



**2020 ASAS-CSAS-WSASAS
Virtual Annual Meeting & Trade Show
July 19–23, 2020**



Sunday, July 19, 2020

ASAS-NANP Symposium: Mathematical Modeling in Animal Nutrition

Chair: Luis Tedeschi, Texas A&M University

8:50 AM - 4:30 PM

WebX 1

8:50 a.m. **ASAS-NANP Symposium Introduction**

8:55 a.m. 312 **Statistical graphics and interactive visualization in animal science**

Gota Morota ¹

¹School of Animal Sciences, Virginia Polytechnic Institute and State University

9:45 a.m. **ASAS-NANP Symposium Break I**

9:55 a.m. 311 **A brief overview, comparison and practical applications of machine learning models**

Dan Tulpan ¹

¹University of Guelph

10:45 a.m. **ASAS-NANP Symposium Break II**

10:55 a.m. 309 **ASAS-EAAP Talk: Modelling digestion kinetics: the next step in the evaluation of feed ingredients**

Walter J. Gerrits ¹, Marijke A. Schop ¹, Sonja de Vries ¹

¹Wageningen University & Research

11:45 a.m. **ASAS-NANP Symposium Break III**

11:55 a.m. 310 **Building models using system dynamics methodology**

Emma Stephens ¹

¹Agriculture and Agri-Food Canada

12:45 p.m. **ASAS-NANP Lunch**

1:20 p.m. 415 **Hands-on feed evaluation in swine (group modeling)**

Walter J. Gerrits ¹

¹Wageningen University & Research

2:50 p.m. **ASAS-NANP Symposium Break IV**

3:00 p.m. 416 **Hands-on system dynamics (group modeling)**

Emma Stephens ¹

¹Agriculture and Agri-Food Canada

Monday, July 20, 2020

POSTER SESSION I

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSI-1 **A systematic review and meta-analysis of GWAS and gene expression results of Holstein cattle under negative energy balance and ketosis**

Riani Ananda Nunes Soares ¹, Giovana Vargas ¹, Malane M. Muniz ², Maria Amelia Menck Soares ³, Angela Canovas ⁴, Flavio S. Schenkel ⁵, E. James Squires ¹

¹University of Guelph, ² Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, Guelph, Canada., ³Federal Rural University of Rio de Janeiro, ⁴Centre for Genetic Improvement of Livestock, Department of Animal Bioscience, University of Guelph, Guelph, Ontario, Canada, ⁵Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada

7:00 a.m. PSI-2 **Activity and rumination of implanted British × Continental steers vs. non-hormone treated counterparts consuming various levels of roughage throughout a 361-d growth window.**

Sierra L. Pillmore ¹, Tylo J. Kirkpatrick ², Kaitlyn R. Wesley ², Kimberly B. Cooper ², Forest L. Francis ¹, Travis C. Tennant ¹, Wade T. Nichols ³, John P. Hutcheson ³, Ty E. Lawrence ¹

¹West Texas A&M University, ²Beef Carcass Research Center - West Texas A&M University, ³Merck Animal Health

7:00 a.m. PSI-3 **Allometric Growth Coefficients of Non-Carcass and Carcass Components of Serially Harvested Implanted and Non-Implanted Steers**

Kaitlyn R. Wesley ¹, Tylo J. Kirkpatrick ¹, Sierra L. Pillmore ², Kimberly B. Cooper ¹, Travis C. Tennant ², Wade T. Nichols ³, John P. Hutcheson ³, Ty E. Lawrence ²

¹Beef Carcass Research Center - West Texas A&M University, ²West Texas A&M University, ³Merck Animal Health

7:00 a.m. PSI-4 **Changes in serum cortisol concentrations and cytokine profiles of growing pigs subjected to low-intensity heat stress**

Lauren E. Anderson ¹, Jonathan P. Holt ², Eric van Heugten ¹, Daniel H. Poole ¹

¹North Carolina State University, ²NCSU

7:00 a.m. PSI-5 **Comparison of ninth-tenth-eleventh rib section to carcass components in serially harvested steer carcasses**

Kimberly B. Cooper ¹, Sierra L. Pillmore ², Tylo J. Kirkpatrick ¹, Kaitlyn R. Wesley ¹, Ty E. Lawrence ², Travis C. Tennant ², Wade T. Nichols ³, John P. Hutcheson ³

¹Beef Carcass Research Center - West Texas A&M University, ²West Texas A&M University, ³Merck Animal Health

7:00 a.m. PSI-6 **Development of an epidemiological and genomic strategy to evaluate the impact of calf management practices on cow productivity and longevity in Canadian dairy herds.**

Elizah D. McFarland ¹, Ibrahim Elsohaby ¹, Henrik Stryhn ¹, Christine F. Baes ², Russell S. Fraser ¹, Greg Keefe ¹, J T. McClure ¹

¹University of Prince Edward Island, ²Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

7:00 a.m. PSI-7 **Differing planes of nutrition affecting the cytokines of bovine seminal plasma in beef cattle.**

Taylor D. Harrison ¹, Kiernan J. Brandt ², Elizabeth M. Chaney ³, Kyle J. McLean ¹, Lew G. Strickland ⁴, Liesel G. Schneider ⁵, Rebecca R. Payton ⁶

¹University of Tennessee, Knoxville, ²University of Tennessee Knoxville, ³University of Tennessee, ⁴University of Tennessee Institute of Agriculture, ⁵Animal Science Department, University of Tennessee Institute of Agriculture, ⁶Department of Animal Science, University of Tennessee

7:00 a.m. PSI-27 **Effect of antral follicle count on time intervals to estrus and ovulation in crossbred beef heifers**

Maria K. Chavez ¹, Shelby L. Rosasco ², Matthew C. Herrington ³, Joslyn K. Beard ⁴, Adam F. Summers ¹

¹New Mexico State University, ²University of Wyoming, ³Department of Animal and Range Sciences, New Mexico State University, ⁴University of Nebraska-Lincoln

7:00 a.m. PSI-8 **Effect of breed on the abundance and expression of Shiga toxin in Escherichia coli from the recto-anal junction of feedlot beef cattle**

ZHE PAN ¹, Yanhong Chen ², Michael Gaenzle ³, Tim A. McAllister ⁴, Leluo L. Guan ³

¹Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, AB, Canada, ²Department of Agriculture, Food and Nutritional Science, University of Alberta, Edmonton, AB T6G 2P5, Canada, ³University of Alberta, ⁴Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge

7:00 a.m. PSI-9 **Effect of Pen-Surface Temperature and Trace Mineral Source on Infrared Hide Temperature in Cattle Raised in Confinement Under a Natural-Feeding Protocol in Summer**

William T. Nelson ¹, Mark E. Branine ², Tony C. Bryant ³, Shawn L. Archibeque ¹, John J. Wagner ¹

¹Colorado State University, ²Zinpro Corporation, ³Five Rivers Cattle Feeding

7:00 a.m. PSI-28 **Effect of Pluronic-F68 fog solution on performance and morbidity of newly-received heifer calves**

CiCi A. Sowers ¹, Vinicius N. Gouvea ², Michael L. Barnes ¹, Glenn C. Duff ¹

¹New Mexico State University, ²Texas A&M

7:00 a.m. PSI-32 **Effect of pulmonary arterial pressure on reproductive performance in Angus heifers located in south central Wyoming**

Kelley L. Duggan¹, Stephen Doyle², H Foxworthy¹, Kasey DeAtley³

¹Colorado State University, ²California State University Chico, ³California State University, Chico

7:00 a.m. PSI-10 **Effects of a Moderate and Aggressive Implant Strategy on the Rumen Microbial Community in Steers**

Madison T. Henniger¹, Jim E. Wells², Kristin E. Hales³, Amanda K. Lindholm-Perry², Harvey C. Freetly², Larry A. Kuehn⁴, Liesel G. Schneider⁵, Kyle J. McLean⁶, Brooke A. Clemmons⁷, Phillip R. Myer⁸

¹Department of Animal Science -University of Tennessee, ²USDA, ARS, U.S. Meat Animal Research Center, ³Texas Tech University, ⁴U.S. Meat Animal Research Center, ⁵Animal Science Department, University of Tennessee Institute of Agriculture, ⁶University of Tennessee, Knoxville, ⁷University of Tennessee Knoxville, ⁸Department of Animal Science-University of Tennessee

7:00 a.m. PSI-11 **Effects of feeding 60% dried corn distillers grains plus solubles or the equivalent sulfur as calcium sulfate on DNA structure and integrity in bull semen**

Cierrah J. J. Kassetas¹, Tom W. Geary², Abby L. Zezeski², Joel S. Caton³, James D. Kirsch⁴, Sheri T. Dorsam³, Kacie L. McCarthy⁵, Matthew S. Crouse⁶, Kevin K. Sedivec⁷, Bryan W. Neville⁶, Carl R. Dahlen³

¹USDA-NIFA, ²USDA-ARS, ³North Dakota State University, ⁴Department of Animal Sciences, North Dakota State University, ⁵University of Nebraska, ⁶USDA, ARS, U.S. Meat Animal Research Center, ⁷North Dakota State University - Central Grasslands Research Extension Center

7:00 a.m. PSI-29 **Effects of maternal supplementation of ruminally undegradable protein during early gestation on subsequent progeny performance in beef cattle**

Alexis Selman¹, Lexi Lemke¹, Jordan Woodbury¹, Shelby L. Rosasco², Eric J. Scholljegerdes¹, Joslyn K. Beard³, Adam F. Summers¹

¹New Mexico State University, ²University of Wyoming, ³University of Nebraska-Lincoln

7:00 a.m. PSI-12 **Effects of supplementing propionate in a finishing diet on dry matter intake, glucose clearance, and blood metabolites**

Abbey R. Rathert¹, Carlee M. Salisbury¹, Dakota J. Zapalac¹, Andrew P. Foote¹

¹Oklahoma State University

7:00 a.m. PSI-13 **Evaluation of acid insoluble ash as a digestibility marker in feedlot diets containing corn-milling byproducts**

Paige R. Spowart¹, Michael Galyean², Jordan A. Easom¹, Larry D. Fritzler¹, David G. Lust¹, Kendall L. Samuelson¹

¹West Texas A&M University, ²Texas Tech University Department of Veterinary Medicine

7:00 a.m. PSI-33 **Evaluation of calf performance when cows grazing native rangeland are vaccinated for bovine viral diarrhea virus and infectious bovine rhinotracheitis using either a modified live or killed vaccine**

L. A. Lujan Zavala ¹, Emily A. Melchior-Tiffany ¹, Shelby L. Rosasco ², Richard L. Dunlap ³, Shad H. Cox ³, Eric J. Scholljegerdes ¹, John C. Wenzel ⁴, Shanna L. Lodge-Ivey ¹

¹New Mexico State University, ²University of Wyoming, ³New Mexico State University Corona Range and Livestock Research Center, ⁴NMSU Extension Veterinarian

7:00 a.m. PSI-30 **Evaluation of urine estrone sulfate (P-Test) in beef cattle as an alternative pregnancy detection method.**

Bailey Hooten ¹, Cheyenne Runyan ¹, David Roper ¹, William B. Smith ¹, Nicholas W. Dias ², Vitor R G. Mercadante ³

¹Tarleton State University, ²Virginia Tech, ³Virginia Tech - School of Animal Sciences, Large Animal Clinical Sciences

7:00 a.m. PSI-34 **Factors influencing bull selection and management in extensive rangeland production systems of California**

Katie Peterson ¹, Tracy Schohr ², Kasey DeAtley ³, Zach D. McFarlane ⁴

¹California Polytechnic State University, San Luis Obispo, ²University of California Cooperative Extension, ³California State University, Chico, ⁴Animal Science Department, California Polytechnic State University, San Luis Obispo

7:00 a.m. PSI-14 **Feeding β -agonists under heat stress conditions in feedlot cattle**

Pablo C. Grijalva ¹, Rachel R. Reith ¹, Renae L. Sieck ¹, Rebecca Swanson ¹, Ty B. B. Schmidt ¹, Jessica L. L. Peterson ¹, Dustin T. Yates ¹, Samuel Garcia ², Duarte Diaz ²

¹University of Nebraska-Lincoln, ²University of Arizona

7:00 a.m. PSI-15 **Feeding garlic powder at low doses does not negatively affect feedlot cattle health**

Iris Cheang ¹, Herbert A. Lardner ², Kateryn Rochon ³, Herman W. Barkema ⁴, Hushton Block ⁵, Nigel Cook ⁶, Obioha N. Durunna ⁷

¹University of Saskatchewan, ²Department of Animal and Poultry Science, University of Saskatchewan, ³University of Manitoba, ⁴University of Calgary, ⁵Agriculture and Agri-Food Canada, ⁶Alberta Ministry of Agriculture and Forestry, 6000 C&E Trail, Lacombe, Alberta T4L1W1, ⁷Department of Applied Research, Lakeland College Vermilion, AB, Canada T9X 1K5

7:00 a.m. PSI-35 **Foot and hair shedding scores of crossbred cattle grazing native rangeland differ by age group**

Nick M. Eiguren ¹, Katie Peterson ¹, Zach D. McFarlane ²

¹California Polytechnic State University, San Luis Obispo, ²Animal Science Department, California Polytechnic State University, San Luis Obispo

7:00 a.m. PSI-41 **Impacts of Flunixin Meglumine injection on wound score and swelling appearance of either rubber ring castrated and tail docked or surgically castrated and docked lambs**

Paige P. Anderson ¹, Amanda M. Long ¹, Alison R. Crane ², Travis W. Hoffman ³, Gerald Stokka ⁴, Lauren L. Hanna ⁴, James D. Kirsch ³, Christopher S. Schauer ¹

¹Hettinger Research Extension Center, North Dakota State University, ²Animal Sciences and Industry, Kansas State University, ³Department of Animal Sciences, North Dakota State University, ⁴North Dakota State University

7:00 a.m. PSI-16 **Investigation of Jute to Stimulate Sow Nesting Behavior in Farrowing Crates**

Mary L. Markland ¹, Brianna N. Gaskill ¹, Jay S. Johnson ², Donald C. Lay ³

¹Purdue University, ²USDA-ARS Livestock Behavior Research Unit, ³USDA-Agricultural Research Service

7:00 a.m. PSI-18 **Performance of kiko wethers and katahdin rams co-stocked in woodlands with diverse vegetation**

Bidur Paneru ¹, Uma Karki ¹, Nevershi Ellis ¹, Shailes Bhattra ²

¹Tuskegee University, ²University of Georgia

7:00 a.m. PSI-36 **Phenotypic Relationship of Feed Efficiency and Fertility in Angus and Red Angus Bulls**

Taylor Lacey ¹, Stephen Doyle ², Kasey DeAtley ³

¹University of Nebraska-Lincoln, ²California State University Chico, ³California State University, Chico

7:00 a.m. PSI-37 **Post-weaning feed efficiency did not influence female fertility traits of commercial or Lowline Angus heifers**

Jonathan Najera ¹, Rebecca Swanson ², Andrea L. Warner ³, Kasey DeAtley ⁴, Stephen Doyle ⁵

¹CSU Chico State, ²University of Nebraska-Lincoln, ³Oklahoma State University, ⁴California State University, Chico, ⁵California State University Chico

7:00 a.m. PSI-19 **Preference grazing evaluation of new forage varieties, and the effect of animal temperament on grazing behaviour**

Cassidy R. Sim ¹, Bill Biliget ², Gabriel O. Ribeiro ¹, Herbert A. Lardner ¹, Diego Moya ³

¹Department of Animal and Poultry Science, University of Saskatchewan, ²Department of Plant Sciences, University of Saskatchewan, ³Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Canada

7:00 a.m. PSI-20 **Public perceptions of problematic equine industry sectors and management scenarios**

Kelly Melvin ¹, Jennie L. Ivey ², Liesel G. Schneider ³, Peter Krawczel ⁴

¹University of Tennessee, ²University of Tennessee Institute of Agriculture, ³Animal Science Department, University of Tennessee Institute of Agriculture, ⁴University of Helsinki

7:00 a.m. PSI-38 **Relationship between body condition score, claw set, and foot angle in Angus and Red Angus beef cows grazing native annual-grass rangeland in northern California**

Megan R. Banwarth¹, Kasey DeAtley¹, Stephen Doyle²

¹California State University, Chico, ²California State University Chico

7:00 a.m. PSI-21 **Relationship of captive bolt stunning location with basic tissue measurements and exposed cross-sectional brain area in cadaver heads from market pigs**

Karly Anderson¹, Elizabeth Ries², Jacob Backes², Katherine Bishop², Miranda Boll², Ellie Brantner², Brady Hinrichs², Ashlynn Kirk², Hannah Olsen², Blake Risius², Charles Bildstein³, Kurt D. Vogel²

¹University of Wisconsin - Madison, ²University of Wisconsin - River Falls, ³Bunzl Processor Division

7:00 a.m. PSI-31 **Retrospective analysis of growth performance and carcass ultrasound data of yearling bulls enrolled at the Cal Poly Bull Test**

Catherine E. Field¹, Maria K. Chavez², Mohammed Abo-Ismael¹, Zach D. McFarlane³

¹California Polytechnic State University, San Luis Obispo, ²New Mexico State University,

³Animal Science Department, California Polytechnic State University, San Luis Obispo

7:00 a.m. PSI-39 **Retrospective analysis of semen quality attributes of bulls in the Cal Poly Bull Test**

Payton A. Thomas¹, Catherine E. Field², Mohammed Abo-Ismael², Zach D. McFarlane¹

¹Animal Science Department, California Polytechnic State University, San Luis Obispo,

²California Polytechnic State University, San Luis Obispo

7:00 a.m. PSI-22 **Rumen fluid metabolites influenced by endophyte-infected tall fescue seed and red clover isoflavones in beef steers**

Juan F. Cordero-Llarena¹, Brooke A. Clemmons², Emily A. Melchior-Tiffany³, Taylor B. Seay², Joshua B. Powers², Shawn R. Campagna², Gary Bates², Phillip R. Myer⁴

¹The University of Tennessee, Knoxville, ²University of Tennessee Knoxville, ³New Mexico State University, ⁴Department of Animal Science- University of Tennessee

7:00 a.m. PSI-23 **The effect of days on feed and trenbolone acetate + estradiol-17 β implantation on biometric measurements of Charolais \times Angus steers across serial harvest endpoints**

Tylo J. Kirkpatrick¹, Max D. Garrison², Kaitlyn R. Wesley¹, Sierra L. Pillmore³, Kimberly B. Cooper¹, Forest L. Francis³, Travis C. Tennant³, Wade T. Nichols⁴, John P. Hutcheson⁴, Ty E. Lawrence³

¹Beef Carcass Research Center - West Texas A&M University, ²Performance Cattle Company, ³West Texas A&M University, ⁴Merck Animal Health

7:00 a.m. PSI-24 **The Effect of Formic Acid and Lignosulfonate on Pellet Quality.**

Gage E. Nichols¹, Charles R. Stark¹, Aundria M. Ogles¹, Courtney N. Truelock¹, Nelsa Beckman¹, Thomas Winowiski², Chad B. Paulk¹

¹Kansas State University, ²Borregaard LignoTech USA, Inc.

7:00 a.m. PSI-25 **The effect of growth rate on the uterine environment in beef heifers**

Elizabeth M. Chaney¹, Taylor D. Harrison², Kiernan J. Brandt³, Liesel G. Schneider⁴, Rebecca R. Payton⁵, Kyle J. McLean²

¹University of Tennessee, ²University of Tennessee, Knoxville, ³University of Tennessee Knoxville, ⁴Animal Science Department, University of Tennessee Institute of Agriculture, ⁵Department of Animal Science, University of Tennessee

7:00 a.m. PSI-26 **The Effects of Probiotics on Growth and Metabolism in Ram Lambs**

Alexis M. Trench¹, Brandon I. Smith¹, Jenna E. Feyler¹, Sharon L. Aborn¹, Sarah A. Reed², Steven A. Zinn², Kristen E. Govoni²

¹University of Connecticut, ²Dept. of Animal Science, University of Connecticut

7:00 a.m. PSI-40 **Two mitochondrial lineages revealed in North American yak**

Leah K. Treffer¹, Edward S. Rice², Anna M. Fuller³, Samuel Cutler⁴, Jessica L. L. Peterson³

¹University of Nebraska-Lincoln, Nebraska Wesleyan University, ²University of Nebraska-Lincoln, University of Missouri, ³University of Nebraska-Lincoln, ⁴University of California-Santa Cruz

POSTER SESSION II

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSII-23 **Aflatoxin B1 influences expression of TRPM8 in SKOV, ovarian epithelial cancer cells**

Kristina S. Boss¹, Kathleen J. Austin¹, Brenda M. Alexander¹

¹University of Wyoming

7:00 a.m. PSII-24 **Assessment of the contractility of bovine lateral saphenous and digital veins in response to ergot alkaloids**

James L. Klotz¹, Hannah Stokley², Huihua Ji², Nabanita Chattopadhyay², David L. Harmon³

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

7:00 a.m. PSII-1 **Beef steers divergent in average daily gain have differential expressions of immunity-related genes in whole blood**

Ibukun M. Ogunade¹

¹Kentucky State University

7:00 a.m. PSII-2 **Beef steers with divergent average daily gain have altered plasma amine/phenol-metabolome**

Ibukun M. Ogunade¹

¹Kentucky State University

7:00 a.m. PSII-3 **Carbohydrases enzymes improve the productive performance of grazing Nellore steers fed different nutritional plans during dry season**

Anderson P. Acosta ¹, Guilherme S. Vasconcellos ², Alexandre Perdigão ³, Victor V. Valério de Carvalho ³, Tiago S. Acedo ⁴, Cibeli A. Pedrini ⁵, Jefferson R. Gandra ⁵

¹Maringa State University, Brazil, ²DSM Nutritional Products, ³DSM Nutritional Products Brazil, ⁴DSM Produtos Nutricionais Brasil S.A., ⁵Federal University of Grande Dourados, Brazil

7:00 a.m. PSII-4 **Changes in abundance of ruminal bacteria associated with urea level and tannin supplementation in grazing beef cattle**

Iorrano A. A. Cidrini ¹, Yury G. Salcedo ², Kenia L. G. C. Alves ², Laura Franco Prados ³, Gustavo R. Siqueira ³, Flávio D. Resende ³

¹Montana State University, ²Unesp Jaboticabal, ³APTA

7:00 a.m. PSII-5 **Chemical composition, in vitro dry matter digestibility, gas production and methane emission of maintenance, growth and production diets/rations of buffaloes**

Uchenna Y. Anele ¹, Sultan Singh ², B.P. Kushwaha ², P.K. Gupta ³, S Bhattacharya ³

¹North Carolina Agricultural and Technical State University, ²ICAR-Indian Grassland and Fodder Research Institute, ³Plant Animal Relationship Division Indian Grassland and Fodder Research Institute

7:00 a.m. PSII-6 **Comparative effects of two multi-species direct-fed microbial products on rumen fermentation, bacterial community and metabolome of beef steers**

Ibukun M. Ogunade ¹, Devan M. Compart ², Andres A. Pech-Cervantes ³

¹Kentucky State University, ²Land O' Lakes Inc., ³Fort Valley State University

7:00 a.m. PSII-7 **Complete genome analysis of a novel mucolytic bacterium, *Prevotella mucinisolvans* sp. nov., isolated from bovine rumen epithelium**

Soo Jong Hong ¹, Do Hyun Kim ¹, da Jin Sol Jung ², Md Najmul Haque ², Myunggi Baik ²

¹Seoul national university, ²Seoul National University

7:00 a.m. PSII-25 **Detection of neurotransmitter-related molecules by untargeted metabolomic analysis of rumen fluid from monensin-treated temperate and tropically adapted beef cattle.**

Catherine L. Wellman ¹, Madaline Rabalais ², Cory Klemashevich ³, Anil C. Somenahally ², Charles R. Long ⁴, Ron D. Randel ⁵, Thomas H. Welsh ⁶

¹Texas A&M AgriLife Research, ²Texas A&M Agrilife, ³Texas A&M University, ⁴School of Veterinary Medicine and Biomedical Sciences, Texas A&M University, ⁵Texas A&M AgriLife Research, Overton, ⁶Texas A&M University; Texas A&M AgriLife Research, College Station

7:00 a.m. PSII-8 **Different nutritional management strategies post-weaning in growth and reproductive performance of Nellore heifers**

Laylles C. Araújo ¹, Laura Franco Prados ², Philippe Moriel ³, José Luiz M. Vasconcelos ⁴, Flávio D. Resende ², Gustavo R. Siqueira ²

¹UNESP and APTA, ²APTA, ³University of Florida, ⁴UNESP

7:00 a.m. PSII-9 **Drylot weaned calves at dry-to-rainy transition and rainy season and their effects on the growing phase**

Felipe A. Nascimento ¹, Laura Franco Prados ², Luciana Melo Sousa ³, Ivanna M. Oliveira ⁴, Flávio D. Resende ², Gustavo R. Siqueira ²

¹UNESP and APTA, ²APTA, ³UNESP / APTA, ⁴FAZU

7:00 a.m. PSII-10 **Dynamic changes of the fecal bacterial community in dairy cows from early to mid-lactation**

Shuai Huang ¹, Feiran Wang ², Shoukun Ji ³, Jie Huang ⁴, Gibson Mtumishi Alugongo ², Shengli Li ⁵

¹China Agriculture University, ²China Agricultural University, ³Hebei Agricultural University, ⁴Yangzhou University, ⁵China Agricultural University

7:00 a.m. PSII-26 **Early- and mid- lactation milk traits are associated with piglet growth during lactation**

Lea A. Rempel ¹, William T. Oliver ², Miles R. Jeremy ³

¹USDA ARS U.S. Meat Animal Research Center, ²USDA-ARS, ³USDA, ARS, USMARC

7:00 a.m. PSII-11 **Effect of a feed supplement composed of native rumen microorganisms on feedlot steer digestive health**

Fan Yang ¹, Jordan Embree ², Sean Gilmore ², Mallory M. Embree ²

¹Native Microbials, Inc., ²Ascus Biosciences, Inc.

7:00 a.m. PSII-12 **Effect of aspirin to intentionally induce leaky gut on performance, blood markers of stress, and carcass characteristics of feedlot cattle**

Nathan Briggs ¹, Jon P. P. Schoonmaker ¹

¹Purdue University

7:00 a.m. PSII-13 **Effect of corn stover silages inoculated with effective microorganisms (EM®) on digestibility of sheeps.**

Manuel Pérez- ¹, Claudia C. Márquez-Mota ², Atmir Romero-Pérez ³, Jonathan Avilés-Nieto ², Luis Corona ⁴

¹Universidad Nacional Autónoma de México., ²Universidad Nacional Autónoma de México,

³Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autónoma de México.,

⁴Universidad Nacional Autónoma de México. FMVZ. Department of Animal Nutrition

7:00 a.m. PSII-27 **Effect of endophyte-infected tall fescue seed and red clover isoflavones on the serum metabolites in beef steers**

Taylor B. Seay ¹, Brooke A. Clemmons ¹, Emily A. Melchior-Tiffany ², Juan Fernando Cordero Llarena ¹, Joshua B. Powers ¹, Shawn R. Campagna ¹, Gary Bates ¹, Kyle J. McLean ³, Phillip R. Myer ⁴

¹University of Tennessee Knoxville, ²New Mexico State University, ³University of Tennessee, Knoxville, ⁴Department of Animal Science- University of Tennessee

7:00 a.m. PSII-14 **Effect of live yeast on greenhouse gas emissions and energy partitioning of growing steers in heat-stress conditions**

Genevieve M. D'Souza ¹, Aaron Norris ², Luiz Dias Batista ¹, Luis O. Tedeschi ¹

¹Texas A&M University, ²University of Nevada

7:00 a.m. PSII-15 **Effect of oregano oil supplementation in diets with different roughage sources on the growth performance and nutrient apparent digestibility of Hu lambs**

Xiaolin Niu ¹, Fadi Li ¹, Fei Li ¹

¹College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, P. R. China

7:00 a.m. PSII-16 **Effect of red osier dogwood extract on in vitro digestibility and fermentation characteristics of high-grain diet**

Wenzhu Yang ¹, Walaa Gomaa ², Atef Mohamed Saleem ³, E.J. McGeough ⁴, Kim H. Ominski ⁴, L.Y. Chen ⁵

¹Agriculture and Agri-Food Canada, Lethbridge Research and Development Centre, T1J 4B1., ²Department of Animal Nutrition and Clinical Nutrition, Assiut University, ³Department of Animal and Poultry Production, South Valley University, ⁴University of Manitoba, ⁵University of Alberta

7:00 a.m. PSII-28 **Effect of route of administration of dinoprost tromethamine on serum profiles of PGFM and progesterone in lactating Holstein cows**

Megan A. Mezera ¹, Megan R. Lauber ¹, Adam D. Beard ¹, Elisa M. Cabrera ¹, Milo C. Wiltbank ², Paul M. Fricke ¹

¹UW- Madison, ²Department of Animal and Dairy Sciences, University of Wisconsin-Madison

7:00 a.m. PSII-18 **Effect of two different milk-feeding methods on performance and plasma glucose of dairy calves**

Marcos Silva ¹, Ana Paula Silva ¹, Ariany Toledo ¹, Sophia Dondé ¹, Cristiane Tomalusi ¹, Fernanda Z. Miranda ¹, Gabriela Brito ¹, Carla Maris M. Bittar ²

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSII-19 **Effect of zinc and chromium supplementation on performance and carcass characteristics in feedlot steers.**

Harrison D. Hallmark ¹, Joanis T. Zervoudakis ², Juliana Akamine Torrecilhas ³, Luciana K. Hatamoto-Zervoudakis ³, Henrique Toller ³, Octavio Guimaraes ³, Terry E. Engle ³

¹Colorado State University, Department of Animal Sciences, ²Universidade Federal de Mato Grosso, ³Colorado State University

7:00 a.m. PSII-20 **Effects of aerobically exposed corn silage treated with medium chain fatty acids on rumen fermentation in vitro**

Claudio Arzola-Alvarez ¹, Oscar Ruiz-Barrera ², YAMICELA CASTILLO-CASTILLO ³, Marina Ontiveros ⁴, Mozart Fonseca ⁵, Barbara Jones ⁶, William B. Smith ⁷, MICHAEL E. HUME ⁸, Ross C. Beier ⁹, Roger Harvey ⁹, Toni L. Poole ⁹, Robin C. Anderson ¹⁰, David Nisbet ⁹, Jaime Salinas-Chavira ¹¹

¹Autonomous University of Chihuahua, Chihuahua, Chih., Mexico, ²Universidad Autónoma de Chihuahua, ³UNIVERSIDAD AUTONOMA DE CHIHUAHUA, ⁴Autonomous University of Ciudad Juarez, Nuevo Casas Grandes, Chihuahua, Chih., Mexico, ⁵University of Nevada, Reno, ⁶Department of Animal Science, Tarleton State University, ⁷Tarleton State University, ⁸USDA/ARS, ⁹United States Department of Agriculture/Agricultural Research Service, Food and Feed Safety Research Unit, College Station, TX, 77845 USA, ¹⁰USDA/ARS, Southern Plains Agricultural Research Center's Food & Feed Safety Research Unit, ¹¹Universidad Autonoma de Tamaulipas

7:00 a.m. PSII-21 **Effects of barley starch proportion in diets on nutrient digestion, rumen fermentation parameters and rumen microorganisms of fattening Hu sheep**

Xiaowen Ma ¹, Fadi Li ², Fei Li ²

¹College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, ²College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, P. R. China

7:00 a.m. PSII-22 **Effects of Clinoptilolite inclusion on Ruminant Invitro Digestibility**

Leeroy A. Lente ¹, Roderick Alexander Gonzalez Murray ¹, Shawn L. Archibeque ¹

¹Colorado State University

7:00 a.m. PSII-29 **Effects of delayed injection of prostaglandin F2 α and TAI in the 14-d CIDR-PG & TAI protocol in replacement beef heifers**

Nicky Oosthuizen ¹, Gabriela Dalmaso ², Robert Lawton Stewart ³, George Seidel ⁴, G. Cliff C. Lamb ², Pedro L.P. Fontes ³

¹ABS Global, ²Texas A&M University, ³University of Georgia, ⁴Colorado State University

7:00 a.m. PSII-30 **Effects of Prenatal and Postnatal Nutrition on the Concentration of Neuropeptide Y in the Third Ventricle Cerebrospinal Fluid in Beef Heifers**

Sarah M. West ¹, Meaghan M. O'Neil ², Tatiane S. Maia ³, Sterling H. Fahey ⁴, Gary L. Williams ³, Rodolfo C. Cardoso ⁴

¹Texas A&M AgriLife Research, Beeville, TX ²Department of Animal Science, Texas A&M University, College Station, TX ¹Texas A&M AgriLife Research, Beeville, TX ²Department of Animal Science, Texas A&M University, College Station, TX ³Department of Animal Science, Texas A&M University, College Station, TX; Texas A&M AgriLife Research, Beeville, TX, ²Texas A&M AgriLife Research, Beeville, TX; Department of Animal Science, Texas A&M University, College Station, TX, ³Animal Reproduction Laboratory, Texas A&M AgriLife Research, Beeville, TX; Department of Animal Science, Texas A&M University, College Station, TX, ⁴Texas A&M University

7:00 a.m. PSII-31 **Effects of restricted dietary intake on protein expression of oviductal glycoprotein 1 (OVGP1) in the oviductal ampulla of beef cows**

Lawrence P. Reynolds¹, Kacie L. McCarthy², Matthew S. Crouse³, Cierrah J. J. Kassetas⁴, Friederike Baumgaertner¹, Sheri T. Dorsam¹, James D. Kirsch⁵, Tammi L. Neville⁶, Pilar Coy⁷, Joel S. Caton¹, Pawel P. Borowicz¹, Carl R. Dahlen¹

¹North Dakota State University, ²University of Nebraska, ³USDA, ARS, U.S. Meat Animal Research Center, ⁴USDA-NIFA, ⁵Department of Animal Sciences, North Dakota State University, ⁶USDA- NIFA, ⁷University of Murcia

7:00 a.m. PSII-32 **In vitro effect of growth hormone on progesterone production by large preovulatory follicles depends on the hen age and follicular layers interaction**

Araksiya Smekalova¹, Elena K. Montvila², Olga V. Aleynikova³, Olga S. Mityashova³, Irina Y. Lebedeva⁴

¹L.K. Ernst Federal Science Center for Animal Husbandry, Podolsk, Russia, ²L.K. Ernst Federal Research Center for Animal Husbandry, ³L.K. Ernst Federal Research Center for Animal Husbandry, Podolsk, Russia, ⁴L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSII-33 **Mitigation of testicular heat stress in boars with PG600**

John J. Parrish¹, Jodi L. Berndtson²

¹University of Wisconsin-Madison, ²UW-Madison

7:00 a.m. PSII-34 **Placental GLUT3 (SLC2A3) RNA interference: Impact on fetal growth at mid-gestation.**

Cameron Lynch¹, Asghar Ali¹, Victoria C. Kennedy¹, Amelia R. Tanner¹, Quinton A. Winger¹, Russell V. Anthony¹

¹Colorado State University

7:00 a.m. PSII-17 **Program Chair Poster Pick: Effect of ruminal protozoa on methane emissions in ruminants – a meta-analysis**

Xiaoxia Dai¹, Kenneth Kalscheur², Pekka Huhtanen³, Antonio P. Faciola⁴

¹U.S. Dairy Forage Research Center, ²USDA-ARS, US Dairy Forage Research Center, ³Swedish University of Agricultural Sciences, ⁴Department of Animal Sciences, University of Florida, Florida, 32608, United States

7:00 a.m. PSII-37 **Program Chair Poster Pick: The effect of glucocorticoids on circulating plasma concentrations of ghrelin in sheep**

Carson Kay¹, Duane Keisler², Jay A. Daniel¹

¹Berry College, ²University of Missouri

7:00 a.m. PSII-35 **The age-related characteristics of spermatogenesis in gander**

Anastasia N. Vetokh¹, Ludmila A. Volkova¹, Baylar S. Iolchiev¹, Natalia Volkova¹

¹L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSII-36 **The application of busulfan to inhibit the spermatogenesis in quail testis**

Tatyana Kotova ¹, Anastasia N. Vetokh ¹, Ludmila A. Volkova ¹, Natalia Volkova ¹, Natalia Anatolievna Zinovieva ²

¹L.K. Ernst Federal Science Center for Animal Husbandry, ²L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSII-38 **Tolerable upper intake levels of iron damage the intestine and alter the intestinal flora in weaned piglets**

Haoxuan Ding ¹, Jianan Han ¹, Jie Feng ¹

¹College of Animal Sciences, Zhejiang University

7:00 a.m. PSII-39 **Trophectoderm-specific RNA interference of chorionic somatomammotropin alters glucose metabolism in sheep fetal liver**

Asghar Ali ¹, Mary Howerton ¹, Quinton A. Winger ¹, Paul J. Rozance ², Russell V. Anthony ¹

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

POSTER SESSION III

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSIII-1 **Activity of nucleolar organizers depending on genotype**

Pavel Klenovitskiy ¹, Baylar S. Iolchiev ¹, Anastasia N. Vetokh ¹

¹L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSIII-2 **Assessment of runs of homozygosity and estimates of inbreeding in three purebred turkey (*Meleagris gallopavo*) lines**

Sarah M. Adams ¹, Martijn F. Derks ², Bayode O. Makanjuola ³, Ben Wood ⁴, Christine F. Baes ⁵

¹University of Guelph, ²Wageningen University and Research, ³Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada, ⁴University of Queensland, ⁵Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

7:00 a.m. PSIII-18 **Assessment of Salmonella Dublin infection of intestinal porcine epithelial cells (IPEC) in response to Zinc Oxide and a Yeast Mannan Rich Fraction**

Niall Browne ¹, Seána Jordan ², Karina Horgan ³

¹Alltech, ²UCD, ³alltech

7:00 a.m. PSIII-3 **Association of heat shock factor protein 1 and prolactin receptor variants with molecular breeding values in Senepol cattle**

Bianca P. Ortiz-Uriarte ¹, Edgar J. Soto Moreno ¹, Lourdes E. López-Nieves ¹, Verónica M. Negrón-Pérez ¹, Americo Casas ¹, Melvin Pagán-Morales ¹

¹University of Puerto Rico- Mayagüez Campus

7:00 a.m. PSIII-4 **Asthenozoospermia in geomagnetic activity**

Baylar S. Iolchiev¹, Pavel Klenovitskiy¹, Rustam Iolchiev², Anna Tadzhieva³

¹L.K. Ernst Federal Science Center for Animal Husbandry, ²A.I. Yevdokimov Moscow State University of Medicine and Dentistry, ³Peoples Friendship University of Russia (RUDN University)

7:00 a.m. PSIII-38 **Butyric acid and derivatives: In vitro anti-inflammatory effects tested in porcine alveolar macrophages**

Lauren L. Kovanda¹, Monika Hejna², Yanhong Liu¹

¹University of California, Davis, ²University of Milan, University of California Davis

7:00 a.m. PSIII-5 **Comparison of Bivariate Machine Learning and Linear Model for Genomic Prediction with Different Heritability, QTL and SNP Panel Scenarios**

Sunday O. Peters¹, Mahmut Sinecan², Kadir Kizilkaya³, Milt Thomas⁴

¹Berry College, ²Aydin Adnan Menderes University, ³Aydin Adnan Menderes University, AYDIN, ⁴Colorado State University

7:00 a.m. PSIII-6 **Comparisons of high-density genomic data in Holsteins differing in coat type**

Lourdes E. López-Nieves¹, Verónica M. Negrón-Pérez¹, Héctor L. Sánchez-Rodríguez², Joan M. Patiño-Chaparro², Guillermo Ortiz-Colón², Melvin Pagán-Morales¹

¹University of Puerto Rico- Mayagüez Campus, ²University of Puerto Rico-Mayaguez

7:00 a.m. PSIII-19 **Copper and zinc hydroxychloride co-supplementation reduce the diarrhea frequency of finishing pigs**

Simone M. Martins¹, Maitê V. Mendonça², Denis H. Nakasone², Cristian H. Martinez², Karolina V. Augusto³, Yanming Han³, Lúcio F. Araújo¹

¹University of Sao Paulo, Faculty of Animal Science and Food Engineering, Brazil,

²University of Sao Paulo, School of Veterinary Medicine and Animal Science, Brazil, ³Trouw Nutrition R&D, 3800 AG Amersfoort, Utrecht, the Netherlands

7:00 a.m. PSIII-7 **Determining the requirement of puberty induction to the reproductive performance of Bos indicus-influenced heifers submitted to AI.**

Thiago Martins¹, Felipe Silva², Mariana Sponchiado², Gabriela A. Soriano³, Leonardo M.F. Pinto⁴, Cecilia Constantino c. Rocha², Federico Podversich², Federico Tarnosky⁵, Yasser Lenin⁶, Joseph Danny D. Driver², Thomas David⁵, Owen Rae², Angela M. Gonella², Nicolas DiLorenzo⁷, Mario Binelli²

¹Mississippi State University, ²University of Florida, ³Department of Animal Sciences, University of West of Sao Paulo (UNOESTE), Presidente Prudente, SP, Brazil,

⁴Department of Animal Reproduction, School of Veterinary Medicine and Animal Science, University of Sao Paulo, Pirassununga, Sao Paulo, Brazil, ⁵North Florida Research and Education Center, University of Florida, Marianna, FL, US, ⁶Department of Animal Sciences, University of Florida, Gainesville, FL, US, ⁷Department of Animal Sciences, North Florida Research and Education Center (NFREC), University of Florida, Marianna, FL

7:00 a.m. PSIII-20 **Dietary Forsythia suspensa extract supplementation in sows during late gestation improves reproductive performance, colostrum composition, antioxidant status, and immune function of sows and piglets**

Shenfei Long¹, Tengfei He¹, Di Wu¹, Xiangshu Piao¹

¹College of Animal Science and Technology, China Agricultural University

7:00 a.m. PSIII-8 **Difference between two fecal egg count methods and estimation of genetic parameters for gastrointestinal parasite resistance traits in sheep**

Mohammed N. Boareki¹, Olivia B. Willoughby², Delma Kennedy³, Aroa Suarez-Vega¹, Larry Schaeffer¹, Flavio S. Schenkel², Angela Canovas⁴

¹University of Guelph, Department of Animal Biosciences, Centre for Genetic Improvement of Livestock, Guelph, Ontario, Canada, ²Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ³Ontario Ministry of Agriculture, Food and Rural Affairs, Elora, Ontario, Canada, ⁴Centre for Genetic Improvement of Livestock, Department of Animal Bioscience, University of Guelph, Guelph, Ontario, Canada

7:00 a.m. PSIII-9 **Differences in Conception Rate across Breeding Protocols in Dairy Cattle**

Colin Lynch¹, Gerson A. Oliveira Jr², Flavio S. Schenkel³, Christine F. Baes⁴

¹University of Guelph, ²University of Guelph, Department of Animal Biosciences, Centre for Genetic Improvement of Livestock, Guelph, ON, Canada, ³Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ⁴Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

7:00 a.m. PSIII-10 **Economic impact from the use of genetically evaluated registered animals-PO and with special certificate of identification and production-PODIUM in brazilian savannah**

Claudio U. Magnabosco¹, Ludmilla Brunes², Raysildo Lobo³, Leticia Pereira², Adriano Crozara⁴, Valentina Magnabosco⁵, Fernando baldi⁶

¹Embrapa Cerrados, ²Animal Science Department, Goiás Federal University, ³National Association of Breeders and Researchers, ⁴HoRa Agropecuária, ⁵Veterinary School, Barao de Maua University, ⁶São Paulo State University (Unesp), School of Agricultural and Veterinarian Sciences, Jaboticabal, SP, Brazil. National Council for Scientific and Technological Development (CNPq), Brazil

7:00 a.m. PSIII-21 **Effect of active, dry yeast *Saccharomyces cerevisiae* (ActiSaf HR+®) on postweaning performance, diarrhea and immune parameters of nursery pigs in cleaned or dirty environmental conditions.**

Claudia Tellman¹, Thomas Esselburn², Joe Loughmiller³, Sheila K. Jacobi⁴

¹Ohio State University, ²Phileo, Lesaffre Animal Care, ³Phileo by Lesaffre, ⁴The Ohio State University

7:00 a.m. PSIII-11 **Effect of Breast cancer metastasis-suppressor 1-like (BRMS1L) genotype on teat number traits in Jeju native pigs (JNP) and Landrace**
Moon-Cheol Shin ¹, Jea-Young Choi ¹, In-Cheol Cho ¹, Byoung-Chul Yang ¹, nam young kim ¹

¹National Institute of Animal Science

7:00 a.m. PSIII-22 **Effect of curcumin and resveratrol in combination on growth performance, hepatic antioxidant capacity and mitochondrial function in weaned piglets.**

Wenyao Wei ¹, Zhending Gan ¹, Xiang Zhong ¹

¹Nanjing Agricultural University

7:00 a.m. PSIII-23 **Effect of feed antioxidants on behavior and stress resistance of fattening pigs**

Roman Nekrasov ¹, Magomed G. Chabaev ¹, Elena Y. Tsis ¹, Nadezhda V. Bogolyubova ¹, Alexey V. Mishurov ¹, Roman A. Rykov ¹

¹L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSIII-24 **Effect of two sources of encapsulated sodium butyrate on broilers performance**

Cinta Sol ¹, Monica Puyalto ², Juan Jose Mallo ²

¹Norel SA, ²Norel S.A.

7:00 a.m. PSIII-39 **Effects of fermented feed without antibiotic on Intestinal Health and Growth Performance in Piglets of Different Weaning Age**

Li Wang ¹, Jingping Chen ², Hongbo Yi ¹, Yunxia Xiong ², Xuefen Yang ³, Zongyong Jiang ²

¹Institute of Animal Science, Guangdong Academy of Agricultural Sciences; Ministry of Agriculture Key Laboratory of Animal Nutrition and Feed Science in South China, ²Institute of Animal Science, Guangdong Academy of Agricultural Sciences; Ministry of Agriculture Key Laboratory of Animal Nutrition and Feed Science in South China, ³Institute of Animal Science, Guangdong Academy of Agricultural Sciences

7:00 a.m. PSIII-27 **Enhancing animal immunity by the alternative feed of microalgal lysate prepared from Chlorella**

Yung-Chun Huang ¹, Kuan Chao Huang ¹, Ren-Huang Tseng ¹, Chih-Sheng Lin ¹

¹Department of Biological Science and Technology, National Chiao Tung University

7:00 a.m. PSIII-40 **Essential oil blend as a possible alternative to antibiotic growth promoters in broiler production**

Bernat Canal ¹, Luis Mesas ¹, Monica Puyalto ², Cinta Sol ¹, Ali Agus ³, Muhsin Al Anas ³, Juan Jose Mallo ²

¹Norel SA, ²Norel S.A., ³Faculty of Animal Science UGM

7:00 a.m. PSIII-29 **Feeding arsenic-containing rice bran to growing pigs: arsenic distribution in major tissues**

Shengfa T. Liao ¹, Shamimul Hasan ¹, Zhongyue Yang ¹, Andrew W. Stevens ², James Brett ¹, Zhaohua Peng ¹

¹Mississippi State University, ²Department of Agricultural and Applied Economics, University of Wisconsin-Madison

7:00 a.m. PSIII-12 **Genetic analysis of heat tolerance in Holsteins using test-day production records and satellite-based meteorological data**

Paige L. Rockett¹, Flavio S. Schenkel², Christine F. Baes³, Filippo Miglior⁴, Dan Tulpan¹
¹University of Guelph, ²Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ³Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland, ⁴Ontario Genomics

7:00 a.m. PSIII-13 **Genetic assessment of isolated reindeer (Rangifer Tarandus) population from Tuva, Russia**

Arsen Vladimirovich Dotsev¹, Veronika Ruslanovna Kharzinova¹, Larisa D. Shimit², Olga K. Sergeeva³, Vasily V. Goncharov³, Kasim A. Layshev⁴, Tatiana M. Romanenko⁵, Valeriy I. Fedorov⁶, Alexander V. Senchik⁷, Innokentiy M. Okhlopkov⁸, Dmitry G. Medvedev⁹, Henry Reyer¹⁰, Klaus Wimmers¹⁰, Gottfried Brem¹¹, Natalia Anatolievna Zinovieva¹
¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Tuva State University, ³Institution of Research Institute of Agriculture and Ecology of the Arctic» – Branch of the Federal Research Center «Krasnoyarsk Science Center», ⁴FGBNU «North-West center of interdisciplinary researches of problems of food maintenance, ⁵FCIARctic Nenets Division — Agro-Experimental Station, Federal Agency of Scientific Organizations, ⁶Federal Government Budget Scientific Institutions Yakut Scientific Research Institute of the Agriculture Federal Agency Scientific Institutions, ⁷Far Eastern State Agrarian University, ⁸Institute for Biological Problems of Cryolithozone Siberian Branch of RAS, ⁹Department of game management and bioecology, Irkutsk State University of Agriculture, ¹⁰Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ¹¹Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSIII-14 **Genetic Diversity and Haplogroup Distribution of Asian Chicken Populations using Mitochondrial DNA sequence**

DaeHyeok Jin¹, Chang-Yeon Cho², Seung-Chang Kim², Dong-Kyo Kim², jinwook Lee³, Kwan-Woo Kim⁴, Jae-Yeong Lee⁵
¹National Institute of Animal Science, ²NIAS, ³National Institute of Animal Science, Republic of Korea, ⁴National institute of animal science, ⁵Animal Genetic Resources Research Center

7:00 a.m. PSIII-15 **Genetic variability of Russian domestic reindeer populations (Rangifer Tarandus) by microsatellites.**

Veronika Ruslanovna Kharzinova¹, Arsen Vladimirovich Dotsev¹, Anastasiya D. Solovieva², Valeriy I. Fedorov³, Larisa D. Shimit⁴, Tatiana M. Romanenko⁵, Alexander V. Senchik⁶, Olga K. Sergeeva⁷, Vasily V. Goncharov⁷, Kasim A. Layshev⁸, Alexander A. Yuzhakov⁸, Gottfried Brem⁹, Natalia Anatolievna Zinovieva¹
¹L.K. Ernst Federal Research Center for Animal Husbandry, ²L.K. Ernst Federal Science Center for Animal Husbandry, ³Federal Government Budget Scientific Institutions Yakut Scientific Research Institute of the Agriculture Federal Agency Scientific Institutions, ⁴Tuva State University, ⁵FCIARctic Nenets Division — Agro-Experimental Station, Federal Agency of Scientific Organizations, ⁶Far Eastern State Agrarian University, ⁷Institution of Research Institute of Agriculture and Ecology of the Arctic» – Branch of the Federal Research Center «Krasnoyarsk Science Center», ⁸FGBNU «North-West center of interdisciplinary researches of problems of food maintenance, ⁹Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSIII-16 **Genome-wide association mapping and functional analysis of body weight, feed intake and walking ability in turkeys**

Emhimad Abdalla ¹, Bayode O. Makanjuola ², Ben Wood ³, Christine F. Baes ⁴, Ryley J. Vanderhout ⁵

¹Centre for Genetic Improvement of Livestock, University of Guelph, Guelph, Ontario, Canada, ²Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada, ³University of Queensland, ⁴Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland, ⁵University of Guelph

7:00 a.m. PSIII-42 **Genome-wide expression profile of trophoblastic cells during late pregnancy in ewes**

Wellison Jarles Da Silva Diniz ¹, Sheri T. Dorsam ¹, Manuel A. Vasquez-Hidalgo ¹, Hanaa H. Mansour ¹, Kimberly A. Vonnahme ², Anna T. Grazul-Bilska ¹, Alison K. Ward ¹

¹North Dakota State University, ²Zoetis

7:00 a.m. PSIII-32 **Interactive effects of copper sources and superdose phytase on growth performance, nutrient digestibility and tissue mineral concentrations in nursery pigs**

Ping Ren ¹, Joe Cushing ², Deana Hancock ¹, Mercedes Vazquez ²

¹Novus International, ²Novus International, Inc

7:00 a.m. PSIII-17 **Program Chair Poster Pick: A study on the effect of dihydroquercetin added into a diet of growing pigs on meat quality**

Anastasiia A. Semenova ¹, Victoria V. Nasonova ¹, Tatiana G. Kuznetsova ¹, Elena K. Tunieva ¹, Nadezhda V. Bogolyubova ², Roman Nekrasov ²

¹V.M. Gorbatov Federal Research Center for Food Systems of Russian Academy of Science, ²L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSIII-33 **Stability and function of encapsulated Lactobacillus zeae for pig gut health**

Linyan Li ¹, Xiaoyin Wang ², Hai Yu ³, Qi wang ³, Luca Lo Verso ⁴, Martin Lessard ⁴, Martin Mondor ⁵, Janghan Choi ⁶, chengbo Yang ⁷, Mylène Blais ⁸, Joshua Gong ⁹

¹Guelph Research and Development Centre, Agriculture and Agri-Food Canada, ²State Key Laboratory of Food Science and Technology, China-Canada Joint Lab of Food Science and Technology (Nanchang), Nanchang University, Nanchang, Jiangxi 330047, China; Guelph Research and Development Centre, Agriculture & Agri-Food Canada, Guelph, Ontario N1G 5C9, Canada, ³Agriculture Agri-Food Canada, ⁴Sherbrooke Research and Development Centre, Agriculture and Agri-Food Canada, ⁵St-Hyacinthe Research and Development Centre, Agriculture and Agri-Food Canada, ⁶University of Manitoba, ⁷Department of Animal Science, University of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada, ⁸Agriculture and Agri-Food Canada, ⁹Guelph Research and Development Centre, Agriculture Agri-Food Canada

7:00 a.m. PSIII-34 **Standardized ileal digestible lysine requirements for 7- to 15-kg weanling pigs with high-lean genetics fed a corn-soybean meal-based diet**

Jinyoung Lee ¹, Caroline González-Vega ², John K. Khun Kyaw Htoo ³, Charles Martin Nyachoti ¹

¹University of Manitoba, ²Evonik Nutrition & Care GmbH, ³Evonik

7:00 a.m. PSIII-35 **The effects of cold pelleting and separation of fine corn particles on growth performance of nursery pigs**

Caitlin E. Evans ¹, Marut Saensukjaroenphon ¹, Haley Otott ¹, Jason C. Woodworth ¹, Cassandra K. Jones ¹, Joel M. DeRouchey ¹, Mike D. Tokach ¹, Robert D. Goodband ¹, Chad B. Paulk ¹, Charles R. Stark ¹

¹Kansas State University

7:00 a.m. PSIII-36 **The endocytic pathway plays a major role in the regulation of tight junction remodeling during nutrient starvation in jejunal IPEC-J2 cells**

Enkai Li ¹, Kola Ajuwon ²

¹Purdue University, ²Purdue university

7:00 a.m. PSIII-37 **The microalgal Chlorella biomass as feed additive for egg-laying hens to produce the eggs enriched lutein content**

Wen-Xin Zhang ¹, Hsi-Tien Wu ², Chean-Ping Wu ³, Chih-Sheng Lin ¹

¹Department of Biological Science and Technology, National Chiao Tung University,

²Department of BioAgricultural Sciences, National Chiayi University, ³Department of Animal Science, National Chiayi University

Animal Breeding and Genetics Symposium I: Sponsored by CSAS

Chair: Flavio Schenkel, Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada

8:00 AM - 12:00 PM

Channel 2

8:00 a.m. **Animal Breeding and Genetics Symposium I Introduction**

8:03 a.m. **Presentation of the Rockefeller Prentice Award in Animal Breeding and Genetics**

Matthew C. McClure ¹

¹ABS Global

8:06 a.m. 296 **Awardee Talk: The Genetics of Sow Longevity**

Kenneth J. Stalder ¹

¹Iowa State University

8:35 a.m. 299 **Genetic analysis of temperament and its correlation with production, reproduction, type, health and longevity in Chinese Holstein**

Yao Chang ¹, Yachun Wang ¹

¹Laboratory of Animal Genetics, Breeding and Reproduction, Ministry of Agriculture of China, National Engineering Laboratory of Animal Breeding, College of Animal Science and Technology, China Agricultural University, Beijing, China

9:05 a.m. 293 **ASAS-EAAP Talk: #Phenotypeisking**

Mike Coffey ¹

¹Scotland's Rural College

9:35 a.m. 300 **ASAS-EAAP Talk: Towards an increasing number and complexity of breeding goal traits in dairy cattle**

Nina Krattenmacher ¹, Anita Seidel ¹, Georg Thaller ¹

¹Institute of Animal Breeding and Husbandry, Kiel University

10:05 a.m. **Animal Breeding and Genetics Symposium I Break**

10:15 a.m. 302 **Phenomics and its potential impact on livestock development in low income countries: Innovative applications of emerging related digital technology**

Chinyere Ekine ¹, Raphael Mrode ², Karen Marshall ¹, Mizeck Chagunda ³, Bridgit Muasa ⁴, Julie Ojango ², Mwai Okeyo ²

¹International Livestock Research Institute, ²ILRI, ³University of Hohenheim, ⁴University of Nairobi

10:45 a.m. 298 **Can phenomics contribute to improved livelihood and food security in South Africa?**

Carina Visser ¹, Allan De Freitas ¹, Este Van Marle Koster ¹, Herman Myburgh ¹

¹University of Pretoria

11:15 a.m. 402 **Audio information retrieval for describing gait patterns in Brazilian horses**

Ricardo V. Ventura ¹, Rafael Z. Lopes ², Lucas T. Andrietta ², Fernando Bussiman ², Julio Balieiro ², Roberto carvalho ³, Fabyano Silva ⁴, Luiz F. Brito ⁵, Anderson Alves ⁶

¹University of Sao Paulo, ²University of São Paulo - FMVZ/USP, ³UNESP, ⁴Federal University of Viçosa, ⁵Purdue University, ⁶Instituto Federal do Maranhao

11:45 a.m. **Animal Breeding and Genetics Symposium I Discussion**

WSASAS Beef Symposium

Chair: Rodrigo Marques, Montana State University

8:00 AM - 12:15 PM

Channel 3

8:00 a.m. **WSASAS Beef Symposium Introduction**

8:05 a.m. 404 **Beef heifer development: Managing nutrition to optimize fertility**

Adam F. Summers ¹

¹New Mexico State University

8:35 a.m. 403 **Supplementing omega-6 fatty acids to enhance reproductive performance of beef cows**

Reinaldo F. Cooke ¹

¹Texas A&M University

9:05 a.m. 406 **Maternal nutrition during early gestation: Impacts on developmental outcomes**

Joel S. Caton¹, Matthew S. Crouse¹, Lawrence P. Reynolds¹, Carl R. Dahlen¹, Bryan W. Neville², Pawel P. Borowicz¹, Tammi L. Neville³, Kyle J. McLean⁴, Alison K. Ward¹

¹North Dakota State University, ²USDA, ARS, U.S. Meat Animal Research Center, ³USDA-NIFA, ⁴University of Tennessee, Knoxville

9:35 a.m. 407 **Nutrition and sexual development in bulls**

Joseph Dalton¹

¹University of Idaho

10:05 a.m. **WSASAS Beef Symposium Break**

10:10 a.m. **WS Awards Presentation**

Reinaldo F. Cooke¹

¹Texas A&M University

10:15 a.m. 408 **WS Distinguished Service Talk: Effects of steam flaking on the carbon-footprint of finishing beef cattle**

N. A. Cole¹, David B. Parker², Mike S. Brown³, Jenny S. Jennings⁴, Kristen E. Hales⁵, Stacey A. Gunter⁶

¹USDA-ARS, ²USDA-ARS-CPRL, ³Elanco, 2500 Innovation Way, Greenfield, IN 46140, ⁴Texas AgriLife Research, ⁵Texas Tech University, ⁶USDA-ARS, Oklahoma and Central Plains Agricultural Research Center

10:45 a.m. 405 **WS Young Scholar Talk MS I: The impact of cow size on cow-calf and post-weaning progeny performance in the Nebraska Sandhills**

Rob Ziegler¹, Jacki Musgrave², T L. Meyer³, Rick N. Funston⁴, Kathy Hanford⁵, Jim C. MacDonald⁶, Travis Mulliniks³

¹University of Wyoming, Laramie, ²University of Nebraska-North Platte, ³University of Nebraska, ⁴West Central Research, Extension, and Education Center, ⁵University of Nebraska-Lincoln, ⁶University of Nebraska- Lincoln

11:15 a.m. 423 **WS Young Scholar Talk MS II: Heat stress-induced deficits in growth, metabolic efficiency, and cardiovascular function coincided with chronic systemic inflammation and hypercatecholaminemia in ractopamine-supplemented feedlot lambs**

Rebecca M. Swanson¹

¹University of Nebraska-Lincoln

11:45 a.m. 424 **WS Young Scholar Talk PHD: Effect of increasing dietary zinc during late gestation and early lactation on ewe and lamb body weights, serum and milk minerals, and somatic cell count**

Chad M. Page¹

¹University of Wyoming

Companion Animals Symposium I

Chair: Maria R.C. de Godoy, University of Illinois at Urbana-Champaign

9:00 AM - 12:15 PM

Channel 1

9:00 a.m. **Companion Animals Symposium I Introduction**

9:10 a.m. **Presentation of the Corbin Award in Companion Animal Biology**

William Weldon ¹

¹Weldon Consulting

9:15 a.m. 323 **Awardee Talk: Corbin Companion Animal Biology Award**

Maria R.C. de Godoy ¹

¹University of Illinois at Urbana-Champaign

9:45 a.m. 413 **Food Fraud Prevention**

Robert Hanner ¹

¹University of Guelph

10:15 a.m. 334 **Pet food safety: truth in labeling**

David Edwards ¹, Charlotte Conway ¹

¹FDA Center for Veterinary Medicine

10:45 a.m. **Companion Animals Symposium I Break**

11:00 a.m. 414 **Pet Supplements: Is Fraud a Concern?**

Bill Bookout ¹

¹National Animal Supplement Council (NASC)

11:30 a.m. 325 **Biosensors and Intelligent Packaging to Improve Food Safety**

Yi-Cheng Wang ¹

¹University of Illinois at Urbana-Champaign

12:00 p.m. **Companion Animals Symposium I Discussion**

ASAS-CSAS-WSASAS Annual Meeting and Trade Show Opening Session

Chair: Beth Kegley, University of Arkansas Division of Agriculture

12:00 PM - 1:30 PM

Zoom 5

12:00 p.m. **Welcome to meeting and Sponsor Thank You**

Beth B. Kegley ¹

¹University of Arkansas Division of Agriculture

12:20 p.m. **International Attendee Recognition**

Christine F. Baes ¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

12:25 p.m. **Presentation of the Morrison Award**

Steven A. Zinn ¹

¹Dept. of Animal Science, University of Connecticut

12:30 p.m. **Awardee Talk: Nutritional Regulation of Muscle Growth**

Teresa A. Davis ¹

¹USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine

12:45 p.m. **Presentation of Fellow Award Recipients**

Beth B. Kegley ¹, Glenn Duff ²

¹University of Arkansas Division of Agriculture, ²New Mexico State University

1:10 p.m. **Presentation of FASS-AFIA Award**

Justin Bundy ¹

¹Bill Barr and Company

1:15 p.m. **Academic Quadrathlon Results Presentation and Teams Video**

John Scott Radcliffe ¹

¹Purdue University

1:25 p.m. **Closing Remarks**

Beth B. Kegley ¹

¹University of Arkansas Division of Agriculture

WSASAS Graduate Student Oral Competition

Chair: Kacie McCarthy, University of Nebraska

1:00 PM - 6:00 PM

Channel 1

1:00 p.m. 259 **Effect of stair-step nutritional programming on ovarian development in replacement beef heifers**

Shelby L. Rosasco ¹, Emily A. Melchior-Tiffany ², Shad H. Cox ³, Richard L. Dunlap ³, Jennifer A. Hernandez Gifford ², Eric J. Scholljegerdes ², Robert A. Cushman ⁴, Adam F. Summers ²

¹University of Wyoming, ²New Mexico State University, ³New Mexico State University Corona Range and Livestock Research Center, ⁴USDA, ARS, US Meat Animal Research Center, Livestock Bio-Systems Research Unit

1:15 p.m. 271 **Beta-adrenergic agonists increase maximal output of oxidative phosphorylation in bovine satellite cells**

Renae L. Sieck ¹, Leah K. Treffer ², Martonio Ponte Viana ¹, Oleh Khalimonchuk ¹, Ty B. Schmidt ¹, Dustin T. Yates ¹, Jessica L. L. Peterson ¹

¹University of Nebraska-Lincoln, ²University of Nebraska-Lincoln, Nebraska Wesleyan University

1:30 p.m. 265 **Evaluation of the genetic relationship amongst high elevation pulmonary arterial pressure, feedlot and carcass performance traits**

Emma A. Briggs ¹, Scott E. Speidel ¹, Mark Enns ¹, Milt Thomas ¹, Tim Holt ¹

¹Colorado State University

1:45 p.m. 260 **Genetic prediction for first-service conception rate in Angus heifers using a random regression model**

Miguel A. Sánchez-Castro¹, Milt Thomas¹, Mark Enns¹, Scott E. Speidel¹

¹Colorado State University

2:00 p.m. 273 **Impacts of Flunixin Meglumine injection on pain responses of either rubber ring castrated and tail docked or surgically castrated and docked lambs**

Paige P. Anderson¹, Amanda M. Long¹, Alison R. Crane², Travis W. Hoffman³, Gerald Stokka⁴, Lauren L. Hanna⁴, James D. Kirsch³, Christopher S. Schauer¹

¹Hettinger Research Extension Center, North Dakota State University, ²Animal Sciences and Industry, Kansas State University, ³Department of Animal Sciences, North Dakota State University, ⁴North Dakota State University

2:15 p.m. 257 **Beef cows with atypical estrous cyclicity at puberty produced calves with deficits in pre-weaning muscling, metabolic indicators, and myoblast function but not in feedlot performance.**

Rebecca M. Swanson¹, Rachel L. Gibbs¹, Caitlin N. Cadaret², Galen E. Erickson³, Ty B. Schmidt¹, Andrea S. Cupp¹, Dustin T. Yates¹

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

2:30 p.m. 258 **Deficits in growth, muscle mass, and body composition following intrauterine growth restriction persisted in lambs at 60 d of age but were improved by daily clenbuterol supplementation**

Rachel L. Gibbs¹, Rebecca M. Swanson¹, Joslyn K. Beard¹, Ty B. Schmidt¹, Jessica L. L. Peterson¹, Dustin T. Yates¹

¹University of Nebraska-Lincoln

2:45 p.m. 256 **Heat stress and β -adrenergic agonists alter the adipose transcriptome and fatty acid mobilization in ruminant livestock**

Rachel R. Reith¹, Renae L. Sieck¹, Pablo C. Grijalva¹, Erin M. Duffy², Rebecca M. Swanson¹, Anna M. Fuller¹, Kristin A. Beede¹, Joslyn K. Beard¹, Duarte E. E. Diaz³, Ty B. Schmidt¹, Dustin T. Yates¹, Jessica L. L. Peterson¹

¹University of Nebraska-Lincoln, ²University of Nebraska-Lincoln, ³University of Arizona

3:00 p.m. 269 **Influence of the maternal rumen microbiome on development of the calf meconium and rumen microbiome**

Kelly Woodruff¹, Gwendolynn Hummel², Kathleen J. Austin², Travis Smith², Hannah Cunningham²

¹Department of Animal and Range Sciences, Clayton Livestock Research Center, New Mexico State University, ²University of Wyoming

3:15 p.m. **WSASAS Graduate Student Competition Break**

3:30 p.m. 261 **Sorting strategy and effect of variation on profitability of a pen of feedlot steers**

Meredith A. Harrison¹, James W. Oltjen²

¹Colorado State University, ²University of California, Davis

3:45 p.m. 266 **Administering an appeasing substance to beef calves at weaning to optimize welfare and productivity**

Kelsey Schubach¹, Reinaldo F. Cooke¹, Alice Brandão¹, Bruna Rett¹, Vitor Ferreira², Giovanna Scatolin¹, Eduardo Colombo¹, Courtney L. Daigle³, Ky G. Pohler¹, Bruno I. Cappelozza⁴

¹Texas A&M University, ², ³Department of Animal Science, Texas A&M University, ⁴Nutricorp

4:00 p.m. 273 **Impacts of commingling on health and productive responses of beef heifers during feedlot receiving**

Jacob Wiegand¹, Reinaldo F. Cooke¹, Alice Brandão¹, Kelsey Schubach¹, Eduardo Colombo¹, CiCi A. Sowers², Glenn Duff², Vinicius N. Gouvea³

¹Texas A&M University, ²New Mexico State University, ³Texas A&M

4:15 p.m. 268 **Administering an appeasing substance to optimize welfare and performance of receiving cattle**

Eduardo Colombo¹, Reinaldo F. Cooke¹, Alice Brandão¹, Jacob Wiegand¹, Kelsey Schubach¹, CiCi A. Sowers², Glenn Duff², Vinicius N. Gouvea³, Bruno I. Cappelozza⁴

¹Texas A&M University, ²New Mexico State University, ³Texas A&M, ⁴Nutricorp

4:30 p.m. 270 **Evidence for the amnion-fetal gut-microbial axis in late gestation beef calves**

Gwendolynn Hummel¹, Kelly Woodruff², Kathleen J. Austin¹, Travis Smith¹, Hannah Cunningham¹

¹University of Wyoming, ²Department of Animal and Range Sciences, Clayton Livestock Research Center, New Mexico State University

4:45 p.m. 262 **Heat stress alleviation and dynamic temperature measurement for growing beef cattle**

Sheyenne M. Augenstein¹, Meredith A. Harrison², Sarah C. Klopatek³, James W. Oltjen¹

¹University of California, Davis, ²Colorado State University, ³JBS

5:00 p.m. 263 **Impact of cow milk production on cow-calf performance in the Nebraska Sandhills**

Travis Mulliniks¹, Tasha King², Jacki Musgrave³, Rick N. Funston⁴

¹University of Nebraska, ²University of Nebraska-Lincoln, ³University of Nebraska-North Platte, ⁴West Central Research, Extension, and Education Center

5:15 p.m. 267 **Supplementing Ca salts of soybean oil to late-gestating beef cows: Impacts on performance and physiological responses of the offspring**

Alice Brandão¹, Reinaldo F. Cooke¹, Kelsey Schubach¹, Bruna Rett¹, Osvaldo Sousa¹, Ky G. Pohler¹, David W. Bohnert², Rodrigo Marques³

¹Texas A&M University, ²Oregon State University; EOARC, ³Oregon State University

5:30 p.m. 264 **Harvest season, carcass weight, and fat measurement effects on lamb carcass characteristics and economic comparison of moderate and heavy weight lamb carcasses in the Western lamb processing industry**

Jaelyn Whaley¹, Warrie Means¹, John Ritten¹, Tom W. Murphy², Cody Gifford¹, Hannah Cunningham¹, Kelly Woodruff³, Heather McKibben¹, Chad M. Page¹, Whit C. Stewart¹

¹University of Wyoming, ²USDA ARS U.S. Meat Animal Research Center, ³Department of Animal and Range Sciences, Clayton Livestock Research Center, New Mexico State University

5:45 p.m. 425 **Effects of pre-mortem stress on protein expression, steak color, and myofibrillar fragmentation index in the longissimus lumborum following harvest**

Reganne K. Briggs¹, Jerrad F. Legako², Paul R. Broadway³, Jeff A. Carroll⁴, Nicole C. Burdick-Sanchez³, Zachary K. Smith⁵, Kara J. Thornton¹, Ranjith Ramanathan⁶

¹Utah State University, ²Texas Tech University, Department of Animal and Food Sciences, ³USDA-ARS, ⁴USDA-ARS-Livestock Issues Research Unit, ⁵South Dakota State University, ⁶Oklahoma State University

Comparative Gut Physiology Symposium

Chair: Ehsan Khafipour, Diamond V

1:30 PM - 5:00 PM

Channel 2

1:30 p.m. **Comparative Gut Physiology Symposium Introduction**

1:33 p.m. **Presentation of the Agri-King Outstanding Animal Science Graduate Student Award**

David Jones¹

¹Agri-King

1:36 p.m. 338 **Awardee Talk: Superior feed efficiency and maternal supply of methionine are associated with unique gut microbiome in beef and dairy cattle**

Ahmed Elolimy¹, Joshua C. McCann², Daniel W. Shike³, Juan Loo⁴

¹Arkansas Children's Nutrition Center, University of Arkansas for Medical Sciences, Little Rock, ²University of Illinois, ³University of Illinois at Urbana-Champaign, ⁴University of Illinois Urbana Champaign

2:05 p.m. 337 **Metabolic Foundations of Microbiota-Host Interactions**

Dylan Dodd¹

¹Stanford University

2:35 p.m. 335 **The Gut-Lung Axis: The Human Perspective**

Michael Surette¹

¹McMaster University

3:05 p.m. 339 **Gut microbiome-lung axis - Beef perspective**

Trevor Alexander¹

¹Agriculture Agri-Food Canada, Lethbridge Research and Developmental Center

3:35 p.m. **Comparative Gut Physiology Symposium Break**

3:45 p.m. 336 **Gut microbiome-repro axis - Ruminants perspective**

Rodrigo Bicalho ¹

¹Cornell University

4:15 p.m. 340 **Gut microbiome-mammary axis - Human and dairy perspectives**

Ehsan Khafipour ¹

¹Diamond V

4:45 p.m. **Comparative Gut Physiology Symposium Discussion**

Forages and Pastures Symposium

Chair: William Smith, Tarleton State University

1:30 PM - 5:45 PM

Channel 4

1:30 p.m. **Forages and Pastures Symposium Introduction**

1:33 p.m. **Presentation of the Extension Award**

Aubrey Schroeder ¹

¹Zoetis

1:36 p.m. 348 **Awardee Talk: Extension Award**

Matt H. Poore ¹

¹NC State University

2:05 p.m. 349 **The need for forage intake measurements**

Michael Galyean ¹

¹Texas Tech University Department of Veterinary Medicine

2:50 p.m. 347 **Choosing an external marker for measuring intake and digestibility in ruminants**

Eric J. Scholljegerdes ¹

¹New Mexico State University

3:35 p.m. **Forages and Pastures Symposium Break**

3:45 p.m. 345 **Digital Technologies Ease the Burden of Pasture Intake Measurements: A New Hope**

Robert Kallenbach ¹, Stacey Hamilton ¹, Thomas Ryan Lock ¹

¹University of Missouri

4:30 p.m. 346 **Sensor-Determined Behaviors and Pasture Intake Estimation in Extensive Grazing Systems**

Gregory J. Bishop-Hurley ¹, Flavio A. Alvarenga ², Philip Valencia ³, Bryce Little ¹, Robin C. Dobos ², Aaron B. Ingham ¹, Paul L. Greenwood ²

¹CSIRO, ²NSW Department of Primary Industries, ³CSIRO Data61

5:15 p.m. **Forages and Pastures Symposium Discussion**

Companion Animals Symposium II

Chair: Renan Antunes Donadelli, Department of Animal Biosciences, University of Guelph
2:00 PM - 5:00 PM
Channel 3

2:00 p.m. **Companion Animals Symposium II Introduction**

2:15 p.m. 328 **Targeting food formulation considering nutrient intake**

Aulus Cavalieri Carciofi ¹

¹UNESP

2:45 p.m. 329 **Why kennel and cattery food preference trials may not predict pet preferences in home?**

Jill Villarreal ¹

¹Harris-Stowe State University

3:15 p.m. **Companion Animals Symposium II Break**

3:30 p.m. 331 **Dietary methionine restriction: an approach to treating obesity that does not involve food restriction**

Thomas W. Gettys ¹

¹Pennington Biomedical Research Center

4:00 p.m. 322 **Consumer sensory cues in pet food selection**

Kadri Koppel ¹

¹Kansas State University

4:30 p.m. 332 **What's causing obesity in pets and what can we do about it?**

Robert Pretlow ¹

¹eHealth International, Inc.

Tuesday, July 21, 2020

POSTER SESSION IV

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSIV-1 **Apparent and Standardized Ileal Digestibility of Amino Acids in Dry Extruded-Expelled Soybean Meal Fed to Growing Pigs Without or With Organic Acids and Multi-Carbohydrase**

Jichen Song ¹, Charles Martin Nyachoti ¹

¹University of Manitoba

7:00 a.m. PSIV-2 **Changes in free glutamine and glutamate in mare milk during early lactation**

Morgan B. Pyles¹, Susan Hayes¹, Andrea Crum¹, Elizabeth Radomski¹, Miranda Kunes¹, Laurie Lawrence¹

¹University of Kentucky

7:00 a.m. PSIV-24 **Characterizing sow microbiome and drinking water quality at different production locations**

Katelyn M. Clark¹, Lauren E. Anderson¹, Jonathan P. Holt², Dana Dittoe³, Steven C. Ricke³

¹North Carolina State University, ²NCSU, ³Center for Food Safety and Department of Food Science, University of Arkansas

7:00 a.m. PSIV-3 **Cow Efficiency: Modeling the Biological and Economic Output of a Michigan Beef Herd**

Logan R. Thompson¹, Matt Beck², Daniel Buskirk¹, Jason E. Rowntree¹, Melissa McKendree¹

¹Michigan State University, ²Lincoln University

7:00 a.m. PSIV-5 **Developmental and hormonal regulation of gene expression of fibrillin-1 (FBN1) and the asprosin receptor, olfactory receptor family 4 subfamily M member 1 (OR4M1), in bovine ovarian cells**

Excel Rio S. Maylem¹, Leon J. Spicer¹, Isadora M. Batalha², Luis Schutz³

¹Oklahoma State University, ²University of Nevada-Reno, ³University of Nevada

7:00 a.m. PSIV-31 **Do community-engaged learning courses benefit the equine student over a traditional laboratory setting?**

Avery Walters¹, Katie Holtcamp¹, Molly Nicodemus², Holly Evans³, Samantha Lee¹, Alicia Gilmore¹

¹Mississippi State University, ²Animal & Dairy Sciences, Mississippi State University, ³Iowa State University

7:00 a.m. PSIV-32 **Do self-assessments reflect actual skill level of the student in an introductory equine laboratory course?**

Samantha Lee¹, Katie Holtcamp¹, Molly Nicodemus², Holly Evans³, Avery Walters¹, Alicia Gilmore¹

¹Mississippi State University, ²Animal & Dairy Sciences, Mississippi State University, ³Iowa State University

7:00 a.m. PSIV-6 **Effect of a Phytogetic Water Additive on Growth Performance, Blood Metabolites and Gene Expression of Amino Acids Transporters in Nursery Pigs Fed with Low Protein Diets**

Cedrick n. Shili¹, Mohammad Habibi¹, Julia Sutton¹, Jessie Barnes², Jacob Burchkonda², Doris Siahaan³, Adel Pezeshki¹

¹Department of Animal and Food Sciences, Oklahoma State University, Stillwater, OK 74078, ²Oklahoma State University, ³HerbAnimal LLC

7:00 a.m. PSIV-7 **Effect of dietary tryptophan supplementation on growth, energy balance and blood metabolites in milk-fed low birth weight pigs**

Parniyan Goodarzi ¹, Mohammad Habibi ¹, Julia Sutton ¹, Cedrick n. Shili ¹, Kennedy Roberts ², Jazmin A. Markey ³, Jacob Burch-Konda ¹, Adel Pezeshki ¹

¹Department of Animal and Food Sciences, Oklahoma State University, Stillwater, OK 74078, ²Undergrad student, ³Oklahoma State University

7:00 a.m. PSIV-25 **Effect of Various Handling Methods of Plasma and Serum Samples on Pregnancy Associated Glycoprotein Concentrations**

Grace M. Wesson ¹, Lohana Fernandez ¹, Rebecca K. Poole ², Gessica A. Franco-Johannsen ³, Sydney T. Reese ², Ky G. Pohler ²

¹Department of Animal Science, Texas A&M University, College Station, TX, ²Texas A&M University, ³Texas &M University

7:00 a.m. PSIV-26 **Effects of extended-release eprinomectin on heifer growth and reproductive performance while grazed on endophyte-infected tall fescue or housed in drylot**

Sarah M. Graham ¹, Julissa Navarrete ², Lucas T. Neira ³, Joshua C. McCann ⁴, Daniel W. Shike ¹

¹University of Illinois at Urbana-Champaign, ²Illinois State University, ³University of Illinois Champaign-Urbana, ⁴University of Illinois

7:00 a.m. PSIV-8 **Effects of Late Gestation Calcium Salts of Fatty Acids Supplementation to Beef Cows on Offspring Finishing Phase Performance and Carcass Characteristics**

Taoqi Shao ¹, Joshua C. McCann ¹, Daniel W. Shike ²

¹University of Illinois, ²University of Illinois at Urbana-Champaign

7:00 a.m. PSIV-9 **Effects of polyamines and trenbolone acetate on proliferation rates of murine myoblasts**

Laura A. Motsinger ¹, Nikole E. Ineck ², Brynne A. Udy ¹, Chris L. Erickson ¹, Kara J. Thornton ¹

¹Utah State University, ²Gröv Technologies

7:00 a.m. PSIV-10 **Effects of stair-step vs. constant supplementation amount on growth, reproduction, and intravaginal temperature in Bos indicus-influenced beef heifers**

Elizabeth A. Palmer ¹, Rhaiza A. Oliveira ², Mario Binelli ³, Thiago Martins ⁴, Joao Vendramini ³, Philippe Moriel ³

¹University of Florida - Range Cattle Research & Education Center, ²University of Florida, IFAS – Range Cattle Research and Education Center, ³University of Florida, ⁴Mississippi State University

7:00 a.m. PSIV-11 **Effects of very low-dose antibiotics on gene expression profiles in ileal mucosa of weaned pigs infected with a pathogenic E. coli**

Kwangwook Kim ¹, Sungbong Jang ², Yanhong Liu ¹

¹University of California, Davis, ²University of Georgia

7:00 a.m. PSIV-20 **Evaluation of calf performance when cows grazing native rangeland are vaccinated for bovine viral diarrhea virus and infectious bovine rhinotracheitis using either a modified live or killed vaccine**

Luis A. Lujan ¹, Emily A. Melchior-Tiffany ², Shelby L. Rosasco ³, Shanna L. Lodge-Ivey ², Richard L. Dunlap ⁴, Shad H. Cox ⁴, Eric J. Scholljegerdes ², John C. Wenzel ⁵

¹NMSU microbiology laboratory, ²New Mexico State University, ³University of Wyoming, ⁴New Mexico State University Corona Range and Livestock Research Center, ⁵NMSU Extension Veterinarian

7:00 a.m. PSIV-12 **Evaluation of reproductive performance and herd longevity when heifers grazing native range are vaccinated with a lifetime regimen of a killed viral or modified live viral vaccine**

Emily A. Melchior-Tiffany ¹, Shelby L. Rosasco ², Shanna L. Lodge-Ivey ¹, Shad H. Cox ³, Richard L. Dunlap ³, John C. Wenzel ⁴, Dennis L. Hallford ¹, Adam F. Summers ¹, Eric J. Scholljegerdes ¹

¹New Mexico State University, ²University of Wyoming, ³New Mexico State University Corona Range and Livestock Research Center, ⁴NMSU Extension Veterinarian

7:00 a.m. PSIV-13 **Examining feedlot performance of Angus sired steers implanted with estradiol, trenbolone acetate, or a combined implant**

Caleb C. Reichhardt ¹, Tevan J. Brady ², Reganne K. Briggs ², Laura A. Motsinger ², Brett Bowman ², Aaron Thomas ², Kara J. Thornton ²

¹University of Hawai'i at Mānoa, ²Utah State University

7:00 a.m. PSIV-14 **Fecal Microbiome of Horses Grazing Integrated Warm- and Cool-Season Grass Rotational Pasture Systems**

Jennifer R. Weinert ¹, Amy S. Biddle ², Carey A. Williams ¹

¹Department of Animal Sciences, Rutgers, The State University of New Jersey, ²University of Delaware

7:00 a.m. PSIV-15 **Influence of genetics on fatty acid profile, vitamin and mineral content of beef from grain and grass-finishing systems**

Lucas Krusinski ¹, Isabella Cristina de Faria Maciel ¹, Selin Sergin ¹, Travis Goeden ¹, Jenifer I. Fenton ², Jason E. Rowntree ¹

¹Michigan State University, ²MSU

7:00 a.m. PSIV-16 **Maternal Nutrient Restriction Followed by Re-alimentation Alters Distinct Metabolic Pathways in Sheep Offspring**

Brandon I. Smith ¹, Manuel A. Vasquez-Hidalgo ², Kimberly A. Vonnahme ³, Anna T. Grazul-Bilska ², Kendall C. Swanson ², Sarah A. Reed ⁴, Steven A. Zinn ⁴, Kristen E. Govoni ⁴

¹University of Connecticut, ²North Dakota State University, ³Zoetis, ⁴Dept. of Animal Science, University of Connecticut

7:00 a.m. PSIV-17 **Muscular Tension as a Marker of Stress in Horses**

Ellen M. Rankins ¹, Helio C. Manso ¹, Karyn Malinowski ¹, Kenneth H. McKeever ¹

¹Rutgers University

7:00 a.m. PSIV-27 **Peripheral complete blood cell count results in pigs are impacted by gender, sow parity, and farrowing season.**

Elle Rottman¹, Alisun N. Watson¹, Catherine Buck¹, Tsungcheng Tsai¹, Jeffery J. Cheuning², Charles V. Maxwell¹, Beth B. Kegley³, Jeremy G. Powell⁴

¹University of Arkansas, ²Swine Research Services Inc., ³University of Arkansas Division of Agriculture, ⁴University of Arkansas System Division of Agriculture

7:00 a.m. PSIV-18 **Pro- and anti-inflammatory cytokines in the uterine environment throughout beef heifer development with supplemental protein**

Taylor B. Seay¹, Kiernan J. Brandt¹, Rebecca R. Payton², Liesel G. Schneider³, Phillip R. Myer⁴, Justin Rhinehart¹, Louisa Rispoli¹, Kyle J. McLean⁵

¹University of Tennessee Knoxville, ²Department of Animal Science, University of Tennessee, ³Animal Science Department, University of Tennessee Institute of Agriculture, ⁴Department of Animal Science- University of Tennessee, ⁵University of Tennessee, Knoxville

7:00 a.m. PSIV-4 **Program Chair Poster Pick: Determinants of red meat exclusion from diets in Canada**

Kebebe E. Gunte¹, Robin R. White², Harold Aukema¹, Tim A. McAllister³, Natalie Riediger¹, Getahun Legesse⁴, E.J. McGeough¹, Karin Wittenberg¹, Naser Ibrahim¹, Kim H. Ominski¹

¹University of Manitoba, ²Virginia Tech School of Animal Sciences, ³Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, ⁴Manitoba Agriculture

7:00 a.m. PSIV-28 **Program Chair Poster Pick: The Effects of Poor Maternal Nutrition During Gestation on Ewe and Offspring Plasma Concentrations of Leptin and Ghrelin**

Lauren M. Soranno¹, Amanda Jones², Sambhu Pillai³, Maria L. Hoffman⁴, Steven A. Zinn⁵, Kristen E. Govoni⁵, Sarah A. Reed⁵

¹University of Connecticut, ²Boehringer Ingelheim, ³Georgetown University, ⁴University of Rhode Island, ⁵Dept. of Animal Science, University of Connecticut

7:00 a.m. PSIV-34 **Program Chair Poster Pick: Validating adapted scales to measure individual and situational interest in animal science undergraduates**

MaryGrace Erickson¹, Danielle Marks², Elizabeth Karcher², Michel Wattiaux¹

¹UW--Madison, ²Purdue University

7:00 a.m. PSIV-19 **Relationship between liver abscess microbiome of feedlot cattle and soil organic matter microbiome isolated from feedlot pens**

Kathryn E. Smith¹, Zeno Bester¹, Michael E. Hubbert¹, Clint A. Loest¹

¹New Mexico State University

7:00 a.m. PSIV-33 **The Animal Welfare Assessment Contest® as a Tool to Promote Animal Welfare Education**

Sharon Kuca¹, Lindsey McKinney¹, Cia Johnson¹

¹American Veterinary Medical Association

7:00 a.m. PSIV-29 **The effects of *Saccharomyces cerevisiae* fermentation product on the performance of creep fed Boer cross kids in regards to average daily gain and weaning weights on alfalfa and grain supplementation.**

Jamie A. Boyd ¹, Makayla Yantis ¹

¹Sul Ross State University

7:00 a.m. PSIV-30 **The influence of oil-based palatants on eating behavior in gestating mares**

Cierra N. Crowell ¹, Jesse Fenton ¹, Erin B. Perry ²

¹Southern Illinois University, ²School of Agricultural Sciences, Southern Illinois University, Carbondale, IL

7:00 a.m. PSIV-35 **The relationship between weather variables and dry matter intake in beef steers**

Mustapha Yusuf ¹, Kendall C. Swanson ¹, Lauren L. Hanna ¹, Marc L. Bauer ¹

¹North Dakota State University

7:00 a.m. PSIV-21 **Time course and peak response of inflammation and tissue zinc transporters during LPS-induced sepsis in nursery pigs fed pharmacological levels of dietary zinc and copper**

Pornpim Aparachita ¹, Scott D. Carter ², Winyoo Chowanadisai ², Afton Sawyer ², Jared A. Harshman ², Taw Scaff ²

¹Oklahoma State Univeristy, ²Oklahoma State University

7:00 a.m. PSIV-22 **Validation of 26a and let7 microRNA as early pregnancy markers in single cow blood samples, at day 28 after embryo transfer.**

Jorge A. De Los santos ¹, João Paulo N N. Andrade ¹, Jodi L. Berndtson ², Jorge De I. santos ³

¹University of Wisconsin-Madison, ²UW-Madison, ³University of Madison Wisconsin

7:00 a.m. PSIV-23 **Variations in chewing behavior and rumino-reticular pH in dairy cows during gradual adaptation to a high-grain diet**

Raul Rivera-Chacon ¹, Ezequias Castillo-Lopez ¹, Sara Ricci ¹, Renee M. Petri ², Nicole Reisinger ³, Qendrim Zebeli ¹

¹University of Veterinary Medicine Vienna, Christian Doppler Laboratory for Innovative Gut Health Concepts of Livestock, Institute of Animal Nutrition and Functional Plant Compounds, Austria, ²Institute of Animal Nutrition and Functional Plant Compounds - Vetmeduni Vienna, CD Lab Innovative Gut Health Concepts of Livestock, University of Veterinary Medicine Vienna, Vienna, Austria, ³BIOMIN Research Center GmbH, Tulln an der Donau, Austria

POSTER SESSION V

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSV-1 **A prospective longitudinal study of the incidence and risk factors associated with footrot in feedlot lambs in Southern Alberta**

Karen S. Schwartzkopf-Genswein¹, Wiolene M. Nordi², Desiree Gellatly³, Daniela M. Meléndez Suárez², Timothy D. Schwinghamer², Sonia Marti⁴, Kelly S Anklam⁵, Dorte Dopfer⁶, Joyce Van Donkersgoed⁷

¹Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada, ²Agriculture and Agri-Food Canada, ³Olds College, ⁴IRTA, Ruminant Production, ⁵University of Wisconsin, ⁶University of Wisconsin-Madison, ⁷Alberta Beef Health Solutions

7:00 a.m. PSV-2 **A simple study of the social rank and perch competition of laying hens housed in small furnished cages**

Yanan Wang¹, Xiang Li², Ye Wang¹, Jianhong Li³, Jun Bao¹

¹College of Animal Science and Technology, Northeast Agricultural University, ²College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, People's Republic of China, ³College of Life Science, Northeast Agricultural University

7:00 a.m. PSV-3 **A systems design for sensor-based parturition and calf status detection in rangeland environments**

Anita Z. Chang¹, Mark G. Trotter¹

¹CQUniversity

7:00 a.m. PSV-4 **Correlation between superficial body temperatures measured with an infrared thermometer and rectal temperature in alpacas**

Jorge L. Vilela¹, Gianella Goycochea², Allison Serna², Frank Veramendi², Jorge Ascue², Milagros Callan², Andrea Jauregui², Almendra Miranda², Pamela Montalvo², Aranza Sandoval², Sebastian Solis²

¹Universidad Científica del Sur, ²Universidad Científica del Sur

7:00 a.m. PSV-35 **Correlation of acute-phase blood proteins level and quality and cryostability of sperm in horses**

Mikhail Atroshchenko¹, Mariya Engalycheva², Anna Shitikova², Elena Borodkina³, Mariya Fomina², Valentina Zvyagina⁴, Artem Musidray⁵, Svetlana Timofeeva⁶, Daria Sachenkova⁶, Varvara Isaeva⁶

¹All-Russian Research Institute for Horse Breeding, ²Ryazan State Medical University, ³The All-Russian Research Institute for Horse Breeding, ⁴Ryazan State Medical University, Ryazan, ⁵Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Research Center for Animal Husbandry, ⁶Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSV-5 **Dairy worker perspectives on performing euthanasia as an essential component of their job**

Hailey M. Simpson¹, Catie Cramer², Lily N. Edwards-Callaway², Lorann Stallones³, Sofia Thompson¹, Sari Ennis¹, Elizabeth Kim⁴, I. Noa Roman-Muniz¹

¹Colorado State University Department of Animal Sciences, ²Department of Animal Sciences, Colorado State University, ³Colorado State University Department of Psychology, ⁴Colorado School of Public Health

7:00 a.m. PSV-25 **Detection of heart and aorta tissue peptide markers by the multiple-reaction monitoring method**

Daniil Khvostov¹, Natalya Vostrikova², Irina M. Chernukha³

¹V.M. Gorbatov Federal Research Center for Food Systems of Russian Academy of Sciences, ²Vostrikova, V.M. Gorbatov Federal Research Center for Food Systems of Russian Academy of Sciences, ³V. M. Gorbatov Federal Research Centre for Food Systems of RAS

7:00 a.m. PSV-6 **Detection of sex-by-maternal immune activation effects on the molecular pathways of the pig amygdala**

Marissa R. Keever¹, Pan Zhang², Courtni R. Bolt³, Haley E. Rymut¹, Adrienne M. Antonson⁴, Megan P. Corbett³, Alexandra K. Houser³, Bruce R. Southy³, Laurie A. Rund¹, Rodney W. Johnson¹, Sandra L. Rodrigues-Zas⁵

¹University of Illinois, ²University of Illinois at Urbana-Champaign, ³University of Illinois Urbana-Champaign, ⁴The Ohio State University, ⁵University of Illinois at Urbana Champaign

7:00 a.m. PSV-26 **Effect of feeding regime on meat quality of elk deer (venison) loin during aging**

jinwook Lee¹, Aera Jang², Hye-Jin Kim², Hee-Jin Kim², Kwan-Woo Kim³, DaeHyeok Jin⁴, Sung-Soo Lee⁵, Sang-Hoon Lee⁵

¹National Institute of Animal Science, Republic of Korea, ²Kangwon National University, ³National institute of animal science, ⁴National Institute of Animal Science, ⁵NIAS

7:00 a.m. PSV-7 **Effects of music stimulus on behavior response, cortisol level and immunity horizontal of growing pigs**

Jiafang Li¹, Qian Han¹, Ye Wang¹, Honggui Liu², Xiang Li³, Jun Bao¹

¹College of Animal Science and Technology, Northeast Agricultural University, ²Key Laboratory of Swine Facilities Engineering, Ministry of Agriculture and Rural Affairs, College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, China, ³College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, People's Republic of China

7:00 a.m. PSV-40 **Effects of regrouping and administrations of meloxicam and chromium on plasma cortisol concentrations and behaviors in dairy calves**

da Jin Sol Jung¹, Jae Sung Lee², Do Hyun Kim², Beak Seok-Hyeon³, Soo Jong Hong², InHyuk Jung¹, Seon Pil Yoo¹, Jin Oh Lee², In Gu Cho², Dilla Mareistia Fassah², HyunJin Kim¹, Myunggi Baik¹

¹Seoul National University, ²Seoul national university, ³Department of Agricultural Biotechnology, College of Agriculture and Life Science, Seoul National University

7:00 a.m. PSV-8 **Enriched environment improves the resistance to transport stress in laying hens via modulating the heat shock protective response and inflammation**

Ye Wang¹, chun li², Haidong Wei³, Jianhong Li², Jun Bao¹

¹College of Animal Science and Technology, Northeast Agricultural University, ²College of Life Science, Northeast Agricultural University, ³College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, People's Republic of China

7:00 a.m. PSV-9 **Exploring the use of sodium nitrite as a humane method for mass euthanasia of poultry**

Donald C. Lay¹, Stacey A. Enneking¹

¹USDA-Agricultural Research Service

7:00 a.m. PSV-28 **Feeding Ractopamine Improves Growth Performance and Carcass Characteristics of the Lard-type Mangalica Pig**

Hunter R. Smith¹, Megan Reeves Pitts¹, Ellie Amerson¹, Jason T. Sawyer¹, Terry D. Brandebourg¹

¹Auburn University

7:00 a.m. PSV-10 **Free-choice diet selection by sheep during peripartum**

Carlos Burgos-González¹, Juan J. Villalba², Reyes Vázquez¹, Mariana Pedernera¹

¹Facultad de Ciencias Agropecuarias, Universidad Autónoma del Estado de Morelos, ²Utah State University

7:00 a.m. PSV-11 **Grazing diverse combination of tanniferous and non-tanniferous legumes: Implications for foraging behavior, performance and hair cortisol in beef cattle**

Sebastian Lagrange¹, Jennifer W. MacAdam¹, Juan J. Villalba¹

¹Utah State University

7:00 a.m. PSV-12 **Impact of grain processing and undegradable fiber on chewing behavior and feed sorting of finishing beef cattle**

Tao Ran¹, Atef Mohamed Saleem², Karen A. Beauchemin³, Gregory Penner⁴, Wenzhu Yang⁵

¹Faculty of Veterinary Medicine, University of Calgary, ²Department of Animal and Poultry Production, South Valley University, ³Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada, ⁴University of Saskatchewan, ⁵Agriculture and Agri-Food Canada, Lethbridge Research and Development Centre, T1J 4B1.

7:00 a.m. PSV-13 **Incidence of infectious and non-infectious feet lesions and their association with carcass quality in sheep at a slaughter plant in Alberta**

Karen S. Schwartzkopf-Genswein¹, Wiolene M. Nordi², Desiree Gellatly³, Daniela M. Meléndez Suárez², Timothy D. Schwinghamer², Sonia Marti⁴, Kelly S Anklam⁵, Dorte Dopfer⁶, Joyce Van Donkersgoed⁷

¹Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada, ²Agriculture and Agri-Food Canada, ³Olds College, ⁴IRTA, Ruminant Production, ⁵University of Wisconsin, ⁶University of Wisconsin-Madison, ⁷Alberta Beef Health Solutions

7:00 a.m. PSV-29 **Influence of Akaushi Genetics on Color and Sensory Attributes of Beef from Grain and Grass-finishing systems**

Isabella Cristina de Faria Maciel¹, Jeannine P. Schwehofer², Jenifer I. Fenton³, Jennifer Hodbod³, Melissa McKendree¹, Kim Cassida³, Jason E. Rowntree¹

¹Michigan State University, ²Michigan State University Extension, ³MSU

7:00 a.m. PSV-30 **Influence of crossbreeding on meat production, growth, meat quality, and carcass traits within sheep fed the same diet**

Valentina Sabrekova¹, Daria A. Nikanova², Julia Timoshenko³, Ilyas Shaydullin¹, Feyzullah Feyzullaev³

¹Moscow State Academy of Veterinary Medicine and Biotechnology named after K.I. Skryabin, Moscow, ²L.K. Ernst Federal Research Center for Animal Husbandry, ³Moscow State Academy of Veterinary Medicine and Biotechnology

7:00 a.m. PSV-31 **Influence of Hempseed Meal Supplementation on Fresh and Cooked Characteristics of Boer Cross Goats**

Hunter R. Smith¹, Frank W. Abrahamsen², John G. Rehm³, Barney Wilborn¹, Eugene Blythe⁴, Jason T. Sawyer¹, Nar K. Gurung⁵

¹Auburn University, ²Tuskegee University, ³Department of Animal Sciences, Auburn University, ⁴Auburn University, College of Agriculture, ⁵Department of Agricultural and Environmental Sciences, College of Agriculture, Environment, and Nutrition Sciences, Tuskegee University, Tuskegee, AL 36088, USA

7:00 a.m. PSV-14 **Influence of monsoon rainfall events on movement patterns of Angus crossbred vs. Raramuri Criollo cattle on desert rangeland**

Shelemia Nyamuryekung'e¹, Andrés Cibils², Rick Estell³, Alfredo Gonzalez⁴, Matthew McIntosh¹, Sheri Spiegel⁵, Danielle Duni⁶

¹New Mexico State University Department of Animal and Range Science, ²Southern Plains Climate Hub, USDA ARS OCPARC, ³Jornada Experimental Range, USDA ARS, ⁴USDA/ARS/Jornada Experimental Range, ⁵USDA/ARS Jornada Experimental Range, ⁶Department of Animal and Range Sciences, New Mexico State University

7:00 a.m. PSV-15 **Influence of the temperament of water buffaloes on the serum lipid levels**

Caroline L. Francisco¹, André M. Castilhos¹, Daiane C. Marques da Silva¹, Fabiola Martinez da Silva¹, Aline S. Aranha¹, Amanna G. Jacaúna¹, Patricia A. C. Luz¹, Tania V. Paula¹, Camila S. Oliveira¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSV-16 **Infrared thermography technology as a promising tool for assessing temperament of water buffaloes**

Caroline L. Francisco¹, André M. Castilhos¹, Daiane C. Marques da Silva¹, Fabiola Martinez da Silva¹, Aline S. Aranha¹, Amanna G. Jacaúna¹, Camila S. Oliveira¹, Vanessa R. M. Jacob¹, Lais G. Cordeiro¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSV-17 **Measuring motivation for forage of finishing cattle fed high-concentrate diets using a short-term thwarting test**

Rachael E. Coon¹, Allisen Peterson¹, Cassandra Tucker¹

¹University of California Davis

7:00 a.m. PSV-36 **Optimization of Collection, Storage, and Extraction of Samples for Large-Scale 16s Sequencing Project**

Robert D. Jacobs¹, Mary Beth E. Gordon², Morghan Bowman²

¹Purina Animal Nutrition, ²ASAS

7:00 a.m. PSV-19 **Preliminary exploration of caretaker and manager perspectives of on-farm euthanasia on swine operations**

Hailey M. Simpson¹, Lily N. Edwards-Callaway², Catie Cramer², I. Noa Roman-Muniz¹, ELAINE N. CALABA³, Lorann Stallones⁴, Sofia Thompson¹, Sari Ennis¹, Elizabeth Kim⁵, Monique Pairis-Garcia⁶

¹Colorado State University Department of Animal Sciences, ²Department of Animal Sciences, Colorado State University, ³Colorado State University, ⁴Colorado State University Department of Psychology, ⁵Colorado School of Public Health, ⁶North Carolina State University

7:00 a.m. PSV-20 **Preliminary exploration of swine veterinarian perspectives on euthanasia on-farm**

ELAINE N. CALABA¹, Lily N. Edwards-Callaway², Catie Cramer², I. Noa Roman-Muniz³, Lorann Stallones⁴, Sari Ennis³, Elaine Kim¹, Hailey M. Simpson³, Monique Pairis-Garcia⁵, Sofia Thompson³

¹Colorado State University, ²Department of Animal Sciences, Colorado State University, ³Colorado State University Department of Animal Sciences, ⁴Colorado State University Department of Psychology, ⁵North Carolina State University

7:00 a.m. PSV-27 **Program Chair Poster Pick: Expression QTL mapping for meat quality in beef cattle**

Raluca G. Mateescu¹, Joel Leal-Gutiérrez¹, Mauricio Elzo¹

¹University of Florida

7:00 a.m. PSV-18 **Program Chair Poster Pick: Poly(I:C) dose response and its effects on piglet sickness behaviors**

Haley E. Rymut¹, Courtni R. Bolt², Megan P. Corbett², Laurie A. Rund¹, Rodney W. Johnson¹, Sandra L. Rodrigues-Zas³

¹University of Illinois, ²University of Illinois Urbana-Champaign, ³University of Illinois at Urbana Champaign

7:00 a.m. PSV-32 **Pulmonary arterial pressure in cattle influences beef color during retail display**

Chaoyu Zhai¹, Robert J. Delmore², Ifigenia Geornaras², Scott E. Speidel², Tim Holt², Milt Thomas², Mark Enns², Mahesh N. Nair²

¹University of Connecticut, ²Colorado State University

7:00 a.m. PSV-37 **Reemergence of cyathostomins species demonstrates anthelmintic resistance following drug administration in horses**

Alexa C.B Johnson ¹, Amy S. Biddle ¹

¹University of Delaware

7:00 a.m. PSV-33 **Studies of heterocyclic aromatic amines accumulation in meat products, depending on the raw materials type and the heat treatment duration**

Dmitry A. Utyanov ¹, Andrey V. Kulikovskii ¹, Alexandra S. Knyazeva ¹, Oxana A. Kuznecova ¹

¹V.M. Gorbatov Federal Research Center for Food Systems of Russian Academy of Sciences

7:00 a.m. PSV-38 **Study of the effect of testosterone and estradiol on the biochemical parameters of blood in stallions**

Anna Shitikova ¹, Mikhail Atroshchenko ², Mariya Engalycheva ¹, Olga Shirokova ³, Elena Borodkina ⁴, Mariya Fomina ¹, Valentina Zvyagina ⁵, Anna Krutikova ⁶, Svetlana Timofeeva ⁷
¹Ryazan State Medical University, ²All-Russian Research Institute for Horse Breeding, ³The All-Russian Research Institute for Horse Breeding, Divovo, Russia, ⁴The All-Russian Research Institute for Horse Breeding, ⁵Ryazan State Medical University, Ryazan, ⁶Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Research Center for Animal Husbandry, ⁷Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSV-21 **The behavior, physiology and immunity of pregnant sows housed in individual crate with different frequency of sham-chewing**

Ran Yi ¹, Ye Wang ², Honggui Liu ³, Xiang Li ¹, Jun Bao ²

¹College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, People's Republic of China, ²College of Animal Science and Technology, Northeast Agricultural University, ³Key Laboratory of Swine Facilities Engineering, Ministry of Agriculture and Rural Affairs, College of Animal Science and Technology, Northeast Agricultural University, Harbin 150030, China

7:00 a.m. PSV-22 **The effects of flavoring agents on feeding behavior, feed efficiency, growth performance and temperament of newly arrived feedlot cattle**

Mustaq Ahmad ¹, Diego Moya ¹, Jordan A. Johnson ², Gregory Penner ³, Marta Blanch ⁴, Yolande Seddon ⁵

¹Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Canada, ²College of Agriculture and Bioresources, University of Saskatchewan, Saskatoon, Canada, ³University of Saskatchewan, ⁴Lucta S.A., ⁵Western College of Veterinary Medicine

7:00 a.m. PSV-23 **The influence of prior experience on dietary diversity in sheep**

Mariana Pedernera ¹, Alejandra Vulliez ², Juan J. Villalba ³

¹Facultad de Ciencias Agropecuarias, Universidad Autónoma del Estado de Morelos, ²Universidad de la República, Montevideo, Uruguay, ³Utah State University

7:00 a.m. PSV-39 **The relationship between structural integrity and sperm survival during hypothermic storage of stallion sperm**

Alexander Zaitsev¹, Elizaveta Bragina², Mikhail Atroshchenko¹, Valeriy Kalashnikov³, Anastasiya Nezalenova¹, Natalia Frolova⁴, Taisiya Blokhina⁵, Elena Nikitkina⁶, Artem Musidray⁶

¹All-Russian Research Institute for Horse Breeding, ²A.N. Belozersky Research Institute of Physico-Chemical Biology, M.V. Lomonosov Moscow State University, ³The All-Russian Research Institute for Horse Breeding, Divovo, Russia, ⁴The All-Russian Research Institute for Horse Breeding, ⁵State Research Center—Burnasyan Federal Medical Biophysical Center of Federal Medical Biological Agency (SRC-FMBC), ⁶Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSV-24 **Use of the entry time and exit velocity as tools for the assessment of water buffalo temperament**

Caroline L. Francisco¹, André M. Castilhos¹, Daiane C. Marques da Silva¹, Fabiola Martinez da Silva¹, Aline S. Aranha¹, Amanna G. Jacaúna¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSV-34 **Wagyu sired cattle has improved meat tenderness compared Angus sired cattle but unaffected by protein supplementation during the late gestation**

Xiangdong Liu¹, Natasha Moffitt¹, Jeanene M. de Avila¹, J. Shannon Neibergs¹, Jan Busboom¹, Mark Nelson¹, Min Du¹

¹Washington State University

POSTER SESSION VI

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSVI-1 **Effects of dietary nonforage fiber sources and starch levels on nutrition digestion and rumen fermentation of fattening Hu lambs**

Tongqing Guo¹, Fadi Li², Fei Li²

¹College of Pastoral Agriculture Science and Technology, Lanzhou University, ²College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, P. R. China

7:00 a.m. PSVI-2 **Effects of dietary supplementation of a *Saccharomyces cerevisiae*-based direct-fed microbial product on plasma carbonyl-metabolome and fecal bacterial community of beef steers**

Ibukun M. Ogunade¹, Devan M. Compart², Andres A. Pech-Cervantes³

¹Kentucky State University, ²Land O' Lakes Inc., ³Fort Valley State University

7:00 a.m. PSVI-3 **Effects of dietary supplementation of multi-species direct-fed microbial products on energy status, apparent nutrient digestibility, and rumen metatranscriptome of beef steers**

Ibukun M. Ogunade¹, Andres A. Pech-Cervantes², Devan M. Compart³

¹Kentucky State University, ²Fort Valley State University, ³Land O' Lakes Inc.

7:00 a.m. PSVI-4 **Effects of exogenous fibrolytic enzymes on beef cattle fed growing diets: Ruminal microbiome**

Kaliu G. Silva ¹, Igor Gomes Favero ¹, Kaue Tonelli Nardi ¹, Lucas Barbosa Kondratovich ¹, Carly A. Hoffmann ², Jordan K. Hinds ¹, Nathaniel Hall ³, Darren D. Henry ¹, Jhones Onorino Sarturi ¹

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

7:00 a.m. PSVI-5 **Effects of exogenous glucoamylase enzymes or a combination with a neutral protease on total tract apparent digestibility and feces D-lactate in bulls fed a total mixed ration rich in rolled corn**

Maria Devant ¹, Shukun Yu ², Sandra Genis ³, Torben Larsen ⁴, Wenting Li ⁵

¹IRTA, Ruminant Production, ²Dupont-Nutrition&Biosciences, ³Current-Zoetis/Previous-BonArea Agrupa, ⁴Aarhus University- Department of Animal Science, ⁵Dupont-Nutrition&Biosciences

7:00 a.m. PSVI-6 **Effects of feeding a novel alfalfa leaf pellet (ProLEAF MAX™) and an alfalfa stem byproduct (ProFiber Plus™) on growth and conception rates of developing dairy heifers**

Laura A. Motsinger ¹, Allen Y. Young ¹, Reganne K. Briggs ¹, Tevan J. Brady ¹, Caleb C. Reichhardt ², Kara J. Thornton ¹

¹Utah State University, ²University of Hawai'i at Mānoa

7:00 a.m. PSVI-7 **Effects of feeding chromium- and zinc- amino acid complexes on growth performance and carcass characteristics of finishing bulls fed zilpaterol hydrochloride for the last 30 days in the feedlot**

Ruben Barajas ¹, Billy J. J. Cervantes ², Mark E. Branine ³, Connie K. Larson ³, Alejandro Ramos-Suarez ⁴

¹Faculty of Agriculture Universidad Autónoma de Sinaloa, ²Ganadera Los Migueles, ³Zinpro Corporation, ⁴Universidad Autónoma de Sinaloa

7:00 a.m. PSVI-8 **Effects of feeding ensiled or dried grape pomace on measures of nitrogen utilization in backgrounding cattle**

Gwinyai E. Chibisa ¹, Cody Ream ¹, Allison Stevens ¹

¹University of Idaho

7:00 a.m. PSVI-9 **Effects of Hibiscus sabdariffa on dry matter disappearance and greenhouse gas emissions in dairy cow diets**

Uchenna Y. Anele ¹, Xavier Crummel ¹, Swetha Manoharan ¹, Jimo Ibrahim ¹

¹North Carolina Agricultural and Technical State University

7:00 a.m. PSVI-10 **Effects of lipid and starch supplementation on total water intake of Holstein bull-calves**

Arturo Macias Franco ¹, Mozart Fonseca ², Aaron Norris ³, Aghata Silva ⁴, Felipe H. De Moura ³

¹University of Nevada Reno, ²University of Nevada, Reno, ³University of Nevada, ⁴Auburn University

7:00 a.m. PSVI-11 **Effects of nutrient management and cropping strategies in a dual-crop forage production system of silage corn and perennial grass on nutritional quality and predicted milk production of dairy cattle**

Karen M. Koenig¹, Shabtai Bittman², Carson Li³, Derek Hunt², Karen A. Beauchemin⁴
¹Agriculture and Agri-Food Canada, ²Agassiz Research and Development Centre, Agriculture and Agri-Food Canada, ³Faculty of Land and Food Systems, University of British Columbia, ⁴Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada.

7:00 a.m. PSVI-12 **Effects of polyphenols (mixed tannins) and saponin (*Yucca schidigera*), with or without a direct fed microbial (DFM) on in vitro rumen fermentation**

Richard Goodall¹, Arquimides Reyes², Octavio Guimaraes³, Keith Belk⁴, Terry E. Engle³
¹sponcer, ²Univeristy of Wisconsin, ³Colorado State University, ⁴Colorado State University, Department of Animal Sciences

7:00 a.m. PSVI-13 **Effects of *Saccharomyces cerevisiae* and *Aspergillus*-based enzyme extracts on rumen fermentation, fiber digestibility, and plasma metabolome of beef steers fed red clover/orchard hay**

Ibukun M. Ogunade¹, Devan M. Compart², Andres A. Pech-Cervantes³
¹Kentucky State University, ²Land O' Lakes Inc., ³Fort Valley State University

7:00 a.m. PSVI-14 **Effects of saturated fatty acids of 6 to 12 carbons in length on spoilage microbes, zoonotic pathogens and antimicrobial resistant bacteria in air exposed corn silage**

Jaime Salinas-Chavira¹, Claudio Arzola-Alvarez², Oscar Ruiz-Barrera³, YAMICELA CASTILLO-CASTILLO⁴, Marina Ontiveros⁵, Barbara Jones⁶, William B. Smith⁷, MICHAEL E. HUME⁸, Ross C. Beier⁹, Roger Harvey⁹, Toni L. Poole⁹, Robin C. Anderson¹⁰, David Nisbet⁹

¹Universidad Autonoma de Tamaulipas, ²Autonomous University of Chihuahua. Chihuahua, Chih., Mexico, ³Universidad Autónoma de Chihuahua, ⁴UNIVERSIDAD AUTONOMA DE CHIHUAHUA, ⁵Autonomous University of Ciudad Juarez. Nuevo Casas Grandes, Chihuahua, Chih., Mexico, ⁶Department of Animal Science, Tarleton State University, ⁷Tarleton State University, ⁸USDA/ARS, ⁹United States Department of Agriculture/Agricultural Research Service, Food and Feed Safety Research Unit, College Station, TX, 77845 USA, ¹⁰USDA/ARS, Southern Plains Agricultural Research Center's Food & Feed Safety Research Unit

7:00 a.m. PSVI-15 **Effects of sprouted barley supplementation with different levels on growth performances and blood metabolites of Hanwoo steer at the growing period**

Hyeon Tak Noh¹, hyuk jun lee², youngho joo³, seongshin Lee⁴, dimas hand vidya paradhista², Jeong Seok Choi², Jong Ho Park⁵, Tae Il Kim⁶, samchul kim³
¹Division of Applied Life Science (BK 21Plus, Insti. of Agric. & Life Sci.), Gyeongsang National University, ²Division of Applied Life Science (BK 21Plus, Insti. of Agric. & Life Sci.), Gyeongsang National University, ³Gyongsang National University, ⁴Korean National Institute of Animal Science, ⁵National Institute of Crop Science, ⁶National Institute of Animal Science

7:00 a.m. PSVI-16 **Essential fatty acids and bio-surfactants can improve de bovine production in tropical pasture**

André D'Aurea ¹, Luis Ferreira ², Lauriston Bertelli ³

¹Research Coordinator at Premix Company, ²Premix Company, ³Research and development Director at Premix Company

7:00 a.m. PSVI-17 **Evaluating the impact of a high-starch and high-forage diet on the ruminal solid, liquid, and epimural microbiota of dairy cows**

Dino L. Sbardellati ¹, Amelie Fischer ², Madison S. Cox ³, Wenli Li ⁴, Kenneth Kalscheur ⁵, Garret Suen ³

¹University of Wisconsin - Madison, ²Institute De L'elevage,, ³Department of Bacteriology, University of Wisconsin-Madison, ⁴US Dairy Forage Research Center, USDA-Agricultural Research Service, ⁵USDA-ARS, US Dairy Forage Research Center

7:00 a.m. PSVI-18 **Evaluation of alternative methodologies for dry matter degradability determination in the in vitro gas production method**

Annelise G. Lobo ¹, Rafaela Vincenzi ¹, Richard R. Lobo ², Vanderlei Benetel Junior ¹, Leticia L. Panosso ¹, Yuli Andrea P. Bermudez ¹, Ives Claudio da Silva Bueno ¹

¹University of Sao Paulo, ²University of Florida

7:00 a.m. PSVI-19 **Evaluation of an automated system for monitoring water intake in group-housed beef cattle**

Felipe H. De Moura ¹, Isadora M. Batalha ², Arturo Macias Franco ³, Camilo Andres P. Peña-Bello ⁴, Evandro C. Archilia ², Aghata Silva ⁵, Gabriel Moreira ⁶, Aaron Norris ¹, Luis Schutz ¹, Mozart Fonseca ⁷

¹University of Nevada, ²University of Nevada-Reno, ³University of Nevada Reno, ⁴University of Nevada - Reno, ⁵Auburn University, ⁶Universidade Federal de Lavras, ⁷University of Nevada, Reno

7:00 a.m. PSVI-23 **Evaluation of graded levels of Bacillus coagulans (GBI-30, 6086) on apparent nutrient digestibility, stool quality, and intestinal health indicators in healthy adult dogs**

Heather L. Acuff ¹, Charles G. Aldrich ¹

¹Kansas State University

7:00 a.m. PSVI-21 **Evaluation of passive immunity transfer and performance of calves receiving different sources of immunoglobulins**

Cristiane Tomaluski ¹, Marina Coelho ¹, Sophia Dondé ¹, Ariany Toledo ¹, João Pedro Bernardes ¹, Nathalia Jeronymo ¹, Gercino F. Virgínio Júnior ¹, Carla Maris M. Bittar ²

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSVI-22 **Fecal microbiome of dairy calves fed with different liquid diets**

Gercino F. Virgínio Júnior ¹, Marina Coelho ¹, Marcos Silva ¹, Horácio Montenegro ¹, Luiz Coutinho ¹, Carla Maris M. Bittar ²

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSVI-24 **Immunological Effects of a Purified 1,3/1,6 β -glucan Supplementation in Retorted Canine Diets**

Zac Traugher¹, Fei He², Maria R.C. de Godoy³

¹University of Illinois - Urbana-Champaign, ²University of Illinois at Urbana Champaign,

³University of Illinois at Urbana-Champaign

7:00 a.m. PSVI-25 **Inclusion of Lemna as a plant-based protein ingredient in dog and cat diets**

Matt Panasevich¹, Nolan Franz¹, Greg Reinhart²

¹Blue Buffalo, ²Blue Buffalo Company, LTD

7:00 a.m. PSVI-26 **Insect meals as novel protein sources in wet pet foods for adult cats**

Yi Hu¹, Fei He², Heather Mangian¹, Leah Lambrakis³, Flavia M. Saad⁴, Maria R.C. de Godoy¹

¹University of Illinois at Urbana-Champaign, ²University of Illinois at Urbana Champaign,

³Simmons Pet Food, Inc., ⁴Federal University of Lavras

7:00 a.m. PSVI-27 **Novel dietary blends improve stool quality and alter fecal microbiota, metabolites, and immune markers of healthy adult cats**

Anne H. Lee¹, Sungho Do², Amy Schauwecker³, Kelly S. Swanson¹

¹University of Illinois at Urbana-Champaign, ²University of illinois urbana-champaign,

³PetSmart

7:00 a.m. PSVI-28 **Palatability and Scent Detection of Oxidation Levels in Poultry Meal**

Craig N. Coon¹, Jason W. Fowler¹, Mary Ann Boggess¹, Jessica L. Varney¹, Jordan T. Weil¹, B.J. Bench²

¹Four Rivers Kennel, LLC, ²Tyson Foods Ingredient Solutions Group

7:00 a.m. PSVI-29 **Post-Extrusion In-vitro Fermentability of Fiber in Extruded Dog Foods**

Dalton A. Holt¹, Alaina Mooney², Aiswariya Deliephan², Sajid Alavi³, Charles G. Aldrich³

¹Department of Grain Science and Industry, ²Grain Science Department-Pet Food Lab,

³Kansas State University

7:00 a.m. PSVI-34 **Prediction of Feed Protein Quality with Vibrational Spectroscopy and Chemometrics: Effect of Processing and Rumen Degradation on Molecular Spectral Profile Changes**

Ganqi Deng¹, M. Espinosa², Xin Feng¹, Huihua Zhang¹, P. Yu³

¹College of Life Science and Engineering, Foshan University, ²College of Agriculture and Bioresources, University of Saskatchewan, ³ASAS, CSAS, ADSA

7:00 a.m. PSVI-30 **Requirements of the sulfur amino acids in growing Labrador Retrievers using the indicator amino acid oxidation technique**

Jordan T. Weil¹, Jessica L. Varney¹, Jason W. Fowler¹, Craig N. Coon¹

¹Four Rivers Kennel, LLC

7:00 a.m. PSVI-31 **The Effect of Aging on Peripheral Blood Mononuclear Cell Proliferation in Labrador Retrievers**

Craig N. Coon ¹, Jason W. Fowler ¹, Jessica L. Varney ¹, Mary Ann Boggess ¹
¹Four Rivers Kennel, LLC

7:00 a.m. PSVI-20 **The Effect of Resistant Starch Type II on Satiety Hormones of Fasting Dogs**

Isabella Corsato Alvarenga ¹, Dennis E. Jewell ¹, Matthew I. Jackson ², Charles G. Aldrich ¹
¹Kansas State University, ²Hill's Pet Nutrition

7:00 a.m. PSVI-32 **The effects of varying amylose levels in different diets on digestibility and glycemic response in canines**

Chloe Quilliam ¹, Yikai Ren ¹, Tressa Morris ¹, Yongfeng Ai ¹, Lynn P. Weber ¹
¹University of Saskatchewan

7:00 a.m. PSVI-33 **Undenatured type II collagen mitigates inflammation and cartilage degeneration in healthy untrained Labrador retrievers after exercise**

Jessica L. Varney ¹, Jason W. Fowler ¹, Craig N. Coon ¹
¹Four Rivers Kennel, LLC

Animal Breeding and Genetics Symposium II

Chair: Ignacy Misztal, University of Georgia

8:00 AM - 10:45 AM

Channel 2

8:00 a.m. **Animal Breeding and Genetics Symposium II Introduction**

8:05 a.m. 303 **ASAS-EAAP Talk: On the estimation of genetic parameters from molecular data**

Miguel Toro Ibáñez ¹
¹Universidad Politécnica de Madrid

8:35 a.m. 295 **Parameter estimation under genomic selection**

Ignacy Misztal ¹
¹University of Georgia

9:05 a.m. 301 **Methods of genome-wide association studies and their applications in dairy cattle**

Li Ma ¹
¹Department of Animal and Avian Sciences, University of Maryland

9:35 a.m. **Animal Breeding and Genetics Symposium II Break**

9:45 a.m. 297 **GWAS for complex models accounting for populations structure with GBLUP and ssGBLUP**

Juan P. Steibel ¹, Ignacio Aguilar ²
¹Michigan State University, ²Instituto Nacional de Investigacion Agropecuaria

10:15 a.m. 294 **Increased fluctuations of genetic evaluations with genomic information**

Daniela Lourenco ¹, Shogo Tsuruta ¹, Jorge A. Hidalgo ¹, Ignacy Misztal ¹

¹University of Georgia

Companion Animals Symposium III

Chair: Katie Barry, International Ingredient Corporation

8:30 AM - 11:30 AM

Channel 3

8:30 a.m. **Companion Animals Symposium III Introduction**

8:45 a.m. 326 **Whey proteins for prevention and intervention in Alzheimer's Disease**

Louise E. Bennett ¹

¹Monash University

9:15 a.m. 330 **The use of lactoferrin and lactoperoxidase for oral health**

Manabu Nakano ¹, Miyuki Tanaka ², Fumiaki Abe ²

¹Morinaga Milk Industry Co., Ltd, ²Morinaga Milk Industry Co., Ltd.

9:45 a.m. 327 **Health benefit and safety of probiotics originated from kefir in pet food**

Kun-Ho Seo ¹

¹Konkuk University, Korea

10:15 a.m. **Companion Animals Symposium III Break**

10:30 a.m. 333 **Practical applications of whey protein in promoting skeletal muscle maintenance, recovery, and reconditioning**

Emily Arentson-Lantz ¹

¹University of Texas Medical Branch

11:00 a.m. 324 **Milk Fat Globule Membrane from Bovine Milk on Brain Development of Early Life**

Sharon Donovan ¹, Ryan N. Dilger ²

¹University of Illinois - Urbana Champaign, ²University of Illinois Urbana-Champaign

Meat Science and Muscle Biology Symposium I

Chair: John Gonzalez, University of Georgia

9:00 AM - 12:00 PM

Channel 1

9:00 a.m. **Meat Science and Muscle Biology Symposium I Introduction**

9:05 a.m. 363 **Meat Quality Matters: Trends and Mitigation Strategies for Muscle Myopathies in the Broiler Meat Industry**

Casey M. Owens¹, Ashunti Ria Jackson²

¹University of Arkansas, ²Cobb-Vantress, Inc.

9:50 a.m. 367 **Role of skeletal muscle satellite cells in the broiler chicken Wooden Breast myopathy**

Jessica D. Starkey¹

¹Department of Poultry Science, Auburn University

10:25 a.m. **Meat Science and Muscle Biology Symposium I Break**

10:35 a.m. 362 **Utilizing Chicken Breast with Wooden Breast and White Striping in Processed Meat Products**

Alexander M. Stelzleni¹

¹University of Georgia, Animal and Dairy Science

11:10 a.m. 366 **The Ham Halo condition: Characterization and a possible approach for mitigation**

Andy King¹, Steven Shackelford², Dan J. Nonneman³, Gary A. Rohrer³, Tommy L. Wheeler³

¹USDA-ARS-US Meat Animal Research Center, ²USDA-ARS_ US Meat Animal Research Center, ³USDA, ARS, U.S. Meat Animal Research Center

11:45 a.m. **Meat Science and Muscle Biology Symposium I Discussion**

Swine Species Symposium I: Sponsored by CSAS

Chair: Mohsen Jafarikia, Canadian Centre for Swine Improvement Inc., Ottawa, ON, Canada; Centre for Genetic Improvement of Livestock, University of Guelph, Guelph, ON, Canada

9:00 AM - 12:00 PM

Channel 4

9:00 a.m. **Swine Species Symposium I Introduction**

9:05 a.m. 401 **Gut microbiome, health, and growth performance in pigs**

Vahab Farzan¹

¹University of Guelph

9:35 a.m. 396 **Gaps and tips in the development of probiotics for swine production**

Joshua Gong¹, chengbo Yang²

¹Guelph Research and Development Centre, Agriculture Agri-Food Canada, ²Department of Animal Science, University of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada

10:05 a.m. 398 **Towards new feeding approaches for optimizing nutritional status, immunity and host-microbiota interactions in neonatal and weaned piglets**

Martin Lessard ¹, Mylène Blais ¹, Guylaine Talbot ¹, J. Jacques Matte ¹, Ann Letellier ², Alexandre Thibodeau ², Frédéric Guay ³

¹Agriculture and Agri-Food Canada, ²Université de Montréal, Faculty of Veterinary Medicine, ³Université Laval

10:35 a.m. **Swine Species Symposium I Break**

10:50 a.m. 251 **Impacts of different levels of dietary zinc oxide on mitochondrial energy metabolism and oxidative stress conditions in post-weaned piglets**

Jerome Lapointe ¹, Caroline Roy ¹, Karine Deschene ¹, Aliny Novais ¹, Isabelle Audet ¹, Yan Martel-Kennes ², Frédéric Guay ², Guylaine Talbot ¹, Martin Lessard ¹, Danyel Bueno Dalto ¹, J. Jacques Matte ¹

¹Agriculture and Agri-Food Canada, ²Université Laval

11:20 a.m. 400 **Functional amino acids to improve pig robustness**

Daniel A. Columbus ¹

¹Prairie Swine Centre, Inc.

11:50 a.m. **Swine Species Symposium I Discussion**

Beef Species Symposium I

Chair: Glenn Duff, New Mexico State University

11:00 AM - 1:30 PM

Channel 2

11:00 a.m. **Beef Species Symposium I Introduction**

11:05 a.m. 315 **Formation, persistence, and function of soil organic matter: how recent scientific advances apply in agroecosystems**

Jocelyn M. Lavallee ¹, Francesca Cotrufo ¹

¹Colorado State University

11:50 a.m. 317 **Cattle and carbon on pastures – hearsay or evidence?**

Alan J. Franzluebbers ¹

¹USDA

12:35 p.m. 316 **Regenerative grazing: restoring ecosystem function to improve farm profits**

Richard Teague ¹

¹Texas A&M University

1:20 p.m. **Beef Species Symposium I Discussion**

Horse Species Symposium

Chair: Sarah White-Springer, Department of Animal Science, Texas A&M University; Texas
A&M AgriLife Research
1:30 PM - 5:15 PM
Channel 2

1:30 p.m. **Horse Species Symposium Introduction**

1:33 p.m. **Presentation of the Equine Science Award**

1:36 p.m. 359 **Awardee Talk: Equine Science: A community that grew**

Robert J. Coleman¹

¹University of Kentucky

2:05 p.m. 355 **The Gut Microbiome and its Influence on Cognition and Mental Health: from Zebrafish to Horses**

Aaron Ericsson¹

¹University of Missouri Metagenomics Center (MUMC)

2:50 p.m. 356 **Microbial origins in the developmental programming of offspring health**

Eldin Jašarević¹

¹University of Maryland School of Medicine

3:35 p.m. **Horse Species Symposium Break**

3:45 p.m. 357 **Early life factors shaping gut development and lifelong disease risk**

Adam J. Moeser¹

¹Department of Large Animal Clinical Sciences, College of Veterinary Medicine, Michigan State University

4:30 p.m. 358 **Understanding the role of the fecal bacterial microbiota in equine colic**

Dipti Pitta¹, Nagaraju Indugu¹, Meagan Hennessy¹, Bonnie Vecchiarelli¹, Holly Stewart², Jackie Willette¹, Tamara Dobbie¹, Julie Engiles¹, Louise Southwood¹

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

Production, Management and Environment Symposium I

Chair: Guilherme J. M. Rosa, University of Wisconsin-Madison

1:30 PM - 5:30 PM

Channel 3

1:30 p.m. **Production, Management and Environment Symposium I Introduction**

1:33 p.m. **Presentation of the Animal Management Award**

Joel D. Spencer¹

¹United Animal Health

1:36 p.m. 385 **Awardee Talk: Impacts of temperament on productive and reproductive responses of Bos taurus and B. indicus females**

Reinaldo F. Cooke¹

¹Texas A&M University

2:05 p.m. 384 **Genetic and Genomic Analysis in Livestock with Increasing Datasets**

Daniela Lourenco¹, Shogo Tsuruta¹, Yutaka Masuda², Ignacy Misztal¹

¹University of Georgia, ²The University of Georgia

2:45 p.m. 380 **Precision Management of Animals: Image Processing and Computer Vision Applications**

Isabella C. F. S. Condotta¹

¹University of Illinois at Urbana-Champaign

3:25 p.m. **Production, Management and Environment Symposium I Break**

3:40 p.m. 383 **Harnessing the Power of Computer Vision System to Improve Management Decisions in Livestock Operations**

Joao R. Dorea¹, Tiago Bresolin², Rafael Ferreira³, Luiz Gustavo R. Pereira³

¹University of Wisconsin Madison, ²Department of Animal and Dairy sciences, University of Wisconsin-Madison, ³University of Wisconsin-Madison

4:20 p.m. 377 **Validation and improvement of a monitoring system overtime and its overall capabilities**

Tracy D. Jennings¹, Jason Nickell¹

¹Allflex Livestock Intelligence

5:00 p.m. **Production, Management and Environment Symposium I Discussion**

Ruminant Nutrition Symposium I

Chair: Emily Otto-Tice, Purina Animal Nutrition

2:00 PM - 4:30 PM

Channel 4

2:00 p.m. **Ruminant Nutrition Symposium I Introduction**

2:05 p.m. 387 **Effect of trace minerals (25-hydroxycholecalciferol, Zinc and Manganese) supplementation on the immune responses of livestock**

Ramesh K. Selvaraj¹

¹University of Georgia

2:50 p.m. 392 **Vitamin C and transit stress in beef cattle**

Erin L. Deters¹, Aubree M. Beenken¹, Stephanie L. Hansen¹

¹Iowa State University

3:35 p.m. 389 **Interactions between zinc, copper, and growth promoting technologies in beef cattle**

Olivia N. Genther Schroeder ¹, Remy N. Carmichael ², Elizabeth M. Messersmith ², Katherine Hochmuth ², Elisabeth Lonergan ², Stephanie L. Hansen ²

¹Purina Animal Nutrition, ²Iowa State University

4:20 p.m. **Ruminant Nutrition Symposium I Discussion**

Animal Health Symposium

Chair: Julia Smith, University of Vermont

2:00 PM - 5:00 PM

Channel 1

2:00 p.m. **Animal Health Symposium Introduction**

2:05 p.m. **Presentation of the Animal Industry Service Award**

Aubrey Schroeder ¹

¹Zoetis

2:10 p.m. 305 **Awardee Talk: Transferring a culture of biosecurity to the feedmill**

Jason C. Woodworth ¹, Jordan T. Gebhardt ², Cassandra K. Jones ¹, Chad B. Paulk ¹, Steve S. Dritz ³, Mike D. Tokach ¹, Robert D. Goodband ¹, Joel M. DeRouchey ¹

¹Kansas State University, ²Kansas State University, ³Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Kansas State University

2:40 p.m. 307 **A systems approach to understanding biosecurity decision-making**

Scott C. Merrill ¹, christopher Koliba ¹, Gabriela Bucini ¹, Eric Clark ¹, Luke trinity ¹, asim zia ¹, Nicholas Cheney ¹, Ollin Langle ¹, trisha shrum ¹, Timothy Sellnow ², Deanna Sellnow ², Julia M. Smith ¹

¹University of Vermont, ²University of Central Florida

3:10 p.m. 306 **Economic perspectives on biosecurity decision-making**

Lee Schulz ¹, Glynn Tonsor ²

¹Iowa State University, ²Kansas State University

3:40 p.m. **Animal Health Symposium Break**

3:45 p.m. 308 **Communities of Practices as Preferred Sources of Biosecurity Information in Crisis Situations**

Joel Iverson ¹

¹University of Montana

4:15 p.m. 304 **Educational tools promoting biosecurity through discovery learning**

Jeannette McDonald ¹, Susan R. Kerr ², Jeanne M. Rankin ³, Julia M. Smith ⁴

¹TLC Projects, LLC, ²Washington State University, ³Montana State University Extension,

⁴University of Vermont

4:45 p.m. **Animal Health Symposium Discussion**

Wednesday, July 22, 2020

POSTER SESSION VII

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSVII-1 **A preliminary phenotypic characterization of Raramuri Criollo cattle**

Matthew McIntosh¹, Alfredo Gonzalez², Andrés Cibils³, Rick Estell⁴, Shelemia Nyamuryekung'e¹, Sheri Spiegel⁵

¹New Mexico State University Department of Animal and Range Science,

²USDA/ARS/Jornada Experimental Range, ³Southern Plains Climate Hub, USDA ARS

OCPARC, ⁴Jornada Experimental Range, USDA ARS, ⁵USDA/ARS Jornada Experimental Range

7:00 a.m. PSVII-2 **Blood concentrations of leptin, glucose, insulin, cholesterol, triglycerides, and lipoproteins and their association with feedlot performance and efficiency measurements of water buffaloes**

Camila S. Oliveira¹, Caroline L. Francisco¹, André M. Castilhos¹, Fabiola Martinez da Silva¹, Hugo L. Lenon Correa², Amanna G. Jacaúna¹, Felipe de Barros¹, Tania V. Paula¹, Vanessa R. M. Jacob¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP,

²São Paulo State University (Unesp), FMVZ Botucatu, SP, Brazil

7:00 a.m. PSVII-3 **Correlations between L-lactate concentrations obtained using a handheld lactate analyser and a lactate assay colorimetric kit in beef cattle transported by road**

Daniela M. Meléndez Suárez¹, Sonia Marti², Luigi Faucitano¹, Derek B. Haley³, Timothy D. Schwinghamer¹, Wiolene M. Nordi¹, Karen S. Schwartzkopf-Genswein⁴

¹Agriculture and Agri-Food Canada, ²IRTA, Ruminant Production, ³University of Guelph,

⁴Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada

7:00 a.m. PSVII-26 **Detection of selection signatures in Civil and Large White pig breeds**

Lyubov Getmantseva¹, Siroj Bakoev¹, Olga V. Kostyunina¹, Alexey Traspov², Yuri Prytkov¹, Nekruz Bakoev¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Federal Science Center for Animal Husbandry named after Academy Member L.K. Ernst

7:00 a.m. PSVII-27 **Early plasma androstenone concentrations may indicate extent of boar taint at slaughter**

Jocelyn Cameron¹, Renee Bergeron², E. James Squires³

¹Animal Biosciences, University of Guelph, ²Department of Animal Biosciences, University of Guelph, Guelph, Canada, ³University of Guelph

7:00 a.m. PSVII-4 **Effect of the residual gain and genetic group on body chemical composition of water buffaloes**

André M. Castilhos¹, Caroline L. Francisco¹, Paulo R. L. Meirelles², Fabiola Martinez da Silva¹, Aline S. Aranha¹, Daiane C. Marques da Silva¹, Amanna G. Jacaúna¹, Patricia A. C. Luz¹, Felipe de Barros¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP,

²São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Breeding and Animal Nutrition - DMNA

7:00 a.m. PSVII-5 **Effect of yeast, astragalus polysaccharide or tulathromycin administration on immune function of transported heifers**

xin wu¹, Qingxiang Meng², Hao Wu², PAUL A. BECK³

¹College of Animal Science and Technology, China Agricultural University, ²China Agricultural University, ³Oklahoma State University, Department of Animal & Food Sciences

7:00 a.m. PSVII-6 **Effects of 25-hydroxycholecalciferol supplementation on gene expression of feedlot cattle**

Tainá E. Martins¹, Tiago S. Acedo², Vinicius N. Gouvea³, Guilherme S. Vasconcellos⁴, Mário B. D. B. Arrigoni⁵, Cyntia L. L. Martins⁵, Danilo D. Millen⁶, Maeli D. Pai¹, Alexandre Perdigão⁷, Gabriel F. Melo¹, Ramon A. Rizzieri¹, Leonardo M. Rosolen¹, Carolina Costa¹, Ana Bárbara Sartor¹

¹Sao Paulo State University, Brazil, ²DSM Produtos Nutricionais Brasil S.A., ³Texas A&M, ⁴DSM Nutritional Products, ⁵São Paulo State University (Unesp), FMVZ Botucatu, SP, Brazil, ⁶São Paulo State University (UNESP), Jaboticabal campus, Brazil, ⁷DSM Nutritional Products Brazil

7:00 a.m. PSVII-7 **Equations for estimating commercial meat cuts of water buffaloes finished in feedlot**

Vanessa R. M. Jacob¹, André M. Castilhos¹, Caroline L. Francisco¹, Patricia A. C. Luz¹, Daiane C. Marques da Silva¹, Amanna G. Jacaúna¹, Camila S. Oliveira¹, Tania V. Paula¹, Felipe de Barros¹, Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSVII-8 **Equations for prediction of empty body weight of water buffaloes finished in feedlot**

Andre M. Jorge¹, Caroline L. Francisco¹, André M. Castilhos¹, Matheus Henrique P. Martins Narciso¹, Amanna G. Jacaúna¹, Daiane C. Marques da Silva¹, Aline S. Aranha¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSVII-9 **Evaluating Performance Trends of the Four Most Represented Breeds of Bulls in the Utah Beef Improvement Performance Test**

Matthew D. Garcia¹, Madelyn Kunzler¹, Kim Chapman²

¹Utah State University, ²USU

7:00 a.m. PSVII-10 **Evaluation of different biochar sources added at two inclusion levels in a grass hay- based diet on dry matter disappearance and ruminal fermentation parameters in vitro**

Genet Mengistu ¹, Tim A. McAllister ², Kim H. Ominski ¹, Gabriel O. Ribeiro ³, Erasmus Okine ⁴, Atef Mohamed Saleem ⁵, E.J. McGeough ¹

¹University of Manitoba, ²Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, ³Department of Animal and Poultry Science, University of Saskatchewan, ⁴University of Lethbridge, ⁵Department of Animal and Poultry Production, South Valley University

7:00 a.m. PSVII-11 **Fecal parameters as indicators of starch digestibility and feedlot performance of water buffaloes**

Tania V. Paula ¹, Caroline L. Francisco ¹, André M. Castilhos ¹, Paulo R. L. Meirelles ², Amanna G. Jacaúna ¹, Hugo L. Lenon Correa ³, Camila S. Oliveira ¹, Felipe de Barros ¹, Vanessa R. M. Jacob ¹, Andre M. Jorge ¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP, ²São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Breeding and Animal Nutrition - DMNA, ³São Paulo State University (Unesp), FMVZ Botucatu, SP, Brazil

7:00 a.m. PSVII-29 **Genetic differentiation of modern and historical samples of the Russian Large White pigs**

Olga V. Kostyunina ¹, Lyubov Getmantseva ¹, Alexandra S. Abdelmanova ¹, Lidia Petrikeeva ², Natalia Anatolievna Zinovieva ¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Timiryazev Russian State Agrarian University—Moscow Agrarian Academy

7:00 a.m. PSVII-30 **Growth performance, and serum concentration of testosterone of male and female pigs immunocastrated with a GnRH analogue, fed wet low-protein diets**

Néstor Arce Vázquez ¹, Nydia Corina Vázquez Aguilar ¹, Estela Garza Brenner ¹, Fernando Sánchez Dávila ¹, Adriana Morales Trejo ², Miguel Cervantes Ramírez ², Hugo Bernal Barragán ¹

¹Universidad Autónoma de Nuevo León, ²Universidad Autónoma de Baja California

7:00 a.m. PSVII-31 **Impact of Total Dissolved Solids (TDS) in Drinking Water on Nursery Pig Performance**

Ryan S. Samuel ¹, David A. Clizer ², Paige K. Isensee ², Tofuko A. Woyengo ³, Crystal L. Levesque ²

¹Department of Animal Science, South Dakota State University, ²South Dakota State University, ³Department of Animal Science, South Dakota University / Aarhus University

7:00 a.m. PSVII-32 **In vitro evaluation of antimicrobial activity of short- and medium-chain fatty acid salts and their combinations against Streptococcus suis**

Cinta Sol ¹, Monica Puyalto ², Bernat Canal ¹, Ana Maria Carvajal ³, Manuel Gómez ³, Juan Jose Mallo ²

¹Norel SA, ²Norel S.A., ³Department of Animal Health, Faculty of Veterinary Medicine, Universidad de León

7:00 a.m. PSVII-33 **Inter-Animal Variability in Androstenone Transport and the Potential Effect on the Development of Boar Taint**

Christine Bone ¹, Jocelyn Cameron ², E. James Squires ¹

¹University of Guelph, ²Animal Biosciences, University of Guelph

7:00 a.m. PSVII-12 **Investigating the influence of copper supplementation on copper homeostatic genes in bovine liver.**

Nicole M. Tillquist ¹, meghan P. Thorndyke ¹, Tyler A. Thomas ², Stephen J. Coloman ¹, Terry E. Engle ¹

¹Colorado State University, ²graduate student

7:00 a.m. PSVII-37 **Late-Breaking Abstract: CNV analysis of indigenous sheep reveals genes linked to disease resistance and adaptation**

Annelin Molotsi ¹

¹University of Stellenbosch

7:00 a.m. PSVII-39 **Late-Breaking Abstract: Enhancing production and Aleutian disease resilience in mink through advanced genomics**

Younes Miar ¹, Graham Plastow ², Zhiquan Wang ³, Mehdi Sargolzaei ⁴

¹Department of Animal Science and Aquaculture, Dalhousie University, ²Livestock Gentec, Department of Agricultural, Food and Nutritional Science, University of Alberta, ³Livestock Gentec, University of Alberta, ⁴Department of Pathobiology, University of Guelph

7:00 a.m. PSVII-41 **Late-Breaking Abstract: Impact of enhanced early life nutrition on the testes transcriptional profile of the bull calf**

Stephen P. Coen ¹, David A. Kenny ², Sean Fair ³, Pat Lonergan ⁴, Kate Keogh ²

¹Teagasc/UCD, ²Teagasc Animal and Grassland Research and Innovation Centre, Grange, Dunsany, Co. Meath, Ireland, ³Laboratory of Animal Reproduction, Department of Biological Sciences, University of Limerick, Limerick, Ireland, ⁴School of Agriculture and Food Science, University College Dublin, Belfield, Dublin 4, Ireland

7:00 a.m. PSVII-35 **Late-Breaking Abstract: Microwave heat treatment feed effect on ruminal degradability and intestinal protein digestibility - a brief review**

Md Safiqur Rahaman Shishir ¹, Muhammad Jamal Khan ¹, Hassan Khanaki ¹, Graham Brodie ¹, Brendan Cullen ¹, Long Cheng ¹

¹The University of Melbourne

7:00 a.m. PSVII-36 **Late-Breaking Abstract: Protein concentrations in basal diets affect metabolizable energy of feed ingredients determined by difference procedure in pigs**

Hansol Kim ¹, Jung Yeol Sung ¹, Beob G. Kim ¹

¹Konkuk University

7:00 a.m. PSVII-40 **Late-Breaking Abstract: Ultrasonography and bacterial community of naturally occurring liver abscesses and non-abscessed livers in finishing Holstein steers**

Miranda K. Stotz ¹, Whitney L. Crossland ¹

¹Texas Tech University

7:00 a.m. PSVII-13 **Mineral feeder design impacts frequency of use in grazing beef cattle**

Benjamin Crites ¹, Michaela Boeglin ¹, Jaycie Heath ¹, Eric Vanzant ², Nicholas Roy ¹, Clay Stamm ¹, Brandon Sears ¹, David Coffey ¹, Matthew Campbell ¹, Steven Musen ¹, Jessica Barnes ¹, Victor Williams ¹, Jeffrey Lehmkuhler ¹

¹University of Kentucky, ²University of Kentucky Department of Animal & Food Sciences

7:00 a.m. PSVII-14 **Performance and health responses of feedlot cattle consuming different feed additives during a 45-day receiving period**

Eduardo Colombo ¹, Reinaldo F. Cooke ¹, Alice P. Brandão ¹, Jacob Wiegand ¹, Kelsey Schubach ¹, CiCi A. Sowers ², Glenn Duff ², Vinicius N. Gouvea ³

¹Texas A&M University, ²New Mexico State University, ³Texas A&M

7:00 a.m. PSVII-15 **Performance, digestibility and ruminal morphophysiology of water buffaloes finished in feedlot**

Amanna G. Jacaúna ¹, André M. Castilhos ¹, Caroline L. Francisco ¹, Paulo R. L. Meirelles ², Lúcia M. Zeoula ³, Hugo L. Lenon Correa ⁴, Vanessa R. M. Jacob ¹, Tania V. Paula ¹, Felipe de Barros ¹, Andre M. Jorge ¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP, ²São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Breeding and Animal Nutrition - DMNA, ³State University of Maringá - UEM, Center of Agricultural Sciences, Department of Animal Science, ⁴São Paulo State University (Unesp), FMVZ Botucatu, SP, Brazil

7:00 a.m. PSVII-16 **Prediction equations of the carcass physical composition of water buffaloes**

Felipe de Barros ¹, André M. Castilhos ¹, Caroline L. Francisco ¹, Aline S. Aranha ¹, Amanna G. Jacaúna ¹, Patricia A. C. Luz ¹, Vanessa R. M. Jacob ¹, Camila S. Oliveira ¹, Tania V. Paula ¹, Andre M. Jorge ¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP

7:00 a.m. PSVII-28 **Program Chair Poster Pick: Effects of SMAD6 and SUGCT genes on Litter traits in pigs**

Lyubov Getmantseva ¹, Siroj Bakoev ¹, Varvara Shevtsova ², Nekruz Bakoev ¹, Nikolay V. Bardukov ³

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Southern Federal University, ³L.K. Ernst Federal Research Center for Animal Husbandry, Podolsk, Russia

7:00 a.m. PSVII-38 **Program Chair Poster Pick: Late-Breaking Abstract: A Rapid Consumer Survey Capturing the Perceptions of Beef Marketing Before and During COVID-19**

Lori Unruh Snyder ¹, melanie Fisher ²

¹North Carolina State University, ²North Carolina State

7:00 a.m. PSVII-17 **Program Chair Poster Pick: Reproductive function of cows depending on lipid metabolism**

Murat Baymishev¹, Sergey Eremin², Kirill Plemyashov³, Khamidulla Baymishev¹, Igor Konopel'tsev⁴, Georgy Nikitin⁵, Polina Anipchenko⁵, Oksana Pristyazhnyuk¹

¹Samara State Agrarian University, ²Nizhny Novgorod State Agricultural Academy, ³Saint Petersburg State University of Veterinary Medicine, ⁴Vyatka State Agricultural Academy, ⁵St. Petersburg State University of Veterinary Medicine

7:00 a.m. PSVII-34 **Reproductive qualities of sows using exogenous progesteron**

Andrey Filatov¹, Vladislav Lobanov², Alexander Sapozhnikov¹, Natalia Shemuranova¹, Evgeniy Sleptsov³, Polina Anipchenko⁴, Vadim Achilov⁴, Kirill Plemyashov⁵

¹Vyatka state agrotechnological university, ²Vyatka State Agricultural Academy, ³M.G. Safronov Yakut Scientific Research Institute of Agriculture, ⁴St. Petersburg State University of Veterinary Medicine, ⁵Saint Petersburg State University of Veterinary Medicine

7:00 a.m. PSVII-18 **Role of azoximer bromid in functional system «mother-fetus» in cows**

Andrey Filatov¹, Natalia Shemuranova¹, Alexander Sapozhnikov¹, Polina Anipchenko², Sergey Eremin³, Georgy Nikitin², Kirill Plemyashov⁴

¹Vyatka state agrotechnological university, ²St. Petersburg State University of Veterinary Medicine, ³Nizhny Novgorod State Agricultural Academy, ⁴Saint Petersburg State University of Veterinary Medicine

7:00 a.m. PSVII-19 **Serial ultrasound measures of implanted and non-implanted feedlot steers to determine carcass endpoints**

Tommy L. Perkins¹, Flavio Riberio², Tylo J. Kirkpatrick³, Kaitlyn R. Wesley³, Sierra L. Pillmore¹, Kimberly B. Cooper³, Forest L. Francis¹, Max D. Garrison⁴, Travis C. Tennant¹, Wade T. Nichols⁵, John P. Hutcheson⁵, Ty E. Lawrence¹

¹West Texas A&M University, ²Prairie View A&M University, ³Beef Carcass Research Center - West Texas A&M University, ⁴Performance Cattle Company, ⁵Merck Animal Health

7:00 a.m. PSVII-20 **Supplementing pHix-Up® to feedlot cattle consuming a corn-based finishing diet**

Eduardo Colombo¹, Reinaldo F. Cooke¹, Alice P. Brandão¹, Rodrigo Souza², Julie Duclos³, Kelsey Schubach¹, Ky G. Pohler¹

¹Texas A&M University, ²TIMAB USA, ³TIMAB Magnesium

7:00 a.m. PSVII-21 **The impact of cell culture and copper dose on copper trafficking genes in bovine liver.**

Nicole M. Tillquist¹, meghan P. Thorndyke¹, Tyler A. Thomas², Stephen J. Coloman¹, Terry E. Engle¹

¹Colorado State University, ²graduate student

7:00 a.m. PSVII-22 **Using GPS and genomic technologies to provide a more accurate estimate of bull power in western intermountain beef systems**

Matthew D. Garcia¹, Kim Chapman², kevin heaton², Eric thacker¹, lee rickords¹, Josh Dallin², Kerry Rood¹, jacob hadfield², ryan larsen²

¹Utah State University, ²USU

7:00 a.m. PSVII-23 **Using low-moisture molasses-based blocks to supplement Ca salts of soybean oil to forage-fed beef cows**

Alice P. Brandão¹, Reinaldo F. Cooke¹, Kelsey Schubach¹, Eduardo Colombo¹, Giovanna Scatolin¹, Bruna Rett¹, Ky G. Pohler¹

¹Texas A&M University

7:00 a.m. PSVII-24 **Weight at maturity of water buffaloes determined by body chemical composition**

Aline S. Aranha¹, André M. Castilhos¹, Caroline L. Francisco¹, Daiane C. Marques da Silva¹, Amanna G. Jacaúna¹, Paulo R. L. Meirelles², Andre M. Jorge¹

¹São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Animal Production and Preventive Veterinary Medicine - DPAMVP,

²São Paulo State University - Unesp, School of Veterinary Medicine and Animal Science - FMVZ, Department of Breeding and Animal Nutrition - DMNA

POSTER SESSION VIII

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSVIII-1 **A transcriptomic study of the effect of PRRSV infection during gestation on the piglet amygdala**

Marissa R. Keever¹, Pan Zhang², Courtni R. Bolt³, Haley E. Rymut¹, Adrienne M. Antonson⁴, Megan P. Corbett³, Alexandra K. Houser³, Bruce R. Southy³, Laurie A. Rund¹, Rodney W. Johnson¹, Sandra L. Rodrigues-Zas⁵

¹University of Illinois, ²University of Illinois at Urbana-Champaign, ³University of Illinois Urbana-Champaign, ⁴The Ohio State University, ⁵University of Illinois at Urbana Champaign

7:00 a.m. PSVIII-2 **Antibody yield for polyclonal egg yolk antibody (IgY) production in laying hens**

Cherrie Nolden¹, Abbey Grisham², Dan Schaefer², Matt Akins², Mark Cook²

¹Animal & Dairy Sciences Department, UW-Madison, ²Department of Animal & Dairy Sciences, UW-Madison

7:00 a.m. PSVIII-3 **Beneficial effect of cashew nutshell liquid-based supplements in vaccinated broilers against coccidiosis**

Caroline Decaux¹, Luigi Pomponi¹, Carl Julien²

¹Ceresco Nutrition, ²CRSAD

7:00 a.m. PSVIII-4 **Bone marrow architectonics of turkeys hybrid cross «Converter»**

Vyacheslav Kotarev¹, Pavel Parshin¹, Evgenii Mikhailov², Polina Anipchenko³, Boris Shabunin²

¹State scientific institution All-Russian veterinary research institute of pathology, pharmacology, and therapy of the Russian academy of agricultural science, ²All-Russian Veterinary Research Institute of Pathology, Pharmacology and Therapy, ³St. Petersburg State University of Veterinary Medicine

7:00 a.m. PSVIII-5 **Circulating serotonin (5-HT) concentrations are associated with failure of passive transfer in 3-5 day old dairy calves**

Gwyneth Knott¹, Samantha Weaver², Laura Hernandez³, Theresa Ollivett⁴, Catie Cramer¹
¹Department of Animal Sciences, Colorado State University, ²Department of Dairy Science, University of Wisconsin-Madison, Wisconsin, ³University of Wisconsin-Madison, ⁴School of Veterinary Medicine, University of Wisconsin-Madison, Wisconsin

7:00 a.m. PSVIII-6 **Cytomorphological features of the bone marrow of hypotrophic piglets**

Evgenii Mikhailov¹, Yulia Shaposhnikova², Boris Shabunin¹, Igor Tolkachev³, Svetlana Vorotnikova³, Polina Anipchenko⁴
¹All-Russian Veterinary Research Institute of Pathology, Pharmacology and Therapy, ²Voronezh State Agricultural University named after Emperor Peter the Great, ³State scientific institution All-Russian veterinary research institute of pathology, pharmacology, and therapy of the Russian academy of agricultural science, ⁴St. Petersburg State University of Veterinary Medicine

7:00 a.m. PSVIII-7 **Dietary L-arginine supplementation enhances growth performance, intestinal antioxidant capacity, immunity and modulate gut microbiota in yellow feathered chickens**

Dong Ruan¹, A. M. Fouad², Qiuli Fan³, Shouqun Jiang³
¹Institute of Animal Science, Guangdong Academy of Agricultural Sciences, ²Cario University, ³Institute of Animal Science

7:00 a.m. PSVIII-8 **Effect of Lactobacillus Casei Zhang on E. coli induced injury of blood and milk barrier in dairy cow**

Yuhui Zheng¹, Shengli Li¹
¹China Agricultural University

7:00 a.m. PSVIII-22 **Effects of bag pore size and sample particle size on feed and fecal indigestible neutral detergent fiber concentration in dairy cows**

Xiaoxia Dai¹, Kenneth Kalscheur²
¹U.S. Dairy Forage Research Center, ²USDA-ARS, US Dairy Forage Research Center

7:00 a.m. PSVIII-9 **Effects of Bile Acids on Growth Performance, Antioxidant Capacity, Blood Metabolites and Nutrient Digestibility of Weaned Piglets**

Aizhi Cao¹, Wenqing Lai², Wenwei zhang², Bing Dong², Miaomiao Han², Dongting He², Xiangrong Gai², Liying Zhang²
¹Shandong Longchang Animal Health Product Co., Ltd, ²China Agricultural University

7:00 a.m. PSVIII-23 **Effects of different growth height on the yield, chemical composition, silage fermentation profile, in vitro and in situ digestibility of *Broussonetia papyrifera***

YangYi Hao¹, Shuai Huang¹, Jun Zhang¹, Yue Gong², Gaokun Liu¹, Xiaoge Sun¹, Jiaying Lv¹, Shengli Li³
¹China Agriculture University, ²College of Animal Science and Technology, China Agricultural University, ³China Agricultural University

7:00 a.m. PSVIII-10 **Effects of Folia Betulae and Menthha piperita extracts on microbiological and enzymatic characteristics of cattle rumen**
Ajna Makaeva ¹, Kseniya Atlanderova ¹, Galimzhan Duskaev ¹, Baer Nurzhanov ¹, Albert Rysaev ¹

¹Federal Research Center of Biological Systems and Agro-technologies of the Russian Academy of Sciences

7:00 a.m. PSVIII-11 **Eimeria management for recently transported Holstein heifers using essential oils, anti IL-10 or monensin**

Cherrie Nolden ¹, Matt Akins ², Abbey Grisham ², Dan Schaefer ², Mark Cook ²

¹Animal & Dairy Sciences Department, UW-Madison, ²Department of Animal & Dairy Sciences, UW-Madison

7:00 a.m. PSVIII-12 **Estimations of treatment schemes efficiency of bacterial mastitis in dairy cow and antibiotic resistance of identified pathogens**

Olga Artemyeva ¹, Daria A. Nikanova ¹, Evgenia Kolodina ¹, Fedor Brovko ¹, Natalia Anatolievna Zinovieva ¹

¹L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSVIII-24 **Evaluating supplementation programs for growing calves grazing bermudagrass pastures**

PAUL A. BECK ¹, Beth B. Kegley ², Thomas Hess ³, Don S. Hubbell ³

¹Oklahoma State University, Department of Animal & Food Sciences, ²University of Arkansas Division of Agriculture, ³University of Arkansas

7:00 a.m. PSVIII-25 **Evaluation of different ensiling methods of the residual material from edamame soybean processing**

Ellen M. Herring ¹, Beth B. Kegley ², Ken Coffey ¹, Shane Gadberry ³, Jeremy G. Powell ⁴, Karen Anschutz ¹

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

²University of Arkansas Division of Agriculture, ³University of Arkansas, ⁴University of Arkansas System Division of Agriculture

7:00 a.m. PSVIII-13 **Evaluation of the effect of chlortetracycline on ruminal microbiome of ruminant against a background of plant extract**

Vitalii Rayzanov ¹, Baer Nurzhanov ¹, Albert Rysaev ¹, Galimzhan Duskaev ¹, Vitalii S. Ryazanov ²

¹Federal Research Center of Biological Systems and Agro-technologies of the Russian Academy of Sciences, ²Federal Research Centre of Biological Systems and Agrotechnologies of the Russian Academy of Sciences

7:00 a.m. PSVIII-26 **Extending the grazing season for grass-fed beef production into the spring transition period**

Guillermo Scaglia ¹

¹LSU AgCenter Iberia Research Station

7:00 a.m. PSVIII-14 **Fifteen months of using litter from recycled manure as bedding for dairy cows: a focus on *Klebsiella pneumoniae*, *Klebsiella variicola* and *Clostridium perfringens*.**

Carl Julien ¹

¹CRSAD

7:00 a.m. PSVIII-15 **Genome wide DNA methylation analysis reveals role of DNA methylation in cow's ileal response to *Mycobacterium avium* subsp. *paratuberculosis***

Eveline M. Ibeagha-Awemu ¹, Suraj Bhattarai ², Pier-Luc Dedemaine ¹, Mengqi Wang ¹, Stephanie D. McKay ³, Xin Zhao ⁴, Nathalie Bissonnette ¹

¹Agriculture and Agri-Food Canada, ²University of Vermont, ³Department of Animal and Veterinary Sciences, University of Vermont, United States of America., ⁴Department of Animal Science, McGill University

7:00 a.m. PSVIII-27 **Interactions between the stage of maturity of *Eragrostis tef* hay and supplemental energy source on forage utilization in beef heifers**

Allison Stevens ¹, Cheyanne A. Myers ¹, John B. Hall ¹, Gwinyai E. Chibisa ¹

¹University of Idaho

7:00 a.m. PSVIII-28 **Intercropping corn with field peas or forage soybeans for use as silage**

Wayde J. Pickinpaugh ¹, Mike H. Ostlie ², Rebecca L. Moore ¹, Bryan W. Neville ³

¹North Dakota State University, ²Carrington Research Extension Center, ³USDA, ARS, U.S. Meat Animal Research Center

7:00 a.m. PSVIII-16 **Interferon-TAU in the pathogenesis and prevention of intrauterine growth restriction and embryonic death in dairy cows**

Sergey Shabunin ¹, Vitaly Mikhalev ², Anatoly Nezhdanov ¹, Vladimir Safonov ³, Pavel Parshin ¹, Polina Anipchenko ⁴

¹State scientific institution All-Russian veterinary research institute of pathology, pharmacology, and therapy of the Russian academy of agricultural science, ²All-Russian Veterinary Research Institute of Pathology, Pharmacology and Therapy, ³Vernadsky Institute of Geochemistry and Analytical Chemistry of the Russian Academy of Science, ⁴St. Petersburg State University of Veterinary Medicine

7:00 a.m. PSVIII-34 **Late-Breaking Abstract: Additivity of digestible amino acids in hatchery byproducts fed to nursery pigs**

Beob G. Kim ¹, Jung Yeol Sung ¹

¹Konkuk University

7:00 a.m. PSVIII-35 **Late-Breaking Abstract: Administration of an appeasing substance at castration improves performance of pre-conditioned beef crossbred steers**

Kelsey Schubach ¹, Bruno I. Cappellozza ², Marcos Renato Burim ², André Velasco ², Fernando Sagrado ³, João Paulo Bastos ⁴, Reinaldo F. Cooke ¹

¹Texas A&M University, ²Nutricorp, ³JBJ Agropecuária, ⁴Infinity Consultoria

7:00 a.m. PSVIII-37 **Late-Breaking Abstract: Effects of feeding a vitamin and mineral supplement and (or) an energy supplement on the abundance of SLC7A5 transporter in beef heifer placentomes at d 83 of gestation**

Ana Clara B. Menezes ¹, Kacie L. McCarthy ², Cierrah J. J. Kassetas ³, Friederike Baumgaertner ¹, James D. Kirsch ⁴, Sheri T. Dorsam ¹, Tammi L. Neville ⁵, Alison K. Ward ¹, Pawel P. Borowicz ¹, Lawrence P. Reynolds ¹, Kevin K. Sedivec ⁶, J. Chris Forcherio ⁷, Ronald Scott ⁷, Joel S. Caton ¹, Carl R. Dahlen ¹

¹North Dakota State University, ²University of Nebraska, ³USDA-NIFA, ⁴Department of Animal Sciences, North Dakota State University, ⁵USDA- NIFA, ⁶North Dakota State University - Central Grasslands Research Extension Center, ⁷Purina Animal Nutrition

7:00 a.m. PSVIII-39 **Late-Breaking Abstract: Equations to predict the effects of dietary deoxynivalenol on the performance of pigs**

Jongkeon Kim ¹, Jung Yeol Sung ¹, Beob G. Kim ¹

¹Konkuk University

7:00 a.m. PSVIII-38 **Late-Breaking Abstract: Estimating genetic parameters of feed efficiency traits in American mink**

Pourya Davoudi ¹, Duy Ngoc Do ¹, Guoyu Hu ¹, Siavash Salek Ardestani ², Younes Miar ³

¹Department of Animal Science and Aquaculture, Dalhousie University, ²Department of Animal Science and Aquaculture, Dalhousie University, Truro, NS, B2N 5E, Canada, ³1 Department of Animal Science and Aquaculture, Dalhousie University

7:00 a.m. PSVIII-41 **Late-Breaking Abstract: Milk urea level of dairy cows in Northern Kazakhstan**

Alzhan Shamshidin ¹, Daulet Aitmukhanbetov ², Yerkingali Batyrgaliyev ³, Anuarbek Seitmuratov ⁴

¹West Kazakhstan Agrarian Technical University named after Zhangir Khan, ²"Research and Production Center of Animal Husbandry and Veterinary" LLP, ³West Kazakhstan Agrarian-Technical University named Zhangir-Khan, ⁴Scientific and production centre for animal husbandry and veterinary» Limited Liability Company

7:00 a.m. PSVIII-36 **Late-Breaking Abstract: Somatic cells count in dairy farms of Northern Kazakhstan**

Daulet Aitmukhanbetov ¹, Aizhan Abylgazinova ², Zhumadiya Tleulenov ³, Aliya Serikbaeva ⁴

¹"Research and Production Center of Animal Husbandry and Veterinary" LLP, ²West Kazakhstan Agrarian Technical University named after Zhangir Khan, ³Research and production center of animal husbandry and veterinary LLP, ⁴Scientific and Production Centre for Animal Husbandry and Veterinary» Limited Liability Company

7:00 a.m. PSVIII-32 **Late-Breaking Abstract: The effect of outdoor stocking density and weather on the behavior of broiler chickens raised in mobile shelters on pasture**

Brad J. Heins ¹, Hannah Phillips ¹

¹University of Minnesota

7:00 a.m. PSVIII-40 **Late-Breaking Abstract: Variability in body composition is associated with insulin sensitivity in growing-finishing pigs**

Hector H. Salgado ¹, Aline Remus ², Marie-Pierre Létourneau-Montminy ³, Candido Pomar ⁴
¹Agriculture and Agri-food Canada/ University Laval, ²Agriculture and Agri-Food Canada, ³Université Laval, ⁴Agriculture and Agri-food Canada

7:00 a.m. PSVIII-17 **Modeling of glyphosate speciation in rumen fluid of cattle**

John L. Vicini ¹, Wesley Harris ²
¹Bayer Crop Sciences, ²University of Missouri-St. Louis

7:00 a.m. PSVIII-29 **Nutritional evaluation of frost damaged whole plant faba bean for hay: Effect of variety/tannin level on feed and feeding values in ruminant livestock systems**

Víctor H. Guevara-Oquendo ¹, P. Yu ²
¹Department of Animal and Poultry Science, University of Saskatchewan, ²ASAS, CSAS, ADSA

7:00 a.m. PSVIII-18 **Protective effect of Lactobacillus Casei Zhang on E. coli induced mastitis in mice**

Yuhui Zheng ¹, Shengli Li ¹
¹China Agricultural University

7:00 a.m. PSVIII-19 **PRRSV infection during gestation eliciting changes in piglet sickness behaviors following an immune challenge**

Haley E. Rymut ¹, Courtni R. Bolt ², Alexandra K. Houser ², Bruce R. Southy ², Laurie A. Rund ¹, Rodney W. Johnson ¹, Sandra L. Rodrigues-Zas ³
¹University of Illinois, ²University of Illinois Urbana-Champaign, ³University of Illinois at Urbana Champaign

7:00 a.m. PSVIII-30 **Reduced-lignin alfalfa digestibility and effects on performance of growing beef steers**

Caleb Karls ¹, Dan Undersander ¹, David Combs ¹, Derek Donnelly ¹, Cara Engel ¹, Donald Miller ², Dan Schaefer ³
¹University of Wisconsin Madison, ²Alforex Seeds, Corteva Agriscience, ³Department of Animal & Dairy Sciences, UW-Madison

7:00 a.m. PSVIII-20 **Ruminal cellulolytic bacteria abundance leads to the variation in fatty acids in the rumen digesta and muscle of fattening lambs**

Zhian Zhang ¹, Fei Li ², Fadi Li ²
¹College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, P.R. China, ²College of Pastoral Agriculture Science and Technology, Lanzhou University, Lanzhou, 730020, P. R. China

7:00 a.m. PSVIII-31 **Sources of variations, repeatability and reproducibility of microbial count data**

Abebe T. Hassen ¹, Jean-Louis Laffont ¹, Brenda Smiley ¹, Chris Iiams ¹, Jennifer DeRoos ², Denise D. Mounsey ³
¹Corteva Agriscience, ²Diamond Animal Health, ³Renewable Energy Group

7:00 a.m. PSVIII-21 **The effect of medicinal extracts on microflora and enzymatic processes of calf rumen**

Kseniya Atlanderova¹, Ajna Makaeva¹, Albert Rysaev¹, Baer Nurzhanov¹, Galimzhan Duskaev¹, Vitalii Rayzanov¹

¹Federal Research Center of Biological Systems and Agro-technologies of the Russian Academy of Sciences

POSTER SESSION IX

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSIX-36 **Animal welfare and its science in Nigeria;past and present outlook**

Olufemi M. Alabi¹, Sabainah O. Akinoso², Banwo O. Alabi³

¹Bowen University, ²University of Lagos, Nigeria, ³Osun State University

7:00 a.m. PSIX-32 **Assessment of Mucosa-associated Microbiota in the Colon and Rumen of Dairy Calves Fed High Plane of Milk and during Weaning Transition**

Wei Guo¹, Jolet K. van Niekerk¹, Mi Zhou², Michael A. Steele³

¹University of Alberta, ²Department of Agriculture, Food and Nutritional Science, University of Alberta, Edmonton, AB T6G 2P5, Canada, ³Department of Animal Biosciences, University of Guelph

7:00 a.m. PSIX-24 **Comparison of serial real-time A-mode vs. B-mode ultrasound fat depth measures on prediction of final carcass value endpoints**

Chandler A. Dockray¹, Tommy L. Perkins¹, Flavio Riberio², Tylo J. Kirkpatrick³, Kaitlyn R. Wesley³, Sierra L. Pillmore¹, Kimberly B. Cooper³, Max D. Garrison⁴, Travis C. Tennant¹, Wade T. Nichols⁵, John P. Hutcheson⁵, Ty E. Lawrence¹

¹West Texas A&M University, ²Prairie View A&M University, ³Beef Carcass Research Center - West Texas A&M University, ⁴Performance Cattle Company, ⁵Merck Animal Health

7:00 a.m. PSIX-37 **Considerations for using game cameras for on-farm behavior of beef cattle**

Benjamin Crites¹, Nicholas Roy¹, Clay Stamm¹, Brandon Sears¹, Matthew Campbell¹, Steven Musen¹, Jessica Barnes¹, Victor Williams¹, David Coffey¹, Jeffrey Lehmkuhler¹

¹University of Kentucky

7:00 a.m. PSIX-33 **Docosahexaenoic Acid (DHA) but not Eicosapentaenoic Acid (EPA) induces the trans-differentiation of C2C12 into white-like adipocytes phenotype**

Yan Huang¹, Saeed Ghnaimawi¹, yongjie Wang¹, Shilei Zhang¹, Jamie Baum¹

¹University of Arkansas

7:00 a.m. PSIX-25 **Documenting succession of the rumen microbial community in dairy calves.**

Courtney Deblois ¹, Garret Suen ², Kent Weigel ³, Laura Hernandez ⁴, Andrew Steinberger ⁵, Joseph H. Skarlupka ², Dante Sprecher ⁵, Morgan Eder ⁵, Alexander Koller ⁵, Sandra Gelsinger ⁵

¹University of Wisconsin - Madison, ²Department of Bacteriology, University of Wisconsin-Madison, ³University of Wisconsin Madison, ⁴University of Wisconsin-Madison, ⁵University of Wisconsin- Madison

7:00 a.m. PSIX-26 **Effect of enhanced nutrition during early life on the transcriptional profile of the arcuate nucleus region of the hypothalamus in Holstein Friesian bull calves**

Kate Keogh ¹, Stephen P. Coen ², Pat Lonergan ³, Sean Fair ⁴, David A. Kenny ¹

¹Teagasc Animal and Grassland Research and Innovation Centre, Grange, Dunsany, Co. Meath, Ireland, ²Teagasc/UCD, ³School of Agriculture and Food Science, University College Dublin, Belfield, Dublin 4, Ireland, ⁴Laboratory of Animal Reproduction, Department of Biological Sciences, University of Limerick, Limerick, Ireland

7:00 a.m. PSIX-27 **Evaluation of real-time ultrasound to predict pre-harvest market endpoints in serial slaughtered British x Continental steers administered an E2+TBA implant treatment vs non-implanted controls**

Becca B. Grimes ¹, Tylo J. Kirkpatrick ², Travis C. Tennant ¹, Ty E. Lawrence ¹, Kimberly B. Cooper ², Forest L. Francis ¹, Sierra L. Pillmore ¹, Kaitlyn R. Wesley ², Tommy L. Perkins ¹, Flavio Riberio ³, Max D. Garrison ⁴, Wade T. Nichols ⁵, John P. Hutcheson ⁵

¹West Texas A&M University, ²Beef Carcass Research Center - West Texas A&M University, ³Prairie View A&M University, ⁴Performance Cattle Company, ⁵Merck Animal Health

7:00 a.m. PSIX-28 **Examining the effects of estradiol, trenbolone acetate, or polyamines on bovine satellite cell differentiation**

Lillian L. Okamoto ¹, Caleb C. Reichhardt ², Brian Griffin ³, Laura A. Motsinger ¹, Gordon Murdoch ⁴, Kara J. Thornton ¹

¹Utah State University, ²University of Hawai'i at Mānoa, ³Utah State university, ⁴University of Idaho

7:00 a.m. PSIX-1 **Fecal microbiome of dairy calves fed with fresh or frozen maternal colostrum or colostrum powder**

Gercino F. Virgínio Júnior ¹, Cristiane Tomaluski ¹, Ana Paula Silva ¹, Sophia Dondé ¹, Horácio Montenegro ¹, Luiz Coutinho ¹, Carla Maris M. Bittar ²

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSIX-2 **Feeding 3-nitrooxypropanol reduces methane emissions by feedlot cattle**

Tiago Luís Da Ros de Araújo ¹, Alvaír Hoffmann ², Diego M. Renesto ³, Rhaony G. Leite ³, Carlos H. S. Rabelo ⁴, Victor V. Valério de Carvalho ⁵, Guilherme S. F. M. Vasconcellos ⁶, Luis Fernando Tamassia ⁷, Tiago S. Acedo ⁸, Vinicius N. Gouvea ⁹, Ricardo A. Reis ³

¹DSM Produtos Nutricionais, São Paulo, Brasil, ²FCAV/Unesp, Jaboticabal, São Paulo, Brasil, ³FCAV/Unesp, Jaboticabal, São Paulo, Brasil, ⁴Universidade Federal de Pelotas, Pelotas, Brasil, ⁵DSM Nutritional Products Brazil, ⁶DSM Nutritional Products A.S, SP, Brazil, ⁷DSM Nutritional Products, ⁸DSM Produtos Nutricionais Brasil S.A., ⁹Texas A&M

7:00 a.m. PSIX-3 **Feedlot performance and rumen morphometrics of Nellore cattle differing in phenotypic residual feed intake**

Antonio M. M. Silvestre ¹, Ana Carolina J. J. Pinto ¹, Lidiane S. S. Miranda ², Leandro A. F. F. Silva ², Daniel M. M. Casali ², Katia L. R. R. Souza ², Werner F. F. Schleifer ², Jessica G. Cardin ³, Vanessa G. L. L. Gasparini ², Danilo D. Millen ⁴

¹School of Veterinary Medicine and Animal Science, São Paulo State University (UNESP), Botucatu, Brazil, ²College of Technology and Agricultural Sciences, São Paulo State University (UNESP), Dracena, Brazil, ³São Paulo State University (UNESP), ⁴São Paulo State University (UNESP), Jaboticabal campus, Brazil

7:00 a.m. PSIX-4 **Fetal programming – Maternal plane of nutrition effects on progeny performance, feed efficiency, and carcass quality for feedlot steers**

Kortney Acton ¹, Ira B. Mandell ¹, Lee-Anne Huber ¹, Michael A. Steele ², Katharine M. Wood ¹

¹University of Guelph, ²Department of Animal Biosciences, University of Guelph

7:00 a.m. PSIX-5 **Fetal programming in an industry applied setting – Effects of feeding methionine during late gestation on progeny performance, feed efficiency, and carcass quality for feedlot steers**

Kortney Acton ¹, Ira B. Mandell ¹, Lee-Anne Huber ¹, Michael A. Steele ², Katharine M. Wood ¹

¹University of Guelph, ²Department of Animal Biosciences, University of Guelph

7:00 a.m. PSIX-6 **Gastrointestinal microbiome of calves fed solid diets containing different levels and sources of NDF**

Gercino F. Virgínio Júnior ¹, Milaine Poczynek ¹, Ana Paula Silva ¹, Ariany Toledo ¹, Amanda Cezar ¹, Luiz Coutinho ¹, Horácio Montenegro ¹, Carla Maris M. Bittar ²

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSIX-7 **Grazing toxic endophyte-infected tall fescue does not influence pancreatic or small intestinal digestive enzyme activities in beef steers**

Ronald J. Trotta ¹, James L. Klotz ², James Matthews ¹, Kendall C. Swanson ³

¹University of Kentucky, ²USDA-ARS Forage-Animal Production Research Unit, ³North Dakota State University

7:00 a.m. PSIX-8 **Impact of Automated Controlled Environment Agriculture (CEA) Wheatgrass on Holstein Beef Performance & Meat Quality**

Nikole E. Ineck¹, Laun Hall², Brad Bateman², Scott Raban¹, Kara J. Thornton³, Brittany Graf¹

¹Gröv Technologies, ²Bateman Mosida Farm, ³Utah State University

7:00 a.m. PSIX-9 **Impacts of bunk management on feedlot performance, carcass characteristics, hydrogen sulfide concentration and blood oxygen saturation in steers fed 25 or 50% modified distillers grains plus solubles**

Rebecca L. Moore¹, Cierrah J. J. Kassetas², Leslie A. LeKatz³, Bryan W. Neville⁴

¹North Dakota State University, ²USDA-NIFA, ³University of Minnesota Crookston, ⁴USDA, ARS, U.S. Meat Animal Research Center

7:00 a.m. PSIX-10 **In vitro dry matter digestibility, gas production and ph of silages of several maize hybrids**

Pedro Queiroz¹, Israel Alves Filho¹, Sergio Pereira Junior², Flavia Scarpino van Cleef³, Jane Ezequiel², Flavio Kaneko¹, Eric H. C. B van Cleef¹

¹Federal University of Triângulo Mineiro, ²São Paulo State University, ³North Florida Research Center, University of Florida

7:00 a.m. PSIX-11 **In vitro fermentation parameters of defatted hemp samples at different levels of irrigation**

Aghata Silva¹, Aaron Norris², Arturo Macias Franco³, Felipe H. De Moura², Mozart Fonseca⁴

¹Auburn University, ²University of Nevada, ³University of Nevada Reno, ⁴University of Nevada, Reno

7:00 a.m. PSIX-12 **Inclusion of dried distillers grains with solubles in Lespedeza or alfalfa-based diets for meat goats is associated with a unique ruminal microbiome**

Andres A. Pech-Cervantes¹, Ibukun M. Ogunade², Donielle Pannell¹, Brou Kouakou¹

¹Fort Valley State University, ²Kentucky State University

7:00 a.m. PSIX-13 **Influence of an integrated fodder additive on productivity and metabolic homeostasis of dairy cattle in transition period**

Daria A. Nikanova¹, Evgenia Kolodina¹, Olga Artemyeva¹, Yuri Fomichev²

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSIX-14 **Influence of living yeast of the genus Rhodotorula against probiotic and pathogenic bacteria.**

Daria A. Nikanova¹, Evgenia Kolodina¹

¹L.K. Ernst Federal Research Center for Animal Husbandry

7:00 a.m. PSIX-15 **Intake of corn stover plant parts by feedlot beef steers**

Caleb Karls¹, Kevin Shinnors¹, Dan Schaefer²

¹University of Wisconsin Madison, ²Department of Animal & Dairy Sciences, UW-Madison

7:00 a.m. PSIX-16 **Investigating the development of the fecal microbiome in growing dairy calves**

Emily Fowler¹, Benoit St-Pierre¹

¹South Dakota State University

7:00 a.m. PSIX-17 **Investigation of rumen starch and protein degradation kinetics in relation to corn processed by super-conditioned pelleting, extruding and puffing**

Atieh -. Rahimi¹, Abbasali Naserian², Reza Valizadeh², Abdolmansour Tahmasebi², Hesam Dehghani³, Esmail Soltani², Kyung-Il Sung⁴, Byong-Wan Kim⁴, Ji-Yung Kim⁴, Baehun Lee⁵, Jalil G. Nejad⁶

¹Faculty of Agriculture, Department of Animal Science, Ruminant center, Ferdowsi University of Mashhad, Mashhad, Iran. Postal code: 9177948978., ²Faculty of Agriculture, Department of Animal Science, Ruminant center, Ferdowsi University of Mashhad, Mashhad, Iran., ³The Research Institute of Biotechnology, Ferdowsi University of Mashhad, Mashhad, Iran., ⁴College of Animal Life Sciences, Kangwon National University, Chuncheon, Republic of Korea., ⁵National Institute of Animal Science, ⁶Department of Animal Science and Technology, Konkuk University

7:00 a.m. PSIX-29 **JAK2-STAT3 Pathway Mediated Satellite Cell Apoptosis to Govern Skeletal Muscle Growth with Lysine**

Zhi-wen Song¹, Chenglong Jin², Mao Ye¹, Chun-qi Gao¹, Hui-chao Yan¹, Xiu-qi Wang³

¹College of Animal Science, South China Agricultural University, ²#1, No.1 Dafeng Street, Tianhe District, Guangzhou City, Guangdong Province, China, ³College of Animal Science, South China Agricultural University

7:00 a.m. PSIX-18 **Laurate and its glycerol monoester, monolaurin, as potential additives to control Listeria monocytogenes and tetracycline resistant Enterococcus faecalis in air-exposed silage**

YAMICELA CASTILLO-CASTILLO¹, Marina Ontiveros², Eric J. Scholljegerdes³, Robin C. Anderson⁴, Claudio Arzola-Alvarez⁵, Jaime Salinas-Chavira⁶, MICHAEL E. HUME⁷, Ross C. Beier⁸, Toni L. Poole⁸, David Nisbet⁸, Perla L Ordoñez⁹, Oscar Ruiz-Barrera¹⁰

¹UNIVERSIDAD AUTONOMA DE CHIHUAHUA, ²Autonomous University of Ciudad Juarez. Nuevo Casas Grandes, Chihuahua, Chih., Mexico, ³New Mexico State University, ⁴USDA/ARS, Southern Plains Agricultural Research Center's Food & Feed Safety Research Unit, ⁵Autonomous University of Chihuahua. Chihuahua, Chih., Mexico, ⁶Universidad Autonoma de Tamaulipas, ⁷USDA/ARS, ⁸United States Department of Agriculture/Agricultural Research Service, Food and Feed Safety Research Unit, College Station, TX, 77845 USA, ⁹Department of Animal Nutrition, College of Animal Science and Ecology, Autonomous University of Chihuahua, Chihuahua, Mexico, ¹⁰Universidad Autónoma de Chihuahua

7:00 a.m. PSIX-19 **Leucine supplementation alters immune responses and blood metabolites of lambs exposed to endotoxin**

Bianca Birkenstock¹, Mary Catey¹, Stacia McIntosh¹, Francesca Lopez¹, Logan Klump¹, Ryan L. Ashley¹, Eric J. Scholljegerdes¹, Clint A. Loest¹

¹New Mexico State University

7:00 a.m. PSIX-20 **Mechanisms of Programmed Nutrition in finishing cattle**
Amanda P. Schiff¹, Kyle R. McLeod², James L. Klotz³, Vaughn Holder⁴, David L. Harmon²
¹University of Kentucky, ²University of Kentucky Department of Animal & Food Sciences,
³USDA-ARS Forage-Animal Production Research Unit, ⁴Alltech Inc.

7:00 a.m. PSIX-30 **mTORC1 Sensing Glutamate Signal to Promote Porcine Intestinal Development by Accelerating Intestinal Stem Cell Expansion**
Min Zhu¹, Ying-chao Qin², Jia-yi Zhou¹, Chun-qi Gao², Hui-chao Yan², Xiu-qi Wang³
¹South China Agricultural University, ²College of Animal Science, South China Agricultural University,
³College of Animal Science, South China Agricultural University

7:00 a.m. PSIX-34 **Omega-3 fatty acids are more likely to cause C2C12 cell adipose deposition and decomposition compared with palmitic acid**
Yan Huang¹, Shilei Zhang¹, yongjie Wang¹, Saeed Ghnaimawi¹, Jamie Baum¹
¹University of Arkansas

7:00 a.m. PSIX-21 **Performance and health of dairy calves fed with acidified milk in tropical climates**
Marina Coelho¹, Cristiane Tomaluski¹, Sophia Dondé¹, Ariany Toledo¹, João Pedro Bernardes¹, Nathalia Jeronymo¹, Gercino F. Virgínio Júnior¹, Marcos Silva¹, Maria Eduarda Reis¹, Carla Maris M. Bittar²
¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²College of Agriculture Luiz de Queiroz, University of Sao Paulo

7:00 a.m. PSIX-22 **Performance, whole-blood immune gene expression, and plasma metabolome of beef steers fed diet supplemented with a Saccharomyces cerevisiae-based direct-fed microbial product**
Ibukun M. Ogunade¹, Devan M. Compart², Andres A. Pech-Cervantes³
¹Kentucky State University, ²Land O' Lakes Inc., ³Fort Valley State University

7:00 a.m. PSIX-23 **Physicochemical properties and starch gelatinization affected by corn grain processed using super-conditioned pelleting, extruding and puffing**
Atieh -. Rahimi¹, Abbasali Naserian², Reza Valizadeh², Abdolmansour Tahmasebi², Hesam Dehghani³, Esmail Soltani², Kyung-Il Sung⁴, Byong-Wan Kim⁴, Ji-Yung Kim⁴, Baehun Lee⁵, Jalil G. Nejad⁶
¹Faculty of Agriculture, Department of Animal Science, Ruminant center, Ferdowsi University of Mashhad, Mashhad, Iran. Postal code: 9177948978., ²Faculty of Agriculture, Department of Animal Science, Ruminant center, Ferdowsi University of Mashhad, Mashhad, Iran., ³The Research Institute of Biotechnology, Ferdowsi University of Mashhad, Mashhad, Iran., ⁴College of Animal Life Sciences, Kangwon National University, Chuncheon, Republic of Korea., ⁵National Institute of Animal Science, ⁶Department of Animal Science and Technology, Konkuk University

7:00 a.m. PSIX-38 **Program Chair Poster Pick: Healthy Farms Healthy Agriculture: A Web Hub for Biosecurity to Protect the Herd and Flock**
Julia M. Smith¹, Joanna C. Cummings¹
¹University of Vermont

7:00 a.m. PSIX-35 **Quebracho Tannin Influences Lipolytic Activity in Mature Porcine Adipocytes**

Makenzie T. Lowke ¹, Richard F. Kaiser ¹, Natasha L. Bell ², Michelle Garcia ¹
¹Texas A&M University - Kingsville, ²Texas A&M University Kingsville

7:00 a.m. PSIX-31 **The effect of days on feed and trenbolone acetate + estradiol-17 β implants on the dimensional measurements of serially harvested steer carcasses**

Lauren M. Mayer ¹, Tylo J. Kirkpatrick ², Sierra L. Pillmore ¹, Kaitlyn R. Wesley ², Kimberly B. Cooper ², Forest L. Francis ¹, Travis C. Tennant ¹, Wade T. Nichols ³, John P. Hutcheson ³, Ty E. Lawrence ¹

¹West Texas A&M University, ²Beef Carcass Research Center - West Texas A&M University, ³Merck Animal Health

Cell Biology Symposium

Chair: Maria Hoffman, University of Rhode Island; Kristen Govoni, Dept. of Animal Science, University of Connecticut

8:30 AM - 11:30 AM

Channel 1

8:30 a.m. **Cell Biology Symposium Introduction**

8:35 a.m. 321 **ASAS-EAAP Talk: Quantitative proteomics in animal and veterinary science: a pipeline for exploiting advanced analytical technology**

David Eckersall ¹

¹University of Glasgow

9:20 a.m. 319 **Application and Practices of RNA Sequencing for Understanding Transcriptional Regulation of Gene Expression by Dietary Nutrients or Feed Additives in Swine**

Shengfa T. Liao ¹, Shamimul Hasan ¹

¹Mississippi State University

10:05 a.m. **Cell Biology Symposium Break**

10:15 a.m. 320 **Analyses of inter-individual variations of sperm DNA methylation and their potential implications in cattle**

George E. Liu ¹

¹ARS, USDA

11:00 a.m. **Cell Biology Symposium Discussion**

Growth and Development Symposium

Chair: Angela Canovas, Centre for Genetic Improvement of Livestock, Department of Animal Bioscience, University of Guelph, Guelph, Ontario, Canada

8:30 AM - 11:45 AM

Channel 4

8:30 a.m. **Growth and Development Symposium Introduction**

8:33 a.m. **Presentation of the Animal Growth and Development Award**

Meghan Wulster-Radcliffe ¹

¹ASAS

8:36 a.m. 351 **Awardee Talk: How retained energy and protein affects the determination of energy and protein requirements for growth**

Luis O. Tedeschi ¹

¹Texas A&M University

9:05 a.m. 353 **ASAS-EAAP Talk: Low-coverage whole-genome sequencing in local livestock breeds**

Joaquim Casellas ¹, Melani Martín de Hijas-Villalba ², Marta Vázquez-Gómez ², Samir Id Lahoucine ³

¹Department of Animal and Food Science, Autonomous University of Barcelona, Bellaterra 08193, Spain, ²Universitat Autònoma de Barcelona, ³University of Guelph

9:35 a.m. 350 **Enhancing the nutritional value of red meats through genetic and feeding strategies**

Manuel M. Juarez ¹, Stephanie Lam ¹, Ben M. Bohrer ², Mike Dugan ¹, Payam Vahmani ³, Nuria Prieto ¹, Óscar López-Campos ¹, Jennifer Aalhus ¹

¹Agriculture and Agri-Food Canada, ²University of Guelph, ³University of California, Davis

10:05 a.m. **Growth and Development Symposium Break**

10:12 a.m. **Presentation of the Early Career Achievement Award**

William Weldon ¹

¹Weldon Consulting

10:15 a.m. 352 **Awardee Talk: Identification of novel haplotypes with recessive and allelic inheritance patterns affecting embryonic development processes, gestation losses and post-natal lethality in cattle**

Angela Canovas ¹, Samir Id Lahoucine ², Aroa Suarez-Vega ³, Pablo Augusto S. Fonseca ⁴, Flavio S. Schenkel ⁵, Mehdi Sargolzaei ⁶, Joaquim Casellas ⁷

¹Centre for Genetic Improvement of Livestock, Department of Animal Bioscience, University of Guelph, Guelph, Ontario, Canada, ²University of Guelph, ³University of Guelph, Department of Animal Biosciences, Centre for Genetic Improvement of Livestock, Guelph, Ontario, Canada, ⁴Centre for Genetic Improvement of Livestock, Department of Animal Bioscience, University of Guelph, Guelph, Ontario, ⁵Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ⁶Department of Pathobiology, University of Guelph, ⁷Department of Animal and Food Science, Autonomous University of Barcelona, Bellaterra 08193, Spain

10:45 a.m. 354 **ASAS-EAAP Talk: The subclinical non-aureus staphylococcal mastitis in dairy cows: a lipidomics approach**

Fabrizio Cecilian ¹, Matteo Audano ², Filippa Addis ², Nico Mitro ², Donatella Caruso ², Cristina Lecchi ², Morteza Hosseini. Ghaffari ³, Mariangela Albertini ², Francesco Tangorra ², Valerio Bronzo ²

¹Università degli Studi di Milano, ²Università degli Studi di Milano, ³University of Bonn

11:15 a.m. 272 **Proposing a combination of heritable fertility traits for bull selection**
Marina Fortes ¹, Wei Liang Andre Tan ¹, Laercio R. Porto-Neto ², Antonio Reverter ², Gry B. Boe-Hansen ³

¹School of Chemistry and Molecular Biosciences, The University of Queensland, Saint Lucia, ²CSIRO Agriculture and Food, ³School of Veterinary Science, The University of Queensland, Gatton

Production, Management and Environment Symposium II

Chair: Luis Tedeschi, Texas A&M University

8:30 AM - 12:00 PM

Channel 5

8:30 a.m. **Production, Management and Environment Symposium II Introduction**

8:35 a.m. 379 **ASAS-EAAP Talk: Precision Phenotyping using Infrared Spectroscopy to Improve the Quality of Animal Products**

Alessio Cecchinato ¹, Sara Pegolo ¹, Giovanni Bittante ¹

¹DAFNAE - Department of Agronomy, Food Natural resources, Animals and Environment University of Padova

9:15 a.m. 378 **Making-Do When Big Data Isn't Big Enough: Limitations and pathways of possible development in the prediction of Thoroughbred racing performance as a breeding outcome**

Roger E. Lyons ¹

¹President, Roger Lyons Consulting, Inc.

9:55 a.m. **Production, Management and Environment Symposium II Break**

10:10 a.m. 381 **Smart Farming for Extensive Grazing Ruminant Production Systems**

Paul L. Greenwood ¹, Igor Kardailsky ¹, Warwick B. Badgery ¹, Gregory J. Bishop-Hurley ²

¹NSW Department of Primary Industries, ²CSIRO

10:50 a.m. 382 **Sensor Technology and Data Science Tools in Dairy Production: Individual feed efficiency, attenuating heat stress, health, and welfare aspects**

Ilan Halachmi ¹

¹Institute of Agricultural Engineering, Agricultural Research Organization (A.R.O.) - The Volcani Centre

11:30 a.m. **Production, Management and Environment Symposium II Discussion**

Nonruminant Nutrition Symposium

Chair: Samer El-Kadi, Virginia Tech

9:00 AM - 11:00 AM

Channel 3

9:00 a.m. **Nonruminant Nutrition Symposium Introduction**

9:03 a.m. **Presentation of the AFIA Award in Nonruminant Nutrition Research**

Justin Bundy ¹

¹Bill Barr and Company

9:06 a.m. 370 **Awardee Talk: Role of feed enzymes in gut health and function**

Charles Martin Nyachoti ¹

¹University of Manitoba

9:35 a.m. 368 **Protein and amino acid effects on pig microbial ecology, health and nutrition**

Thomas E. Burkey ¹

¹University of Nebraska-Lincoln

10:15 a.m. 369 **Amino acid nutrition in monogastrics: going beyond the ideal protein**

John K. Khun Kyaw Htoo ¹

¹Evonik

10:55 a.m. **Nonruminant Nutrition Symposium Discussion**

Contemporary and Emerging Issues Symposium: Public Policy: New Ag Guide

Chair: Teresa Davis, USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine; Janice Swanson, Michigan State University

9:45 AM - 12:15 PM

Channel 2

9:45 a.m. **Contemporary and Emerging Issues Symposium Introduction**

9:50 a.m. 344 **The Ag Guide serves as a primary standard for animal scientists and AAALAC accreditation of Ag research programs**

Janeen L. Salak-Johnson ¹

¹Oklahoma State University

10:20 a.m. 341 **How the IACUC uses the Ag Guide to ensure the best care**

Kelly D. Heath ¹

¹UNL IACP

10:50 a.m. **Contemporary and Emerging Issues Break**

11:00 a.m. 342 **Progress Report - AgGuide 2020**

Michael D. MacNeil ¹

¹Delta G

11:30 a.m. 343 **Preparing a quality animal care and use protocol**

Gary L. Williams¹

¹Texas A&M AgriLife Research

12:00 p.m. **Contemporary and Emerging Issues Symposium Discussion**

Swine Species Symposium II

Chair: Anoosh Rakhshandeh, Texas Tech University

1:30 PM - 4:15 PM

Channel 4

1:30 p.m. **Swine Species Symposium II Introduction**

1:35 p.m. 395 **Impact of pig mortality on U.S. pig producers**

Caleb M. Shull¹

¹The Maschhoffs, LLC

2:10 p.m. 399 **Towards improving pig livability: Strategies to understand and mitigate sow mortality**

Zoe E. Kiefer¹, Jamie M. Studer¹, Amanda Chipman², Lucas R. Koester¹, Stephan Schmitz-Esser¹, Jason W. Ross¹

¹Iowa State University, ²Iowa Pork Industry Center

2:45 p.m. **Swine Species Symposium II Break**

2:55 p.m. 394 **Opportunities to enhance wean-to-finish pig survival.**

Mike D. Tokach¹, Jordan T. Gebhardt², Steve S. Dritz¹, Jason C. Woodworth¹, Joel M. DeRouchey¹, Robert D. Goodband¹

¹Kansas State University, ²Kansas State University

3:30 p.m. 397 **Using nutrification to improve robustness in pigs**

Janet C. Remus¹, Terry Parrott¹, Jordon Gruber¹

¹DuPont Animal Nutrition

4:05 p.m. **Swine Species Symposium II Discussion**

Beef Species Symposium II

Chair: Casey Maxwell, Cactus Feeders

1:30 PM - 4:30 PM

Channel 5

1:30 p.m. **Beef Species Symposium II Introduction**

1:35 p.m. 314 **Updating the acidosis-rumenitis-liver abscess disease complex dogma of feedlot cattle**

Brandon Reinbold¹

¹Elanco Animal Health

2:20 p.m. 313 **New insights on liver abscess syndrome in cattle using metagenomic investigations**

Paul S. Morley ¹

¹VERO Program, Texas A&M University and West Texas A&M University

3:05 p.m. **Beef Species Symposium II Break**

3:15 p.m. 318 **Bovine liver abscess complex: likely causes and tested solutions**

Ty E. Lawrence ¹

¹West Texas A&M University

4:00 p.m. **Beef Species Symposium II Discussion**

Ruminant Nutrition Symposium II

Chair: Joel Caton, North Dakota State University

1:30 PM - 5:00 PM

Channel 3

1:30 p.m. **Ruminant Nutrition Symposium II Introduction**

1:33 p.m. **Presentation of the AFIA Award in Ruminant Nutrition Research**

Justin Bundy ¹

¹Bill Barr and Company

1:36 p.m. 393 **Awardee Talk: Effect of trace mineral source on rumen fermentation and trace mineral distribution in the rumen**

Terry E. Engle ¹

¹Colorado State University

2:05 p.m. 390 **Micronutrients, One-Carbon Metabolism, and Epigenetics: Potential Developmental and Production Outcomes**

Matthew S. Crouse ¹, Joel S. Caton ², Alison K. Ward ²

¹USDA, ARS, U.S. Meat Animal Research Center, ²North Dakota State University

2:45 p.m. 391 **Linking Nutrition, Production, and Environmental Aspects of Ruminant Livestock Production**

Shawn L. Archibeque ¹, Jasmine A. Dillon ¹, Kristen A. Johnson ²

¹Colorado State University, ²Washington State University

3:25 p.m. **Ruminant Nutrition Symposium II Break**

3:35 p.m. 388 **Nutrition and the Ruminant Microbiome: Emerging Frontiers from an Old Friend**

TG Nagaraja ¹

¹Kansas State University

4:15 p.m. 386 **Past, present and future of protein and N metabolism in ruminants.**
Gerald B. Huntington¹, Joan H. Eisemann¹
¹North Carolina State University

4:55 p.m. **Ruminant Nutrition Symposium II Discussion**

Physiology and Endocrinology Symposium

Chair: Alan Ealy, Virginia Polytechnic Institute and State University
1:30 PM - 5:15 PM
Channel 2

1:30 p.m. **Physiology and Endocrinology Symposium Introduction**

1:33 p.m. **Presentation of the Animal Physiology and Endocrinology Award**
William Weldon¹
¹Weldon Consulting

1:36 p.m. 376 **Awardee Talk: Consequences of Heat Stress During Late Gestation for the Dairy Cow and Her Calf**
Geoff Dahl¹
¹University of Florida

2:05 p.m. 375 **Economic Consequences of Pregnancy Loss in Beef Cattle**
Vitor R.G R. G. Mercadante¹, Nicholas W. Dias¹, Claire L. Timlin², Stefania Pancini¹
¹Virginia Tech, ²Animal and Poultry Sciences, Virginia Tech

2:50 p.m. 372 **The timing of pregnancy losses in beef cattle**
Ky G. Pohler¹
¹Texas A&M University

3:35 p.m. **Physiology and Endocrinology Symposium Break**

3:45 p.m. 373 **Heat-induced Hyperthermia; Foe or Friend?**
Edwards J L. Lannett¹
¹Department of Animal Science, University of Tennessee

4:30 p.m. 374 **Early embryonic loss is an important mechanism for maximizing litter size in the pig**
Rodney D. Geisert¹, Ashley E. Meyer¹, Caroline A. Pfeiffer¹, Destiny N. Johns¹, Randall S. Prather¹, Thomas E. Spencer²
¹University of Missouri-Columbia, ²University of Missouri

Meat Science and Muscle Biology Symposium II

Chair: Jason Sawyer, Auburn University

2:00 PM - 4:30 PM

Channel 1

2:00 p.m. **Meat Science and Muscle Biology Symposium II Introduction**

2:03 p.m. **Presentation of the Meats Research Award**

2:06 p.m. 360 **Awardee Talk: The evolution of meat flavor measurement and its importance to the livestock industry**

Chris R. Kerth ¹

¹Texas A&M University

2:35 p.m. 361 **Beef flavor chemistry and how it influences sensory perception**

Jerrad F. Legako ¹

¹Texas Tech University, Department of Animal and Food Sciences

3:05 p.m. **Meat Science and Muscle Biology Symposium II Break**

3:15 p.m. 365 **Palatability of Beef Products: A Perspective on Future Expectations**

Bridget Wasser ¹

¹National Cattlemen's Beef Association

3:45 p.m. 364 **Branded Beef Program Response to COVID-19**

Diana Clark ¹

¹Certified Angus Beef

4:15 p.m. **Meat Science and Muscle Biology Symposium II Discussion**

Thursday, July 23, 2020

POSTER SESSION X

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSX-1 **A newly developed pectinase from *Aspergillus terreus* enhanced feed utilization and milk production of Damascus goats fed pectin-rich diet**

Uchenna Y. Anele ¹, Hossam Azzaz ², Ahmed Kholif ², Hussein Murad ², Nasr El-Bordeny ³, Hossam Ebeid ², Noha Hassaan ²

¹North Carolina Agricultural and Technical State University, ²National Research Centre, ³Ain Shams University

7:00 a.m. PSX-2 **Antioxidant system characteristics in Saanen goats depending on lactation period**

Anastasiia A. Kurilova¹, Alesya A. Bakhta¹, Larisa Y. Karpenko¹, Kirill Plemyashov², Anna I. Kozitcyna¹, Anna B. Balykina¹, Abram I. Erukashvili¹, Polina A. Polistovskaia¹, Olga N. Ershova³, Olga A. Dushenina³

¹Saint-Petersburg State University of Veterinary Medicine, ²Saint Petersburg State University of Veterinary Medicine, ³St. Petersburg State Academy of Veterinary Medicine

7:00 a.m. PSX-3 **Antioxidant system characteristics in Saanen goats depending on performance**

Polina D. Bokhan¹, Alesya A. Bakhta¹, Larisa Y. Karpenko¹, Anna I. Kozitcyna¹, Anna B. Balykina¹, Abram I. Erukashvili¹, Polina A. Polistovskaia¹, Olga N. Ershova², Polina Anipchenko³

¹Saint-Petersburg State University of Veterinary Medicine, ²St. Petersburg State Academy of Veterinary Medicine, ³St. Petersburg State University of Veterinary Medicine

7:00 a.m. PSX-4 **Behavior of goats subjected to different social isolation treatments**

Govind Kannan¹, Phaneendra Batchu¹, Brou Kouakou¹, Thomas H. Terrill¹, Zaira Estrada-Reyes¹

¹Fort Valley State University

7:00 a.m. PSX-5 **Duration of preslaughter stress in winter on physiological responses and meat quality in goats**

Aditya Naldurtiker¹, Phaneendra Batchu¹, Zaira Estrada-Reyes¹, Brou Kouakou¹, Thomas H. Terrill¹, Govind Kannan¹

¹Fort Valley State University

7:00 a.m. PSX-6 **EFFECT OF THE SUPPLEMENTATION OF Cucumis melo ON THE BODY CONDITION AND QUALITY OF COLOSTRUM OF GOATS IN CONFINEMENT**

Leticia R. Gaytán Alemán¹, Jesus Mendoza¹, Oscar Angel-García¹, JUAN M. GUILLEN², Francisco Véliz-Deras³, Viridiana Contreras-Villarreal⁴

¹Universidad Autónoma Agraria Antonio Narro, ²UAAAN, ³universidad autonoma agraria antonio narro, ⁴Universidad Autonoma Agraria Antonio Narro

7:00 a.m. PSX-7 **Effect of varying levels of hempseed meal supplementation on animal performance, rumen fermentation, and blood metabolites of growing meat goats**

Frank W. Abrahamsen¹, Nar K. Gurung², Woubit Abdela¹, Gopal Reddy¹, Kim Mullenix³

¹Tuskegee University, ²Department of Agricultural and Environmental Sciences, College of Agriculture, Environment, and Nutrition Sciences, Tuskegee University, Tuskegee, AL 36088, USA, ³Auburn University

7:00 a.m. PSX-8 **Effects of dietary concentrate level and limited feed access on feed intake and performance by lactating Alpine dairy goats**

Luana Ribeiro¹, Ryszard Puchala², Terry A. Gipson³, Raquel V. Lourencon¹, Arthur L. Goetsch²

¹American Institute for Goat Research, Langston University, ²Langston University, ³Langston

7:00 a.m. PSX-9 **Effects of dietary levels of alfalfa and Sericea lespedeza hay on feed intake and growth performance by growing Alpine doelings and Katahdin ewe lambs**

Wei Wang¹, Ryszard Puchala², Luana Ribeiro³, Italo Portugal⁴, Terry A. Gipson⁵, Arthur L. Goetsch²

¹American Institute for Goat Research, Langston University; College of Animal and Veterinary Medicine, Shenyang Agricultural University, ²Langston University, ³American Institute for Goat Research, Langston University, ⁴American Institute for Goat Research Langston University, ⁵Langston

7:00 a.m. PSX-11 **Effects of nutritional plane before breeding on body condition score, mass indexes, and chemical composition of hair sheep**

Raquel V. Lourencon¹, Lionel J. Dawson², Ryszard Puchala², Luana Ribeiro¹, Terry A. Gipson³, Erick Loetz¹, Miguel Rojas¹, Mauricio Calle⁴, Adaven Scronce⁵, Arthur L. Goetsch²

¹American Institute for Goat Research, Langston University, ²Langston University, ³Langston, ⁴American Institute for Goat Research Langston University, ⁵American Institute for Goat Research, Langston University; Ambo University, Ambo, Ethiopia

7:00 a.m. PSX-12 **Effects of Sericea lespedeza on methane emission and health status in grazing Boer goat wethers**

Ryszard Puchala¹, Luana Ribeiro², Raquel V. Lourencon², Arthur L. Goetsch¹

¹Langston University, ²American Institute for Goat Research, Langston University

7:00 a.m. PSX-13 **Effects of supplementing sugar-based byproducts on ingestive behavior and ruminal fermentation parameters in small ruminants**

Marina Almeida¹, Marcelo de Andrade Ferreira², João Paulo Ismério Monnerat dos Santos², João Vítor Fernandes Clemente², Maria Gabriela da Conceição², Rodrigo Barbosa de Andrade², Edwilka Oliveira Cavalcante², Eduardo Henrique Araújo Cordeiro², Dijaina Ferreira da Silva², Luiz Wilker Lopes da Silva², Michelle Christina Bernardo de Siqueira², Agni Martins Nunes Corrêa², Antonia Sherlânea Chaves Vêras²

¹University of Florida North Florida Research and Education Center, ²Federal Rural University of Pernambuco

7:00 a.m. PSX-14 **Effects of thyme or/and celery on feed utilization, growth performance and meat quality of Barki lambs**

Uchenna Y. Anele¹, Mahmoud Shaaban², Ahmed Kholif², Ahmed Abd El Tawab³, Mohamed Radwan⁴, Fatma Hadhoud⁵, Mostafa Khattab⁵, Hisham Saleh²

¹North Carolina Agricultural and Technical State University, ²National Research Centre, ³Biological Applications Department, Nuclear Research Center, Atomic Energy Authority, ⁴Animal Production Department, Faculty of Agriculture, Cairo University, ⁵Biological Applications Department, Nuclear Research Center, Atomic Energy Authority

7:00 a.m. PSX-15 **Fall grazing of annual forages with fall born lambs may improve animal growth and total protein concentrations when compared to stockpiled pastures**

Branden J. Campbell¹, Christine Gelley¹, Jefferson S. McCutcheon¹, Francis L. R. Fluharty², Anthony J. Parker¹

¹The Ohio State University, ²University of Georgia

7:00 a.m. PSX-16 **Genome-wide association studies for growth and carcass traits in Russian sheep**

Tatiana E. Deniskova¹, Sergey N. Petrov¹, Alexander A. Sermyagin¹, Margaret S. Fornara¹, Arsen Vladimirovich Dotsev¹, Henry Reyer², Klaus Wimmers², Vugar A. Bagirov¹, Gottfried Brem³, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ³Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSX-17 **Genome-wide diversity and demographic history of Russian native goat breeds**

Tatiana E. Deniskova¹, Arsen Vladimirovich Dotsev¹, Marina I. Selionova², Margaret S. Fornara¹, Henry Reyer³, Klaus Wimmers³, Gottfried Brem⁴, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Doctor of Biological Sciences, ³Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ⁴Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSX-18 **High-density genomic description of Russian native sheep breed of the Republic of Tyva**

Tatiana E. Deniskova¹, Alexandra S. Abdelmanova¹, Arsen Vladimirovich Dotsev¹, Chechena Sambu-Khoo², Henry Reyer³, Marina I. Selionova⁴, Margaret S. Fornara¹, Klaus Wimmers³, Gottfried Brem⁵, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Tuvan state university, ³Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ⁴Doctor of Biological Sciences, ⁵Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSX-19 **Influence of grease trap waste level supplementation on growth performance in finishing lamb**

Alfredo Estrada-Angulo¹, Jorge L. Ramos-Méndez¹, Christian Chaidez-Alvarez², Olga Maritza Manriquez-Nuñez³, Alberto Barreras⁴, Alejandro Plascencia³, Beatriz Castro-Pérez¹, Jesús Urías-Estrada¹, Francisco Rios-rincon², Claudio Angulo-Montoya⁵

¹Universidad Autónoma de Sinaloa, ²Autonomous University Of Sinaloa, ³Autonomous University Of Baja California, ⁴Universidad Autónoma de B.C., ⁵Universidad Autonoma de Sinaloa

7:00 a.m. PSX-20 **Internal parasite resistance measured on pasture and in confinement of young Kiko bucks**

Terry A. Gipson¹, Steve P. Hart², Ryszard Puchala², Zaisen Wang³, Jessica Quijada³, Margaret Garcia-Gill⁴, James Sanders⁵

¹Langston, ²Langston University, ³American Institute for Goat Research Langston University, ⁴Department of Animal Science, Oklahoma State University, ⁵American Kiko Goat Association

7:00 a.m. PSX-39 **Late-Breaking Abstract: Characterization of epigenetic and transcriptional landscape in heat stressed rats using ATAC-seq and RNA-seq**

Jinhuan Dou¹, Flavio S. Schenkel², Ying Yu³, Yachun Wang⁴

¹Laboratory of Animal Genetics, Breeding and Reproduction, Ministry of Agriculture of China, National Engineering Laboratory of Animal Breeding, College of Animal Science and Technology, China Agricultural University, ²Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ³China Agricultural University, ⁴Laboratory of Animal Genetics, Breeding and Reproduction, Ministry of Agriculture of China, National Engineering Laboratory of Animal Breeding, College of Animal Science and Technology, China Agricultural University, Beijing, China

7:00 a.m. PSX-40 **Late-Breaking Abstract: Effect of Dietary Replacement of Fishmeal by Insect Meal on Growth Performance and Non-specific Immunity of Growing Pigs**

Roman Nekrasov¹, Gennady A. Ivanov², Magomed G. Chabaev¹, Elena Y. Tsis¹, Nadezhda V. Bogolyubova¹, Daria A. Nikanova¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²LLC «NordTechSad»

7:00 a.m. PSX-34 **Late-Breaking Abstract: Effect of Genotype and Temperature-Humidity Index (THI) on milk yield of Ankole and its crossbreeds in Rwanda**

Martin Ntawubizi¹, Yvan Bienvenu Niyonzima², Lotta Rydhmer³, Claire D'André Hirwa⁴, Maximillian Manzi⁴, Erling Strandberg³

¹University Of Rwanda, ²School of Veterinary Medicine, University of Rwanda, ³Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences (SLU), ⁴Rwanda Agriculture and Animal Resources Board (RAB)

7:00 a.m. PSX-36 **Late-Breaking Abstract: Effect of increasing levels of soy hulls in finishing diets of feedlot cattle offered free-choice hay on performance, roughage intake and carcass characteristics.**

Alejandro Pittaluga¹, Tara L. Felix², Alejandro E. Relling¹

¹The Ohio State University, ²PSU

7:00 a.m. PSX-30 **Late-Breaking Abstract: Genotypes database of pedigree cattle population in Kazakhstan and the introduction of a calculating mechanism for livestock parentage verification**

Zhumadiya Tleulenov¹, Gainiya Yesseyeva², Anuarbek Seitmuratov³, Aliya Nagiyeva⁴

¹Research and production center of animal husbandry and veterinary LLP, ²Kostanai Engineering and Economics University Named after M. Dulatov, ³Scientific and production centre for animal husbandry and veterinary» Limited Liability Company, ⁴Researches, West-Kazakhstan agrarian university Zhangirkhan after name

7:00 a.m. PSX-31 **Late-Breaking Abstract: Improving the DNA database of genotypes using SNP markers for locally bred cattle in Kazakhstan**

Anuarbek T. Bissembayev¹, Zhumadiya Tleulenov², Saule Koblanova³, Aliya Akhmetaliyeva⁴, Aliya Nagiyeva⁵, Rukhan Kulbaev⁴

¹Scientific and production centre for animal husbandry and veterinary» Limited Liability Company, ²Research and production center of animal husbandry and veterinary LLP, ³Kostanai Engineering and Economics University Named after M. Dulatov, ⁴West Kazakhstan Agrarian-Technical University named Zhangir-Khan, ⁵Researches, West-Kazakhstan agrarian university Zhangirkhan after name

7:00 a.m. PSX-32 **Late-Breaking Abstract: Production of a Gene Knock-In Bull Calf by Embryo-Mediated Genome Editing**

Joseph R. Owen¹, Sadie L. Henning¹, Brett R. McNabb², Jason C. Lin¹, Amy E. Young¹, James D. Murray¹, Pablo J. Ross¹, Alison L. Van Eenennaam³

¹University of California, Davis, ²UC Davis, ³University of California, Davis Department of Animal Science

7:00 a.m. PSX-33 **Late-Breaking Abstract: Productive longevity of Holstein cows and causes of their replacement.**

Aizhan Abylgazinova¹, Alzhan Shamshidin¹, Gainiya Yesseyeva², Aliya Serikbaeva³, Aliya Nagiyeva⁴, Assel Tilepova⁵

¹West Kazakhstan Agrarian Technical University named after Zhangir Khan, ²Kostanai Engineering and Economics University Named after M. Dulatov, ³Scientific and Production Centre for Animal Husbandry and Veterinary» Limited Liability Company, ⁴Researches, West-Kazakhstan agrarian university Zhangirkhan after name, ⁵Scientific and Production Center of Animal Husbandry and Veterinary

7:00 a.m. PSX-41 **Late-Breaking Abstract: Self-reported statistical training of graduate students associated with confidence in performing statistical analyses**

Nick V. Serão¹, Amy L. Petry², Leticia P. Sanglard¹

¹Department of Animal Science, Iowa State University, ²Iowa State University

7:00 a.m. PSX-38 **Late-Breaking Abstract: Sequential feeding with diets varying differ in amino acid content on nutrient balance in growing-finishing pigs**

Alini M. Veira¹, Luan S. Santos², Paulo H. R. F. Campos³, Luciano Hauschild⁴

¹FAPESP Scholarship, São Paulo State University, Jaboticabal, Brazil, ²Federal Rural University of Rio De Janeiro, Seropédica, Brazil, ³Federal University of Viçosa, Viçosa, Brazil, ⁴Faculdade de Ciências Agrárias e Veterinárias - Câmpus de Jaboticabal - Unesp

7:00 a.m. PSX-29 **Late-Breaking Abstract: The effectiveness of in vivo determination of meat quality using an ultrasonic scanning device in Kazakhstan**

Anuarbek T. Bissembayev¹, Nurzhan Abuyev², Anuarbek Seitmuratov¹, Altay Nazarbekov¹, Saule Zhali¹

¹Scientific and production centre for animal husbandry and veterinary» Limited Liability Company, ²Non profit jsc «Kazakh National Agrarian University»

7:00 a.m. PSX-35 **Late-Breaking Abstract: Use of total tract NDF and starch digestibility in beef cow and replacement heifer diet formulation**

Garland Dahlke¹, Devin Jakub², John Goeser³, Erika L. Lundy-Woolfolk¹

¹Iowa State University, ²ISU, ³Rock River Laboratory

7:00 a.m. PSX-37 **Late-Breaking Abstracts: Effects of metformin on body temperature regulation and breast muscle growth in male broiler chickens**

Yan Huang¹, Sarah Shelby¹, yongjie Wang¹, Jing Ge², Sami Dridi¹

¹University of Arkansas, ²1Northeast Agricultural University, College of Veterinary Medicine, Harbin, China 2Department of Animal Science, Division of Agriculture, University of Arkansas, Fayetteville, AR 72701, United States

7:00 a.m. PSX-21 **Maternal dietary supplementation of fatty acids during late gestation on offspring's growth, carcass characteristics and energy metabolism in sheep**

Milca Rosa-Velazquez¹, Juan M. Pinos-Rodriguez², Alejandro E. Relling¹

¹The Ohio State University, ²Universidad Veracruzana

7:00 a.m. PSX-22 **Nannochloropsis oculata microalgae as a natural source of rumen-protected eicosapentaenoic acid in diets of lactating Nubian goats**

Uchenna Y. Anele¹, Ahmed Kholif², Gouda Gouda²

¹North Carolina Agricultural and Technical State University, ²National Research Centre

7:00 a.m. PSX-23 **Predicting feedstuff associative effects in goats**

Yoko Tsukahara¹, Ryszard Puchala², Arthur L. Goetsch²

¹American Institute for Goat Research Langston University, ²Langston University

7:00 a.m. PSX-10 **Program Chair Poster Pick: Effects of meat goat breed, salinity of drinking water, and level of protein supplementation on intake and digestion**

Abdelhafid Keli¹, Chala Merera², Ryszard Puchala³, Adaven Scronce⁴, Luana Ribeiro⁵, Raquel V. Lourencon⁵, Miguel Rojas⁵, Mauricio Calle⁶, Arthur L. Goetsch³

¹American Institute for Goat Research, Langston University; Department of Animal Production, National School of Agriculture, Meknes, Morocco, ²American Institute for Goat Research Langston University; Department of Animal Science, Ambo University, ³Langston University, ⁴American Institute for Goat Research, Langston University; Ambo University, Ambo, Ethiopia, ⁵American Institute for Goat Research, Langston University, ⁶American Institute for Goat Research Langston University

7:00 a.m. PSX-24 **Seminal characteristics of Dorper rams with different social hierarchies in northern Mexico**

Viridiana Contreras-Villarreal¹, Francisco Gerardo Véliz-Deras², JUAN M. GUILLEN³, Fernando Arellano-Rodríguez², Dalia Ivette Carrillo-Moreno², Leticia R. Gaytán Alemán², Ma de los Angeles De Santiago-Miramontes², Oscar Angel-García²

¹Universidad Autonoma Agraria Antonio Narro, ²Universidad Autónoma Agraria Antonio Narro, ³UAAAN

7:00 a.m. PSX-25 **The distribution of runs of homozygosity in nine native Russian sheep breeds**

Tatiana E. Deniskova¹, Alexandra S. Abdelmanova¹, Arsen Vladimirovich Dotsev¹, Henry Reyer², Marina I. Selionova³, Margaret S. Fornara¹, Klaus Wimmers², Gottfried Brem⁴, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ³Doctor of Biological Sciences, ⁴Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSX-26 **The identification of novel SNPs significant for reproductive abilities in sheep using GWAS**

Varvara Shevtsova¹, Maria Kolosova², Siroj Bakoev³, Lyubov Getmantseva³, Varvara Getmantseva⁴, Nekruz Bakoev³, Alexander Usatov¹, Olga V. Kostyunina³, Margaret S. Fornara³, Anatoly Kolosov⁵

¹Southern Federal University, ²Don State Agrarian University, ³L.K. Ernst Federal Research Center for Animal Husbandry, ⁴The Kosygin State University of Russia, ⁵Federal Science Center for Animal Husbandry named after Academy Member L.K. Ernst

7:00 a.m. PSX-27 **The influence of technological stress on the biochemical status of lambs with different genotypes**

Vugar A. Bagirov¹, Baylar S. Iolchiev², Natalia Volkova², Anastasia N. Vetokh², Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²L.K. Ernst Federal Science Center for Animal Husbandry

7:00 a.m. PSX-28 **Using estrus detection patches or a ram wearing a marking harness to monitor estrus in synchronized hair sheep ewes**

Robert W. Godfrey¹, Sue A. Lakos²

¹University of the Virgin Islands, ²University of the Virgin Islands, Agricultural Experiment Station

POSTER SESSION XI

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSXI-1 **Agent-based simulation model to evaluate the technical performance of reproductive programs in beef cattle**

Oscar A. A. Ojeda¹, Angela M. Gonella¹, Daniel Bustos Coral², Gustavo L. Sartorello³, Thayla Reijers², Guilherme Pugliesi³, Maria Mercadante⁴, Cesar Gonçalves², Augusto H. Hauber Gameiro⁵

¹University of Florida, ²University of São Paulo, ³University of Sao Paulo, ⁴Instituto de Zootecnia Sertãozinho, ⁵School of Veterinary Medicine and Animal Science, University of São Paulo, Pirassununga, SP, Brazil

7:00 a.m. PSXI-2 **An update on the development of the Ruminant Farm Systems (RuFaS) model**

Taylor L. Hansen¹, Juan Tricarico², Kristan F. Reed¹

¹Cornell University, ²Innovation Center for U.S. Dairy

7:00 a.m. PSXI-3 **Applicability of a non-invasive method to predict body weight of growing-finishing pigs based on the support of the front legs**

Sergi López-Vergé ¹, Pau Aymerich ², Carme Soldevila ², Jordi Bonet ², Josep Gasà ³,
Jaume Coma ², Lorena Castillejos ¹

¹Animal Nutrition and Welfare Service, Department of Animal and Food Sciences, Universitat Autònoma de Barcelona, Bellaterra, Spain, ²Vall Companys Group, ³Animal Nutrition and Welfare Service (SNIBA), Department of Animal and Food Science, Autonomous University of Barcelona, Bellaterra 08193, Spain

7:00 a.m. PSXI-4 **Beauveria bassiana to control the mealworm Alphitobius diaperinus in chicken barns**

Martin Nadeau ¹, Silvia Todorova ¹, Carl Julien ²

¹Anatis Bioprotection, ²CRSAD

7:00 a.m. PSXI-5 **Best production practices for improvement of Beef Cattle carcass quality**

thais b. amaral ¹, Arthur Fernandes ², Guilherme J. M. Rosa ³

¹University of Wisconsin, ²Cobb-Vantress, ³University of Wisconsin-Madison

7:00 a.m. PSXI-6 **Calculating energy efficiency use for Nellore bulls divergent in residual feed intake**

Camila D. A. Batalha ¹, Fabiana L. De Araújo ², Renata H. Branco ², Luis O. Tedeschi ³,
Sarah F. Bonilha ²

¹Instituto de Zootecnia, Sertãozinho, ²Professor, ³Texas A&M University

7:00 a.m. PSXI-27 **Chemical Composition and In Vitro Fermentation Characteristics of Legumes Using Canine Fecal Inoculum**

Zac Traugher ¹, Fei He ², Jolene Hoke ³, Gary M. Davenport ³, Maria R.C. de Godoy ⁴

¹University of Illinois - Urbana-Champaign, ²University of Illinois at Urbana Champaign,
³Archer Daniels Midland Company, ⁴University of Illinois at Urbana-Champaign

7:00 a.m. PSXI-28 **Commercial grain-free diet improved taurine status, but increased bile acid excretion when fed to Labrador Retrievers**

Renan Antunes Donadelli ¹, Julia Guazzelli Pezzali ², Patrícia M. Oba ³, Kelly S. Swanson ³,
Craig N. Coon ⁴, Jessica L. Varney ⁴, Christine Pendlebury ⁵, Anna-Kate Shoveller ¹

¹Department of Animal Biosciences, University of Guelph, ²university of guelph, ³University of Illinois at Urbana-Champaign, ⁴Four Rivers Kennel, LLC, ⁵Champoin Petfoods

7:00 a.m. PSXI-7 **Comparison of Range-Based and Irrigated Cow-Calf Systems – Grazing Season Performance**

John B. Hall ¹, James E. Sprinkle ¹, Melinda Ellison ¹, Sandra Goddard ¹, J. Bret B. Taylor ²,
Benton B. Glaze ¹

¹University of Idaho, ²USDA-ARS-RSPER

7:00 a.m. PSXI-29 **Comparison of temporal-spatial and pressure gait analysis between resting and exercised Labrador retrievers**

Jessica L. Varney ¹, Jason W. Fowler ¹, Craig N. Coon ¹

¹Four Rivers Kennel, LLC

7:00 a.m. PSXI-8 **Corn stover feedlot diets with elevated mycotoxins and binder effect on cattle performance**

Caleb Karls¹, Mitch Schaefer², Dan Schaefer³

¹University of Wisconsin Madison, ²United Animal Health, ³Department of Animal & Dairy Sciences, UW-Madison

7:00 a.m. PSXI-9 **CriaCerto - Breeding System Simulator App: a case of study in Brazil**

thais b. amaral¹, fernando p. Costa², camilo carromeu²

¹University of Wisconsin, ²embrapa gado de corte

7:00 a.m. PSXI-30 **Descriptive sensory evaluation of rotary molded sorghum-based dog treats supplemented with soluble animal protein**

Krystina A. Lema Almeida¹, Charles G. Aldrich¹, Kadri Koppel¹

¹Kansas State University

7:00 a.m. PSXI-11 **Drinking device can reduce apparent water consumption and improve device cleanliness without impairing calf performance**

Maria Devant¹, Marçal Verdu², Carles Medinya³, Joan Riera⁴, Sonia Marti¹

¹IRTA, Ruminant Production, ²BonArea Agrupa, Nutrition R&D, ³SINUAL, ⁴Nanta SA

7:00 a.m. PSXI-12 **Effect of copper on aminotransferases serum activity in European carp**

Artem O. Taraskin¹, Polina A. Polistovskaia², Abram I. Erukashvili², Anna I. Kozitcyna², Alesya A. Bakhta², Anna B. Balykina², Larisa Y. Karpenko², Kirill Plemyashov³

¹St. Petersburg State Academy of Veterinary Medicine, ²Saint-Petersburg State University of Veterinary Medicine, ³Saint Petersburg State University of Veterinary Medicine

7:00 a.m. PSXI-13 **Effect of performance indicators, food expenses and interest rate on lamb production cost**

Vanessa Rezende¹, Gustavo L. Sartorello², Beatriz Q. Queiroz dos Reis³, Guilherme Boldrin⁴, Laya Alves¹, Danny Moreno⁴, Miguel Souza⁴, Camila Raineri⁵, Augusto H. Hauber Gameiro¹

¹School of Veterinary Medicine and Animal Science, University of São Paulo, Pirassununga, SP, Brazil, ²University of Sao Paulo, ³Texas Tech University, ⁴School of Animal Science and Food Engineering, University of São Paulo, Pirassununga, SP, Brazil, ⁵School of Veterinary Medicine and Animal Science Federal University of Uberlândia, Uberlândia, MG, Brazil.

7:00 a.m. PSXI-32 **Effects of algae DHA on fatty acid profile of plasma red blood cell membrane and fecal microbiota of adult cats**

Carrie James¹, Sandra L. Rodrigues-Zas², Maria R.C. de Godoy¹

¹University of Illinois at Urbana-Champaign, ²University of Illinois at Urbana Champaign

7:00 a.m. PSXI-14 **Effects of pen cleaning on feedlot performance and carcass characteristics of beef steers fed during the winter in the northern Great Plains**

Bryan W. Neville¹, Rebecca L. Moore², Wayde J. Pickinpaugh²

¹USDA, ARS, U.S. Meat Animal Research Center, ²North Dakota State University

7:00 a.m. PSXI-15 **Effects of post-pyrolysis treated biochars on nutrient disappearance, methane production and ruminal fermentation of a silage-based diet in an artificial rumen system (RUSITEC)**

Paul Tamayao ¹, Gabriel O. Ribeiro ², Tim A. McAllister ³, Hee-Eun Yang ⁴, Atef Mohamed Saleem ⁵, Kim H. Ominski ¹, Erasmus Okine ⁶, E.J. McGeough ¹

¹University of Manitoba, ²Department of Animal and Poultry Science, University of Saskatchewan, ³Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, ⁴Agriculture and Agri-food Canada, Lethbridge Research Center, Lethbridge, ⁵Department of Animal and Poultry Production, South Valley University, ⁶University of Lethbridge

7:00 a.m. PSXI-33 **Effects of weight loss and feeding a high-protein, high-fiber diet on blood metabolite profiles, body composition and voluntary physical activity in overweight dogs**

Thunyaporn Phungviwatnikul ¹, Sara E. Belchik ², Kelly S. Swanson ¹

¹University of Illinois at Urbana-Champaign, ²Uni. of Illinois at Urbana Champaign

7:00 a.m. PSXI-34 **Evaluating the lysine requirements of adult and senior Labrador Retrievers using low and high crude protein inclusion levels**

Jordan T. Weil ¹, Jessica L. Varney ¹, Jason W. Fowler ¹, Craig N. Coon ¹

¹Four Rivers Kennel, LLC

7:00 a.m. PSXI-35 **Evaluation of biomarkers N-terminal pro-B-type natriuretic peptide and troponin-I in healthy Labrador retrievers and Labrador retrievers with subclinical dilated cardiomyopathy**

Jessica L. Varney ¹, Jason W. Fowler ¹, Craig N. Coon ¹

¹Four Rivers Kennel, LLC

7:00 a.m. PSXI-36 **Evaluation of fecal microbiota of dogs fed extruded diets containing white and red sorghum as primary carbohydrate source**

Patrick von Schaumburg ¹, Sandra L. Rodrigues-Zas ², Bruce R. Southy ¹, Maria R.C. de Godoy ³

¹University of Illinois Urbana-Champaign, ²University of Illinois at Urbana Champaign,

³University of Illinois at Urbana-Champaign

7:00 a.m. PSXI-16 **Inclusion of automated sensor data as a predictor of feed intake increases the variance explained by a random forest model.**

Cori J. Siberski ¹, Mary S. Mayes ¹, Patrick J. Gorden ², Adam Copeland ², Mary Healey ¹, Brady M. Goetz ³, Hamid Beiki ¹, Luke M. Kramer ³, Lance H. Baumgard ³, Philip Dixon ⁴, James E. Koltes ⁵

¹Department of Animal Science, Iowa State University, ²Veterinary Diagnostic & Production Animal Medicine, Iowa State University, ³Iowa State University, ⁴Department of Statistics, Iowa State University, ⁵Iowa State University, Department of Animal Science

7:00 a.m. PSXI-17 **Increasing the number of water troughs do not increase water intake or improve calf performance**

Sonia Marti ¹, Marçal Verdu ², Carles Medinya ³, Joan Riera ⁴, Maria Devant ¹

¹IRTA, Ruminant Production, ²BonArea Agrupa, Nutrition R&D, ³SINUAL, ⁴Nanta SA

7:00 a.m. PSXI-18 **Influence of Akaushi Genetics on Beef Performance and Carcass Merit in Grain and Grass-finishing Systems**

Isabella Cristina de Faria Maciel¹, Jeannine P. Schwehofer², Jenifer I. Fenton³, Jennifer Hobdod³, Melissa McKendree¹, Kim Cassida³, Jason E. Rowntree¹

¹Michigan State University, ²Michigan State University Extension, ³MSU

7:00 a.m. PSXI-19 **Investigating the Relationship Between Temperament and Performance Traits in Feedlot Cattle**

Jesse Bouffiou¹, Jane A. Boles², Jennifer M. Thomson²

¹Montana State University, ²Department of Animal and Range Sciences, Montana State University

7:00 a.m. PSXI-20 **Milking collar activity data is associated with health events and feed intake in lactating Holstein cattle**

Abigail E. Jantzi¹, Cori J. Siberski¹, Brady M. Goetz², Mary Healey¹, Kristen Hayman³, Patrick J. Gorden⁴, Lance H. Baumgard², James E. Koltes⁵

¹Department of Animal Science, Iowa State University, ²Iowa State University, ³Vet Diagnostic & Production Animal Medicine, Iowa State University, ⁴Veterinary Diagnostic & Production Animal Medicine, Iowa State University, ⁵Iowa State University, Department of Animal Science

7:00 a.m. PSXI-22 **Prediction quality of cattle behavior traits evaluated through different cross-validation strategies using wearable sensor data and machine learning algorithms**

Leonardo Augusto Coelho Ribeiro¹, Tiago Bresolin², Guilherme J. M. Rosa³, Daniel Rume Casagrande⁴, Marina De Arruda Camargo Danes⁵, Joao R. Dorea⁶

¹University of Wisconsin, Madison, ²Department of Animal and Dairy sciences, University of Wisconsin-Madison, ³University of Wisconsin-Madison, ⁴Professor, ⁵Univesidade Federal de Lavras, ⁶University of Wisconsin Madison

7:00 a.m. PSXI-23 **Prevalence of antibiotic resistance genes and bacterial community diversity from feces of pasture-raised broiler and layer chickens, swine, and beef cattle in the Southeastern USA**

Byeng ryel Min¹, Bobbie L. Castleberry², Michael Rothrock³, Laura Lee Rutherford³, Heidi Waldrip⁴, David Parker³, David Brauer², Dipti Pitta⁵, Nagaraju Indugu⁵

¹PH.D., ²USDA-ARS, ³PhD, ⁴Dr., ⁵University of Pennsylvania School of Veterinary Medicine

7:00 a.m. PSXI-24 **Production cost feedlot beef cattle in the southeast and central-western regions of Brazil: analyzes from 2017 to 2019**

Danny Moreno¹, Gustavo L. Sartorello², Guilherme Boldrin¹, Beatriz Q. Queiroz dos Reis³, Vanessa Rezende⁴, Laya Alves⁴, Miguel Souza¹, Augusto H. Hauber Gameiro⁴

¹School of Animal Science and Food Engineering, University of São Paulo, Pirassununga, SP, Brazil, ²University of Sao Paulo, ³Texas Tech University, ⁴School of Veterinary Medicine and Animal Science, University of São Paulo, Pirassununga, SP, Brazil

7:00 a.m. PSXI-31 **Program Chair Poster Pick: Determination of the threonine requirement in adult and senior Labrador Retrievers using the indicator amino acid oxidation technique**

Jordan T. Weil ¹, Jessica L. Varney ¹, Jason W. Fowler ¹, Craig N. Coon ¹

¹Four Rivers Kennel, LLC

7:00 a.m. PSXI-21 **Program Chair Poster Pick: Performance indicators of animal production and prices over the cost of feedlot beef cattle**

Gustavo L. Sartorello ¹, Miguel Souza ², Beatriz Q. Queiroz dos Reis ³, Guilherme Boldrin ², Vanessa Rezende ⁴, Danny Moreno ², Laya Alves ⁴, Augusto H. Hauber Gameiro ⁴

¹University of Sao Paulo, ²School of Animal Science and Food Engineering, University of São Paulo, Pirassununga, SP, Brazil, ³Texas Tech University, ⁴School of Veterinary Medicine and Animal Science, University of São Paulo, Pirassununga, SP, Brazil

7:00 a.m. PSXI-25 **The effect of plant tannins on methane and nitrous oxide emissions from dairy manure under laboratory conditions**

Byeng ryeol Min ¹, David Parker ², Kenneth Casey ³, Will Willis ⁴, Bobbie L. Castleberry ⁵, Beverly Meyer ⁴, Heather Robbe ⁴, Heidi Waldrip ⁶

¹PH.D., ²PhD, ³Texas A&M Agri-life, ⁴MS, ⁵USDA-ARS, ⁶Dr.

7:00 a.m. PSXI-26 **True Nutrient Supply to Dairy Cows from Rolled, Steam Flaked and Pelleted Oat vs. Barley Grain with An Advanced Modeling Approach**

M. Tosta ¹, L. Prates ¹, P. Yu ²

¹Department of Animal and Poultry Science, University of Saskatchewan, ²ASAS, CSAS, ADSA

POSTER SESSION XII

7:00 AM - 5:00 PM

Poster Sessions

7:00 a.m. PSXII-38 **Differential expression of adipogenic genes in fetus longissimus dorsi during Hanwoo gestation periods**

Jun sang Ahn ¹, Eung Gi Kwon ¹, Sun Sick Jang ¹, So Mi Hwang ¹, Bo Hye Park ¹, Dong Hun Kang ², Ki Yong Chung ²

¹Hanwoo Research Institute, ²Korea National College of Agriculture and Fisheries

7:00 a.m. PSXII-21 **Genome-wide search for genomic regions under putative selection in two Russian native cattle breeds using high-density SNP Bead Chip**

Arsen Vladimirovich Dotsev ¹, Natalia Anatolievna Zinovieva ¹, Tatiana E. Deniskova ¹, Alexandra S. Abdelmanova ¹, Johann Sölkner ², Henry Reyer ³, Klaus Wimmers ³, Gottfried Brem ⁴

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²University of Natural Resources and Life Sciences, ³Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ⁴Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSXII-22 **Genomic prediction accuracy for feed efficiency related traits using different pseudo-phenotypes, prediction and validation methods in Nelore cattle**

Claudio U. Magnabosco ¹, Fernando Lopes ², Valentina Magnabosco ³, Raysildo Lobo ⁴, Leticia Pereira ⁵, Rafael Espigolan ⁶, Ludmilla Brunes ⁵

¹Embrapa Cerrados, ²Cobb-Vantress, ³Veterinary School, Barao de Maua University,

⁴National Association of Breeders and Researchers, ⁵Animal Science Department, Goiás Federal University, ⁶Animal Science and Food Engineering Faculty, São Paulo University

7:00 a.m. PSXII-1 **High-throughput Phenotyping of Rumen Microbial Contents Using Buccal Swabs**

Juliana Young ¹, Joseph H. Skarlupka ², Rafael Tassinari ³, Amelie Fischer ⁴, Kenneth Kalscheur ⁵, Jennifer McClure ¹, Paul Weimer ⁶, Garret Suen ², Derek M. Bickhart ⁷

¹USDA ARS DFRC, ²Department of Bacteriology, University of Wisconsin-Madison,

³University of Goias, ⁴Institute De L'elevage,, ⁵USDA-ARS, US Dairy Forage Research Center, ⁶University of Wisconsin, ⁷US Dairy Forage Research Center, USDA-ARS

7:00 a.m. PSXII-23 **Identification and evaluation of novel fertility traits using automated activity monitor data from commercial dairy herds**

Camila A. Rosenberg ¹, Diercles F. Cardoso ¹, Francesca Malchiodi ², Flavio S. Schenkel ³, Christine F. Baes ⁴

¹University of Guelph, ²Semex Alliance, ³Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada, ⁴Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

7:00 a.m. PSXII-24 **Identification of selection signatures for response of American mink to Aleutian mink disease virus infection**

Karim Karimi ¹, A. Hossain Farid ¹, Sean Myles ², Younes Miar ³

¹Department of Animal Science and Aquaculture, Dalhousie University, ²Department of Plant, Food, and Environmental Sciences, Dalhousie University, ³1 Department of Animal Science and Aquaculture, Dalhousie University

7:00 a.m. PSXII-25 **Isolation and identification of bovine preadipocytes and screening of miRNAs associated with adipogenesis**

Xiang Yu ¹, Xibi Fang ¹, Runjun yang ²

¹Jilin University, ²Jilin University

7:00 a.m. PSXII-26 **Maternal energy restriction in early gestation affects MYOG network topology of bovine skeletal muscle**

Wellison Jarles Da Silva Diniz ¹, Matthew S. Crouse ², Robert A. Cushman ³, Joel S. Caton ¹, Carl R. Dahlen ¹, Lawrence P. Reynolds ¹, Alison K. Ward ¹

¹North Dakota State University, ²USDA, ARS, U.S. Meat Animal Research Center, ³USDA, ARS, US Meat Animal Research Center, Livestock Bio-Systems Research Unit

7:00 a.m. PSXII-27 **Microsatellite analysis of the historical and modern populations of the Russian local cattle breeds**

Alexandra S. Abdelmanova¹, Arina I. Mishina², Valeria Volkova¹, Arsen Vladimirovich Dotsev¹, Alexander A. Sermyagin¹, Oxana Boronetskaya¹, Lidiya Petrikeeveva³, Roman Chinarov⁴, Gottfried Brem⁵, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Federal Research Center for Animal Husbandry named after Academy Member L.K. Ernst, ³Timiryazev Russian State Agrarian University—Moscow Agrarian Academy, ⁴L.K. Ernst Federal Research Center for Animal Husbandry, ⁵Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSXII-28 **miRNA2382-5p regulates production of triglyceride in mammary epithelial cells via targeting NDRG2 of dairy cattle**

Lixin Xia¹, Xibi Fang¹, Zhihui Zhao², Runjun yang³

¹Jilin University, ²Guangdong Ocean University, ³Jilin University

7:00 a.m. PSXII-29 **Partitioning of Inbreeding Depression using Pedigree and Genomic Approaches**

Pattarapol Sumreddee¹, Sajjad Toghiani², Elhamidi Hay², Samuel E. Aggrey¹, Romdhane Rekaya¹

¹University of Georgia, ²USDA Agricultural Research Service

7:00 a.m. PSXII-2 **Potential interactions between prior endophyte exposure and phytogenic supplementation for finishing steers with varying chute exit velocities**

Paul A. Shanks¹, Eric Vanzant², James D. Caldwell³

¹University of KY, ²University of Kentucky Department of Animal & Food Sciences, ³Delacon USA, Inc.

7:00 a.m. PSXII-3 **Rumen microbiome from beef steers undergoing grain adaptation with steam-flaked corn varying in bulk density**

Kaue Tonelli Nardi¹, Kaliu G. Silva¹, Igor Gomes Favero¹, Jordan K. Hinds¹, Carly A. Hoffmann², Samantha M. Soto¹, Nathaniel Hall³, Darren D. Henry¹, Jhones Onorino Sarturi¹

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

7:00 a.m. PSXII-4 **Serum citrulline concentration of unweaned calves transported by road as a potential biomarker of gut functionality**

Jose Angel Robles¹, Sonia Marti², Lucía Pisoni³, Anna Bassols⁴, Maria Devant²

¹UAB- Veterinary Faculty, ²IRTA, Ruminant Production, ³IRTA-Ruminant Production, ⁴UAB- Faculty of Veterinary Science, Department of Biochemistry and Molecular Biology

7:00 a.m. PSXII-5 **Simulation of feed restriction and anorexia during auction market and transportation and its effects on concentrate intake and body weight recovery of unweaned crossbred Angus-Holstein calves**

Lucía Pisoni¹, Maria Devant², Sonia Marti²

¹IRTA-Ruminant Production, ²IRTA, Ruminant Production

7:00 a.m. PSXII-30 **SNPs IN THE GROWTH HORMONE GENE OF WILD AND DOMESTIC REINDEER (*Rangifer tarandus*) IN RUSSIA**

Anna Krutikova¹, Natalia Dementeva²

¹Russian Research Institute of Farm Animal Genetics and Breeding — Branch of the L.K. Ernst Federal Research Center for Animal Husbandry, ²Russian Research Institute of Farm Animal Genetics and Breeding

7:00 a.m. PSXII-6 **Supplementation of Angus crossbred steers with avian-derived polyclonal antibody preparations against the ruminal methanogen**

Methanobrevibacter ruminantium M1 does not alter in vivo methane emissions

Mariana E. Garcia-Ascolani¹, Tessa M. Schulmeister², Federico Tarnonsky², Federico Podversich², Gleise Medeiros da Silva³, Juan Vargas², Martin Ruiz-Moreno⁴, Jose Carlos Batista Dubeux Jr.¹, Timothy J. Hackmann⁵, Nicolas DiLorenzo⁶

¹University of Florida - North Florida Research and Education Center, ²University of Florida, ³ASAS, ⁴University of Florida - NFREC, ⁵University of California, Davis, ⁶Department of Animal Sciences, North Florida Research and Education Center (NFREC), University of Florida, Marianna, FL

7:00 a.m. PSXII-7 **Supplementing beef cattle finishing diets with ruminal protected live yeast affected fatty acid profiles in meat**

Wenzhu Yang¹, Maolong He², Yizhao Shen³, Tao Ran⁴, Ousama Alzahal⁵

¹Agriculture and Agri-Food Canada, Lethbridge Research and Development Centre, T1J 4B1., ²Lucta, S.A., ³College of Animal Science and Technology, Hebei Agricultural University, ⁴Faculty of Veterinary Medicine, University of Calgary, ⁵AB Vista

7:00 a.m. PSXII-32 **Testing of low-density SNP panel in wild and domestic reindeer populations (*Rangifer tarandus*)**

Tatiana E. Deniskova¹, Veronika Ruslanovna Kharzinova¹, Arsen Vladimirovich Dotsev¹, Anastasiya D. Solovieva², Kasim A. Layshev³, Alexander A. Yuzhakov³, Tatiana M. Romanenko⁴, Valeriy I. Fedorov⁵, Henry Reyer⁶, Klaus Wimmers⁶, Gottfried Brem⁷, Natalia Anatolievna Zinovieva¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²L.K. Ernst Federal Science Center for Animal Husbandry, ³FGBNU «North-West center of interdisciplinary researches of problems of food maintenance, ⁴FCIARctic Nenets Division — Agro-Experimental Station, Federal Agency of Scientific Organizations, ⁵Federal Government Budget Scientific Institutions Yakut Scientific Research Institute of the Agriculture Federal Agency Scientific Institutions, ⁶Institute of Genome Biology, Research Institute for Farm Animal Biology (FBN), ⁷Institute of Animal Breeding and Genetics, University of Veterinary Medicine (VMU)

7:00 a.m. PSXII-33 **The Effect of Log Transformation on Carcass Data Measured by Ultrasound**

Tae Jeong Choi¹, Byoung-ho Park¹, Hannah Oh², Sang-Hyon OH³

¹National Institute of Animal Science, RDA, ²The Early College at Guilford, ³University of Maryland Eastern Shore

7:00 a.m. PSXII-8 **The effect of tannins extract associated to two levels of urea in the supplement of grazing Nellore steers on ruminal microbial richness and diversity estimators**

Iorrano A. A. Cidrini ¹, Yury G. Salcedo ², Mateus José Inácio de Abreu ³, Fernando Alerrandro Alerrandro Andrade Cidrini ⁴, Laura Franco Prados ⁵, Gustavo R. Siqueira ⁵, Flávio D. Resende ⁵

¹Montana State University, ²Unesp Jaboticabal, ³UNESP/APTA, ⁴Universidade Federal de Vicososa, ⁵APTA

7:00 a.m. PSXII-9 **The effects of DFM plus tannins on measures of immunity and growth performance of weaned beef calves**

Claudia DeMarco ¹, Scott L. Lake ², Richard Goodall ³, Hannah Cunningham ², Steve Paisley ², Cassio Brauner ⁴

¹Federal University of Pelotas, ²University of Wyoming, ³sponcer, ⁴Federal University of Pelotas, Pelotas, RS, Brazil

7:00 a.m. PSXII-10 **The effects of different mineral supplementation strategies on feedlot performance of mineral deficient cattle**

Tevan J. Brady ¹, Caleb C. Reichhardt ², Reganne K. Briggs ¹, Laura A. Motsinger ¹, Kara J. Thornton ¹, Kerry Rood ¹, Bart Tarbet ¹, Matthew D. Garcia ¹

¹Utah State University, ²University of Hawai'i at Mānoa

7:00 a.m. PSXII-11 **The effects of feeding finishing cattle benzoic acid and/or live active yeast (*Saccharomyces cerevisiae*) on feeding behaviour, growth performance, and carcass characteristics**

Melissa S. Williams ¹, Ira B. Mandell ¹, Ben M. Bohrer ¹, Katharine M. Wood ¹

¹University of Guelph

7:00 a.m. PSXII-34 **The evaluation of the influence of FMO3 gene polymorphism on the milk productivity of Ayrshire breed cows**

Elena Gladyr ¹, Elena Konovalova ², Nikolay Sivkin ², Olga V. Kostyunina ¹

¹L.K. Ernst Federal Research Center for Animal Husbandry, ²Federal Science Center for Animal Husbandry named after Academy Member L.K. Ernst

7:00 a.m. PSXII-12 **The influence of long-term molybdenum supplementation (in drinking water or feed) on beef calf performance through weaning.**

meghan P. Thorndyke ¹, Octavio Guimaraes ¹, Nicole M. Tillquist ¹, Briana V. Tangredi ¹, Joanis T. Zervoudakis ², Terry E. Engle ¹

¹Colorado State University, ²Universidade Federal de Mato Grosso

7:00 a.m. PSXII-13 **The influence of trace mineral source on copper, manganese, and zinc binding strength to rumen digesta in cattle fed a high forage based diet.**

Octavio Guimaraes ¹, Huey Yi Loh ¹, meghan P. Thorndyke ¹, Nicole M. Tillquist ¹, Jerry Spears ², Terry E. Engle ¹

¹Colorado State University, ²North Carolina State University

7:00 a.m. PSXII-14 **The influence of trace minerals source on copper, manganese, and zinc binding strength to rumen digesta in cattle fed a corn silage-based diet.**

Octavio Guimaraes¹, Huey Yi Loh¹, meghan P. Thorndyke¹, Nicole M. Tillquist¹, Jerry Spears², Terry E. Engle¹

¹Colorado State University, ²North Carolina State University

7:00 a.m. PSXII-15 **The organic additives in tropical pasture: effects in vitro**

André D'Aurea¹, Luis Ferreira², Lauriston Bertelli³

¹Research Coordinator at Premix Company, ²Premix Company, ³Research and development Director at Premix Company

7:00 a.m. PSXII-35 **The Periovalutary Endocrine Milieu Affects the Composition of the Oviductal Fluid in Beef Cows**

Angela M. Gonella¹, Mariana Sponchiado¹, Guilherme Pugliesi², Edson Lo Turco³, Mario Binelli¹

¹University of Florida, ²University of Sao Paulo, ³Federal University of Sao Paulo

7:00 a.m. PSXII-16 **The possible interactions between feed delivery frequency and plant oil supplementation on feeding pattern and sorting behavior in late-lactation cows**

Hamidreza Mirzaei-Alamouti¹, Kamran Akbari-Pabandi¹, Morteza Mansouryar², Mohammad Ali Sirjani¹, Adam Cieslak³, Malgorzata Szumacher-Strabel³, Amlan Kumar Patra⁴, Mina Vazirigohar⁵

¹Department of Animal Science, University of Zanjan, Zanjan 45371-38791, Iran,

²Department of Veterinary and Animal Sciences, Faculty of Health and Medical Sciences, University of Copenhagen, Grønnegårdsvej 3, 1870 Frederiksberg C, Denmark, ³Department of Animal Nutrition, Poznan University of Life Sciences, Wolynska 33, 60-637 Poznan, Poland, ⁴Department of Animal Nutrition, West Bengal University of Animal and Fishery Sciences, 37 K. B. Sarani, Belgachia, Kolkata, India 700037, ⁵Zist Dam Group, University Incubator Center, University of Zanjan, Zanjan 45371-38791, Iran

7:00 a.m. PSXII-17 **Trace minerals source influences the performance of Nellore cattle in the growing phase during the transition between dry to rainy season in Brazil**

Iorrano A. A. Cidrini¹, JOSIANE F. LAGE², Igor Machado Ferreira³, Karla A. Oliveira⁴, Laura Franco Prados⁵, Gustavo R. Siqueira⁵, Flávio D. Resende⁵

¹Montana State University, ²Trouw Nutrition, ³UNESP/APTA, ⁴UNESP, ⁵APTA

7:00 a.m. PSXII-18 **Treatment of composted poultry litter with natural hop extracts, effects on nitrogen accumulations, coliforms and select Gram-positive pathogenic and antimicrobial resistant bacteria**

YAMICELA CASTILLO-CASTILLO ¹, Robin C. Anderson ², MICHAEL E. HUME ³, Michael D. Flythe ⁴, David Nisbet ⁵, Claudio Arzola-Alvarez ⁶, FRANCISCO CASTILLO-RANGEL ¹, Jaime Salinas-Chavira ⁷, Marina Ontiveros ⁸, Ramon Copado ⁹, Oscar Ruiz-Barrera ¹⁰

¹UNIVERSIDAD AUTONOMA DE CHIHUAHUA, ²USDA/ARS, Southern Plains Agricultural Research Center's Food & Feed Safety Research Unit, ³USDA/ARS, ⁴Forage-Animal Production Research Unit/ USDA-ARS, ⁵United States Department of Agriculture/Agricultural Research Service, Food and Feed Safety Research Unit, College Station, TX, 77845 USA, ⁶Autonomous University of Chihuahua. Chihuahua, Chih., Mexico, ⁷Universidad Autonoma de Tamaulipas, ⁸Autonomous University of Ciudad Juarez. Nuevo Casas Grandes, Chihuahua, Chih., Mexico, ⁹Department of Agriculture, Autonomous University of Nuevo Leon, Monterrey; N.L. Mexico., ¹⁰Universidad Autónoma de Chihuahua

7:00 a.m. PSXII-19 **Urine Metabolomics Analysis Associated with Feed Efficiency on Crossbred Steers during the Growing and Finishing Period on Forage- and Concentrate- Based Diets**

Harvey C. Freetly ¹, Virginia Artegoitia ², John Newman ³, Ron Lewis ⁴, Andrew P. Foote ⁵

¹USDA, ARS, U.S. Meat Animal Research Center, ²USDA, ARS US Western Human Nutrition Research Center, ³USDA, ARS, US Western Human Nutrition Research Center, ⁴University of Nebraska, ⁵Oklahoma State University

7:00 a.m. PSXII-36 **Use of FSH or hCG to enhance follicular growth and pregnancy per artificial insemination during a split-AI program in crossbreed beef heifers.**

Daniella C. Heredia ¹, Oscar A. A. Ojeda ¹, Darrel White ², Maria C. Londono ¹, Sergio D. Lasso ¹, Guido E. Enriquez ¹, Maria B. Ugarte ¹, Gabriela Macay ¹, Mauro VENTURINI ³, Angela M. Gonella ¹

¹University of Florida, ²Rollins Ranches, ³UAA COOP. LTDA. - FACULTAD Cs. VETERINARIAS UNIVERSIDAD NAC. DEL LITORAL

7:00 a.m. PSXII-37 **Validation of single-step GBLUP genomic predictions from threshold models using the linear regression method: an application in chicken mortality**

Matias Bermann ¹, Andres Legarra ², Mary Kate Hollifield ¹, Yutaka Masuda ³, Daniela Lourenco ¹, Ignacy Misztal ¹

¹University of Georgia, ²INRA Toulouse GenPhySE, ³The University of Georgia

7:00 a.m. PSXII-20 **Whole flint corn grain or tropical grass hay free choice in the diet of milk-fed dairy calves**

Ariany Toledo ¹, Milaine Poczynek ¹, Ana Paula Silva ¹, Amanda Cezar ¹, Sophia Dondé ¹, Maria Eduarda Reis ¹, Daniel M M. Polizel ², Carla Maris M. Bittar ³

¹College of Agriculture Luiz de Queiroz, University of Sao Paulo, ²ASAS, ³College of Agriculture Luiz de Querioz, University of Sao Paulo

**Triennial Reproduction Symposium Session I: Developmental Programming/Male
Reproduction**

Chair: Peter Hansen, University of Florida

8:00 AM - 12:15 PM

Channel 1

8:00 a.m. (Ticketed Event) **Triennial Reproduction Symposium Session I
Introduction**

8:15 a.m. (Ticketed Event) **Presentation of the L.E. Casida Award I**

Leon J. Spicer¹

¹Oklahoma State University

8:30 a.m. 421 (Ticketed Event) **Awardee Talk: L.E. Casida Award I**

Robert P. Wettemann¹

¹Oklahoma State University

9:00 a.m. 418 (Ticketed Event) **Paternal Programming of Offspring Health**

Adam Watkins¹

¹University of Nottingham

9:45 a.m. 419 (Ticketed Event) **Epigenetic basis of congenital overgrowth
syndromes in cattle: link to assisted reproduction**

Rocio M. Rivera¹

¹University of Missouri

10:30 a.m. (Ticketed Event) **Triennial Reproduction Symposium Session I Break**

10:45 a.m. 409 (Ticketed Event) **Early life nutrition on the molecular control of
sexual development in the bull**

David A. Kenny¹, Kate Keogh²

¹Teagasc Animal and Grassland Research and Innovation Centre, Grange, Dunsany, Co.
Meath, Ireland, ²Teagasc

11:30 a.m. 411 **Sperm movement, storage, and release from the oviduct**

David J. Miller¹

¹University of Illinois

USDA Pre-/Post-doctoral Fellowship Writing Workshop

Chair: Matthew Crouse, USDA, ARS, U.S. Meat Animal Research Center; Emily Melchior-

Tiffany, New Mexico State University

9:00 AM - 12:00 PM

WebX 1

CSAS Annual General Meeting and Awards

Chair: Christine Baes, Centre for Genetic Improvement of Livestock, University of Guelph,
Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern,
Switzerland

10:30 AM - 12:00 PM
Channel 2

10:30 a.m. Call to Order and Approval of Agenda

Christine F. Baes ¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada &
Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

10:35 a.m. Approval of Minutes of 2019 AGM

Christine F. Baes ¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada &
Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

10:40 a.m. Welcome and Introduction of New Executive Members

Christine F. Baes ¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada &
Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

10:50 a.m. Executive Report: President

Christine F. Baes ¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada &
Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

11:00 a.m. Executive Report: CJAS Editor

Filippo Miglior ¹

¹Guelph University

11:05 a.m. Executive Report: Secretary-Treasurer

Mohsen Jafarikia ¹

¹Canadian Centre for Swine Improvement Inc., Ottawa, ON, Canada; Centre for Genetic
Improvement of Livestock, University of Guelph, Guelph, ON, Canada

11:10 a.m. Executive Report: Award Chair

Daniel A. Columbus ¹

¹Prairie Swine Centre, Inc.

11:15 a.m. Executive Report: Membership Chair

Katie M. Wood ¹

¹University of Guelph

11:20 a.m. Executive Report: President Elect/Conference Coordinator

Flavio S. Schenkel ¹

¹Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University
of Guelph, 50 Stone Rd E, N1G 1Y2, ON, Canada

11:25 a.m. **Executive Report: Past-President**

Eveline M. Ibeagha-Awemu¹

¹Agriculture and Agri-Food Canada

11:30 a.m. **Executive Report: Director-at-Large**

Leslie L. Mcknight¹

¹Trouw Nutrition Canada Inc.

11:32 a.m. **Executive Report: Director-at-Large**

Gregory Penner¹

¹University of Saskatchewan

11:34 a.m. **Executive Report: Director-at-Large**

Michael A. Steele¹

¹Department of Animal Biosciences, University of Guelph

11:36 a.m. **Executive Report: Eastern Director**

Younes Miar¹

¹Department of Animal Science and Aquaculture, Dalhousie University

11:41 a.m. **Executive Report: Western Director**

Anne Laarman¹

¹University of Alberta

11:46 a.m. **Business Arising from Reports and Introduction of Motions**

Christine F. Baes¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

11:50 a.m. **Auditors of Finances Needed**

Christine F. Baes¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

11:55 a.m. **Other Business**

Christine F. Baes¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

11:59 a.m. **Adjournment**

Christine F. Baes¹

¹Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada & Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland

Triennial Reproduction Symposium Session II: Cell to Cell Interactions

Chair: Ky Pohler, Texas A&M University

1:15 PM - 4:45 PM

Channel 1

1:15 p.m. **Presentation of the L.E. Casida Award II**

Thomas R. R. Hansen ¹

¹Animal Reproduction and Biotechnology Laboratory, Department of Biomedical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO, USA

1:30 p.m. 422 **Awardee Talk: L.E. Casida Award II**

George Seidel ¹

¹Colorado State University

2:00 p.m. 412 **Germ and somatic cell interactions during oocyte development and maturation**

Felipe Perecin ¹

¹Universidade de Sao Paulo, Brazil

2:45 p.m. **Triennial Reproduction Symposium Session II Break**

3:00 p.m. 420 **The dynamic blastocyst-endometrium interface in cattle**

Mario Binelli ¹

¹University of Florida

3:45 p.m. 410 **Steroids Regulate SLC2A1 and SLC2A3 to Deliver Glucose into Trophectoderm for Metabolism via Glycolysis**

Greg Johnson ¹, Avery C. Kramer ², Chelsie Steinhauser ³, Heewon Seo ¹, Bryan A. McLendon ², Robert Burghardt ², Guoyao Wu ¹, Fuller W. Bazer ¹

¹Texas A&M University, ²Department of Veterinary Integrative Biosciences, Texas A&M University, ³OvaGenix, Inc.

4:30 p.m. **Triennial Reproduction Symposium Session II Wrap Up**