



**ASAS Midwest Section / ADSA Midwest Branch
2020 Joint Meeting
March 2-4, 2020 • Omaha, Nebraska**



**POSTER PRESENTATIONS
RAW UNFORMATTED PROGRAM**

(2/10/2020)

Monday, March 2, 2020

POSTER SESSION I

12:30 PM - 1:30 PM

Grand Ballroom Foyer

12:30 p.m. PSI-1 Effects of choline on immune cell function in growing cattle supplemented with guanidinoacetic acid and creatine

Hope D. Aufdemberge¹, Madeline S. Grant¹, Barry J. Bradford¹, Laman K. Mamedova¹, Evan C. Titgemeyer¹

¹Kansas State University

12:30 p.m. PSI-2 Effects of extended release eprinomectin on heifer performance while grazed on endophyte-infected tall fescue or housed in drylot

Julissa Navarrete¹, Sarah Graham², Lucas Neira², Joshua C. McCann², Daniel W. Shike²

¹Illinois State University, ²University of Illinois

12:30 p.m. PSI-3 Effects of housing cow-calf pairs in drylots vs pasture during the summer on cow performance

Keiffer Sexton¹, Megan Myerscough², Wesley Chapple², William T. Meteer², Keela Trennepohl¹, Joshua C. McCann², Daniel W. Shike²

¹Western Illinois University, ²University of Illinois

12:30 p.m. PSI-4 Effects of increasing metabolizable protein on starch digestion in lightweight beef cattle

Cierra N. Crowell¹, Sara Tondini², Miles Redden², Daniel W. Shike², Joshua C. McCann²

¹Southern Illinois University, ²University of Illinois

12:30 p.m. PSI-5 Effects of rest period prior to processing on anthelmintic response during the receiving period in feedlot heifers

Nicole Stafford¹, A J. Tarpoff¹, Miles Theurer², Tom Jones³, Cassandra K. Jones¹

¹Kansas State University, ²Veterinary Research & Consulting Services, ³Hy-Plains Feedyard

12:30 p.m. PSI-6 **Effects of rest period prior to processing on vaccine response and blood metabolites in feedlot heifers.**

Macie Reeb¹, A J. Tarpoff¹, Miles Theurer², Tom Jones³, Cassandra K. Jones¹

¹Kansas State University, ²Veterinary Research & Consulting Services, ³Hy-Plains Feedyard

12:30 p.m. PSI-7 **Evaluation of beef heifers finished in a bedded hoop barn versus an outdoor feedlot in Mid-Missouri – 2-year summary**

Taylor M. Garnett¹, Bruce C. Shanks¹, Jeremia J. Markway¹, Doug Moeller¹, George R. Pettig¹, James D. Caldwell²

¹Lincoln University, ²Delacon USA, Inc.

12:30 p.m. PSI-8 **Evaluation of two burning dates and addition of spices on stocker cattle gains on tallgrass native range**

Juliette Toothaker¹, Jaymelynn Farney¹

¹Kansas State University

12:30 p.m. PSI-9 **Factors associated with birthing interval and total farrowing duration in sows and gilts within a production setting**

Madison Kovarna¹, Jorge Y. Perez-Palencia¹, Crystal L. Levesque¹

¹South Dakota State University

12:30 p.m. PSI-10 **Genetic parameters for soybean allergy response in divergently-selected pigs**

Yuwen Chen¹, Allan P. Schinckel¹, Terry Stewart¹, Luiz Brito¹, Hinayah Rojas de Oliveira¹, Amanda Alvarenga¹

¹Purdue University

12:30 p.m. PSII-15 **Hydrogenation of palm kernel oil, palm oil, and soybean oil on energy and lipid digestibility, and performance when fed to 20 to 40 kg pigs**

Sophia Breuer¹, Brian Kerr²

¹Iowa State University, ²USDA-ARS-NLAE

12:30 p.m. PSI-11 **Moisture Content Throughout the Pelleting Process and Subsequent Effects on Pellet Quality**

Rachel Kort¹, Haley Wecker¹, Chance Fiehler¹, Aundria Ogles¹, Jared Froetschner², Charles R. Stark¹, Chad B. Paulk¹

¹Kansas State University, ²Elanco Animal Health

12:30 p.m. PSI-12 **Performance and carcass measurements by rabbits offered diets with and without a phytogenic feed additive**

Kimberly Wilbers¹, Bruce C. Shanks¹, James D. Caldwell², Megan Koppen², Kevin Adams²

¹Lincoln University, ²Delacon USA, Inc.

12:30 p.m. PSI-13 The effect of Advanced Digestive Enhancing Protein Plus Technology on growth performance and fecal score in weaning pigs

Clare McInerney¹, Kathryn Nelson¹, Baylee Close¹, Jamil Talukder², Young Dal Jang¹

¹University of Wisconsin - River Falls, ²Vets Plus, Inc.

12:30 p.m. PSI-14 The effect of creep feed and its nutrient level on growth performance in suckling and weaning pigs

Paige K. Isensee¹, Sarah Albers¹, Lindsey Wichman¹, Autumn Thoma¹, Young Dal Jang¹

¹University of Wisconsin - River Falls

POSTER SESSION II

12:45 PM - 1:30 PM

Grand Ballroom Foyer

12:45 p.m. PSII-16 Comparative digestibility of polysaccharide-complexed zinc and zinc sulfate in diets for gestating and lactating sows

Julia P. Holen¹, Lee Johnston¹, Pedro E. Urriola¹, Jack E. Garrett², Gerald C. Shurson¹

¹University of Minnesota, ²QualiTech

12:45 p.m. PSII-17 Comparison of corn ethanol co-products from Brazil and USA apparent total tract digestibility of nutrients in pigs

Vinicius R. C. Paula¹, Natália C. Milani¹, Cândida P.F. Azevedo¹, Leury J. Souza¹, Anderson A. Sedano¹, Brian Mike², Gerald C. Shurson³, Urbano Ruiz¹

¹University of São Paulo, ²FS Bioenergia, ³University of Minnesota

12:45 p.m. PSII-18 Dietary Strategy for Gilt Development

Michael E. Johnston¹, Katherine A. McCormick¹, Grant I. Petersen¹, Chris L. Eden²

¹United Animal Health, ²United Animal Health, Inc.

12:45 p.m. PSII-19 Effect of inclusion level of synthetic lysine, threonine, methionine, and tryptophan in corn-soybean meal and DDGS based diets for grow-finish pigs on growth performance and carcass characteristics.

Caleb J. Grohmann¹, Michael Ellis¹, Omarh F. Mendoza², Caleb M. Shull²

¹University of Illinois, ²The Maschhoffs, LLC

12:45 p.m. PSII-20 Evaluation of Different Vitamin Concentrations in a Commercial Wean-to-Finish Program

Robyn Thompson¹, Brandon Knopf¹, Carine Vier², Ning Lu², Wayne Cast², Uislei Orlando²

¹Carthage Innovative Swine Solutions, ²Genus PIC

12:45 p.m. PSII-21 **The Effect of Feeding a LucraFit® Feed Nursery Program without Lactose on Piglet Performance.**

Stacie Crowder ¹, Terry Weeden ¹, Clayton Hankins ¹, Terry Meyer ¹, Brenda de Rodas ¹

¹Purina Animal Nutrition

12:45 p.m. PSII-22 **Trends in Mycotoxin Contamination in United States Corn**

Erika Hendel ¹, Shelby Ramirez ¹, Paige Gott ¹, G. Raj Murugesan ¹, Ursula Hofstetter ²

¹BIOMIN America Inc., ²BIOMIN Holding GmbH

POSTER SESSION III

4:45 PM - 5:45 PM

Grand Ballroom Foyer

4:45 p.m. PSIII-1 **A preliminary study to investigate the contribution of different tenderness factors to beef loin, tri-tip and heel tenderness**

Colin Chun ¹, Wanjun Wu ¹, Amelia Welter ¹, Travis O'Quinn ¹, Geraldine Magnin ¹, Michael Chao ¹

¹Kansas State University

4:45 p.m. PSIII-2 **Considering a large creep pellet as a means to improve suckling and early weaned pig performance**

Shannen T. Mahal ¹, Jodi M. Morton ¹, Jorge Y. Perez-Palencia ¹, Crystal L. Levesque ¹, Paul Groenewegen ²

¹South Dakota State University, ²Masterfeeds

4:45 p.m. PSIII-3 **Effect of Day of Induction on Sow and Piglet Performance**

Miranda R. McGuire ¹, Jenelle Dunckelberger ², John Eggert ³, Allan P. Schinckel ¹, Egbert Knol ³

¹Purdue University, ²Topigs Norsvin USA, ³Topigs Norsvin

4:45 p.m. PSIII-4 **Effect of Housing System and Supplementation of 25-hydroxicholecalciferol (25-OH-D3) on Performance and 25(OH)D3 Serum Levels of Sows during Gestation and Lactation**

Bruno Silva ¹, Nathalia Oliveira ¹, Cristina Sá-Fortes ¹, Wagner Araújo ², Francine Falleiros ³, Adso Passos ³, Mateus Gonçalves ¹, Flávio Rebordões ¹, Iara Ataíde ¹, Valesca Lima ¹, Rafaela Evangelista ¹

¹Universidade Federal de Minas Gerais, ²IFNMG, ³DSM

4:45 p.m. PSIII-5 **Effects of ingredient composition of oral drenches in small piglets post-farrowing on average daily gain and pre-wean mortality**

Olivia Harrison ¹, Samantha Tauer ², Brent Frederick ³

¹Kansas State University, ²Christensen Farms, ³Christensen Family Farms

4:45 p.m. PSIII-6 **Effects of repeated freeze and thaw cycles on serum and plasma metabolite concentrations in beef cattle**

Jera L. Monaghan ¹, Abigail R. Rathert ², Allison M. Meyer ²

¹Department of Animal Sciences, University of Wisconsin-River Falls, ²Division of Animal Sciences, University of Missouri

4:45 p.m. PSIII-7 **Evaluating sow colostrum somatic cell count as an indicator for colostrum composition or litter characteristics**

Ryan T. Maurer ¹, Kiah M. Gourley ¹, Theresa J. Rathbun ¹, Jason C. Woodworth ², Joel M. DeRouchey ¹, Mike D. Tokach ¹, Steve S. Dritz ³, Robert D. Goodband ¹

¹Kansas State University, ²Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ³Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506

4:45 p.m. PSIII-8 **Impact of SYNOVEX® ONE GRASS implantation during suckling on pre-weaning calf growth performance**

Shane Newton ¹, Payton Dahmer ¹, Larry Corah ¹, Keith Harmony ¹, John Jaeger ¹, Cassandra K. Jones ¹

¹Kansas State University

4:45 p.m. PSIII-9 **Performance by weaned Katahdin lambs offered diets with and without Actifor® Pro**

Kandace Edwards ¹, Bruce C. Shanks ¹, James D. Caldwell ², Kevin Adams ²

¹Lincoln University, ²Delacon USA, Inc.

4:45 p.m. PSIII-10 **The association of genes involved in mitochondrial function with growth, size, and feed efficiency traits in developing beef heifers**

Samantha J. Schmoker ¹, Nayan Bhowmik ¹, Carl R. Dahlen ¹, Kendall C. Swanson ¹, Kris A. Ringwall ², Lauren L. Hulsman Hanna ¹

¹North Dakota State University, Department of Animal Sciences, ²University of Saskatchewan, Livestock and Forage Centre of Excellence

4:45 p.m. PSIII-11 **The effect of GALR2 genotype and differing implant strategies on blood metabolite concentrations in finishing steers**

Ellie S. Anderson ¹, Jerica R. Hall ¹, Mara R. Hirschert ², Kendall C. Swanson ³, Kasey R. Maddock Carlin ¹, Carl R. Dahlen ³, Alison K. Ward ¹

¹North Dakota State University, ²NDSU, ³North Dakota State University, Department of Animal Sciences

4:45 p.m. PSIII-12 **The effect of sodium butyrate and benzoic acid on nutrient digestibility and fecal volatile fatty acid concentrations in nursery pigs.**

Casey L. Bradley ¹, Alisun Watson ², Kristopher Bottoms ², Tsungcheng Tsai ², Charles V. Maxwell ³

¹DSM Nutritional Products LLC, ²University of Arkansas, ³University of Arkansas-Fayetteville

4:45 p.m. PSIII-13 **The Effects of Corn Gluten Feed and Corn Dried Distillers Grains as a Replacement for Soybean Meal on Boer Type Goat Diets**

Samantha Costigan ¹, Alison Crane ¹, James M. Lattimer ¹, Cassandra K. Jones ¹

¹Kansas State University

4:45 p.m. PSIII-14 **The effects of variant auditory stimuli on goat kids' formant patterns from birth to weaning**

Rachael C. Quandt ¹, Samantha S. Bartley ¹, Thomas A. Burke ¹, Brandon Forshey ¹

¹University of Findlay

POSTER SESSION IV

5:00 PM - 5:45 PM

Grand Ballroom Foyer

5:00 p.m. PSIV-15 **Determining the effects of increasing levels of xylanase in nutrient adequate diets on growth performance, carcass characteristics of growing-finishing pigs**

Hayden R. Kerkaert ¹, Joel M. DeRouchey ¹, Steve S. Dritz ², Robert D. Goodband ¹, Mike D. Tokach ¹, Jason C. Woodworth ³, Hilda I. Calderon Cartagena ¹, Ludovic Lahaye ⁴

¹Kansas State University, ²Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ³Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ⁴Jefo

5:00 p.m. PSIV-16 **Effects of a functional protein on growth performance of nursery pigs**

Henrique S. Cemin ¹, Luke A. Swalla ¹, Jamie L. Pietig ¹, Sharlie A. Hansen ¹, Ernie L. Hansen ¹, Brent W. Ratliff ², Aaron M. Gaines ², James Usry ²

¹Hubbard Feeds, ²Ani-Tek Group, LLC

5:00 p.m. PSIV-17 **Effects of zinc level and calcium source on growth performance of nursery pigs**

Henrique S. Cemin ¹, Luke A. Swalla ¹, Jamie L. Pietig ¹, Sharlie A. Hansen ¹, Ernie L. Hansen ¹

¹Hubbard Feeds

5:00 p.m. PSIV-18 **Effects on performance and market weight of DNA 600 Duroc sired pigs when fed diets with a blend of phytonutrients (Lean Fuel) in combination with Narasin (Skycis)**

Luis Ochoa ¹, Megan Bible ¹, Kevin Soltwedel ¹, Fredrik Sandberg ¹

¹Furst-McNess Company

5:00 p.m. PSIV-19 **Evaluation of Enogen® high amylase corn on growth performance and carcass characteristics of finishing pigs**

Patricia Ochonski ¹, Fangzhou Wu ¹, Mike D. Tokach ¹, Joel M. DeRouchey ¹, Steve S. Dritz ², Robert D. Goodband ¹, Jason C. Woodworth ³, James M. Lattimer ¹

¹Kansas State University, ²Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ³Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506

5:00 p.m. PSIV-20 **Impact of OutPace® Feed Additive on nursery pig growth performance: A meta-analysis**

Benjamin Bass ¹, Stacie Crowder ², Terry Weeden ², Murali Raghavendra Rao ², Brenda de Rodas ², Theodore Karnezos ¹

¹Land O'Lakes, ²Purina Animal Nutrition

5:00 p.m. PSIV-21 **Pellet processing reduces variability of corn soybean meal based diet digestibility in growing pigs**

Élisabeth Chassé ¹, Frédéric Guay ¹, Marie-Pierre Létourneau-Montminy ²

¹Université Laval, ²Laval University

5:00 p.m. PSIV-22 **Supplemental effects of dietary lysophospholipids in lactation diets on sow performance, milk composition, and intestinal health of piglets**

Kibeom Jang ¹, Jerry Purvis ², Sung Woo Kim ¹

¹North Carolina State University, ²Purvis Farms

POSTER SESSION V

6:15 PM - 7:00 PM

Grand Ballroom Foyer

6:15 p.m. PSV-1 A Subcutaneous Ear Implant to Deliver an Anaplasmosis Vaccine to Dairy Steers

Andrew K. Curtis¹, Kathryn Reif¹, Michael Kleinhenz², Miriam S. Martin², Brandt Skinner¹, Sean Kelly³, Douglas Jones³, Emily Reppert¹, Shawnee Montgomery¹, Balaji Narasimhan³, Tippawan Anantatat¹, Majid Jaber-Douraki¹, Johann Coetzee²

¹Kansas State University, ²Kansas State University College of Veterinary Medicine, ³Iowa State University

6:15 p.m. PSV-11 Accuracies of genomic prediction for reproductive traits in PRRSV-infected sows

Felipe Hickmann¹, José Braccini Neto², Luke Kramer¹, Kent Gray³, Yijian Huang³, Jack Dekkers¹, Letícia P. Sanglard¹, Nick Serão¹

¹Iowa State University, ²UFRGS, ³Smithfield Premium Genetics

6:15 p.m. PSV-2 An exploration of sociality among pre-weaned beef calves

Jesse Robbins¹, Rebecca Parsons¹, Grant Dewell¹, Derek Haley², Anna Johnson¹, Reneé Dewell¹, Suzanne Millman¹

¹Iowa State University, ²University of Guelph

6:15 p.m. PSV-21 Assessment of Undergraduate Research Students in the Animal Science Department

Shana M. Winkel¹, Lisa Karr², Thomas Burkey²

¹University of Nebraska - Lincoln, ²UNL

6:15 p.m. PSV-3 Detection of Bruising in Holstein Slaughter Cows with Infrared Thermography

Ashlynn Kirk¹, Kurt Vogel²

¹University of Wisconsin-River Falls, ²University of Wisconsin - River Falls

6:15 p.m. PSV-4 Direct-fed microbial program improved survivability of nursery pigs in commercial production

Victor G. Perez¹, Terry Parrott¹, Janet C. Remus², Michael Perry¹

¹DuPont, ²DuPont Nutrition and Biosciences

6:15 p.m. PSV-5 Effect of oxygen administration to piglets at birth on post-natal body temperatures

Naomi Cooper¹, Katherine Vande Pol¹, Michael Ellis¹, Yijie Xiong¹, Richard Gates¹

¹University of Illinois

6:15 p.m. PSV-6 **Effects of chilled drinking water and cooled floor pads on behavior of lactating sows under heat stress**

Yuzhi Li ¹, Yunhui Zhu ¹, Michael Reese ¹, Eric Buchanan ¹, Lee Johnston ¹

¹University of Minnesota

6:15 p.m. PSV-7 **Effects of drying and oxygenation of piglets at birth on rectal temperatures in the early post-natal period.**

Katherine Vande Pol ¹, Naomi Cooper ¹, Andres Tolosa ¹, Michael Ellis ¹, Richard Gates ¹, Yijie Xiong ¹, Caleb M. Shull ², Katie Brown ², Stephan da Silva ³

¹University of Illinois, ²The Maschhoffs, LLC, ³Universidade Federal

6:15 p.m. PSV-12 **Evaluator effect on the prediction of genetic merit using subjective measures of beef cattle temperament**

Elfren F. Celestino ¹, Jordan K. Hieber ², Carl R. Dahlen ¹, David G. Riley ³, Sarah A. Wagner ¹, Lauren L. Hulsman Hanna ¹

¹North Dakota State University, Department of Animal Sciences, ²Montana State University,

³Texas A&M University, Department of Animal Science

6:15 p.m. PSV-13 **Genetic parameters and quantitative trait loci for heat stress related traits in sheep**

Devin R. Jacobs ¹, Claudia E. Silvera-Rojas ¹, Jennifer M. Bormann ¹, Terry A. Gipson ², Arthur L. Goetsch ², Robert L. Weaver ¹, Megan M. Rolf ¹

¹Kansas State University, ²Langston University

6:15 p.m. PSV-14 **Genome Centric Approaches to Understand Antimicrobial Resistance in the Rumen Microbiome**

Wesley A. Tom ¹, Kristin Hales ², James Wells ³, Samodha Fernando ⁴

¹UNL, ²Texas Tech University, ³U.S. Meat Animal Research Center USMARC, ⁴University of Nebraska-Lincoln

6:15 p.m. PSV-15 **Genomic basis of reproductive performance in PRRSV-infected sows**

Felipe Hickmann ¹, José Braccini Neto ², Luke Kramer ¹, Kent Gray ³, Yijian Huang ³, Jack Dekkers ¹, Letícia P. Sanglard ¹, Nick Serão ¹

¹Iowa State University, ²UFRGS, ³Smithfield Premium Genetics

6:15 p.m. PSV-8 **Glucocorticoid receptor agonist (GRA): what is the best delivery method to newly weaned pigs?**

Hailey Wooten ¹, Hwanhee Kim ¹, Amanda Rakhshandeh ², Anoosh Rakhshandeh ¹

¹Texas Tech University, ²South Plain Collage

6:15 p.m. PSV-16 **Influence of the late gestation maternal rumen microbiome on the calf meconium and early rumen microbiome**

Kelly Woodruff¹, Gwendolynn Hummel¹, Kathleen Austin¹, Travis Smith², Hannah Cunningham-Hollinger¹

¹Department of Animal Science, University of Wyoming, Laramie, ²Laramie Research and Extension Center, University of Wyoming, Laramie

6:15 p.m. PSV-19 **Pasture history and supplementation affects parasite status of naïve lambs in grazing systems**

Braden J. Campbell¹, Jefferson S. McCutcheon², Antoinette E. Marsh¹, Francis L. Fluharty³, Anthony J. Parker¹

¹The Ohio State University, ²The Ohio State University Extension, ³University of Georgia

6:15 p.m. PSV-17 **Pinpointing Differences between Significant QTL of Carcass Traits in Yorkshire and Landrace Pig Populations**

Hanna Wackel¹, Cedric Gondro¹, Donghyun Shin²

¹Michigan State University, ²Chonbuk National University

6:15 p.m. PSV-20 **The effect of differing implant strategies on the galanin receptor 2 genotype on feed intake, efficiency, and feeding behavior of crossbred Angus finishing steers.**

Jerica R. Hall¹, Mara R. Hirschert², Kasey R. Maddock Carlin¹, Carl R. Dahlen³, Alison K. Ward¹

¹North Dakota State University, ²NDSU, ³North Dakota State University, Department of Animal Sciences

6:15 p.m. PSV-9 **The effect of warming and drying piglets at birth under cool or warm farrowing room temperatures on post-natal rectal temperatures.**

Katherine Vande Pol¹, Andres Tolosa¹, Michael Ellis¹, Caleb M. Shull², Katie Brown², Stephan da Silva³

¹University of Illinois, ²The Maschhoffs, LLC, ³Universidade Federal

6:15 p.m. PSV-18 **The role of leptin in feed efficiency and behavior attributes of commercial beef heifers**

Nayan Bhowmik¹, Kris A. Ringwall², Carl R. Dahlen¹, Kendall C. Swanson¹, Jeffrey A. Clapper³, Alison K. Ward⁴, Lauren L. Hulsman Hanna¹

¹North Dakota State University, Department of Animal Sciences, ²University of Saskatchewan, Livestock and Forage Centre of Excellence, ³South Dakota State University, Department of Animal Science, ⁴North Dakota State University

6:15 p.m. PSV-10 **The use of oleic acid during heat stress on lameness and joint health**
Morgan L. Dotson¹, Teagan R. Schnurbusch¹, Bryon R. Wiegand¹, Nichole C. Anderson¹
¹University of Missouri-Columbia

6:15 p.m. PSV-22 **Use of weekly quizzes in a graduate-level physiology course does not enhance student learning but may help regulate study time**
Renee M. McFee¹, Katie Bidne¹
¹University of Nebraska-Lincoln

Tuesday, March 3, 2020

POSTER SESSION VI

7:30 AM - 8:15 AM
Grand Ballroom Foyer

7:30 a.m. PSVI-1 **Dietary protease supplementation on growth performance and post-weaning diarrhea of nursery pigs**
Jorge Y. Perez-Palencia¹, David A. Clizer¹, Christian Ramirez-Camba¹, Ryan S. Samuel¹, Crystal L. Levesque¹
¹South Dakota State University

7:30 a.m. PSVI-2 **Dietary supplementation of *Bacillus licheniformis* derived-protease increased the digestibility of dry matter and crude protein in post-weaned and growing pigs**
Woo Jeong Seok¹, Lei Cheng¹, Thanapal Palanisamy¹, Xiangting Fu¹, In Ho Kim¹
¹Dankook University

7:30 a.m. PSVI-3 **Dietary supplementation with coated omega-3 fatty acids has positive effects on growth performance and nutrients digestibility in weaned pigs**
Woo Jeong Seok¹, Je min Ahn¹, Jing Hu¹, Dexin Dang¹, Yanjiao Li¹, In Ho Kim¹, Jian Ying Zhang¹
¹Dankook University

7:30 a.m. PSVI-4 **Digestible and metabolizable energy content, and standardized ileal digestibility of amino acids in novel corn co-products for swine**
Zhaohui Yang¹, Amanda Palowski¹, Pedro E. Urriola¹, Gerald C. Shurson¹
¹University of Minnesota

7:30 a.m. PSVI-5 Effect of apple and anise flavour supplementation on growth performance, nutrient digestibility, blood profiles and carcass quality in growing-finishing pigs

Woo Jeong Seok ¹, Yong Min Kim ¹, Je min Ahn ¹, Xiao Liu ¹, Xiang Ao ¹, In Ho Kim ¹

¹Dankook University

7:30 a.m. PSVI-14 Effect of Dietary Nitrates and Sulfates on Enteric Methane Mitigation in Finishing Cattle

Mohamed Abdelmoteleb ¹, Allie Knoell ¹, Samodha Fernando ¹

¹University of Nebraska-Lincoln

7:30 a.m. PSVI-15 Effect of direct-fed microbials on fecal characteristics during an acidosis induction

Kaylie Huizenga ¹, Sara Tondini ¹, Joshua C. McCann ¹

¹University of Illinois

7:30 a.m. PSVI-21 Effect of preconditioning pre-shipment and injectable antioxidant trace elements and vitamins on growth, antioxidant status, and plasma metabolites and insulin concentration in weaned beef cattle.

Raul M. Lizarraga ¹, Esteban Galarza ¹, Guillermo Mattioli ², Anthony J. Parker ¹, Alejandro E. Relling ¹

¹The Ohio State University, ²Universidad Nacional de La Plata

7:30 a.m. PSVI-6 Effect of reduced dietary protein and amino acid supply imposed in the grower and finisher period or solely in the finisher period on growth traits and carcass protein deposition efficiency in pigs

Bee Giuseppe ¹, Claudia Kasper ¹, Patrick Schlegel ¹

¹Agroscope

7:30 a.m. PSVI-23 Effects of a vitamin and mineral supplement and an energy supplement on concentrations of glucose and non-esterified fatty acids in artificially inseminated beef heifers up to d 84 post-insemination

Laura I. Sauer ¹, Tammi L. Neville ¹, Cierrah J. Kassetas ¹, Friederike Baumgaertner ¹, James D. Kirsch ¹, Sheri T. Dorsam ¹, Pawel Borowicz ¹, Lawrence P. Reynolds ¹, Alison K. Ward ¹, J. Christopher Forcherio ², Ronald Scott ², Kacie L. McCarthy ³, Carl R. Dahlen ⁴, Joel S. Caton ¹

¹North Dakota State University, ²Land O' Lakes, ³University of Nebraska - Lincoln, ⁴North Dakota State University, Department of Animal Sciences

7:30 a.m. PSVI-16 Effects of feeding spices on heifer gains and potential as tick management

Jaymelynn Farney ¹

¹Kansas State University

7:30 a.m. PSVI-17 **Effects of increasing doses of trenbolone acetate and estradiol on sera metabolites following implantation during the finishing phase in beef steers**

Dathan Smerchek¹, Zachary K. Smith²

¹SDSU Animal Science, ²South Dakota State University

7:30 a.m. PSVI-18 **Effects of rumen-protected lysine on performance and plasma amino acid metabolism in early lactation Holstein cows**

Geoffrey Carney¹, Phil Cardoso¹, Perry Doane²

¹University of Illinois Department of Animal Sciences, ²Archer Daniels Midland

7:30 a.m. PSVI-19 **Evaluating the addition of an alpha-amylase enzyme to two bulk-flake density weights of corn fed to beef finishing steers.**

Caleb Lockard¹, Cathy Lockard¹, Wyatt Smith¹, Brian Campbell², Jenny Jennings¹

¹Texas A&M AgriLife Research, ²DSM

7:30 a.m. PSVI-20 **Impact of *Saccharomyces cerevisiae* fermentation products on in vitro rumen microbial fermentation of new crop corn silage.**

Coleman G. Reedy¹, Joan Butler¹, Ilkyu Yoon¹, Tom Oelberg¹, Tracy Werner¹, Ehsan Khafipour¹

¹Diamond V

7:30 a.m. PSVI-7 **Increased consumption of Methionine as DL-Methionine or OH-Methionine improved pigs growing performance and carcass traits under hot conditions**

Caio A. da Silva¹, Marco A. Callegari², José Henrique Barbi³, Naiara Fagundes³, Cleandro P. Dias², Kelly L. Souza⁴, Dolores I. Battonon-Alavo⁵

¹University of Londrina, Animal Science Department, ²AKEI, ³Adisseo Brasil Nutrição Animal, ⁴Akei, ⁵Adisseo USA Inc.

7:30 a.m. PSVI-8 **Mineral composition of feed grade monocalcium phosphate**

Diego A. Lopez¹, Hans H. Stein²

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

7:30 a.m. PSVI-9 **Mint oil, yeast cell, and γ -tocopherol supplementation in gestation and lactation diets on offspring performance during the post-wean period.**

Lily P. Hernandez¹, James L. Dunn², Joel Wenninghoff², Crystal L. Levesque¹

¹South Dakota State University, ²ADM Animal Nutrition

7:30 a.m. PSVI-10 **Mint oil, yeast cell, and γ -tocopherol supplementation in gestation and lactation diets on the antioxidant status of the sow and offspring performance during the suckling period.**

Lily P. Hernandez¹, James L. Dunn², Joel Wenninghoff², Crystal L. Levesque¹

¹South Dakota State University, ²ADM Animal Nutrition

7:30 a.m. PSVI-11 **Non-GMO beet pulp and canola meal corn-soybean meal diet has comparable effects as that of GMO corn-soybean meal diet on the performance of sows and piglets**

Woo Jeong Seok¹, Huan Wang¹, Sumya Kibria¹, Yanjiao Li¹, In Ho Kim¹

¹Dankook University

7:30 a.m. PSVI-12 **Phosphorous digestibility of corn ethanol co-products, from Brazil and USA, in growing pigs**

Vinicius R. C. Paula¹, Natália C. Milani¹, Cândida P.F. Azevedo¹, Gabriel A.G. Casarotti¹, Leonardo A. Granja¹, Brian Mike², Gerald C. Shurson³, Urbano Ruiz¹

¹University of São Paulo, ²FS Bioenergia, ³University of Minnesota

7:30 a.m. PSVI-22 **Rumen microbiome of beef cattle is modulated by backgrounding systems**

Bobwealth O. Omontese¹, Ashok K. Sharma¹, Jason Langlie¹, Joe Armstrong¹, Alfredo DiCostanzo¹, Megan J. Webb¹, Andres Gomez¹

¹University of Minnesota

7:30 a.m. PSVI-13 **Sequential feeding with diets varying in amino acid content improves body composition in growing-finishing pigs**

Alini M. Veira¹, Luan S. Santos², Alicia Z. Fraga³, Marllon M. Oliveira³, Paulo H. Reis Furtado Campos⁴, Luciano Hauschild³

¹São Paulo State University (UNESP), FAPESP Scholarship, ²Federal Rural University of Rio de Janeiro, ³São Paulo State University (UNESP), ⁴Federal University of Viçosa

POSTER SESSION VII

12:45 PM - 1:30 PM

Grand Ballroom Foyer

12:45 p.m. PSVII-12 **Acceptability of Milne blueberry juice and blueberry puree in horse feed**

Michael Y. Halpin¹, Teresa Douthit¹, Caitlin E. Evans¹, Michaela B. Braun¹, Charles R. Stark¹, Chad B. Paulk¹, James M. Lattimer¹

¹Kansas State University

12:45 p.m. PSVII-1 **Carcass weight and quality grade impact the rate of internal temperature decline in beef primals**

Samantha Egolf¹, Lydia Hite¹, Austin Egolf¹, Christina Bakker¹, Amanda Blair¹, J. Kyle Grubbs¹, Keith Underwood¹

¹South Dakota State University

12:45 p.m. PSVII-2 **Differentially expressed genes and their biological function in skeletal muscle of calves born from cows with or without protein supplementation during mid-gestation**

Elisa B. Carvalho¹, Letícia P. Sanglard¹, Karolina B. Nascimento², Javier M. Meneses², Daniel R. Casagrande², Marcio Duarte³, Mateus P. Gionbelli², Nick Serão¹

¹Iowa State University, ²Universidade Federal de Lavras, ³Universidade Federal de Viçosa

12:45 p.m. PSVII-3 **Effect of feeding finishing steers two different commercially available blends of essential oils with or without benzoic acid on growth performance, carcass characteristics, and meat quality**

Lydia M. Wang¹, Benjamin M. Bohrer¹

¹University of Guelph

12:45 p.m. PSVII-4 **Effect of Green Grass supplementation of swine diet on pork quality characteristics**

Rebecca Furbeck¹, Josh P. Knapp², Melanie D. Trenhaile-Grannemann¹, Thomas Burkey², Samodha Fernando³, Gary Sullivan¹, Phillip Miller²

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

12:45 p.m. PSVII-5 **Effect of maternal feed restriction at different stages of gestation on development of gastrointestinal tract of newborn goats**

Luana Santos¹, Thaís Costa², Ranyeri Souza², Felipe Moura³, Ivam Oliveira Junior¹, Tathyane Gionbelli¹, Marcio Duarte², Mateus P. Gionbelli¹

¹Universidade Federal de Lavras, ²Universidade Federal de Viçosa, ³University of Nevada - Reno

12:45 p.m. PSVII-13 **Effect of polyunsaturated fatty acid and methionine supplementation during late gestation on offspring duodenal amino acid and peptides transporters in sheep**

Milca Rosa-Velazquez¹, Fernanda Batistel², Alejandro E. Relling¹

¹The Ohio State University, ²Utah State University

12:45 p.m. PSVII-14 **Effects of birth characteristics, nursing behaviors, and supplemental milk on piglet pre-weaning growth and survival.**

Courtney Moore Clemons¹, William Flowers¹

¹North Carolina State University

12:45 p.m. PSVII-15 **Effects of feeding rumen-protected methionine to mature beef bulls**
Carl R. Dahlen¹, Sarah R. Underdahl², Kacie L. McCarthy³, Matt C. Crouse², James D. Kirsch², Sheri T. Dorsam², Cierrah J. Kassetas², Trent C. Gilbery², Kevin K. Sedivec², Joel S. Caton²

¹North Dakota State University, Department of Animal Sciences, ²North Dakota State University, ³University of Nebraska - Lincoln

12:45 p.m. PSVII-16 **Effects of genetic selection for early puberty on the hypothalamic-pituitary-ovarian axis in gilts**

KaLynn Harlow¹, Allison Renwick¹, Sydney Shuping¹, Jeff Sommer¹, Mark Knauer¹, Casey Nestor¹

¹North Carolina State University

12:45 p.m. PSVII-6 **Effects of heat stress on proteolysis in dairy cattle skeletal muscle**

Melissa S. Roths¹, Megan A. Abeyta¹, Tori Rudolph¹, Brittany Wilson², Matthew B. Hudson², Robert P. Rhoads³, Lance H. Baumgard¹, Joshua T. Selsby¹

¹Iowa State University, ²University of Delaware, ³Virginia Tech

12:45 p.m. PSVII-17 **Effects of zinc chloride supplementation during ovarian cortex vitrification prior to in vitro fertilization on embryo development in pigs**

Emma C. Hicks¹, Haley A. Arena¹, Brian Whitaker¹

¹University of Findlay

12:45 p.m. PSVII-18 **Fatty acid composition of the longissimus muscle from Angus and Wagyu sired cattle at the 6th and 12th rib location**

Jerad Jaborek¹, Francis L. Fluharty², Alejandro E. Relling¹

¹The Ohio State University, ²University of Georgia

12:45 p.m. PSVII-7 **Fatty acid profile is not affected by feeding finishing cattle essential oils and/or benzoic acid**

Lydia M. Wang¹, Benjamin M. Bohrer¹

¹University of Guelph

12:45 p.m. PSVII-19 **Fatty acid profiles in subcutaneous adipose and the mammary fat pad of Holstein calves receiving different estradiol treatments**

Marina Miquilini¹, Nicole R. Hardy¹, Kellie Enger¹, Phyllis Dieter¹, Alejandro E. Relling¹, Benjamin Enger¹

¹The Ohio State University

12:45 p.m. PSVII-20 **Heat stress alters reproductive phenotypic impacts of Zearalenone in pre-pubertal gilts**

Crystal M. Roach¹, Edith J. Mayorga¹, Jason W. Ross¹, Lance H. Baumgard¹, Aileen F. Keating¹

¹Iowa State University

12:45 p.m. PSVII-21 **Impacts of various farrowing induction protocols on attended farrowings**

Katharine G. Sharp¹, Kayla M. Mills¹, Larissa Shirley¹, Ricardo M. Garcia¹, Kara R. Stewart¹

¹Purdue University

12:45 p.m. PSVII-8 **miRNAs explain the variation in muscle and blood transcriptomes of beef calves born from dams with or without energy restriction during late gestation**

Elisa B. Carvalho¹, Letícia P. Sanglard¹, Moysés Nascimento², Philippe Moriel³, Jeffrey Sommer⁴, Melissa Merrill⁴, Matthew Poore⁴, Marcio Duarte², Nick Serão¹

¹Iowa State University, ²Universidade Federal de Viçosa, ³University of Florida, ⁴North Carolina State University

12:45 p.m. PSVII-9 **Post transcriptional modifications may lead to changes in newborn goats' skeletal muscle proteome as a consequence of maternal feed restriction at different stages of gestation**

Thaís Costa¹, Tiago Mendes¹, Felipe Moura², Ranyeri Souza¹, Marta Fontes¹, Mariana Lopes¹, Nick Serão³, Fabyano Silva¹, Mateus P. Gionbelli⁴, Marcio Duarte¹

¹Universidade Federal de Viçosa, ²University of Nevada - Reno, ³Iowa State University, ⁴Universidade Federal de Lavras

12:45 p.m. PSVII-10 **Skeletal muscle transcriptome reveals gene expression differences in newborn goats' as a result of maternal feed restriction at different stages of gestation**

Thaís Costa¹, Tiago Mendes¹, Felipe Moura², Ranyeri Souza¹, Marta Fontes¹, Mariana Lopes¹, Nick Serão³, Fabyano Silva¹, Mateus P. Gionbelli⁴, Marcio Duarte¹

¹Universidade Federal de Viçosa, ²University of Nevada - Reno, ³Iowa State University, ⁴Universidade Federal de Lavras

12:45 p.m. PSVII-22 **Trichostatin A as an aging agent in an oocyte**

Haley A. Arena¹, Emma C. Hicks¹, Brian Whitaker¹

¹University of Findlay

12:45 p.m. PSVII-11 **Utilizing digital images to evaluate accuracy and repeatability of body condition score in cull sows**

William E. Taylor ¹, Christopher J. Cassady ¹, Steven M. Lonergan ¹, Ben D. Peyer ², Kenneth J. Stalder ¹

¹Iowa State University, ²Johnsonville Sausage LLC

POSTER SESSION VIII

5:00 PM - 5:45 PM

Grand Ballroom Foyer

5:00 p.m. PSVIII-17 **Assessment of conformational changes across three parities in sows**

Melanie D. Trenhaile-Grannemann ¹, Ronald M. Lewis ², Stephen D. Kachman ², Kenneth J. Stalder ³, Benny E. Mote ²

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

5:00 p.m. PSVIII-3 **Can the fermentation of insoluble corn fiber be improved in the pig? – An investigation into the in vivo mode of action of xylanase**

Amy Petry ¹, Lucas Koester ¹, Stephan Schmitz-Esser ¹, Nichole Huntley ², Mike Bedford ³, John Patience ¹

¹Iowa State University, ²Mazuri, ³AB Vista

5:00 p.m. PSVIII-1 **Determination of in vitro DM, N and NDF digestibility and fermentability in novel corn co-products for swine**

Amanda Palowski ¹, Zhaohui Yang ¹, Pedro E. Urriola ¹, Gerald C. Shurson ¹

¹University of Minnesota

5:00 p.m. PSVIII-2 **Dietary supplementation of Bacillus subtilis altered metabolites in the intestine of weaned pigs**

Yijie He ¹, Kwangwook Kim ¹, Cynthia Jinno ¹, Xunde Li ¹, Yanhong Liu ¹

¹University of California, Davis

5:00 p.m. PSVIII-4 **Effect of coarse wheat bran and crude protein level in nursery diets without zinc oxide on pig performance**

Kelsey L. Batson ¹, Hilda I. Calderon Cartagena ¹, Mike D. Tokach ¹, Jason C. Woodworth ², Robert D. Goodband ¹, Steve S. Dritz ³, Joel M. DeRouchey ¹

¹Kansas State University, ²Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ³Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506

5:00 p.m. PSVIII-5 **Effect of glycemic and endocrine response to feeding time in pregnant sows**

Hayford Manu ¹, Lee SuHyup ², Samuel Kofi Baidoo ²

¹University of Minnesota - Department of Animal Science, ²University of Minnesota - SROC, Waseca

5:00 p.m. PSVIII-6 **Effect of Pellet Die Thickness and Conditioning Temperature During the Pelleting Process on Phytase Stability**

Courtney N. Truelock ¹, Nelson E. Ward ², Jonathan W. Wilson ², Charles R. Stark ¹, Chad B. Paulk ¹

¹Kansas State University, ²DSM Nutritional Products

5:00 p.m. PSVIII-7 **Effects of Bacillus subtilis on colon digesta metabolomic profiles in weanling pigs experimentally infected with a pathogenic E. coli**

Kwangwook Kim ¹, Yanhong Liu ¹

¹University of California, Davis

5:00 p.m. PSVIII-8 **Effects of dietary L-arginine on growth performance, nutrient digestibility, and meat quality in finishing pigs**

Woo Jeong Seok ¹, Je min Ahn ¹, Yong Min Kim ¹, Sumya Kibria ¹, Huan Shi ¹, In Ho Kim ¹

¹Dankook University

5:00 p.m. PSVIII-9 **Effects of different sources and levels of dietary iron and selenium on the postprandial net portal appearance of these minerals in pigs**

Danyel Bueno Dalto ¹, Jacques Matte ¹

¹Agriculture and Agri-Food Canada

5:00 p.m. PSVIII-10 **Effects of enzyme supplementation in corn distiller's dried grains with solubles (DDGS) diets on growth performance in broilers: a meta-analysis**

Jae-Cheol Jang ¹, Zhikai Zeng ², Pedro E. Urriola ¹, Gerald C. Shurson ¹

¹University of Minnesota, ²Department of Animal Science, University of Minnesota

5:00 p.m. PSVIII-11 **Effects of feeding diets containing corn distiller's dried grains with solubles (DDGS) on growth performance in broilers: a meta-analysis**

Jae-Cheol Jang ¹, Zhikai Zeng ², Pedro E. Urriola ¹, Gerald C. Shurson ¹

¹University of Minnesota, ²Department of Animal Science, University of Minnesota

5:00 p.m. PSVIII-12 **Effects of increasing iron dextran dosage at birth on hematological profile, growth performance, and tissue mineral concentrations of pigs in the nursery**

Tyler B. Chevalier ¹, Harold J. Monegue ¹, Merlin D. Lindemann ¹

¹University of Kentucky

5:00 p.m. PSVIII-19 **Evaluation of Cooling Pads on Late Lactating Sows**

Larissa Shirley¹, Morgan Burgett¹, Tyler Field¹, Allan P. Schinckel¹, Kara R. Stewart¹, Ricardo M. Garcia¹, Jay S. Johnson², Robert Stwalley¹

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

5:00 p.m. PSVIII-13 **Finishing non-castrated male and female pigs have different response to the lysine to energy ratio**

Pau Aymerich¹, Carme Soldevila¹, Jordi Bonet¹, Josep Gasa², Jaume Coma¹, David Solà-Oriol²

¹Vall Companys Group, ²Universitat Autònoma de Barcelona

5:00 p.m. PSVIII-14 **Impact of altering Lys:energy ratio during gestation on offspring post-wean growth performance**

Tiffany Bruhn¹, Hyatt Frobose², Crystal L. Levesque¹

¹South Dakota State University, ²JYGA Technologies, Inc.

5:00 p.m. PSVIII-20 **Impact of soybean meal inclusion in late gestation on sow productivity and litter performance**

Abigail Loucks¹, Dana van Sambeek², Elizabeth A. Hines¹

¹Penn State University, ²U.S. Army Combat Capabilities and Development Command Soldier Center

5:00 p.m. PSVIII-21 **Parasite prevalence and fecal egg counts on organic pig farms**

Yuzhi Li¹, Alexander Hernandez², Rick Carr³, Shelby Dukes³, Maria Lou¹, Diane DeWitte⁴

¹University of Minnesota, ²Kutztown University of Pennsylvania, ³Rodale Institute, ⁴University of Minnesota Extension

5:00 p.m. PSVIII-15 **Phytogenics reduces medical treatment in nursery pigs affected by post-weaning diarrhea**

Kory Moran¹, Tobias Aumiller¹, Klaus Manner², Jurgen Zentek², Jan Dirk van der Klis¹, Andreas Muller¹

¹Delacon Biotechnik GmbH, ²Free University of Berlin

5:00 p.m. PSVIII-16 **The effects of adding two organic acid blends with or without high levels of zinc or copper, on post-weaning pig performance.**

Casey L. Bradley¹, Jon Bergstrom², Jeremiah Nemecek¹, J.D. Hahn²

¹DSM Nutritional Products LLC, ²DSM Nutritional Products

5:00 p.m. PSVIII-22 **Utilization of NUtrack to assess sire influence on pig activity and activity effects on weight**

Lexi Ostrand ¹, Garrett See ¹, Melanie D. Trenhaile-Grannemann ², Ty Schmidt ¹, Eric Psota ¹, Gary Rohrer ³, Benny E. Mote ⁴

¹University of Nebraska, ²University of Nebraska - Lincoln, ³US Meat Animal Research Center,

⁴University of Nebraska-Lincoln

Wednesday, March 4, 2020

POSTER SESSION IX

7:30 AM - 8:15 AM

Grand Ballroom Foyer

7:30 a.m. PSIX-1 **Altering dietary fiber components mitigates severity of Brachyspira hyodysenteriae challenge**

Emma T. Helm ¹, Nicholas Gabler ¹, Eric R. Burrough ¹

¹Iowa State University

7:30 a.m. PSIX-2 **Amino acid digestibility and digestible indispensable amino acid scores of a few protein isolates and concentrates derived from cereal grains, plant proteins, or dairy proteins**

Hannah M. Bailey ¹, Hans H. Stein ²

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

7:30 a.m. PSIX-20 **Antibacterial activity of an essential oil combination against several common enteropathogens in swine production**

Bernat Canal ¹, Luis Mesas ¹, Cinta Sol ¹, Monica Puyalto ¹, Ana Carvajal ², Manuel Gomez ², Juan Jose Mallo ¹

¹Norel SA, ²Universidad de Leon

7:30 a.m. PSIX-4 **Concentrations of digestible and metabolizable energy and digestibility of phosphorus in a new source of high-protein distillers dried grains with solubles fed to growing pigs**

Minoy A. Cristobal Romero ¹, Su A Lee ², Hans H. Stein ²

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

7:30 a.m. PSIX-5 **Dietary supplementation of Bacillus subtilis modified fecal microbiome of weaned pigs in comparison to antibiotics**

Cynthia Jinno ¹, Yijie He ¹, Xunde Li ¹, Yanhong Liu ¹

¹University of California, Davis

7:30 a.m. PSIX-3 **Effect of a combination of brown, green and red seaweeds on performance of nursery and growing-finishing pigs, and on carcass characteristics**

Hayford Manu¹, Qiang Huang², Devi Pangeni¹, Augustine Owusu-Asiedu^{2,3}, Jason Sands⁴, Samuel Kofi Baidoo²

¹University of Minnesota - Department of Animal Science, ²University of Minnesota - SROC, Waseca, ³Ocean Harvest Technology, Milltown, Galway, Ireland, ⁴Ocean Harvest Technology

7:30 a.m. PSIX-6 **Effect of dacitic tuff breccia in nursery diets on pig growth performance, blood parameters, and intestinal morphology**

Ricardo M. Garcia¹, Jon Ferrel², Morgan T. Thayer¹, Julie F. Mahoney¹, Alan W. Duttlinger¹, Clayton S. Chastain¹, Brian T. Richert¹, John S. Radcliffe¹

¹Purdue University, ²Azomite

7:30 a.m. PSIX-7 **Effects of a dietary seaweed product on sow progeny performance, fecal consistency, and fecal microbiota during gestation, lactation, nursery and grow-finish periods**

Hadley Williams¹, Leandro Del Tuffo¹, Mike D. Tokach¹, Joel M. DeRouchey¹, Jason C. Woodworth², Steve S. Dritz³, Robert D. Goodband¹, Fernanda Laskoski¹, Carine Vier¹, Laura Constance¹, Megan C. Niederwerder¹, Emily Arkfeld⁴

¹Kansas State University, ²Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ³Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ⁴Triumph Foods

7:30 a.m. PSIX-8 **Effects of an algae-clay complex-based feed additive and diet formulation regimen on finishing pig growth performance and carcass characteristics**

Hadley Williams¹, Leandro Del Tuffo¹, Jason C. Woodworth², Joel M. DeRouchey¹, Steve S. Dritz³, Mike D. Tokach¹, Robert D. Goodband¹, Jake Erceg⁴, Maria Gallissot⁴

¹Kansas State University, ²Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ³Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ⁴Olmix

7:30 a.m. PSIX-9 **Effects of Conditioning Temperature on Pellet Quality of Nursery Pig Diets**

Gage E. Nichols¹, Charles R. Stark¹, Aundria Ogles¹, Kara M. Dunmire¹, Chad B. Paulk¹

¹Kansas State University

7:30 a.m. PSIX-10 Effects of SID Lysine:Calorie NE ratio on the Growth Performance and Carcass Characteristics of DNA 600 Sired Pigs

Brittany Carrender¹, Hayden E. Williams², Mandy Gerhart³, Kyle Coble¹, Joel M. DeRouchey², Mike D. Tokach², Steve S. Dritz⁴, Jason C. Woodworth⁵, Robert D. Goodband²

¹JBS Live Pork, ²Kansas State University, ³JBS, ⁴Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ⁵Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506

7:30 a.m. PSIX-11 Effects of Spray-Dried Lactococcus-Based Fermentation Products on Growth Performance of Nursery Pigs

Kara M. Dunmire¹, Michaela B. Braun¹, Gage E. Nichols¹, Caitlin E. Evans¹, Marut Saensukjaroenphon¹, Courtney N. Truelock¹, Jason C. Woodworth², Jarred Callura³, Chad B. Paulk¹

¹Kansas State University, ²Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ³Intrexon Corporation

7:30 a.m. PSIX-12 Effects of tannin supplementation on zootechnical performance and blood parameters of weaned piglets

Monika Hejna¹, Matteo Dell'Anno¹, Valentina Caprarulo¹, Stefania Sotira¹, Luciana Rossi¹

¹Department of Health, Animal Science and Food Safety, University of Milan, Italy

7:30 a.m. PSIX-13 Effects of zinc and copper levels on growth performance of nursery pigs

Henrique S. Cemin¹, Luke A. Swalla¹, Jamie L. Pietig¹, Sharlie A. Hansen¹, Ernie L. Hansen¹

¹Hubbard Feeds

7:30 a.m. PSIX-14 Evaluation of high-protein distillers dried grains on growth performance and carcass characteristics of growing-finishing pigs

Zhong-Xing Rao¹, Mike D. Tokach¹, Steve S. Dritz², Jason C. Woodworth³, Joel M. DeRouchey¹, Robert D. Goodband¹, Hilda I. Calderon Cartagena¹, Mallorie Wilken⁴

¹Kansas State University, ²Department of Diagnostic Medicine & Pathobiology, College of Veterinary Medicine, Manhattan, KS 66506, ³Department of Animal Sciences & Industry, College of Agriculture, Manhattan, KS 66506, ⁴ICM Inc.

7:30 a.m. PSIX-15 Extrusion of corn-soybean product blends in replacement of soybean meal in weanling pig diets

Natália C. Milani¹, Vinicius R.C. Paula¹, Cândida P.F. Azevedo¹, Anderson A. Sedano¹, Hélio Moreira Junior¹, Raquel S. Fernandes¹, José M. M. Andrade¹, Urbano Ruiz¹

¹University of São Paulo

7:30 a.m. PSIX-16 **Growth performance and blood immune parameters of nursery pigs fed canola meal-based diets**

Jinsu Hong ¹, Joy Scaria ¹, Tofuko A. Woyengo ¹

¹South Dakota State University

7:30 a.m. PSIX-17 **Investigating the biological activities of sodium cellobionate produced from cellulosic biomass**

Lauren Kovanda ¹, Zhiliang Fan ¹, Xunde Li ¹, Yanhong Liu ¹

¹University of California, Davis

7:30 a.m. PSIX-18 **Prediction of urinary P excretion as a tool to assess mineral status of growing pigs**

Marie-Pierre Létourneau-Montminy ¹, Theophane de Rauglaudre ²

¹Laval University, ²Université Laval

7:30 a.m. PSIX-19 **The impact of piglet nursing location along the sow udder line on piglet gain and subsequent weaning weight**

Shannon L. Dierking ¹, Harold J. Monegue ¹, Merlin D. Lindemann ¹

¹University of Kentucky