull behavior

Tucker Lytton¹, Noah Davis¹, Kaylen A. Stearns¹, Gavin Haines¹, Sam Wyffels¹, Tim DelCurto¹

¹Montana State University

4:00 p.m. PS-22 **Repeated low-dose endotoxin exposure on hematological and febrile response in nulliparous Rambouillet ewes**

Jonathon Valencia¹, Sara C. Gurule¹, Jeffrey Dominguez¹, Naomi Lucero¹, Karime L. Luna¹, Sergio A. Soto-Navarro¹, Jennifer A. Hernandez Gifford¹

¹New Mexico State University

4:00 p.m. PS-14 **The influence of source and level of ruminal undegradable protein on antral follicle count and circulating concentrations of urea, glucose, and insulin in beef heifers grazing native rangelands**

Taylor N. Andrews¹, Adigail Aizpuru², Clayton Bedke¹, Joyce Anne Cooper¹, Katylyn Richardson¹, Richard L. Dunlap³, Shad H. Cox³, Robert A. Cushman⁴, Alexandria P. Snider⁴, Pedro Fontes⁵, Molly Sloan Smith⁵, Esteban Mesen⁶, Adam F. Summers¹, Eric J. Scholljegerdes¹

¹Animal and Range Sciences Department, New Mexico State University, ²New Mexico State University-Animal and Range Sciences Department, ³Corona Range and Livestock Research Center, New Mexico State University, ⁴U.S. Meat Animal Research Center, USDA-ARS,

⁵University of Georgia, ⁶Reprologix Reproductive Technologies

Tuesday, April 8, 2025

Ruminant Animal Production II: Precision Animal Ag and GHG

Chair: Barbara Roqueto do Reis, CREC-White Sand Beef Unit, Mississippi State University

8:30 AM - 11:15 AM

Champions 2

8:30 a.m. 148 **Correlation of sensor-based heart rate values (701x xTpro® and Polar® equine heart rate monitor) in crossbred Angus heifers**

Mariana Eloisa Garcia Ascolani¹, Federica La Manna¹, Blake K. Wilson¹, Ryan R. Reuter¹, Ranjith Ramanathan¹, David L. Lalman¹

¹Oklahoma State University

8:45 a.m. 147 **Assessment of thermal imaging to objectively body condition score mature horses and multiparous gestating beef cows**

Alexandra P. Webster¹, Ryan Wright¹, Jillian Hammond¹, Naa Adei Kotey¹, Claire B. Gleason¹, Robin R. White¹

¹Virginia Tech

9:00 a.m. 149 **Developing and validating artificial intelligence models to predict cattle behavior, movement, and emotion**

Alyssa Lopez¹, Victoria Garcia¹, Damian Valles¹, Merritt L. Drewery¹

¹Texas State University

9:15 a.m. 150 **Effect of adopting multiple management technologies on cattle performance in a small grazing beef cow-calf system**

Ashley K. Edwards¹, Marcelo Vedovatto¹, Jeffrey A. Gurie¹, Hiam Marcon¹, Guillermo Scaglia², J. Matthew Fannin¹, Kurt M. Guidry¹, Glen T. Gentry¹

¹Louisiana State University Agricultural Center, ²North Dakota State University

9:30 a.m. 151 **Effectiveness of portable near infrared spectroscopy for chute-side determination of hot-iron brand age in growing beef cattle**

Douglas R. Tolleson ¹, Ryon S. Walker ², Taylor Winkler ³, Christopher McCoy ⁴, Barton Johnson ¹

¹Texas A&M AgriLife, ²Texas A&M University, ³Texas A&M AgriLife / Grazingland Animal Nutrition Laboratory, ⁴Grazingland Animal Nutrition Laboratory

9:45 a.m. **Ruminant Animal Production II: Precision Animal Ag and GHG Break**

10:00 a.m. 152 **Movement patterns of beef bulls during the breeding season in Southcentral Montana**

Noah Davis ¹, Tucker Lytton ¹, Kaylen A. Stearns ¹, Gavin Haines ¹, Sam Wyffels ¹, Tim DelCurto ¹

¹Montana State University

10:15 a.m. 153 **The linear relationship of forage intake, residual feed intake, and greenhouse gas emissions between lactation and gestation in beef cows**

Samuel R. Talley ¹, Emma Briggs ², Justin D. Crosswhite ¹, Paul A. Beck ¹, Ryan R. Reuter ¹, David L. Lalman ¹

¹Oklahoma State University, ²Kansas State University

10:30 a.m. 154 **Standardizing pre-processing methods for gas flux data from automated head chamber systems**

Matthew R. Beck ¹, Logan R. Thompson ², Corey A. Moffet ³, Ryan R. Reuter ⁴, Stacey A. Gunter ⁵

¹Department of Animal Science, Texas A&M University, ²Kansas State University, ³USDA-ARS,

⁴Oklahoma State University, ⁵USDA, Agricultural Research Service

10:45 a.m. 157 **Enteric methane emissions of beef cattle grazing on native sagebrush in Eastern Oregon**

Jocelyn Torres ¹, Aline Cristine Rezende dos Santos ¹, Erica Ferri de Oliveira ¹, David W. Bohnert ¹, Rory C. C. O'Connor ², Juliana Ranches ¹

¹Oregon State University, ²USDA

11:00 a.m. 156 **Residual methane production is not significantly related to growth performance, feed efficiency, and carcass traits in finishing beef steers**

John Pennington ¹, Vinícius N. Gouvêa ², Jason K. Smith ³, Gordon E. Carstens ¹, Jarret Proctor ⁴, Nathan S. Long ¹, Kyle Vahlenkamp ¹, Avianna A. Liuzzo ¹, João P. Mittelsted ¹, Logan R. Thompson ⁵, Matthew R. Beck ²

¹Texas A&M University, ²Department of Animal Science, Texas A&M University, ³Texas A&M AgriLife Extension, ⁴JSP Nutrition, ⁵Kansas State University

Small Ruminant Production II: Feeding, Genetics, Management

Chair: Scott Bowdridge, West Virginia University

8:30 AM - 11:15 AM

Hall of Fame

8:30 a.m. 127 Evaluation of sire selection and maternal influence on feed efficiency in Katahdin sheep

Nicole K. Valliere-Kopetzky ¹, Donald L. Wright ¹, Andrew R. Weaver ², Camren L. Maierle ³, Scott A.A. Bowdridge ⁴, Scott P. Greiner ¹

¹Virginia Tech, ²North Carolina State University, ³American Lamb Board, ⁴West Virginia University

8:45 a.m. 128 Evaluation of lifetime feed efficiency and feeding behavior in Katahdin sheep

Nicole K. Valliere-Kopetzky ¹, Donald L. Wright ¹, Andrew R. Weaver ², Scott A.A. Bowdridge ³, Scott P. Greiner ¹

¹Virginia Tech, ²North Carolina State University, ³West Virginia University

9:00 a.m. 129 Evaluating soy hull as a supplement during late gestation and lactation in landrace hair sheep managed under accelerated mating in a forage-based system

Stephan A. Wildeus ¹, Dahlia J. O'Brien ¹, Jung H. Lee ², Niki C. Whitley ²

¹Virginia State University, ²Fort Valley State University

9:15 a.m. 130 Effects of harvest weight on carcass traits of forage-raised landrace hair sheep lambs

Davida Rimm-Kaufman ¹, Jung H. Lee ², Dahlia J. O'Brien ¹, Stephan A. Wildeus ¹

¹Virginia State University, ²Fort Valley State University

9:30 a.m. 131 Five-year analysis of Kiko buck growth rate, carcass muscling and parasite resistance in a feedlot environment

Scott A.A. Bowdridge ¹, Eugene Felton ¹, Brian Wickline ¹, Joshua Peplowski ¹, Brad Smith ¹, Alexandria Smith ¹, Garrett T. Vaughan ¹

¹West Virginia University

9:45 a.m. Small Ruminant Production II: Feeding, Genetics, Management Break

10:00 a.m. 136 Metabolomic implications for monoacylglycerol lipase modulation in goats selected for monoterpene defended juniper consumption

Erika S. Campbell ¹, Thomas H. Welsh ², Douglas R. Tolleson ³

¹Texas A&M AgriLife Sonora Research Station, ²Texas A&M University, ³Texas A&M AgriLife

10:15 a.m. 133 Progeny performance testing as a genetic evaluation of dorper rams for commercially important traits

Jake W. Thorne ¹, Carson J. Millican ², Nathan Barrett ², Christopher Kerth ²

¹Texas A&M AgriLife Research Center, ²Texas A&M University

10:30 a.m. 134 Second Kiko Buck Performance Test in Mississippi

Kelsey R. Mazeres ¹, Caelin Hodges ², Ke'Daja Freelon ², Larry Leon-Medina ², Maxwell Mkunga ², Alex Shook ², Rhonda C. Vann ³, Barbara Roqueto do Reis ¹, Leyla Rios ²

¹CREC-White Sand Beef Unit, Mississippi State University, ²Mississippi State University,

³Department of Animal and Dairy Sciences, Mississippi State University

10:45 a.m. 135 **Farm characteristics, challenges, and perspectives of meat-goat producers in the Southeast US**

Uma Karki ¹, Dahlia J. O'Brien ², Angela McKenzie Jakes ³, Terry A. Gipson ⁴, Richard Browning ⁵, Ashley Pellerin ⁶, Brou Kouakou ⁷

¹Tuskegee University, ²Virginia State University, ³Florida A&M University, ⁴American Institute for Goat Research, Sherman Lewis School of Agriculture and Applied Sciences, Langston University, Langston OK 73050, ⁵Tennessee State University, ⁶Prairie View A&M University, ⁷Fort Valley State University

11:00 a.m. 117 **Survey of pastures and nutrition of sheep flocks in Arkansas**

Andrew Milsom ¹, Dan Quadros ¹

¹University of Arkansas System Division of Agriculture

Nutrition I: Beef Cow

Chair: Timothy DelCurto, Montana State University

8:30 AM - 12:00 PM

Champions 1

8:30 a.m. 192 **Awardee Talk: Assessing performance metrics and nutritional intake to determine efficiency in Angus heifers at different production stages**

E. Benjamin Rajo ¹, Andrew R. Weaver ¹, Carrie L. Pickworth ¹, Daniel H. Poole ¹

¹North Carolina State University

9:00 a.m. 168 **Effect of cow metabolizable energy intake on calf growth performance in crossbred Angus beef cattle**

Mariana Eloisa Garcia Ascolani ¹, Courtney M. Williams ², Corbit L. Bayliff ¹, Ryan R. Reuter ¹, Gerald W. Horn ¹, Carla L. Goad ¹, David L. Lalman ¹

¹Oklahoma State University, ²Livestock Nutrition Center

9:15 a.m. 169 **Effects of corn silage supplemental feeding of fall-calving cows grazing varieties of fescue**

Tatiana M. Jones ¹, Jaymelynn K. Farney ¹

¹Kansas State University

9:30 a.m. 170 **Effects of corn silage supplementation while grazing Bermudagrass during late gestation with fall-calving cows**

Tatiana M. Jones ¹, Jaymelynn K. Farney ¹

¹Kansas State University

9:45 a.m. 171 **Interrelationships of subjectively and objectively evaluated conformational phenotypes in mature beef cows as it relates to energetic efficiency during a 42 day reconditioning phase**

Skyler Scotten ¹, Dr. Ryan Rathmann ¹, Whitney L. Crossland ¹, Dale R. Woerner ¹, Bradley J. Johnson ¹

¹Texas Tech University

10:00 a.m. 172 **Impact of late-gestation chromium propionate supplementation of Brangus cows on growth and liver transcriptomics of the offspring**

Hiam Marcon ¹, Wellison JS Diniz ², Ashley K. Edwards ¹, Mariana Santos ³, Joao V. Chinaglia ³, Gilmar P. Leite ³, Barbara Roqueto do Reis ⁴, Matheus Fellipe Lana Ferreira ³, Gustavo Rezende Siqueira ⁵, Priyanka Banerjee ², Tristan Cody Brown ², Marcelo Vedovatto ¹

¹Louisiana State University Agricultural Center, ²Auburn University, ³Louisiana State University, ⁴CREC-White Sand Beef Unit, Mississippi State University, ⁵São Paulo Agency for Agribusiness Technology

10:15 a.m. **Nutrition I: Beef Cow Break**

10:30 a.m. 173 **Supplementation of vitamin B complex to beef cows during late gestation**

Erica Ferri de Oliveira ¹, Aline Cristine Rezende dos Santos ¹, Jocelyn Torres ¹, David W. Bohnert ¹, Juliana Ranches ¹

¹Oregon State University

10:45 a.m. 174 **Impact of late gestation supplementation strategies on cow-calf and subsequent feedlot performance**

Robert Ziegler ¹, Jacki A. Musgrave ², Kacie L. McCarthy ³, Travis Mulliniks ⁴

¹University of Wyoming, ²University of Nebraska, ³University of Nebraska - Lincoln, ⁴Oregon State University

11:00 a.m. 175 **Salt-limited trace mineral and/or protein supplement intake behavior and subsequent performance of yearling heifers grazing summer/early fall dryland pastures**

Jacqueline Pondolfino ¹, Noah Davis ², Tim DelCurto ², Sam Wyffels ²

¹Montana State University, ²Montana State University

11:15 a.m. 176 **Performance, digestion, and passage of whole cottonseed offered either as libitum or under restriction to beef cows nursing calves**

Chandler Kyle ¹, Diva N. Rigney ¹, Duncan McSorley ¹, Mason B. Henson ¹, Paul W. Dyce ¹, Kimberly Kimberly Mullenix ¹, Leanne Leanne Dillard ¹, William B. Smith ¹

¹Auburn University

11:30 a.m. 138 **Awardee Talk: The evaluation of management and protein supplementation strategies on growth and ovarian-follicular parameters in developing beef heifers grazing native rangelands**

Taylor N. Andrews ¹, Eric J. Scholljegerdes ¹, George A. Perry ², Shad H. Cox ³, Richard L. Dunlap ³, Collin Anderson ⁴, Maria K. Chavez ⁴, Kristie L. Gallacher ⁵, Emily Melchior ⁶, Alexis Selman ⁴, Joyce Anne Cooper ¹, Clayton Bedke ¹, Adam Summers ⁴

¹Animal and Range Sciences Department, New Mexico State University, ²Texas A&M AgriLife Research, ³Corona Range and Livestock Research Center, New Mexico State University, ⁴New Mexico State University, ⁵NMSU, ⁶University of Tennessee Knoxville

Physiology II

Chair: Pedro Fontes, University of Georgia

9:30 AM - 11:15 AM

Champions 3

9:30 a.m. 91 **Delaying fixed-time artificial insemination on the 7-Day CO-Synch + CIDR protocol to incorporate utilization of sex sorted semen in beef cows**

Frank Even¹, Trinity Vidlund¹, Nikki Tabatabai¹, Tracey Redifer², Jamie L. Stewart², Sherrie Clark², John Currin², Vitor RG Mercadante³

¹Virginia Tech - School of Animal Sciences, ²Virginia Tech - Large Animal Clinical Sciences,

³Virginia Tech - School of Animal Sciences; Large Animal Clinical Sciences

9:45 a.m. 92 **Effects of an acclimation protocol during the handling events of the 7-day CO-Synch + CIDR protocol on temperament and reproductive performance of *Bos taurus* beef heifers**

Sydney H. Flax¹, Danielle M. Stock¹, Allen G. Schwartz¹, Jack Lemmon², Joao V.C. Silva³, Santiago P. Hurtado², Andreia F. Machado³, Victor Gomez-Leon⁴, John R. Jaeger⁵, Nicola Oosthuizen⁶, K.C. Olson², Felipe A.C.C. Silva⁷, Sandy Johnson⁸, Nicholas Wege Dias¹

¹Kansas State University - Department of Animal Sciences & Industry, ²Kansas State University,

³Universidade Federal de Viçosa, ⁴Department of Animal Sciences & Industry, Kansas State University, ⁵South Dakota State University, ⁶ABS Global, ⁷North Carolina State University,

⁸Kansas State University - Department of Animal Sciences & Industry; Northwest Research and Extension Center

10:00 a.m. 93 **Evaluating the relationship between anogenital distance and fertility in beef cattle females**

Nicholas Wege Dias¹, Allen G. Schwartz¹, Danielle M. Stock¹, Sydney H. Flax¹, Trinity Vidlund², Lucas Melo Goncalves³, Alvaro Fabricio Freitas Sales⁴, Renato Correa Furquim⁴, Paulo Henrique Yamada⁵, Vitor R. G. Rodrigues Gomes Mercadante⁶, Pedro Fontes³, Sandy Johnson⁷

¹Kansas State University - Department of Animal Sciences & Industry, ²Virginia Tech - School of Animal Sciences, ³University of Georgia, ⁴Lageado Biotecnologia e Pecuaria, ⁵Departamento de Reproducao Animal, FMVZ, UNESP, ⁶School of Animal Sciences, ⁷Kansas State University - Department of Animal Sciences & Industry; Northwest Research and Extension Center

10:15 a.m. 94 **Changes in cytokine concentrations among beef cattle that had a normal and abnormal estrous cycle after vaccination with a modified live viral vaccine: A meta-analysis**

Haley Weidman¹, Sarah G. Blaske², Kaitlin Epperson¹, Lacey Quail¹, Jaclyn N. Ketchum¹, Saulo M. Zoca³, Jerica J J Rich⁴, Taylor N. Andrews⁵, Adalaide Kline⁴, Russell Daly⁴, Alexandria P. Snider⁶, Robert A. Cushman⁶, George A. Perry⁷

¹Texas A&M, ²Department of Animal Science, Texas A&M University, ³University of Tennessee,

⁴South Dakota State University, ⁵Animal and Range Sciences Department, New Mexico State University, ⁶U.S. Meat Animal Research Center, USDA-ARS, ⁷Texas A&M AgriLife Research

10:30 a.m. 95 **The microbiomes of reproductive tissues in cyclic and early gestation gilts**

Kyle J. Hickman¹, Molly Sloan Smith², Brooke E. McAnally³, Joe Cain¹, Heewon Seo¹, Fuller W. Bazer⁴, Gregory A. Johnson⁵, Jeffrey Wiegert¹, Rebecca K. Poole¹

¹Texas A&M University, ²University of Georgia, ³University of Nebraska-Lincoln, ⁴Department of Animal Science, Texas A&M University, College Station, TX 77843, USA, ⁵Department of Veterinary Integrative Biosciences, Texas A&M University, College Station, TX 77843, USA

10:45 a.m. 96 **Correlating vaginal bacteria abundance and interferon-stimulated genes in lactating dairy cattle**

Dallas R. Soffa¹, Jennifer A. Spencer², Rebecca K. Poole¹

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

11:00 a.m. 97 **Maternal melatonin supplementation alters the transcriptomic profile of placenta in nutrient restricted cattle**

Shiveeli Rajput¹, Zully Contreras-Correa², Caleb O. Lemley¹, Hala El Daous¹, Darcie R. Sidelinger¹, Heath H. King¹, Mark A. Arick³, Brittini P. Littlejohn⁴

¹Mississippi State University, ²Tarleton State University, ³Institute for Genomics, Biocomputing & Biotechnology, Mississippi State University, Mississippi State, MS, ⁴University of Arkansas System Division of Agriculture, Department of Animal Science

Breeding and Genetics

Chair: Wellison Diniz, Auburn University

1:45 PM - 3:00 PM

Super Bowl 1 & 2

1:45 p.m. 187 **Does selection of beef cattle for production traits impact post-weaning immunological phenotype and robustness traits**

Chris Johnson¹, John T. Richeson², Jennifer Rudd¹, Janeen L. Salak-Johnson¹, David L. Lalman¹, Rosslyn Biggs¹, Jared Taylor¹, Paul A. Beck¹

¹Oklahoma State University, ²West Texas A&M University

2:00 p.m. 188 **Relationship of yearling Angus bull pulmonary arterial pressure estimates with production, maternal, and carcass Expected Progeny Differences (EPDs)**

Kaylen A. Stearns¹, Hannah DelCurto-Wyffels¹, Sam Wyffels¹, Megan L. Van Emon¹, Taylre Sitz², Lauren Bigler¹, Tim DelCurto¹

¹Montana State University, ²Sitz Angus Ranch

2:15 p.m. 189 **Selection for moderate or high growth Angus-derived steer calves and their effects on feed intake and performance metrics during a 70-day feed intake period**

Chris Johnson¹, David L. Lalman¹, Paul A. Beck¹

¹Oklahoma State University

2:30 p.m. 190 **Using two-dimensional facial images of Hereford crossbred cattle as a source of computable trait for facial patterns: from images to biological trait**

Imtiaz Ali ¹, Haipeng Yu ², Jin Wang ², Trent Smith ³, Rhonda C. Vann ³, Jeremy G. Powell ⁴, Jake W. Thorne ⁵, Este van Marle-Köster ⁶, Lance W. Bauer ⁷, Monte M. Rouquette ⁸, David G. Riley ⁹, Lauren L. Hanna ¹⁰

¹Department of Animal Sciences, North Dakota State University, ²Department of Animal Sciences, University of Florida, ³Department of Animal and Dairy Sciences, Mississippi State University, ⁴University of Arkansas, ⁵Texas A&M AgriLife Research Center, ⁶Department of Animal and Wildlife Sciences, University of Pretoria, ⁷Beefmasters Breeders United, ⁸Texas A&M AgriLife, ⁹Department of Animal Science, Texas A&M University, ¹⁰North Dakota State University

2:45 p.m. 191 **Systematic effects influencing hair shedding in Admixed beef heifers in the Northern Great Plains**

Christian S. Melby ¹, David G. Riley ², Carl Robertson Dahlen ³, Kendall C. Swanson ⁴, Kris A. Ringwall ⁵, Lauren L. Hanna ⁶

¹Department of Animal Sciences, North Dakota State University, ²Department of Animal Science, Texas A&M University, ³North Dakota State University Department of Animal Sciences Center for Nutrition and Pregnancy, ⁴Department of Animal Sciences, Center for Nutrition and Pregnancy, North Dakota State University, ⁵Dickinson Research Extension Center, North Dakota State University, ⁶North Dakota State University

Physiology III

Chair: Riley Messman, Oklahoma State University

2:00 PM - 3:30 PM

Champions 3

2:00 p.m. 98 **The evolving metabolome of the porcine longissimus dorsi following a prenatal LPS challenge or vaccine**

Thomas W. Dobbins ¹, Manuel S. Hernandez ¹, Margaret Putnam ², Rebecca M. Swanson ³, Isabella Murphy ², Jessie Edwards ², P. Rand Broadway ⁴, Nicole C. Burdick Sanchez ⁴, Amy L. Petry ², Jerrad F. Legako ¹

¹Texas Tech University, ²University of Missouri, ³North Dakota State University, ⁴United States Department of Agriculture, Agriculture Research Service, Livestock Issues Research Unit

2:15 p.m. 99 **Interaction between feed efficiency and infrared thermography in beef heifers exposed to ergot alkaloids**

Daniel H. Poole ¹, E. Benjamin Rajo ¹, Andrew R. Weaver ¹, Carrie L. Pickworth ¹, Suzanne M. Leonard ¹

¹North Carolina State University

2:30 p.m. 100 **Mitigation of oxidative stress to improve range cow grazing distribution**

Landon T. Sullivan ¹, Scott S. Jensen ², James England ², Luis Gimenez-Lirola ³, Scott Radke ³, John B. Hall ², Benton B. Glaze ², Carmen M. Willmore ², Jameson R. Brennan ⁴, Pedram Rezamand ⁵, Robert Collier ², Brenda M. Murdoch ², Jim E. Sprinkle ²

¹East Texas A&M University, ²University of Idaho, ³Iowa State University, ⁴ASAS, ⁵University of Connecticut

2:45 p.m. 101 **Evaluating the effects of simulated wildfire smoke on beef cattle performance and health**

Aline Cristine Rezende dos Santos ¹, Erica Ferri de Oliveira ¹, Jocelyn Torres ¹, Ana L. P. Ramalho ¹, Carlos E. M. Dos Santos ¹, Matheus Fellipe Lana Ferreira ², Pedram Rezamand ³, Amy Skibiel ⁴, Katie Wollstein ¹, Jenifer Cruickshank ¹, Juliana Ranches ¹
¹Oregon State University, ²Louisiana State University, ³University of Connecticut, ⁴University of Idaho

3:00 p.m. 102 **High-forage vs. high-concentrate diets fed to pregnant beef heifers: Impacts on maternal feeding behavior and feed efficiency, blood metabolite and hormone profiles in the dam and calf, and postnatal growth of the male offspring**

Brooklyn M. Kuzel ¹, Jennifer L. Hurlbert ¹, Kathryn R. M. Slavick ², Matheus Carlis ¹, Germán D. Ramírez-Zamudio ³, Sarah R. R. Underdahl ², Joel S. Caton ², Kendall C. Swanson ⁴, Kevin K. Sedivec ², Samat Amat ², Carl Robertson Dahlen ¹
¹North Dakota State University Department of Animal Sciences Center for Nutrition and Pregnancy, ²North Dakota State University, ³School of Animal Science and Food Engineering FZEA; São Paulo University - USP, ⁴Department of Animal Sciences, Center for Nutrition and Pregnancy, North Dakota State University

3:15 p.m. 103 **Moderate body weight loss and one-carbon metabolite supplementation in pregnant beef heifers during early gestation alters maternal and fetal morphometrics**

Rebecca M. Swanson ¹, Kathlyn M. Hauxwell ¹, Jennifer L. Hurlbert ², Layla E. King ³, Pawel P. Borowicz ⁴, Jessica G. Syring ¹, Yssi L. Enztie ¹, Alison K. Ward ⁵, Kevin K. K. Sedivec ¹, Lawrence P. Reynolds ¹, Matthew S. Crouse ⁶, Carl Robertson Dahlen ², Joel S. Caton ¹
¹North Dakota State University, ²North Dakota State University Department of Animal Sciences Center for Nutrition and Pregnancy, ³University of Minnesota Crookston, ⁴Department of Animal Sciences, North Dakota State University, ⁵University of Saskatchewan, ⁶United States Department of Agriculture

Nutrition II: Feedlot

Chair: Jeffrey Lehmkuhler, University of Kentucky
2:00 PM - 4:15 PM
Champions 1

2:00 p.m. 178 **Cannabinoid transference and retention in tissues of beef steers fed hemp leaves**

Greyson Fruge ¹, Geraldine Magnin ², Russell Jessup ³, Brian L. Bruner ¹, Michael Kleinhenz ³, Merritt L. Drewery ¹
¹Texas State University, ²Kansas State University, ³Texas A&M University

2:15 p.m. 179 **Effect of feeding alternative coproducts in finishing calves**

Colin T. Tobin ¹, Kendall C. Swanson ², Warren C. Rusche ³, Madison Bierman ¹, Zachary K. Smith ⁴
¹North Dakota State University, ²Department of Animal Sciences, Center for Nutrition and Pregnancy, North Dakota State University, ³South Dakota State University, ⁴Department of Animal Science, South Dakota State University, Brookings, SD 57007, USA.

2:30 p.m. 180 **Effects of finishing system on growth, efficiency, and carcass quality of Dairy × Beef crossbred steers compared to native beef steers**

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

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

2:45 p.m. 181 **Level of cotton gin byproduct in growing diets for stocker cattle**

Matt H. Poore ¹, Michael J. Huggins ², Deidre H. Tigue ²

¹North Carolina State University, ²NC State University

3:00 p.m. **Nutrition II: Feedlot Break**

3:15 p.m. 182 **Plasma and rumen metabolomics of beef steers with divergent residual body weight gain phenotype**

Modoluwamu Idowu ¹, Godstime Taiwo ¹, Taylor S. Sidney ¹, Ibukun M M. Ogunade ¹, Raheem Davian D. Murray ², Zaira M. Estrada-Reyes ³, Mustafa Hitit ², Andres Alfredo Pech Cervantes ²

¹West Virginia University, ²Prairie View A&M University, ³North Carolina Agricultural and Technical State University

3:30 p.m. 184 **Degradation characteristics of ruminal sustained-release vitamin/mineral boluses**

Madysn Mangum ¹, Aimee N. Hafla ², Sam Wyffels ¹, Megan L. Van Emon ¹, Noah Davis ¹, Caroline Gatschet ¹, Gavin Haines ¹, Thomas Hamilton ¹, Tucker Lytton ¹, Jacqueline Pondolfino ³, Kaylen A. Stearns ¹, Cooper W. Simmons ¹, Tim DelCurto ¹

¹Montana State University, ²Cargill Inc., ³Montana State University

3:45 p.m. 185 **Effects of diquat injection on intestinal morphology, integrity, and immunity in growing pigs**

Emmanuel O. Oladejo ¹, John K. Htoo ², Shengfa Liao ¹

¹Mississippi State University, ²Evonik

4:00 p.m. 186 **Preliminary results of manual vs LiDAR scan measurements of carcass traits in bovines: A comparison**

Maxwell Mkunga ¹, Larry Leon-Medina ¹, Hunter Goodson ¹, Leyla Rios ¹, Derris Devost Burnett ¹

¹Mississippi State University

Ruminant Animal Production III: Heifer Development and Heat Stress

Chair: Barbara Roqueto do Reis, CREC-White Sand Beef Unit, Mississippi State University

2:00 PM - 4:45 PM

Champions 2

2:00 p.m. 158 **Access to shade in heat stressed beef cows alters the plasma metabolome of both cows and their offspring**

Vinicius S. Izquierdo ¹, Conner A. Crawford ¹, Angela M. Gonella ², Nadia Ashrafi ³, Roman A. Mimi ⁴, Stewart F. Graham ⁴, Joao M. B. Vendramini ⁵, Philipe Moriel ¹

¹University of Florida, IFAS / Range Cattle Research and Education Center, ²UNIVERSITY OF FLORIDA, ³Metabolomics Department, Beaumont Research Institute, ⁴Corewell Health, ⁵Texas A&M AgriLife Research

2:15 p.m. 159 **Effects of artificial shade and chromium supplementation during mid and late gestation of beef cows under heat stress: cow performance and thermotolerance**
Ronaldo Gomes ¹, Isabelle Siqueira ¹, Hiam Marcon ², Joao V. Chinaglia ¹, Marcelo Vedovatto ², Barbara Roqueto do Reis ³, Ashley K. Edwards ², Matheus Felliipe Lana Ferreira ¹
¹Louisiana State University, ²Louisiana State University Agricultural Center, ³CREC-White Sand Beef Unit, Mississippi State University

2:30 p.m. 160 **Effects of artificial shade and chromium supplementation during mid and late gestation of beef cows under heat stress: offspring performance, physiological responses and immunity at birth**
Isabelle Pinheiro Siqueira ¹, Ronaldo Gomes ¹, Hiam Marcon ², Joao V. Chinaglia ¹, Marcelo Vedovatto ², Barbara Roqueto do Reis ³, Ashley K. Edwards ², Matheus Felliipe Lana Ferreira ¹
¹Louisiana State University, ²Louisiana State University Agricultural Center, ³CREC-White Sand Beef Unit, Mississippi State University

2:45 p.m. 161 **Naïve heifers experienced greater heat stress responses than adapted heifers when grazing endophyte-infected tall fescue pastures**
Samantha Pavlecic ¹, Leslie H. Anderson ¹, Thomas W. Geary ², Richard C. Waterman ³, Tyler A. Purvis ¹, Alysa M. Farrell ¹, Tracy A. Hamilton ⁴, Brittany E. Davis ⁵
¹University of Kentucky, ²USDA-ARS Fort Keogh LARRL, ³USDA Livestock and Range Research Laboratory, ⁴USDA Forage-animal Production Research, ⁵USDA-ARS Forage-Animal Production Research Unit

3:00 p.m. 162 **Effects of cattle hide color and changing environmental conditions at northern latitudes on feeder cattle performance and behavior**
Katrina J. Friede ¹, Hannah DelCurto-Wyffels ², Tim DelCurto ², Megan L. Van Emon ², Hannah Speer ², Darrin L. Boss ², Sam Wyffels ²
¹Northern Ag Research Center, ²Montana State University

3:15 p.m. **Ruminant Animal Production III: Heifer Development and Heat Stress Break**

3:30 p.m. 163 **Characterizing performance, forage intake, and feed efficiency in beef heifers fed a grass hay diet using residual feed intake and residual average daily gain**
Bailey J. Tomson ¹, Samuel R. Talley ¹, David L. Lalman ¹, Mariana Eloisa Garcia Ascolani ¹
¹Oklahoma State University

3:45 p.m. 164 **Different supplementation strategies during the rearing phase and their effects on the body weight and the response to puberty induction protocol in Nelore heifers**
Antonio R. Braga ¹, Arícia C. Fernandes ², Cauã Olsen ³, Daniel Murgel ³, Guilherme HG Polizel ², Paulo Fantinato-Neto ³, Carl Robertson Dahlen ⁴, Miguel HA Santana ²
¹North Dakota State University, ²School of Animal Science and Food Engineering FZEA; São Paulo University - USP, ³University of São Paulo, ⁴North Dakota State University Department of Animal Sciences Center for Nutrition and Pregnancy

4:00 p.m. 165 **Effect of supplement type on growing heifers while grazing dormant cool season grasses**
Adam McGee ¹, Will McClain ¹, Elizabeth Walker ¹, Mikena Brown ¹, Katherine Sanders ¹
¹Missouri State University

4:15 p.m. 166 **Effects of dietary inclusion of Silvafeed plant extract supplements on performance and health of heifers grazing endophyte-infected tall fescue**

Miriam A. Snider ¹, Cody E. Gruber ², Robin A. Cheek ³, Tom Hess ⁴, Beth B. Kegley ⁵, Jeremy G. Powell ⁵, Doug Hufstedler ⁶, Daniel Rivera ¹, Shane Shane Gadberry ⁷

¹Southwest Research and Extension Center, University of Arkansas System Division of Agriculture, ²Oklahoma State University, ³University of Arkansas, ⁴Livestock and Forestry Station, University of Arkansas System Division of Agriculture, ⁵University of Arkansas, ⁶Silvateam USA, Inc., ⁷University of Arkansas System Division of Agriculture

4:30 p.m. 167 **Effects of pen dimension and group size on growth, physiological responses, and puberty attainment of beef heifers reared in drylots at a high stocking density**

Camila Prado ¹, Reinaldo F. Cooke ¹, Izadora de Souza ¹, Shea Mackey ¹, Kelsey M. Harvey ²
¹Texas A&M University, ²Mississippi State University

Pastures and Forages II

Chairs: S. Leanne Dillard, Auburn University; Mason Henson, Auburn University

3:15 PM - 4:30 PM

Super Bowl 1 & 2

3:15 p.m. 112 **Forage mass estimation of Cereal Rye in grazing systems using plant coverage analysis via smartphone images**

Pedro Henrique Jota Fernandes ¹, Shelby L. Davies-Jenkins ¹, Wei-Zhen Liang ¹, Mary E. Drewnoski ¹, Yijie Xiong ¹

¹University of Nebraska-Lincoln

3:30 p.m. 113 **Species classification and determination of forage mass of bermudagrass pastures overseeded with cool-season annual grasses and legumes and rye-ryegrass winter pastures using Sentinel-2 images**

Marcia H. Fernandes ¹, Monte M. Rouquette ², Kelli Norman ¹, Gerald Smith ¹, Jordan M. Adams ¹, Luis O. Tedeschi ¹

¹Texas A&M University, ²Texas A&M AgriLife

3:45 p.m. 114 **Botanical composition varies in solar array grazed with sheep**

Andrew R. Weaver ¹, Matt H. Poore ¹, Johnny R. Rogers ¹, Camren L. Maierle ², Alan J. Franzluebbers ³

¹North Carolina State University, ²American Lamb Board, ³USDA ARS

4:00 p.m. 115 **Spectral sensing to monitor nutrient concentrations in mixed-grass hay**

Alexandra P. Webster ¹, Ryan Wright ¹, Robin R. White ¹

¹Virginia Tech

4:15 p.m. 116 **Comprehensive comparison of alternative cool-season forages for the Texas high plains**

Emily K. Brown ¹, Whitney L. Crossland ¹, Aaron B. Norris ¹, Caitlyn Cooper-Norris ¹

¹Texas Tech University