



# MIDWEST SECTION MEETING

March 12-15 • Madison, Wisconsin

2023

## POSTER PRESENTATIONS RAW UNFORMATTED SCIENTIFIC PROGRAM

(12/23/22)

### Monday, March 13, 2023

#### **Poster Session I-A Undergraduate Student Poster Competition 8:15 AM - 9:15 AM Grand Terrace**

8:15 a.m. PSI-A-1 **Effects of Agolin-Pig® on milk composition throughout lactation**

Alicia Denton<sup>1</sup>, Alexandra Fisk<sup>1</sup>, KaLynn Harlow<sup>1</sup>, Taw Scaff<sup>1</sup>, Brian T. Richert<sup>1</sup>, Ashley DeDecker<sup>2</sup>, Marlin Hoogland<sup>2</sup>, Mike Parsley<sup>3</sup>, Kara R. Stewart<sup>1</sup>

<sup>1</sup>Purdue University, <sup>2</sup>Smithfield Foods, <sup>3</sup>Feedworks USA

8:15 a.m. PSI-A-2 **Effects of microencapsulated zinc oxide on nursery pig growth performance and intestinal morphology**

Payton L. Dahmer<sup>1</sup>, Elizabeth Fisher<sup>1</sup>, Cassandra K. Jones<sup>1</sup>

<sup>1</sup>Kansas State University

8:15 a.m. PSI-A-3 **Validation of rising plate meter for predicting herbage mass in tall-fescue pastures**

Kayla R. Grey<sup>1</sup>, Esmeralda Lopez Hernandez<sup>1</sup>, Kylie P. Ewing<sup>1</sup>, Joshua C. McCann<sup>1</sup>, Daniel W. Shike<sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

8:15 a.m. PSI-A-4 **The effects of a novel brewer's yeast product on ruminal fiber fermentation in vitro**

Vanessa Jensen<sup>1</sup>, Haley F. Linder<sup>2</sup>, Michael Cecava<sup>3</sup>, Joshua C. McCann<sup>4</sup>

<sup>1</sup>Illinois State University, <sup>2</sup>University of Illinois, <sup>3</sup>Wilbur-Ellis, <sup>4</sup>University of Illinois at Urbana-Champaign

8:15 a.m. PSI-A-5 **Effects of birth body weight classification on heifer growth, dry matter intake, feed efficiency, and grazing performance**

Esmeralda Lopez Hernandez<sup>1</sup>, Hattie I. Duncan<sup>1</sup>, Joshua C. McCann<sup>1</sup>, Daniel W. Shike<sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

8:15 a.m. PSI-A-6 **Effect of calcium magnesium carbonate and/or tylosin phosphate supplementation on behavior and rumination activity in yearling beef steers fed a finishing diet**

Haley Maday<sup>1</sup>, Becca Grimes<sup>1</sup>, Forest L. Francis<sup>1</sup>, Erin R. Gubbels<sup>1</sup>, Thomas Norman<sup>1</sup>, Santana Hanson<sup>1</sup>, Thiago Maia Ribeiro<sup>1</sup>, Zachary K. Smith<sup>1</sup>, Cassidy Ross<sup>1</sup>, Devan Paulus<sup>2</sup>

<sup>1</sup>South Dakota State University, <sup>2</sup>Papillon Agricultural Company

8:15 a.m. PSI-A-7 **Prediction models for estimating metabolizable energy intake of pigs based on body weight and ambient temperature**

No A. Park<sup>1</sup>, Jeonghyeon Son<sup>1</sup>, Beob G. Kim<sup>1</sup>

<sup>1</sup>Konkuk University

8:15 a.m. PSI-A-8 **The Effect of Rumen Capacity Manipulation on Dry Matter Intake on Diets Differing for Processing Level**

Grady A. Privett<sup>1</sup>, Micah L. O'Malley<sup>1</sup>, Lillian R. Royer<sup>1</sup>, Amanda Holder<sup>1</sup>

<sup>1</sup>College of the Ozarks

8:15 a.m. PSI-A-9 **A comparison in vaginal gene expression and circulating hormone concentration in pre-pubertal gilts achieving puberty at different ages**

Kallista Roers<sup>1</sup>, Shannon L. Dierking<sup>1</sup>, Crystal L. Levesque<sup>1</sup>

<sup>1</sup>South Dakota State University

8:15 a.m. PSI-A-10 **Correlations of *NR3C1* gene expression with pork quality and carcass characteristics**

Grace E. Schmidt<sup>1</sup>, Andrea M. Luttman<sup>1</sup>, Juan P. Steibel<sup>2</sup>, Nancy E. Raney<sup>1</sup>, Catherine W. Ernst<sup>1</sup>

<sup>1</sup>Michigan State University, <sup>2</sup>Iowa State University

8:15 a.m. PSI-A-11 **The effect of soybean meal and its functional compounds on growth performance, fecal scores, and fecal characteristics of nursery pigs**

Rachel M. Self<sup>1</sup>, Brooke M. Bowen<sup>1</sup>, Kade Miller<sup>1</sup>, Ty M. Mitchell<sup>2</sup>, Thomas A. Crome<sup>1</sup>, Hannah Miller<sup>1</sup>, Jerrad A. Legako<sup>1</sup>, Amy L. Petry<sup>1</sup>

<sup>1</sup>Texas Tech University, <sup>2</sup>Texas Tech

8:15 a.m. PSI-A-12 **Evaluation of novel and traditional cover crops utilizing cattle in high-density, short-duration grazing**

Brooklyn Westerfield<sup>1</sup>, Keela Trennepohl<sup>2</sup>, Delson Wilcoxon<sup>2</sup>, Joshua C. McCann<sup>3</sup>, Mark Benards<sup>2</sup>

<sup>1</sup>University of Illinois Urbana Champaign, <sup>2</sup>Western Illinois University, <sup>3</sup>University of Illinois at Urbana-Champaign

**Poster Session I**  
**Nonruminant Nutrition**  
8:00 AM - 9:15 AM  
Grand Terrace

8:00 a.m. PSI-13 **Nutrient intervention during gilt development leads to effects on progeny growth responses**

Tsungcheng Cheng Tsai<sup>1</sup>, Bernard Abeiku Sam<sup>1</sup>, Steve Dritz<sup>2</sup>, Carine M. Vier<sup>2</sup>, Jon R. Bergstrom<sup>3</sup>, Sara D. Hough<sup>3</sup>, Uislei A. Orlando<sup>2</sup>, Kayla Blake<sup>4</sup>, Nathan Davis<sup>1</sup>, Hannah Grogan<sup>1</sup>, Kyle Coble<sup>5</sup>, Charles V. Maxwell<sup>1</sup>

<sup>1</sup>University of Arkansas, <sup>2</sup>Genus PIC, <sup>3</sup>DSM, <sup>4</sup>JBS Live Pork Veterinarian, <sup>5</sup>JBS Live Pork

8:00 a.m. PSI-14 **Enteric challenge increases amino acids and energetic costs in growing pigs**

Graziela Alves da cunha valini<sup>1</sup>, Pedro Righetti Arnaut<sup>2</sup>, Luciano Hauschild<sup>2</sup>, Aline Remus<sup>3</sup>

<sup>1</sup>Agriculture and Agri-Food Canada, <sup>2</sup>Unesp Jaboticabal, <sup>3</sup>AAFC

8:00 a.m. PSI-15 **Impact of dietary zinc source on post-weaning performance and livability**

Wesley P. Schweer<sup>1</sup>, Alyssa S. Cornelison<sup>1</sup>, Casey L. Bradley<sup>2</sup>, Roger Walk<sup>3</sup>, Shelby Nosbisch<sup>3</sup>, Lucas Alves Rodrigues<sup>1</sup>

<sup>1</sup>Zinpro Corporation, <sup>2</sup>The Sunswine Group, <sup>3</sup>Walk Stock Farm

8:00 a.m. PSI-16 **Too late to catch up? Parity order and baseline overall claw quality impact on the responsiveness of sows to mineral-amino acid-complex supplementation: a case study**

Ton Kramer<sup>1</sup>, Alan Klein<sup>1</sup>, Geraldo C. Alberton<sup>2</sup>, Alyssa S. Cornelison<sup>1</sup>, Wesley P. Schweer<sup>1</sup>, Mike Socha<sup>1</sup>, Lucas Alves Rodrigues<sup>1</sup>

<sup>1</sup>Zinpro Corporation, <sup>2</sup>Federal University of Parana (Campus Palotina)

8:00 a.m. PSI-17 **Interactive effects of folic acid and zinc oxide on nursery pig growth performance**

Larissa L. Becker<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University

8:00 a.m. PSI-18 **Efficacy of dietary fat (tallow and palm oil) inclusion on growth efficiency, nutrient absorption, meat quality, and meat fatty acid profile in finishing pigs**

Chai Bin Lim<sup>1</sup>, Ju Hee Lee<sup>1</sup>, Sun Gu Yu<sup>1</sup>, Se Yeon Jang<sup>1</sup>, Sarbani Biswas<sup>1</sup>, In Ho Kim<sup>2</sup>

<sup>1</sup>Department of Animal Resources Science, Dankook University, <sup>2</sup>Dankook University

8:00 a.m. PSI-19 **A *Saccharomyces cerevisiae*-Derived Postbiotic Stimulates In Vitro Volatile Fatty Acid Production and Influences Hindgut Microbial Population Characteristics**

Andrea M. Binnebose<sup>1</sup>, Maria Sardi<sup>1</sup>, Briana Kozlowicz<sup>1</sup>, Sharon A. Norton<sup>1</sup>

<sup>1</sup>Cargill, Incorporated

8:00 a.m. PSI-20 **Effects of prebiotic galactooligosaccharide (GOS) on piglet growth and jejunal morphology during the peri-weaning period**

Timothy E. Boston <sup>1</sup>, Feng Wang <sup>1</sup>, Lin Xi <sup>1</sup>, Sung Woo Kim <sup>1</sup>, Vivek Fellner <sup>1</sup>, Mark F. Scott <sup>2</sup>, Amanda L. Ziegler <sup>1</sup>, Laurianne Van Landeghem <sup>1</sup>, Anthony T. Blikslager <sup>1</sup>, Jack Odle <sup>1</sup>

<sup>1</sup>North Carolina State University, <sup>2</sup>Milk Specialties Global

**Poster Session II**

**Animal Behavior, Health and Well-Being / Beef/Small Ruminant Translational / Genetics, Genomics and Bioinformatics / Nonruminant Nutrition / Teaching and Extension**

10:00 AM - 10:45 AM

Grand Terrace

10:00 a.m. PSII-1 **Evaluation of precision feeding on animal behavior in finishing beef cattle**

Santana Hanson <sup>1</sup>, Hannah Braaten <sup>1</sup>

<sup>1</sup>South Dakota State University

10:00 a.m. PSII-2 **Evaluation of meloxicam in sows post-farrowing on sow and piglet performance**

Alexandra Fisk <sup>1</sup>, KaLynn Harlow <sup>1</sup>, Abigail Statler <sup>2</sup>, Grace deNeui <sup>2</sup>, Dan Rosener <sup>3</sup>, Stacy Peters <sup>3</sup>, Kara R. Stewart <sup>1</sup>

<sup>1</sup>Purdue University, <sup>2</sup>Iowa State University, <sup>3</sup>Veterinary Pharmaceutical Solutions

10:00 a.m. PSII-3 **Effect of room temperature regime on growth performance and mortality of newly-weaned pigs**

Jenny Morris <sup>1</sup>, Mike Ellis <sup>2</sup>, Caleb M. Shull <sup>3</sup>

<sup>1</sup>University of Illinois/Traverse Science, Inc., <sup>2</sup>University of Illinois, <sup>3</sup>The Maschhoffs, LLC

10:00 a.m. PSII-4 **Effects of rye or triticale with or without crimson clover on forage yield and quality, and gestating beef female performance**

Kylie P. Ewing <sup>1</sup>, Daniel W. Shike <sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

10:00 a.m. PSII-5 **Impacts of birth body weight classification on performance, feed efficiency, and structural characteristics in beef steers**

Hattie I. Duncan <sup>1</sup>, Daniel W. Shike <sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

10:00 a.m. PSII-6 **Computational tools and resources for analysis and exploration of single-cell RNAseq data in agriculture**

Muskan Kapoor<sup>1</sup>, Christopher K. Tuggle<sup>1</sup>, Tony Burdett<sup>2</sup>, Timothy Tickle<sup>3</sup>, Peter Harrison<sup>2</sup>, Christine Elisk<sup>4</sup>, Nicholas Provart<sup>5</sup>, Marc Libault<sup>6</sup>, Wes Warren<sup>7</sup>, James E. Koltes<sup>8</sup>, Alexey Sokolov<sup>2</sup>, Enrique Sapena Ventura<sup>2</sup>, Galabina Yordanova<sup>2</sup>, Irene Papatheodorou<sup>2</sup>, Nancy George<sup>2</sup>, Doreen Ware<sup>9</sup>, Sunita Kumari<sup>10</sup>, Lance Daharsh<sup>11</sup>, Benjamin Cole<sup>12</sup>

<sup>1</sup>Iowa State University, <sup>2</sup>EMBL-EBI, Wellcome Genome Campus, <sup>3</sup>Data Sciences Platform, The Broad Institute of MIT and Harvard, <sup>4</sup>Division of Animal Science and Division of Plant Science and Technology, <sup>5</sup>Department of Cell and Systems Biology/Centre for the Analysis of Genome Evolution and Function, University of Toronto, <sup>6</sup>Department of Agronomy and Horticulture, University of Nebraska-Lincoln, <sup>7</sup>Division of Animal Science and Division of Plant Science and Technology, University of Missouri-Columbia, <sup>8</sup>Iowa State University, Department of Animal Science, <sup>9</sup>Cold Spring Harbor Laboratory, U.S. Department of Agriculture, Agricultural Research Service, NEA Robert W. Holley Center for Agriculture and Health, Cornell University, <sup>10</sup>Cold Spring Harbor Laboratory, <sup>11</sup>Genvax Technologies, <sup>12</sup>DOE-Joint Genome Institute, Lawrence Berkeley National Laboratory

10:00 a.m. PSII-7 **Considerations for creating an agricultural program aimed at engaging elementary students**

Shannon L. Dierking<sup>1</sup>, Christina Bakker<sup>1</sup>, Crystal L. Levesque<sup>1</sup>

<sup>1</sup>South Dakota State University

10:00 a.m. PSII-8 **Effects of extruded-expelled soybean meal and benzoic acid on growth performance, carcass characteristics, and carcass fat iodine value of finishing pigs**

Jenna J. Bromm<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Kiah M. Berg<sup>2</sup>, Jon A. De Jong<sup>2</sup>, Courtney Pohlen<sup>2</sup>, Jason C. Woodworth<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Jordan T. Gebhardt<sup>3</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Pipestone Nutrition, <sup>3</sup>Kansas State University

10:00 a.m. PSII-9 **Effects of increasing omega-3 fatty acids on growth performance, mortality rate, and medication usage in PRRS-Virus challenged nursery pigs**

Jenna J. Bromm<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Josh Flohr<sup>2</sup>, Raymond Schmitt<sup>2</sup>, Jordan T. Gebhardt<sup>3</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Seaboard Foods, <sup>3</sup>Kansas State University

10:00 a.m. PSII-10 **Ammonium phosphate is an appropriate nitrogen source in nitrogen-limiting diets for growing pigs**

Miranda Buchinski<sup>1</sup>, Carley M. Camire<sup>1</sup>, Olufemi O. Babatunde<sup>2</sup>, Anna K. Shoveller<sup>3</sup>, Daniel A. Columbus<sup>2</sup>

<sup>1</sup>University of Saskatchewan, <sup>2</sup>Prairie Swine Centre, <sup>3</sup>University of Guelph

10:00 a.m. PSII-11 **Supplementation of non-protein nitrogen to a nitrogen-deficient diet increases lysine requirement for nitrogen-retention**

Miranda Buchinski<sup>1</sup>, Carley M. Camire<sup>1</sup>, Josiane C. Panisson<sup>2</sup>, Anna K. Shoveller<sup>3</sup>, Daniel A. Columbus<sup>2</sup>

<sup>1</sup>University of Saskatchewan, <sup>2</sup>Prairie Swine Centre, <sup>3</sup>University of Guelph

10:00 a.m. PSII-12 **Growth performance of pigs fed diets containing supplemental lysine and a low or high essential amino acid-nitrogen to total nitrogen ratio**

Carley M. Camire <sup>1</sup>, Lucas A. Rodrigues <sup>2</sup>, Josiane C. Panisson <sup>3</sup>, Anna K. Shoveller <sup>4</sup>, Daniel A. Columbus <sup>3</sup>

<sup>1</sup>University of Saskatchewan, <sup>2</sup>Prairie Swine Center, <sup>3</sup>Prairie Swine Centre, <sup>4</sup>University of Guelph

10:00 a.m. PSII-13 **Effects of standardized ileal digestible lysine, fiber level, and amino acid ratios on growth performance of nursery pigs**

Henrique S. Cemin <sup>1</sup>, Morgan D. Hart <sup>1</sup>, Jamie L. Pietig <sup>1</sup>, Sharlie A. Hansen <sup>1</sup>, Jose A. Soto <sup>2</sup>, Ernie L. Hansen <sup>1</sup>

<sup>1</sup>Hubbard Feeds, <sup>2</sup>Alltech

10:00 a.m. PSII-14 **The effect of increasing soluble dietary fiber and the addition of a stimbiotic in gestation on sow productivity in a PRRS and non-PRRS challenge**

Pete Wilcock <sup>1</sup>, Kiah M. Berg <sup>2</sup>, Gustavo Cordero <sup>1</sup>, Anthony Russo <sup>3</sup>

<sup>1</sup>AB Vista, <sup>2</sup>Pipestone Nutrition, <sup>3</sup>Legacy Pork

10:00 a.m. PSII-15 **Effect of low protein diets fed to weanling pigs on growth performance, fecal score, and carcass characteristics**

Minoy A. Cristobal <sup>1</sup>, Su A Lee <sup>1</sup>, Hans H. Stein <sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

10:00 a.m. PSII-16 **Comparison of microencapsulated zinc oxide and conventional zinc oxide on weanling pig small intestinal morphology**

Payton L. Dahmer <sup>1</sup>, Cassandra K. Jones <sup>1</sup>

<sup>1</sup>Kansas State University

10:00 a.m. PSII-17 **Evaluation of a microencapsulated form of zinc oxide on weanling pig growth performance and zinc excretion**

Payton L. Dahmer <sup>1</sup>, Cassandra K. Jones <sup>1</sup>

<sup>1</sup>Kansas State University

10:00 a.m. PSII-18 **Chemical composition of cassava-based feed ingredients from South-East Asia**

Natalia dos Santos Fanelli <sup>1</sup>, Leidy J. Torres-Mendoza <sup>1</sup>, Jerubella J. Abelilla <sup>2</sup>, Hans H. Stein <sup>1</sup>

<sup>1</sup>UIUC, <sup>2</sup>DSM Nutritional Products

10:00 a.m. PSII-19 **Analysis of vitamin A and E in biological samples after prolonged processing**

Laura L. Greiner <sup>1</sup>, Sarah Elefson <sup>1</sup>

<sup>1</sup>Iowa State University

10:00 a.m. PSII-20 **The effect of hemolysis on vitamin A, E, and trace mineral analysis in plasma**

Laura L. Greiner <sup>1</sup>, Sarah Elefson <sup>1</sup>

<sup>1</sup>Iowa State University

**Poster Session III**  
**Animal Behavior, Health and Well-Being / Nonruminant Nutrition**  
4:45 PM - 5:30 PM  
Grand Terrace

4:45 p.m. PSIII-1 **Preference testing of three materials on sows prior to farrowing**

Lauren L. Underwood<sup>1</sup>, Anjali Patel<sup>2</sup>, Arlene Garcia<sup>3</sup>, Nichole Chapel C. Anderson<sup>3</sup>

<sup>1</sup>Texas Tech University, Department of Animal and Food Sciences, <sup>2</sup>Texas A&M, <sup>3</sup>Texas Tech University

4:45 p.m. PSIII-2 **Comparison of continuous monitoring and scan sampling for monitoring postural changes in sows housed in gestation crates**

Nicole K. Moest<sup>1</sup>, Naomi C. Willard<sup>1</sup>, Katherine D. Vande Pol<sup>1</sup>, Caleb M. Shull<sup>2</sup>, Mike Ellis<sup>1</sup>

<sup>1</sup>University of Illinois, <sup>2</sup>The Maschhoffs, LLC

4:45 p.m. PSIII-3 **Correlations between body surface and rectal temperature of newly-weaned sows**

Naomi C. Willard<sup>1</sup>, Nicole K. Moest<sup>1</sup>, Katherine D. Vande Pol<sup>1</sup>, Caleb M. Shull<sup>2</sup>, Rich pimpinella<sup>3</sup>, Christoph Grein<sup>3</sup>, Mike Ellis<sup>1</sup>

<sup>1</sup>University of Illinois, <sup>2</sup>The Maschhoffs, LLC, <sup>3</sup>Episensors

4:45 p.m. PSIII-4 **Effect of two torula yeast sources on growth performance, intestinal health, and immune function of weanling pigs**

Charmaine D. Espinosa<sup>1</sup>, Hans H. Stein<sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign

4:45 p.m. PSIII-5 **Endosperm hardness in corn affects the digestibility of energy and fiber, and increased drying temperature reduces amino acid digestibility**

Charmaine D. Espinosa<sup>1</sup>, Joaquin Cabañas-Ojeda<sup>2</sup>, Edgar Oviedo-Rondon<sup>2</sup>, Hans H. Stein<sup>1</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign, <sup>2</sup>North Carolina State University

4:45 p.m. PSIII-6 **Effects of L-Carnitine supplemented throughout grow-finish or only in late finishing on growth performance and carcass characteristics of pigs**

Jamil Faccin<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>, Robert D. Goodband<sup>1</sup>, Jason C. Woodworth<sup>1</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University

4:45 p.m. PSIII-7 **Evaluation of Agolin-Pig® on sow and piglet performance during lactation**

Alexandra Fisk<sup>1</sup>, KaLynn Harlow<sup>1</sup>, Taw Scaff<sup>1</sup>, Brian T. Richert<sup>1</sup>, Ashley DeDecker<sup>2</sup>, Marlin Hoogland<sup>2</sup>, Mike Parsley<sup>3</sup>, Kara R. Stewart<sup>1</sup>

<sup>1</sup>Purdue University, <sup>2</sup>Smithfield Foods, <sup>3</sup>Feedworks USA

4:45 p.m. PSIII-8 **Impact of essential oil combination on performance and coughing prevalence in nursery pigs**

Monica Florez<sup>1</sup>, Vinicius Cambito<sup>2</sup>, Eduardo Raele Oliveira<sup>3</sup>

<sup>1</sup>Biochem Zusatzstoffe, <sup>2</sup>Biochem do Brasil Nutrição Animal Ltda, <sup>3</sup>Insidesui Research Services

4:45 p.m. PSIII-9 **Effects of a specialty energy source on growth performance and fecal microbiota in nursery pigs**

Tingting Wang<sup>1</sup>, Tsungcheng Cheng Tsai<sup>2</sup>, Charles V. Maxwell<sup>2</sup>, Jason Frank<sup>1</sup>

<sup>1</sup>International Ingredient Corp, <sup>2</sup>University of Arkansas

4:45 p.m. PSIII-10 **Effects of mitoquinol during an acute heat stress in growing gilts**

Alyssa D. Freestone<sup>1</sup>, Tori E. Rudolph<sup>1</sup>, Melissa S. Roths<sup>1</sup>, Edith J. Mayorga<sup>1</sup>, Megan A. Abeyta<sup>1</sup>, Brady M. Goetz<sup>1</sup>, Sonia Rodriguez-Jimenez<sup>1</sup>, Julie Opgenorth<sup>1</sup>, Joshua T. Selsby<sup>1</sup>, Lance H. Baumgard<sup>1</sup>

<sup>1</sup>Iowa State University

4:45 p.m. PSIII-11 **Evaluating the effects of benzoic acid on finishing pig growth performance**

Katelyn Gaffield<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University

4:45 p.m. PSIII-12 **A Preliminary evaluation on novel tryptophan additive on apparent total tract and ileal digesta of nutrients in growing pigs using cannulation technique**

Sun Gu Yu<sup>1</sup>, Vetriselvi Sampath<sup>1</sup>, Se Yeon Jang<sup>1</sup>, Ju Hee Lee<sup>1</sup>, Chai Bin Lim<sup>1</sup>, In Ho Kim<sup>2</sup>

<sup>1</sup>Department of Animal Resources Science, Dankook University, <sup>2</sup>Dankook University

4:45 p.m. PSIII-13 **Supplemental effects of coated docosahexaenoic acid (DHA) on the performance, blood lipid profile and meat fatty acid profile in finishing pigs**

Ju Hee Lee<sup>1</sup>, Sun Gu Yu<sup>1</sup>, Se Yeon Jang<sup>1</sup>, Chai Bin Lim<sup>1</sup>, Sumaya Tanzin Wahid<sup>1</sup>, In Ho Kim<sup>2</sup>

<sup>1</sup>Department of Animal Resources Science, Dankook University, <sup>2</sup>Dankook University

4:45 p.m. PSIII-14 **Effect of water delivery system on intestinal microbial populations of nursery pigs**

Kelsey L. Hammers<sup>1</sup>, Kayla Law<sup>1</sup>, Pedro E. Urriola<sup>1</sup>, Andres Gomez<sup>1</sup>, Lee J. Johnston<sup>2</sup>

<sup>1</sup>University of Minnesota, <sup>2</sup>West Central Research and Outreach Center, University of Minnesota

4:45 p.m. PSIII-15 **Supplementary effects of carbohydrate enzymes and protease to 2 protein levels of finishing pig's diet on the growth performance, toxic gas emissions, meat quality, and colonic microbiota community**

Sun Gu Yu<sup>1</sup>, Ju Hee Lee<sup>1</sup>, Chai Bin Lim<sup>1</sup>, Se Yeon Jang<sup>1</sup>, Qian Qian Zhang<sup>1</sup>, In Ho Kim<sup>2</sup>

<sup>1</sup>Department of Animal Resources Science, Dankook University, <sup>2</sup>Dankook University

4:45 p.m. PSIII-16 **Body calcium and phosphorus mobilization of sows during lactation**

Julien Heurtault<sup>1</sup>, Thomas Lemée<sup>2</sup>, Marie-Pierre Létourneau-Montminy<sup>3</sup>, Patrick Schlegel<sup>2</sup>

<sup>1</sup>Agroscope, Switzerland ; Laval University, Canada, <sup>2</sup>Agroscope, <sup>3</sup>Université Laval

4:45 p.m. PSIII-17 **Evaluation of cheese co-products in comparison to specialty proteins on growth performance of weaned pigs**

Yuan-Tai Hung<sup>1</sup>, Emily Fruge<sup>1</sup>, Gary Reznik<sup>1</sup>, Jon Droegmiller<sup>1</sup>, Trevor Lutz<sup>1</sup>

<sup>1</sup>Devenish Nutrition



4:45 p.m. PSIII-18 **Effect of microbial phytase on digestibility of phosphorus in seven sources of sunflower co-products fed to growing pigs**

Jimena A. Ibagón<sup>1</sup>, Hans H. Stein<sup>2</sup>, Charmaine D. Espinosa<sup>2</sup>

<sup>1</sup>University of Illinois, <sup>2</sup>University of Illinois at Urbana-Champaign

4:45 p.m. PSIII-19 **Effect of dietary clay mineral and organic selenium supplementation on broilers**

Yongju Kim<sup>1</sup>, Seyeon Chang<sup>1</sup>, Jaewoo An<sup>1</sup>, Youngbin go<sup>1</sup>, Dongcheol Song<sup>1</sup>, Hyunah cho<sup>1</sup>, Sehyun park<sup>1</sup>, Kyungho jeon<sup>1</sup>, Jinho cho<sup>1</sup>

<sup>1</sup>Department of Animal Science, Chungbuk National University

4:45 p.m. PSIII-20 **Impact of prefarrow fat supplementation on piglet survival and subsequent reproduction**

Mark Knauer<sup>1</sup>, Zack Peppmeier<sup>1</sup>, Jerry Purvis<sup>2</sup>

<sup>1</sup>North Carolina State University, <sup>2</sup>Purvis Farms

## **Tuesday, March 14, 2023**

### **Poster Session IV**

#### **Nonruminant Nutrition / Physiology / Swine Translational**

7:30 AM - 8:15 AM

Grand Terrace

7:30 a.m. PSIV-1 **Changes in daily patterns of physiological measures of heat stress on sows in cool room and in heated room with and without a cooling pad**

Jemima Baributsa<sup>1</sup>, Maria Gonzalez<sup>1</sup>, Allan P. Schinckel<sup>1</sup>, Robert M. Stwalley<sup>1</sup>, Tyler C. Field<sup>1</sup>, Samantha Neeno<sup>1</sup>, Sakkariya Paramba<sup>1</sup>

<sup>1</sup>Purdue University

7:30 a.m. PSIV-2 **Impact of vitamins C and E on sow mortality and stillborn rate**

Mark Knauer<sup>1</sup>

<sup>1</sup>North Carolina State University

7:30 a.m. PSIV-3 **Biofumigation to reduce swine parasite contamination on organic pastures**

Yuzhi Li<sup>1</sup>, Sara Major<sup>2</sup>, Rick Carr<sup>2</sup>, Alexander Hernandez<sup>3</sup>

<sup>1</sup>West Central Research and Outreach Center, University of Minnesota, <sup>2</sup>Rodale Institute, <sup>3</sup>Kutztown University of Pennsylvania

7:30 a.m. PSIV-4 **Effect of drip cooling on sow body weight and litter performance during summer**

Zhong-Xing Rao<sup>1</sup>, Kyle Coble<sup>2</sup>, Mike D. Tokach<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Jordan T. Gebhardt<sup>3</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>JBS Live Pork, <sup>3</sup>Kansas State University

7:30 a.m. PSIV-5 **The utilisation of Alltech's Seed, Feed, Weed piglet program as an alternative to zinc oxide on the growth, feed efficiency and mortality of newly weaned pigs**

Hazel B. Rooney<sup>1</sup>, Josep Roquet<sup>1</sup>, Manuel Santos<sup>1</sup>, Jules A. Taylor-Pickard<sup>1</sup>

<sup>1</sup>Alltech

7:30 a.m. PSIV-6 **Impact of cooling pads and dietary Moringa on measures of heat stress in sows in late gestation**

Eimear C. Mannion<sup>1</sup>, Theresa Casey<sup>1</sup>, Allan P. Schinckel<sup>1</sup>, Jung Yeol Sung<sup>1</sup>, Wonders Oogundare<sup>1</sup>, McKeeley Stansberry<sup>1</sup>, Robert M. Stwalley<sup>1</sup>, Radiah Minor<sup>1</sup>, Samantha Neeno<sup>1</sup>, Tyler C. Field<sup>1</sup>

<sup>1</sup>Purdue University

7:30 a.m. PSIV-7 **Multi-sire artificial insemination of beef heifers in the Nebraska sandhills may increase pregnancy rate compared to single-sire insemination**

Dempster M. Christenson<sup>1</sup>, Rick N. Funston<sup>1</sup>, Jordan M. Thomas<sup>2</sup>, Dan J. Kelly<sup>3</sup>, John G. Maddux<sup>4</sup>

<sup>1</sup>West Central Research, Extension, and Education Center, <sup>2</sup>University of Missouri, <sup>3</sup>Kelly Ranch, <sup>4</sup>Maddux Cattle Company

7:30 a.m. PSIV-8 **The effects of quercetin supplementation during oocyte maturation on the in vitro production of pig embryos**

Cameron Nau<sup>1</sup>, Makayla Throop<sup>1</sup>, Alayna Christy<sup>1</sup>, Brian D. Whitaker<sup>1</sup>

<sup>1</sup>University of Findlay

7:30 a.m. PSIV-9 **Salmate DHA+® fish oil supplement fed to boars and impact on sperm production and spermatogenesis.**

John J. Parrish<sup>1</sup>, Tom Gall<sup>2</sup>, Mark Wilson<sup>3</sup>, Mike Parsley<sup>3</sup>, Malcolm Ballard<sup>4</sup>

<sup>1</sup>University of Wisconsin-Madison, <sup>2</sup>Gall Consulting, <sup>3</sup>Feedworks USA, <sup>4</sup>The Ballard Group, Inc., Feedworks USA Inc.

7:30 a.m. PSIV-10 **Effects of polyunsaturated fatty acids supplementation in resolvin D1 concentration in plasma and follicular fluid in ewes**

Ana C. Carranza-Martin<sup>1</sup>, Alvaro Garcia Guerra<sup>2</sup>, Cecilia Furnus<sup>3</sup>, Alejandro E. Relling<sup>2</sup>

<sup>1</sup>IGEVET, <sup>2</sup>The Ohio State University, <sup>3</sup>IGEVET CONICET

7:30 a.m. PSIV-11 **The effects of vanillic acid supplementation during in vitro oocyte maturation in pigs**

Makayla Throop<sup>1</sup>, Alayna Christy<sup>1</sup>, Cameron Nau<sup>1</sup>, Brian D. Whitaker<sup>1</sup>

<sup>1</sup>University of Findlay

7:30 a.m. PSIV-12 **Dietary supplementation of a botanical blend improved growth performance and reduced diarrhoea incidence in commercially housed weaned pigs**

Atta Kofi Agyekum<sup>1</sup>, Francis Simard<sup>1</sup>, Mohsen Abedin<sup>1</sup>, Leslie L. Mcknight<sup>1</sup>

<sup>1</sup>Trouw Nutrition North America

7:30 a.m. PSIV-13 **Evaluation of floor space restriction and hyper-dosing of phytase on growth performance, carcass characteristics and serum chemistry of late finishing pigs**

Izadora Kuneff<sup>1</sup>, David S. Rosero<sup>2</sup>, Pete Wilcock<sup>3</sup>, Eric van Heugten<sup>1</sup>

<sup>1</sup>Department of Animal Science, North Carolina State University, <sup>2</sup>Hanor Company, <sup>3</sup>AB Vista

7:30 a.m. PSIV-14 **Evaluation of a novel nutritional supplement (Furst Protect Direct™) via drinking water on growth performance in nursery pigs**

Woongbi Kwon <sup>1</sup>, Greg Hartsook <sup>1</sup>, Kevin Soltwedel <sup>1</sup>, Megan Bible <sup>1</sup>, Robert Fischer <sup>1</sup>, Fredrik Sandberg <sup>1</sup>

<sup>1</sup>Furst-McNess Company

7:30 a.m. PSIV-15 **Effect of secondary iron injection timing to suckling pigs on pre- and post-weaning growth performance and hematological parameters**

Clara L. Lemanski <sup>1</sup>, Tianna J. Schott <sup>1</sup>, Young Dal Jang <sup>1</sup>

<sup>1</sup>University of Wisconsin-River Falls

7:30 a.m. PSIV-16 **Impact of amount and solubility of dietary fiber fed during late gestation and during the pre-farrowing period on sow serum chemistry and piglet vitality index**

Gabriela E. Martinez <sup>1</sup>, Suzanne Leonard <sup>2</sup>, Eric van Heugten <sup>3</sup>, Pete Wilcock <sup>4</sup>, David S. Rosero <sup>5</sup>

<sup>1</sup>CSA, <sup>2</sup>North Carolina State University, <sup>3</sup>Department of Animal Science, North Carolina State University, <sup>4</sup>AB Vista, <sup>5</sup>Hanor Company

7:30 a.m. PSIV-17 **Effect of phytase supplementation on growth performance, bone mineralization, metabolism, and excretion of calcium and phosphorous on fattening pigs fed a diet containing no inorganic phosphate**

Laura A. Merriman <sup>1</sup>, Marcal Verdu <sup>2</sup>, Xavier Soldevila Guitart <sup>2</sup>, Marta Balart <sup>2</sup>, Jaume Civis Llovet <sup>3</sup>, Raul Teixido Montull <sup>3</sup>, Joan Grau Comas <sup>3</sup>, Spenser Becker <sup>1</sup>, Diego Parra <sup>1</sup>, Gustavo Cordero <sup>1</sup>

<sup>1</sup>AB Vista, <sup>2</sup>Alimentació Animal i Producció, bonÀrea Agrupa, <sup>3</sup>SETNA – ADM Animal Nutrition

7:30 a.m. PSIV-18 **Live yeast (*Saccharomyces cerevisiae*) improves body condition score and reduces rectal temperature in sows at weaning**

Sophie Hiscocks <sup>1</sup>, Laura A. Merriman <sup>1</sup>, Gustavo Cordero <sup>1</sup>, Pete Wilcock <sup>1</sup>, Kola Ajuwon <sup>2</sup>, Spenser Becker <sup>1</sup>

<sup>1</sup>AB Vista, <sup>2</sup>Purdue University

7:30 a.m. PSIV-19 **Understanding intestinal health in nursery pigs through potential non-invasive biomarkers**

Gabriela M. Miotto Galli <sup>1</sup>, Ines Andretta <sup>2</sup>, Crystal L. Levesque <sup>3</sup>, Carlos J. Kippert <sup>4</sup>, Karine Ludwig Takeuti <sup>5</sup>, Marcos Kipper <sup>6</sup>

<sup>1</sup>Universidade Federal do Rio Grande do Sul/ South Dakota State University, <sup>2</sup>Universidade Federal do Rio Grande do Sul, <sup>3</sup>South Dakota State University, <sup>4</sup>Brazil food -BRF, <sup>5</sup>Department of Veterinary Medicine Medicina Veterinária, University Feevale, Novo Hamburgo, Brazil, <sup>6</sup>Elanco

7:30 a.m. PSIV-20 **An *in vitro* digestion procedure using Daisy<sup>II</sup> incubator can replace conventional *in vitro* digestion procedures using flasks for estimating ileal digestibility of feed ingredients for pigs**

No A. Park <sup>1</sup>, Jeonghyeon Son <sup>1</sup>, Beob G. Kim <sup>1</sup>

<sup>1</sup>Konkuk University

**Poster Session V**  
**Growth, Development, Muscle Biology and Meat Science /**  
**Nonruminant Nutrition / Ruminant Nutrition**

12:00 PM - 12:45 PM

Grand Terrace

12:00 p.m. PSV-1 **Pasture does not impact pork quality of finishing hogs**

Chelsea Becker<sup>1</sup>, Elizabeth A. Hines<sup>1</sup>, Jonathan Campbell<sup>1</sup>

<sup>1</sup>Pennsylvania State University

12:00 p.m. PSV-2 **Impact of diseases in pig production on carcass and meat quality**

Marie-Pierre Fortier<sup>1</sup>, Patrick Gagnon<sup>2</sup>

<sup>1</sup>Centre de développement du porc du Québec inc., <sup>2</sup>CDPQ

12:00 p.m. PSV-3 **Evaluation of functional properties of chitin as a novel non-meat ingredient for manufacturing meat emulsions**

Brad H. B. Kim<sup>1</sup>, Jin-Kyu Seo<sup>2</sup>, Hyun-Wook Kim<sup>2</sup>, Yong-Jae Lee<sup>2</sup>

<sup>1</sup>Purdue Univ., <sup>2</sup>Purdue University

12:00 p.m. PSV-4 **Proteomics and Metabolomics Profiling of Meat Exudate to Understand the Impact of Postmortem Aging on Oxidative Stability of Beef Muscles**

Derico setyabrata<sup>1</sup>, Danyi Ma<sup>1</sup>, Shaojun Xie<sup>1</sup>, Jyothi Thimmapuram<sup>1</sup>, Bruce Cooper<sup>1</sup>, Uma Aryal<sup>1</sup>, Brad H. B. Kim<sup>2</sup>

<sup>1</sup>Purdue University, <sup>2</sup>Purdue Univ.

12:00 p.m. PSV-5 **Maternal vitamin D deficiency increases the incidence of osteochondrotic-like lesions in the distal femur of growing pigs**

Brittney P. Kokinos<sup>1</sup>, Laura A. Amundson<sup>1</sup>, Thomas D. Crenshaw<sup>1</sup>, Pamela J. Lang<sup>2</sup>

<sup>1</sup>Department of Animal and Dairy Sciences, University of Wisconsin-Madison, <sup>2</sup>Department of Orthopedics and Rehabilitation, University of Wisconsin-Madison

12:00 p.m. PSV-6 **Evaluation of narasin feeding duration on growth performance and carcass characteristics of growing-finishing pigs**

Christopher L. Puls<sup>1</sup>, Roger Arentson<sup>1</sup>, Michael Shields<sup>1</sup>, Scott Carr<sup>1</sup>, Annie Lerner<sup>2</sup>, Alyssa Betlach<sup>3</sup>

<sup>1</sup>Elanco, <sup>2</sup>Schwartz Farms, <sup>3</sup>Swine Vet Center

12:00 p.m. PSV-7 **Evaluation of narasin inclusion level on growth performance and carcass characteristics of growing-finishing pigs**

Christopher L. Puls<sup>1</sup>, Roger Arentson<sup>1</sup>, Michael Shields<sup>1</sup>, Scott Carr<sup>1</sup>

<sup>1</sup>Elanco

12:00 p.m. PSV-8 **Early life adversity impacts intestinal epithelial development and stem cells activities in pigs**

Liang-en Yu<sup>1</sup>, Peter Mann<sup>1</sup>, Lydia Schlitzkus<sup>1</sup>, Jiniya Chakradhar<sup>1</sup>, Yihang Li<sup>1</sup>

<sup>1</sup>University of Delaware

12:00 p.m. PSV-9 **Characterization of the Rumen Bacterial Communities of Lambs that Transitioned from Forage to a Concentrate-based Diet**

Reid F. Anema <sup>1</sup>, Emily Fowler <sup>1</sup>, Forest L. Francis <sup>1</sup>, Zachary K. Smith <sup>1</sup>, Benoit St-Pierre <sup>1</sup>

<sup>1</sup>South Dakota State University

12:00 p.m. PSV-10 **Supplementing amino acid complexed or inorganic trace minerals to grazing cattle following a receiving phase dietary trace mineral comparison**

Robin A. Cheek <sup>1</sup>, Elizabeth B. Kegley <sup>1</sup>, Jason R. Russel <sup>2</sup>, Lucas Horton <sup>3</sup>, Brandon Depenbusch <sup>4</sup>, Jana L. Reynolds <sup>1</sup>, Benjamin P. Shoulders <sup>5</sup>, Kirsten A. Midkiff <sup>1</sup>, Jeremy G. Powell <sup>1</sup>

<sup>1</sup>University of Arkansas System, Division of Agriculture, Department of Animal Science, <sup>2</sup>Zinpro Corp., <sup>3</sup>Center for Outcomes Research and Epidemiology in the Department of Diagnostic Medicine and Pathobiology, Kansas State University, <sup>4</sup>Innovative Livestock Services, <sup>5</sup>University of Arkansas System Division of Agriculture Department of Animal Science

12:00 p.m. PSV-11 **Determining relative bioavailability of commercially available RP-Met products in lactating dairy cows**

Kirsten Clark <sup>1</sup>, Noah Porter <sup>1</sup>, Lucas Rebelo <sup>1</sup>, Jessie Guyader <sup>2</sup>, Chanhee Lee <sup>1</sup>

<sup>1</sup>The Ohio State University, <sup>2</sup>Evonik Operations GmbH

12:00 p.m. PSV-12 **Effects of diet on feed intake, weight change, and gas emissions in beef cows**

Amanda Holder <sup>1</sup>, Megan A. Gross <sup>2</sup>, Alexi Moehlenpah <sup>2</sup>, David Lalman <sup>2</sup>

<sup>1</sup>College of the Ozarks, <sup>2</sup>Oklahoma State University

12:00 p.m. PSV-13 **Evaluation of HydraFit pre-slaughter on finishing beef steer: Dressing percentage, hot carcass weight, and cold carcass weight**

Thiago Lauro Maia Ribeiro <sup>1</sup>, Erin R. Gubbels <sup>1</sup>, Forest L. Francis <sup>1</sup>, Jeff S. Heldt <sup>2</sup>, Santana Hanson <sup>1</sup>, Thomas Norman <sup>1</sup>, Warren C. Rusche <sup>1</sup>, Zachary K. Smith <sup>1</sup>

<sup>1</sup>South Dakota State University, <sup>2</sup>Micronutrients

12:00 p.m. PSV-14 **Effects of forage or coproduct-based transition diets on the rumen microbiome and ruminal fermentation ex vivo in feedlot steers**

Joshua C. McCann <sup>1</sup>, Haley F. Linder <sup>2</sup>, Adam Fritz <sup>2</sup>

<sup>1</sup>University of Illinois at Urbana-Champaign, <sup>2</sup>University of Illinois

12:00 p.m. PSV-15 **Effects of supplementation of protease to different nutrient density of diets on growth performance, nutrient digestibility, blood profile, gas emission, fecal microflora in growing-finishing pig**

Sehyun park <sup>1</sup>, Hanjin Oh <sup>1</sup>, Yongju Kim <sup>1</sup>, Jaewoo An <sup>1</sup>, Seyeon Chang <sup>1</sup>, Youngbin go <sup>1</sup>, Hyunah cho <sup>1</sup>, Dongcheol Song <sup>1</sup>, Kyeong Ho Jeon <sup>2</sup>, Seok Man Hong <sup>3</sup>, Won Yun <sup>3</sup>, Jinho cho <sup>1</sup>

<sup>1</sup>Department of Animal Science, Chungbuk National University, <sup>2</sup>Chungbuk National University, <sup>3</sup>WOOSUNG FEED CO.,LTD.

12:00 p.m. PSV-16 **The effects of bodyweight-basis iron injection to newborn piglets on pre-and post-weaning growth performance and hematological parameters**

Ana N. Rank <sup>1</sup>, Isaac W. Farrey <sup>1</sup>, Orianna N. Lebal <sup>1</sup>, Young Dal Jang <sup>1</sup>

<sup>1</sup>University of Wisconsin-River Falls

12:00 p.m. PSV-17 **Threonine requirements for post-weaning pig in individual precision nutrition programs: a meta-analysis**

Rafaela Hilgemberg<sup>1</sup>, Cheila Lehn<sup>2</sup>, Candido Pomar<sup>3</sup>, William Lambert<sup>4</sup>, Aline Remus<sup>5</sup>

<sup>1</sup>AAFC / UEPG, <sup>2</sup>UEPG, <sup>3</sup>AgriFood Canada, <sup>4</sup>Metex, <sup>5</sup>AAFC

12:00 p.m. PSV-18 **Effects of replacing lactose with novel carbohydrate sources on nursery pig growth performance**

Rafe Q. Royall<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>, Robert D. Goodband<sup>1</sup>, Keith Mertz<sup>3</sup>, John Patience<sup>4</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University, <sup>3</sup>Cargill Starches, Sweeteners, & Texturizers,

<sup>4</sup>Oxford Nutrition Consulting, LLC

12:00 p.m. PSV-19 **Evaluation of dietary fiber inclusion on body weight, body condition, fecal score, and metabolic indicators in mature AI boars**

Taw Scaff<sup>1</sup>, Jacob A. Richert<sup>1</sup>, Brian T. Richert<sup>1</sup>, Kara R. Stewart<sup>1</sup>

<sup>1</sup>Purdue University

12:00 p.m. PSV-20 **Evaluation of dietary fiber inclusion on semen production and semen characteristics in mature AI boars**

Taw Scaff<sup>1</sup>, Brian T. Richert<sup>1</sup>, Kara R. Stewart<sup>1</sup>, Alicia Denton<sup>1</sup>, Hailey M. Hedrick<sup>1</sup>

<sup>1</sup>Purdue University

**Poster Session VI**  
**Nonruminant Nutrition / Ruminant Nutrition**

5:00 PM - 5:45 PM

Grand Terrace

5:00 p.m. PSVI-1 **Effect of soy co-products in supplements for growing cattle on hemocytology following a lipopolysaccharide challenge**

Kirsten A. Midkiff<sup>1</sup>, Rachel M. Scott<sup>1</sup>, Sidney N. Dunkel<sup>1</sup>, Robin A. Cheek<sup>1</sup>, Bralee S. Lansdell<sup>1</sup>, Brittni P. Littlejohn<sup>1</sup>, Jeremy G. Powell<sup>1</sup>, Doug L. Galloway<sup>1</sup>, Jana L. Reynolds<sup>1</sup>, Elizabeth B. Kegley<sup>1</sup>

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

5:00 p.m. PSVI-2 **Economic Evaluation of Forage-fed vs Concentrate-fed Beef Finishing Systems**

Micah L. O'Malley<sup>1</sup>, Caleb Robertson<sup>1</sup>, Amanda Holder<sup>1</sup>

<sup>1</sup>College of the Ozarks

5:00 p.m. PSVI-3 **Effects of different concentrate inclusion levels in diets containing AGRI002E sorghum silage on intake and digestibility in growing Nellore bulls**

Pauliane Pucetti<sup>1</sup>, Sebastião de Campos Valadares Filho<sup>2</sup>, Julia Travassos da Silva<sup>1</sup>, Ferndando Alerrandro Andrade Cidriani<sup>2</sup>, Gilyard Angelo Pinheiro de Souza<sup>2</sup>, Lucas Germano Hollerbach<sup>2</sup>, Kendall C. Swanson<sup>1</sup>

<sup>1</sup>North Dakota State University, <sup>2</sup>Universidade Federal de Viçosa

5:00 p.m. PSVI-4 **The Influence of Diet Type on Beef Cattle Performance and Meat Quality Characteristics**

Lillian R. Royer<sup>1</sup>, Micah L. O'Malley<sup>1</sup>, Grady A. Privett<sup>1</sup>, Amanda Holder<sup>1</sup>

<sup>1</sup>College of the Ozarks

5:00 p.m. PSVI-5 **Using Red Clover Extract to Mitigate Tall Fescue Toxicosis**

Ivan R. Thomas<sup>1</sup>, Ken Coffey<sup>2</sup>, Christine C. Nieman<sup>3</sup>, Ally J. Grote<sup>4</sup>, Sarah W. Alvey<sup>5</sup>

<sup>1</sup>University of Arkansas, <sup>2</sup>University of Arkansas System Division of Agriculture Department of Animal Science, <sup>3</sup>USDA-ARS, <sup>4</sup>Oklahoma State University, <sup>5</sup>Simmons Food

5:00 p.m. PSVI-6 **Effects of partial or total replacement of soybean meal with urea on feed efficiency in Nellore × Red Angus growing bulls**

Julia Travassos da Silva<sup>1</sup>, Sebastião de Campos Valadares Filho<sup>2</sup>, Pauliane Pucetti<sup>1</sup>, Éllem Maria de Almeida Matos<sup>3</sup>, Julia Gabriela Baroni Alves<sup>3</sup>, Gabriela Herculano Salles<sup>3</sup>, Yuri Cesconetto Ebani<sup>3</sup>, Kendall C. Swanson<sup>1</sup>

<sup>1</sup>North Dakota State University, <sup>2</sup>Universidade Federal de Viçosa, <sup>3</sup>Universidade Federal de Vicos

5:00 p.m. PSVI-7 **Digestible energy and metabolizable energy concentrations of corn, oilseed meals, and fibrous ingredients for growing pig**

Jeonghyeon Son<sup>1</sup>, Beob G. Kim<sup>1</sup>

<sup>1</sup>Konkuk University

5:00 p.m. PSVI-8 **Effects of dietary supplementation of *Pedococcus pentosaceus* strains isolated from white kimchi in weaned piglet challenged with *E.coli* and *salmonellaTyphimurium***

Dongcheol Song<sup>1</sup>, Hanjin Oh<sup>1</sup>, Yongju Kim<sup>1</sup>, Jaewoo An<sup>1</sup>, Seyeon Chang<sup>1</sup>, Youngbin go<sup>1</sup>, Hyunah cho<sup>1</sup>, Sehyun park<sup>1</sup>, Kyungho jeon<sup>1</sup>, Jinho cho<sup>1</sup>

<sup>1</sup>Department of Animal Science, Chungbuk National University

5:00 p.m. PSVI-9 **Pigs weaned from sows fed a feed flavor had improved nursery growth performance, but added feed flavor in nursery diets did not impact performance**

Mikayla Spinler<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>, Joel M. DeRouchey<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Josh Kyle<sup>3</sup>, Jason C. Woodworth<sup>1</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University, <sup>3</sup>Adisseo

5:00 p.m. PSVI-10 **Evaluation of corn protein source on feed intake preference in nursery pigs**

Ethan Stas<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University

5:00 p.m. PSVI-11 **Evaluation of the acid binding capacity of ingredients and complete diets commonly used for weanling pigs**

Ethan Stas<sup>1</sup>, Mike D. Tokach<sup>1</sup>, Joel M. DeRouchey<sup>1</sup>, Robert D. Goodband<sup>1</sup>, Jason C. Woodworth<sup>1</sup>, Jordan T. Gebhardt<sup>2</sup>

<sup>1</sup>Kansas State University, <sup>2</sup>Kansas State University

5:00 p.m. PSVI-12 **Nutritional value of corn sourced from U.S. and Ukraine on growth performance, energy digestibility, and amino acid digestibility in pigs**

Caitlyn R. Sullivan<sup>1</sup>, Jinsu Hong<sup>2</sup>, Crystal L. Levesque<sup>1</sup>, Robert C. Thaler<sup>1</sup>

<sup>1</sup>South Dakota State University, <sup>2</sup>Department of Animal Science, South Dakota State University

5:00 p.m. PSVI-13 **Nutritional value of corn sourced from US, Brazil, and Argentina on growth performance, energy digestibility, and amino acid digestibility in pigs**

Caitlyn R. Sullivan<sup>1</sup>, Jordan K. Jansen<sup>1</sup>, Jinsu Hong<sup>2</sup>, Jorge Y. Perez-Palencia<sup>1</sup>, Crystal L. Levesque<sup>1</sup>, Robert C. Thaler<sup>1</sup>

<sup>1</sup>South Dakota State University, <sup>2</sup>Department of Animal Science, South Dakota State University

5:00 p.m. PSVI-14 **Mitigating the Negative Effects of Heat Stress in Grow-Finish Pigs Using Water Delivered Oregano Essential Oil**

Isabel Turner<sup>1</sup>, Candace Young<sup>1</sup>, Lauren A. Brizgys<sup>1</sup>, Taw Scaff<sup>1</sup>, Jacob A. Richert<sup>1</sup>, Brian T. Richert<sup>1</sup>, Jonathan A. Pasternak<sup>1</sup>, John Scott Radcliffe<sup>1</sup>

<sup>1</sup>Purdue University

5:00 p.m. PSVI-15 **Effect of split iron injection to sucking pigs on growth performance and hematological parameters in pre- and post-weaning periods**

Gabriella Cristina Veloso Lima<sup>1</sup>, Merit N. Lemunyete<sup>1</sup>, Alaina J. Johnson<sup>1</sup>, Young Dal Jang<sup>1</sup>

<sup>1</sup>University of Wisconsin-River Falls

5:00 p.m. PSVI-16 **CAPS C2PG, a blend of spice oleoresins, can substitute the growth promoting effect of an ionophore feed premix on grow-finish pigs**

Bertrand MEDINA<sup>1</sup>, Dan BUSSIÈRES<sup>2</sup>, Ashley L. WAGNER<sup>1</sup>

<sup>1</sup>Probiotech International Inc., <sup>2</sup>Groupe CÉRÈS Inc.

5:00 p.m. PSVI-17 **DIGESTAWell® XG improves piglet performance when dietary net energy content is decreased**

Leni KUTERNA<sup>1</sup>, Joan E. EDWARDS<sup>1</sup>, Dan BUSSIÈRES<sup>2</sup>, Ashley L. WAGNER<sup>3</sup>

<sup>1</sup>Palital Feed Additives B.V., <sup>2</sup>Groupe CÉRÈS Inc., <sup>3</sup>Probiotech International Inc.

5:00 p.m. PSVI-18 **Effects of Vitamin U supplementation on growth performance, carcass and gastric keratinization scores in aspirin-induced gastric ulcer finishing pigs**

Se Yeon Jang<sup>1</sup>, Ju Hee Lee<sup>1</sup>, Sun Gu Yu<sup>1</sup>, Chai Bin Lim<sup>1</sup>, Cao Shanchuan<sup>1</sup>, In Ho Kim<sup>2</sup>

<sup>1</sup>Department of Animal Resources Science, Dankook University, <sup>2</sup>Dankook University

5:00 p.m. PSVI-19 **Impact of sow body condition on macro reproductive performance**

Junmei Zhao<sup>1</sup>, Qiong Hu<sup>2</sup>, Neil Paton<sup>3</sup>, Kaat Goris<sup>1</sup>, Caroline Vanderhaeghe<sup>1</sup>, Stephanie Walston<sup>2</sup>

<sup>1</sup>Cargill, <sup>2</sup>Cargill Animal Nutrition, <sup>3</sup>Cargill Engineering and Data Science

5:00 p.m. PSVI-20 **Trends in Mycotoxin Contamination of the 2022 United States Corn Crop**

Lan Zheng<sup>1</sup>, Paige N. Gott<sup>1</sup>, Ursula Hofstetter-Schähs<sup>1</sup>, April W. Levy<sup>1</sup>

<sup>1</sup>DSM Nutritional Products