

Monday, March 13, 2017

POSTER SESSION I
Graduate Student Poster Competition - MS I

12:30 PM - 1:30 PM
Grand Ballroom Foyer

- 107 1 **Effect of Original XPC in Receiving Diets on Newly Weaned Beef Steer Performance.**
*E. L. Deters**, *R. S. Stokes*, *O. N. Genther-Schroeder* and *S. L. Hansen*, *Iowa State University, Ames*
- 108 2 **Mortality and Survival Probability of Breeding-Female Pigs in Southern European Commercial Herds.**
*S. Tani**¹, *C. Pineiro*² and *Y. Koketsu*¹, ¹*Meiji University, Kawasaki, Japan*, ²*PigChamp Pro Europa, Segovia, Spain*
- 109 3 **Cows with Follicular Fluid Androgen Excess Exhibit Anovulation and Have Altered Circulating Sex Hormone Binding Globulin, Gonadotropin Secretion and Plasma and Follicular Fluid Composition.**
*R. Spuri Gomes**¹, *S. C. Tenley*¹, *S. Romereim*¹, *M. Abedal-Majed*¹, *A. F. Summers*², *S. G. Kurz*¹, *J. Bergman*¹, *R. M. McFee*¹, *J. C. Gomes Neto*¹, *R. A. Cushman*³, *J. S. Davis*⁴, *J. R. Wood*¹ and *A. S. Cupp*¹, ¹*University of Nebraska - Lincoln*, ²*New Mexico State University, Animal and Range Science Department, Las Cruces*, ³*USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*, ⁴*University of Nebraska Medical Center, Department of OBGYN, Omaha*,
- 110 4 **Changes in Neonatal Foal Blood Chemistry during the First 72 Hours of Life.**
*N. B. Duncan**, *M. J. Crosby* and *A. M. Meyer*, *Division of Animal Sciences, University of Missouri, Columbia*
- 111 5 **Effects of Exogenous Phytase Supplementation and Dietary Phosphorus Concentration on Metabolism and Digestibility of Beef Cattle.**
*C. J. Long**, *H. H. Stein* and *T. L. Felix*, *University of Illinois at Urbana-Champaign*

Graduate Student Poster Competition - PhD

12:30 PM - 1:30 PM
Grand Ballroom Foyer

- 117 6 **Effects of Floor Cooling on Late Lactation Sows Under Acute Heat Stress.**
*F. A. Cabezon**¹, *A. P. Schinckel*¹, *J. N. Marchant-Forde*², *J. S. Johnson*² and *R. M. Stwalley*³, ¹*Purdue University, Department of Animal Sciences, West Lafayette, IN*, ²*USDA-ARS Livestock Behavior Research Unit, West Lafayette, IN*, ³*Purdue University, Department of Agricultural Biological Engineering, West Lafayette, IN*
- 118 7 **Effects of Dietary Copper Levels on Growth Performance and Response to Lipopolysaccharide Challenge in Nursery Pigs from Sows Fed Either High or Low Copper Diets.**
*N. Lu** and *M. D. Lindemann*, *University of Kentucky, Lexington*
- 119 8 **Standardized Total Tract Digestible Phosphorus Requirement of 11- to 25-Kg Pigs.**
*C. M. Vier**¹, *F. Wu*¹, *S. S. Dritz*¹, *M. D. Tokach*¹, *M. A. D. Goncalves*², *U. A. D. Orlando*², *J. C. Woodworth*¹, *R. D. Goodband*¹ and *J. M. DeRouchey*¹, ¹*Kansas State University, Manhattan*, ²*Genus PIC, Hendersonville, TN*
- 120 9 **After All, Tomorrow is Another Day for the Transition Cow: Depending on Liver and Reproductive Health, of Course.**
*Y. Schuermann**¹, *A. St-Yves*¹, *N. Dicks*¹, *R. C. Bohrer*¹, *R. Mondadori*², *V. Higginson*¹, *V. Boyer*¹, *M. Taibi*¹, *E. Madogwe*¹, *V. Bordignon*¹, *A. Mustafa*¹, *B. Baurhoo*¹ and *R. Duggavathi*¹, ¹*McGill University, Sainte-Anne De Bellevue, QC, Canada*, ²*Federal University of Pelotas, Capão do Leão, Brazil*

121 10 **Impact of Estrus Expression and Conceptus Presence on Plasma and Uterine Glucose Concentrations up until Maternal Recognition of Pregnancy in Beef Cattle.**
*E. J. Northrop^{*1}, J. J. J. Rich¹, R. A. Cushman² and G. A. Perry¹, ¹South Dakota State University, Department of Animal Science, Brookings, ²USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*

Undergraduate Student Poster Competition I

12:30 PM - 1:30 PM
Grand Ballroom Foyer

397 11 **Effects of Vitamins E and D on Performance and Antioxidant Enzymes in Nursery Pigs.**
*K. R. Copeland^{*1}, D. B. Scales¹, G. M. Hill¹, J. E. Link¹, K. C. Turner², C. J. Rozeboom¹ and R. L. Stuart³, ¹Michigan State University, East Lansing, ²Michigan State University, Okemos, ³Stuart Products Inc., Bedford, TX*

398 12 **Effects of in Utero Heat Stress on Boar Growth and Reproduction Prior to, during, and after Puberty.**
*J. A. Proctor^{*1}, D. W. Lugar¹, M. C. Lucy², T. J. Safranski² and K. R. Stewart³, ¹Purdue University, West Lafayette, IN, ²University of Missouri, Columbia, ³Purdue University, Department of Animal Sciences, West Lafayette, IN*

399 13 **Comparison of Igenity Silver Profile and Zoetis Predic Gen DNA Tests in Crossbred Beef Cattle.**
*D. M. Zuidema^{*1}, M. G. Gonda¹, W. C. Rusche² and J. Walker¹, ¹South Dakota State University, Brookings, ²South Dakota State University Extension, Brookings*

400 14 **The Effects of Different Oocyte Maturation Media on the Production of in Vitro Derived Pig Embryos.**
K. James^{}, J. Current, E. Winn and B. D. Whitaker, University of Findlay, Findlay, OH*

401 15 **Feeding Liquid Sweet Whey to Growing Swine.**
*J. M. Lutz^{*1}, N. Ernst¹, A. R. Brummit¹, J. C. Hofman¹, J. P. Schweihofe², S. Cho¹ and D. W. Rozeboom¹, ¹Michigan State University, East Lansing, ²Michigan State University Extension, Bad Axe*

Nonruminant Nutrition I: Feed Additives I

12:45 PM - 1:30 PM
Grand Ballroom Foyer

154 17 **Dose-Response Trial of an Umami Sensory Additive in Pig Transition Diets.**
*G. Tedo^{*1}, A. Mereu^{1,2} and F. Bargo¹, ¹Innovation Division, Lucta S.A., Barcelona, Spain, ²Yara International, Oslo, Norway*

155 18 **Effect of a New Montmorillonite-Based Feed Additive on the Production Performance of Newly Weaned Piglets.**
*M. S. Hasan^{*1}, T. Wang¹, S. Ching², J. M. Feugang¹, M. A. Crenshaw¹, S. L. Johnston², F. Chi² and S. F. Liao¹, ¹Mississippi State University, Department of Animal and Dairy Sciences, Mississippi State, ²Amlan International, Chicago, IL*

156 19 **Effect of Different Phase Level of Medium Chain Triglycerides on Growth Performance, Excreta Microflora and Blood Profiles in Broilers.**
J. Hu^{}, J. Y. Zhang, S. D. Upadhaya and I. H. Kim, Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea*

157 20 **Effects of Kemtrace Cr Level and Feeding Regimen on Finishing Pig Growth Performance and Carcass Characteristics.**

J. T. Gebhardt¹, J. C. Woodworth¹, M. D. Tokach¹, S. S. Dritz¹, J. M. DeRouche¹, J. A. Loughmiller² and R. D. Goodband¹, ¹Kansas State University, Manhattan, ²Kemin Industries, Des Moines, IA

158 21 **Interactive Effects of Kemtrace Cr and Micro-Aid on Finishing Pig Growth Performance and Carcass Characteristics.**

J. T. Gebhardt¹, J. C. Woodworth¹, M. D. Tokach¹, S. S. Dritz¹, J. M. DeRouche¹, J. A. Loughmiller² and R. D. Goodband¹, ¹Kansas State University, Manhattan, ²Kemin Industries, Des Moines, IA

159 22 **Supplemental Effects of Fermented Rice Bran Extracts on Growth Performance, Bone Characteristics and Immune Response of Broiler Chickens.**

L. Zheng^{}, M. E. Duarte, I. Park and S. W. Kim, North Carolina State University, Raleigh*

Nonruminant Nutrition II: Enzymes

12:45 PM - 1:30 PM
Grand Ballroom Foyer

150 23 **Supplementation of NSP Enzyme Increased the Nutritive Value of Diets Fed to Lactating Sows.**

*T. F. Pedersen^{*1}, T. S. Bruun², B. N. Fisker³, I. Knap⁴ and P. K. Theil⁵, ¹Aarhus Universitet, Tjele, Denmark, ²SEGES Pig Research Centre, Copenhagen V, Denmark, ³DSM Nutritional Products, Broendby, Denmark, ⁴DSM Nutritional Products, Kaiseraugst, Switzerland, ⁵Aarhus University, Tjele, Denmark*

151 24 **Influence of Enterococcus Faecium and Endo-1,4-Xylanase Supplementation to Corn and Soybean Meal Based Diet on Growth Performance, Nutrient Digestibility, Meat Quality, Fecal Microflora and Fecal Gas Emission in Finishing Pigs.**

*D. H. Nguyen^{*1}, K. Y. Lee², H. N. Tran¹ and I. H. Kim¹, ¹Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea, ²Morningbio Co. Ltd, Cheonan, The Republic of Korea*

152 25 **Effects of Addition of Protease with or without Fructo-Oligosaccharide to Low Protein Diet on Growth Performance, Nutrient Digestibility, and Fecal Ammonia Emission in Growing-Finishing Pigs.**

X. J. Lei^{}, J. H. Park, H. M. Yun, J. W. Park and I. H. Kim, Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea*

153 26 **Impact of Xylanase and an Enzyme Blend on Gut Barrier Function and Growth Performance in Nursery Pigs.**

*Q. Y. Li^{*1}, N. K. Gabler¹, C. Sparks² and J. F. Patience¹, ¹Iowa State University, Ames, ²Huvepharma Inc., St. Louis, MO*

POSTER SESSION II Graduate Student Poster Competition - MS II

4:45 PM - 5:45 PM
Grand Ballroom Foyer

112 1 **Vaginal and Uterine Bacterial Communities in Postpartum Lactating Cows.**

*B. A. Clemmons^{*1}, F. Guirado Dantas¹, G. A. Franco¹, S. T. Reese¹, O. I. Adeyosoye², T. P. Smith³, P. R. Myer¹ and K. G. Pohler¹, ¹University of Tennessee, Knoxville, ²Obafemi Awolowo University, Ile-Ife, Nigeria, ³USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*

113 2 **The Effects of Supplementing EPA and DHA during Late Gestation on Ewe Metabolic Profile and Milk Production.**

*D. N. Coleman**, *A. Relling* and *P. A. Dieter*, *The Ohio State University, Department of Animal Sciences, Wooster*

114 3 **Improving Sow Productivity and Nursery Pig Performance by Injecting Sows with d- α -Tocopherol, Retinyl Palmitate and Cholecalciferol.**

*R. Becerra**¹, *E. van Heugten*¹ and *R. L. Stuart*², ¹*North Carolina State University, Raleigh*, ²*Stuart Products Inc., Bedford, TX*

115 4 **Enhancing the Nutritive Values of Corn DDGS Via Pretreatment and Digestion.**

*C. A. Zangaro**¹, *R. Patterson*², *W. R. Gibbons*¹ and *T. A. Woyengo*¹, ¹*South Dakota State University, Brookings*, ²*Canadian Biosystems, Calgary, AB, Canada*

116 5 **On the Associations Between Linear Body Measurements, Feeding Behavior Traits and Feed Efficiency Measures in Finishing Steers.**

*A. B. P. Fontoura*¹, *E. Knutson*¹, *F. E. Keomanivong*¹, *A. K. Ward*² and *K. C. Swanson*¹, ¹*North Dakota State University, Fargo*, ²*North Dakota State University, Department of Animal Sciences, Fargo*

Undergraduate Student Poster Competition II

4:45 PM - 5:45 PM
Grand Ballroom Foyer

402 6 **Analysis of Particle Size and Organic Matter in Recycled Sand Bedding.**

*L. R. Statz**¹, *P. J. Lammers* and *K. A. L. Hardyman*, *University of Wisconsin-Platteville*

403 7 **Acceptance of a Novel Cheese By-Product Powder by Young Ruminants.**

*S. L. Van Asten**¹, *E. N. Alava*², *E. I. Alava*³ and *P. J. Lammers*¹, ¹*University of Wisconsin-Platteville*, ²*University of Findlay, Findlay, OH*, ³*Escuela Superior Politecnica del Litoral, Guayaquil, Ecuador*

404 8 **Supplementation of Fructose on Porcine Sperm Improves Characteristics on Frozen-Thawed Sperm.**

B. D. Whitaker and *E. Winn**, *University of Findlay, Findlay, OH*

405 9 **Effects of Nutrient Supplementation on Pig Sickness Behavior when Infected with Porcine Reproductive and Respiratory Syndrome Virus.**

*N. R. Gordon**¹, *S. M. Curry*², *W. P. Schweer*², *N. K. Gabler*² and *J. D. Colpoys*¹, ¹*Truman State University, Kirksville, MO*, ²*Iowa State University, Ames*

406 10 **Oviductal Fluid Supplementation during Maturation and Fertilization Improves in Vitro Embryonic Development in Pigs.**

*A. Goldacker**¹, *E. Winn*, *J. Current* and *B. D. Whitaker*, *University of Findlay, Findlay, OH*

407 11 **Effects of Dietary Probiotics on Cattle Growth Performance.**

*A. J. Kelsey** and *J. D. Colpoys*, *Truman State University, Kirksville, MO*

Nonruminant Nutrition III: Gestation/Lactation

5:00 PM - 5:45 PM
Grand Ballroom Foyer

160 12 **Effects of Energy Restriction during Gilt Development on Parity 1 Progeny Growth Performance.**

S. M. Barnett*, M. D. Trenhaile-Grannemann, T. E. Burkey, P. S. Miller and D. C. Ciobanu, University of Nebraska-Lincoln

161 13 **Feed Intake of Lactation Diets by Sows during Extended Lactation Periods.**
A. P. Schinckel^{*1}, F. A. Cabezon¹, L. Y. León² and B. A. Craig³, ¹Purdue University, Department of Animal Sciences, West Lafayette, IN, ²Universidad Nacional de Colombia, Department of Statistics, Bogotá, Colombia, ³Purdue University, Department of Statistics, West Lafayette, IN

162 14 **Effects of Feeding Levels during Wean-to-Estrus Interval and First Week of Gestation on Reproductive Performance of Sows.**
L. Almeida^{*1}, M. A. D. Goncalves², U. A. D. Orlando² and A. Maiorka¹, ¹Universidade Federal do Paraná, Curitiba, Brazil, ²Genus PIC, Hendersonville, TN

163 15 **Predicting Post-Farrow Maternal Weight for Primiparous and Multiparous Sows.**
L. L. Thomas*, S. S. Dritz, R. D. Goodband, M. D. Tokach, J. M. DeRouche and J. C. Woodworth, Kansas State University, Manhattan

164 16 **Effects of Different Feeding Levels during Three Short Periods of Gestation on Gilt and Litter Performance, Nutrient Digestibility and Energy Homeostasis.**
P. Ren¹, X. Yang¹, S. Cui^{2,3}, J. Kim¹, D. Menon¹, D. Pangen¹, H. Manu¹, A. Tekeste¹ and S. K. Baidoo¹, ¹University of Minnesota, Southern Research and Outreach Center, Waseca, ²University of Minnesota, West Central Research and Outreach Center, Morris, ³Northeast Agricultural University, Harbin, China

165 17 **Effects of Feeding Level and Physiological Stage on Digestibility of Gross Energy and Nutrients and Concentration of Digestible and Metabolizable Energy in Full Fat Rice Bran and Defatted Rice Bran Fed to Gestating Sows and Growing Gilts.**
G. A. Casas^{*1,2} and H. H. Stein², ¹Universidad Nacional de Colombia, Bogota, Colombia, ²University of Illinois at Urbana-Champaign

166 18 **Effects of Energy Restriction during Gilt Development on Milk Nutrient Profile and Progeny Biomarkers.**
S. M. Barnett^{*1}, M. D. Trenhaile-Grannemann¹, P. S. Miller², T. E. Burkey² and D. M. van Sambeek¹, ¹University of Nebraska-Lincoln

Nonruminant Nutrition IV: Nursery Pig I

5:00 PM - 5:45 PM
Grand Ballroom Foyer

167 19 **The Impact of Dietary SID Trp:Lys on Growth Performance of Nursery Pigs.**
D. D. Koehler^{*1}, J. F. Patience², K. J. Touchette³, S. A. Gould², T. A. Kellner², L. M. Gesing¹ and L. S. Courtney¹, ¹Vita Plus Corporation, Madison, WI, ²Iowa State University, Ames, ³Ajinomoto Heartland, Inc., Chicago, IL

168 20 **Effects of a Gluco-Oligosaccharide on Growth Performance of Nursery Pigs.**
F. Wu*, J. M. DeRouche, M. D. Tokach, S. S. Dritz, J. C. Woodworth and R. D. Goodband, Kansas State University, Manhattan

169 21 **Effects of Dietary Supplementation with a Probiotic (Enterococcus faecium) on Growth Performance, Nutrient Digestibility, Fecal Microbiota and Fecal Score in Weanling Pigs.**
R. X. Lan*, J. K. Kim, Y. H. Liu, H. M. Yun and I. H. Kim, Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea

170 22 **Comparing the Effects of Butyric Acid Source and Level on Growth Performance of Nursery Pigs.**
K. M. Gourley*, J. C. Woodworth, J. M. DeRouche, M. D. Tokach, R. D. Goodband and S. S. Dritz, Kansas State University, Manhattan

171 23 **Effects of Encapsulated Butyric Acid and Copper on Nursery Pig Growth Performance from d 0 to 42 after Weaning.**
*J. A. Loughmiller**, *D. Sanders*, *H. Feng*, *V. Mani*, *J. K. Rubach*, *A. L. P. De Souza*, *F. R. Valdez* and *M. J. Poss*, *Kemin Industries, Des Moines, IA*

172 24 **Effects of Feeding Probiotic or Chlortetracycline or a Combination on Nursery Pig Growth Performance.**
*H. E. Williams**, *M. D. Tokach*, *S. S. Dritz*, *J. C. Woodworth*, *J. M. DeRouche*, *R. G. Amachawadi*, *T. G. Nagaraja* and *R. D. Goodband*, *Kansas State University, Manhattan*

173 25 **Evaluation of Dose Response Effects of Butipearl™ C on Nursery Pig Growth Performance from d 0 to 42 after Weaning.**
*J. A. Loughmiller**, *A. L. P. De Souza*, *J. K. Rubach*, *H. Feng*, *D. Sanders*, *V. Mani*, *F. R. Valdez* and *M. J. Poss*, *Kemin Industries, Des Moines, IA*

174 26 **Effects of Dietary Lysine Level and Amino Acid Ratios on Nursery Pig Performance.**
A. B. Clark¹, *M. D. Tokach¹*, *J. M. DeRouche¹*, *S. S. Dritz¹*, *J. C. Woodworth¹*, *R. D. Goodband¹*, *K. J. Touchette²* and *M. Allerson³*, ¹*Kansas State University, Manhattan*, ²*Ajinomoto Heartland, Inc., Chicago, IL*, ³*Holden Farms Inc., Northfield, MN*

Tuesday, March 14, 2017

POSTER SESSION III

Extension - Dairy

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

62 1 **Evaluation of Commercial Products to Improve GUT Health and Digestibility in Lactating Dairy Cows.**
P. Poude¹, *D. P. Casper²* and *B. St-Pierre¹*, ¹*South Dakota State University, Animal Science Department, Brookings, SD*, ²*Formerly South Dakota State University, Brookings*

Extension - Swine

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

63 2 **Effects of Betaine and Heat Stress on Lactation and Post-Weaning Reproductive Performance on Sows.**
*F. A. Cabezon**, *K. R. Stewart*, *A. P. Schinckel* and *B. T. Richert*, *Purdue University, Department of Animal Sciences, West Lafayette, IN*

64 3 **Development and Application of a Model of Heat Production for Lactating Sows.**
F. A. Cabezon¹, *A. P. Schinckel¹*, *B. T. Richert¹*, *W. A. Peralta²* and *M. Gandarillas³*, ¹*Purdue University, Department of Animal Sciences, West Lafayette, IN*, ²*Agrícola Super Ltda, Rancagua, Chile*, ³*Universidad Austral de Chile, Valdivia, Chile*

65 4 **Effect of Gestational β -hydroxy- β -methylbutyrate Supplementation and Sire Line on Piglet Quality.**
M. Parker and *M. T. Knauer**, *North Carolina State University, Raleigh*

66 5 **Effects of Frequency and Time of Feeding during Gestation on Sow and Litter Performance.**
H. Manu^{}, P. Ren, D. Pangen, B. Tostenson, X. Yang, A. Tekeste, L. Su Hyup and S. K. Baidoo, University of Minnesota, Southern Research and Outreach Center, Waseca, MN*

67 6 **Effect of the Lactation Length of Piglets on Their Later Performance.**
*S. López-Vergé^{*1}, D. Solà-Oriol¹, J. Bonet², J. Coma² and J. Gasa¹, ¹Universitat Autònoma de Barcelona, Animal Nutrition and Welfare Service, Department of Animal and Food Sciences, Bellaterra, Spain, ²Vall Companys Group, Polígono Industrial El Segre, Lleida, Spain*

108 7 **Mortality and Survival Probability of Breeding-Female Pigs in Southern European Commercial Herds.**
*S. Tani^{*1}, C. Pineiro² and Y. Koketsu¹, ¹Meiji University, Kawasaki, Japan, ²PigChamp Pro Europa, Segovia, Spain*

398 8 **Effects of in Utero Heat Stress on Boar Growth and Reproduction Prior to, during, and after Puberty.**
*J. A. Proctor^{*1}, D. W. Lugar¹, M. C. Lucy², T. J. Safranski² and K. R. Stewart³, ¹Purdue University, West Lafayette, IN, ²University of Missouri, Columbia, ³Purdue University, Department of Animal Sciences, West Lafayette, IN*

Growth, Development, Muscle Biology, and Meat Science

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

123 9 **Performance and Docosahexaenoic Acid (DHA) Content in Longissimis dorsi and Backfat Tissues of Grow-Finish Pigs Fed Diets Differing in Heterotrophically-Grown Algae Content.**
*C. A. Moran¹, G. Fusconi², M. Morlacchini² and K. A. Jacques^{*3}, ¹Alltech France, Vire, France, ²CERZOO, Piacenza, Italy, ³Alltech Inc., Nicholasville, KY*

124 10 **Docosahexaenoic Acid Content in Longissimus dorsi and Backfat Tissues of Grow-Finish Pigs Fed Diets Containing 0, 0.25 or 0.5% Heterotrophically-Grown Algae: Study 2.**
*C. A. Moran¹, G. Fusconi², M. Morlacchini² and K. A. Jacques^{*3}, ¹Alltech France, Vire, France, ²CERZOO, Piacenza, Italy, ³Alltech Inc., Nicholasville, KY*

125 11 **Changes in Docosahexaenoic Acid (DHA) Content in Longissimis dorsi and Backfat Tissue of Finishing Pigs Given Diets Containing 1% Heterotrophically-Grown Algae during the Last 28 Days.**
*C. A. Moran¹, G. Fusconi², M. Morlacchini² and K. A. Jacques^{*3}, ¹Alltech France, Vire, France, ²CERZOO, Piacenza, Italy, ³Alltech Inc., Nicholasville, KY*

126 12 **Effects of Dietary Fat Source and Modified Distillers Grains on Beef Quality.**
F. A. Ribeiro^{}, E. K. Kunze, K. Domenech-Perez, N. J. Herrera, H. R. Voegelé, K. Hart and C. R. Calkins, University of Nebraska-Lincoln*

127 13 **Effect of Double Stocking and Nursery Split-Out Age on Wean-to-Finish Growth Performance and Economic Parameters of Growing Pigs.**
*R. L. Lemire^{*1}, K. F. Coble², D. Garry², L. L. Thomas³, C. W. Hastad² and D. D. Burnett¹, ¹Mississippi State University, Department of Animal and Dairy Sciences, Mississippi State, ²New Fashion Pork, Jackson, MN, ³Kansas State University, Manhattan*

128 14 **Fatty Acid Profile of Meat from Nellore and Angus Young Bulls Fed a Whole Shelled Corn Diet.**
*P. D. Teixeira^{*1}, J. P. Schoonmaker², M. L. Chizzotti³, J. R. R. Carvalho¹, C. V. R. Oliveira¹, A. C. Rodrigues¹, L. R. Santos¹ and M. M. Ladeira⁴, ¹Universidade Federal de Lavras, Brazil, ²Purdue University, West Lafayette, IN, ³Universidade Federal de Viçosa, Brazil, ⁴Federal University of Lavras, Brazil*

129 15 **The Effects of Instrumental Color and Extractible Lipid Content on Sensory Characteristics of Pork Chops Cooked to a Medium-Rare Degree-of-Doneness.**

K. B. Wilson^{*1}, M. F. Overholt¹, C. M. Shull², C. R. Schwab², A. C. Dilger¹ and D. D. Boler¹, ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL

130 16 **Effects of Antibiotic Program and Floor Space in the Nursery and Grow-Finish Periods on Wean-to-Finish Growth Performance of Pigs Under Commercial Conditions.**

N. S. Grohmann^{*1}, M. Ellis¹, J. J. Nankivil¹, N. C. Cooper¹, C. M. Shull², B. A. Peterson² and A. M. Gaines², ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL

131 17 **Retail Color and Aerobic Bacterial Count of Strip Steaks from Beef Cattle Fed Endophyte-Infected Tall Fescue Seeds.**

A. J. Holtcamp^{*}, A. Theradiyil Sukumaran, R. L. Lemire, B. B. Karisch, D. D. Burnett and T. Dinh, Mississippi State University, Department of Animal and Dairy Sciences, Mississippi State

132 18 **Effects of Feeding Stockpiled Tall Fescue Versus Tall Fescue Hay to Late Gestation Beef Cows on Steer Offspring Carcass Quality and Yield.**

A. M. Meyer^{*}, K. N. Niederecker, A. R. Rathert, K. E. Shircliff, Z. D. Callahan and B. R. Wiegand, University of Missouri, Division of Animal Sciences, Columbia

Nonruminant Nutrition V: Feed Additives II

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

175 19 **Evaluation of Dietary Phytochemicals on Growth Performance, Carcass Characteristics and Economics of Grow-Finish Pigs Housed Under Commercial Conditions.**

J. A. Soto^{*1}, M. D. Tokach¹, G. R. Murugesan², S. S. Dritz¹, J. C. Woodworth¹, J. M. DeRouchey¹ and R. D. Goodband¹, ¹Kansas State University, Manhattan, ²Biomim America Inc., San Antonio, TX

176 20 **Effect of Feeding Varying Levels of Lactobacillus Plantarum on Nursery Pig Performance.**

A. M. Jones^{*}, J. C. Woodworth, J. M. DeRouchey, S. S. Dritz, M. D. Tokach and R. D. Goodband, Kansas State University, Manhattan

177 21 **The Effect of Feeding Ambitine™FA on Growth Performance and Carcass Characteristics of Finishing Pigs.**

R. L. Schmitt¹, M. Ellis¹, J. E. Estrada¹, A. M. Gaines², O. F. Mendoza², C. M. Shull², S. A. Crowder³ and T. P. Karnezos⁴, ¹University of Illinois, Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL, ³Purina Animal Nutrition LLC., Shoreview, MN, ⁴PMI Nutritional Additives, Shoreview, MN

Breeding and Genetics

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

29 23 **Effects of Genetics on Growth and Feed Intake in Response to Repeated Exposure to Heat Stress.**

W. M. Rauw^{1,2}, E. J. Mayorga^{*2}, S. Lei², J. C. M. Dekkers², J. F. Patience², N. K. Gabler², S. M. Lonergan² and L. H. Baumgard², ¹Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Departamento de Mejora Genética Animal, Madrid, Spain, ²Iowa State University, Department of Animal Science, Ames

30 24 **Effect of Swine Sire Line and Selection Index Category on Wean-to-Finish Growth Performance and Carcass Characteristics.**

N. M. Stas^{*1}, M. Ellis¹, N. S. Grohmann¹, C. R. Schwab², C. M. Shull² and K. Ewing², ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL

31 25 **Selection for Age at Puberty in Swine: Correlated Response in Sow Productivity.**
G. M. See and M. T. Knauer, North Carolina State University, Raleigh*

399 26 **Comparison of Igenity Silver Profile and Zoetis Predic Gen DNA Tests in Crossbred Beef Cattle.**
D. M. Zuidema¹, M. G. Gonda¹, W. C. Rusche² and J. Walker¹, ¹South Dakota State University, Brookings, ²South Dakota State University Extension, Brookings

POSTER SESSION IV

Nonruminant Nutrition VI: Nursery Pig II

12:45 PM - 1:30 PM
Grand Ballroom Foyer

397 1 **Effects of Vitamins E and D on Performance and Antioxidant Enzymes in Nursery Pigs.**
K. R. Copeland¹, D. B. Scales¹, G. M. Hill¹, J. E. Link¹, K. C. Turner², C. J. Rozeboom¹ and R. L. Stuart³, ¹Michigan State University, East Lansing, ²Michigan State University, Okemos, ³Stuart Products Inc., Bedford, TX

209 2 **Effect of Enzymatically Fermented Soybean Meal and Lactobacillus Plantarum on Nursery Pig Performance.**
A. M. Jones, J. C. Woodworth, S. S. Dritz, M. D. Tokach and R. D. Goodband, Kansas State University, Manhattan*

210 3 **Effect of Diet Complexity and Specialty Protein Source on Nursery Pig Performance.**
A. M. Jones¹, J. C. Woodworth¹, J. M. DeRouchey¹, G. E. Fitzner², M. D. Tokach¹, S. S. Dritz¹ and R. D. Goodband¹, ¹Kansas State University, Manhattan, ²Hamlet Protein, Findlay, OH

211 4 **Evaluation of Berberine as an Alternative to Antibiotics in Nursery Pig Diets.**
E. E. Scholtz, South Dakota State University, Brookings*

212 5 **Effects of Mannan Oligosaccharides and Lactobacillus Mucosae on the Intestinal Morphology of Weanling Pigs Challenged with Escherichia coli Lipopolysaccharides.**
Y. S. Li, M. D. Trenhaile, D. M. van Sambeek, K. C. Moore, S. M. Barnett, S. C. Fernando, T. E. Burkey and P. S. Miller, University of Nebraska-Lincoln*

213 6 **Effects of Increasing Standardized Ileal Digestible (SID) Lysine on Performance of 11 to 23 Kg Nursery Pigs.**
E. D. Fruge¹, A. J. Gerhart¹, E. L. Hansen¹, S. A. Hansen¹ and K. F. Coble², ¹Hubbard Feeds, Inc., Mankato, MN, ²New Fashion Pork, Jackson, MN

214 7 **Effects of a Liquid Supplement and a Nursery Starter Diet Given Immediately Post-Weaning on Growth Performance and Morbidity and Mortality of Nursery Pigs.**
J. R. Morris¹, M. Ellis¹, J. E. Estrada¹, A. M. Gaines², C. M. Shull² and O. F. Mendoza², ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL

215 8 **Growth Performance of Nursery Pigs Fed Microalgae Carbohydrate Product.**
J. A. Mielke¹, P. E. Urriola¹, M. Saqui-Salces¹, L. J. Johnston² and G. C. Shurson¹, ¹University of Minnesota, Department of Animal Sciences, Saint Paul, ²University of Minnesota, West Central Research and Outreach Center, Morris

216 9 **Effect of a Post-Weaning Supplemental Nutrition Program on the Growth Performance, and Morbidity and Mortality of Nursery Pigs.**
K. D. Vande Pol¹, M. Ellis¹, C. M. Shull², A. M. Gaines², O. F. Mendoza² and E. Parr², ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs, LLC., Carlyle, IL

217 10 **Alternative Feed Additive, Associated or Not with Antibiotic, in Weaned Piglets Feeding: Growth Performance and Diets Digestibility.**
C. D. Silva Júnior¹, C. C. S. Martins², F. T. F. Dias², N. Y. Sitanaka³, L. B. Ferracioli³, J. E. Moraes³, C. C. Pizzolante³, F. E. L. Budiño³ and U. S. Ruiz⁴, ¹Univ. Estadual Paulista, Dracena, Brazil, ²DSM Nutritional Products Brazil S.A., São Paulo, Brazil, ³Institute of Animal Science and Pastures, Nova Odessa, Brazil, ⁴University of São Paulo, Piracicaba, Brazil

218 11 **Alternative Feed Additive, Associated or Not with Antibiotic, in Weaned Piglets Feeding: Diarrhea Incidence, Intestinal Mucosa Morphology and Digestive Organs Weight.**
C. D. Silva Júnior¹, C. C. S. Martins², F. T. F. Dias², L. B. Ferracioli³, N. Y. Sitanaka³, J. E. Moraes³, C. C. Pizzolante³, F. E. L. Budiño³ and U. S. Ruiz⁴, ¹Universidade Estadual Paulista, Dracena, Brazil, ²DSM Nutritional Products Brazil S.A., São Paulo, Brazil, ³Institute of Animal Science and Pastures, Nova Odessa, Brazil, ⁴University of São Paulo, Piracicaba, Brazil

219 12 **Effect of Yeast Cell Wall (YCW) Inclusion Rate on Growth Performance in Nursery Pigs.**
*X. Wang^{*1}, T. C. Tsai¹, C. L. Walk², P. Wilcock² and C. V. Maxwell¹, ¹University of Arkansas, Division of Agriculture, Department of Animal Science, Fayetteville, ²AB Vista, Marlborough, United Kingdom*

220 13 **Performance of Nursery Pigs Fed a Customized Antibiotic-Free Feeding Program, with or without, Three Different Types of Feed Grade Antibiotics.**
F. B. Sandberg^{}, S. J. England, T. M. Fakler, K. T. Soltwedel, J. E. Stevenson and M. R. Bible, Furst Mc Ness Company, Freeport, IL*

221 14 **Effects of Feeding a Multi-Enzyme and Probiotic Bacteria Blend (CORE) on Performance of Nursery Pigs Fed a Highly Digestible Diet.**
*F. B. Sandberg^{*1}, H. D. Wil², S. J. England¹, T. M. Fakler¹, K. T. Soltwedel¹ and M. R. Bible¹, ¹Furst Mc Ness Company, Freeport, IL, ²GVC Research LLC, Monroe City, MO*

Nonruminant Nutrition VII: Feed Additives III

12:45 PM - 1:30 PM
Grand Ballroom Foyer

205 15 **Effect of Lactobacillus Acidophilus Fermentation Product on Nursery Pig Performance and Economic Return.**
B. E. Bass^{} and J. W. Frank, Diamond V, Cedar Rapids, IA*

206 16 **Impact of Ractopamine Hydrochloride (Paylean®) on Performance of Heavy Finishing Pigs Using a 3 Cut Marketing Strategy.**
J. W. Rickard¹, G. L. Allee², P. J. Rincker³, J. P. Gooding³, R. Acheson⁴, D. R. McKenna⁴ and S. N. Carr³, ¹Illinois State University, Normal, ²Pork Tech, LLC., Columbia, MO, ³Elanco Animal Health, Greenfield, IN, ⁴Tyson Foods, Dakota Dunes, SD

207 17 **A Mixture of Organic Acids and Botanicals Improves the Intestinal Barrier Functionality in-Vitro.**
*E. Grilli¹, B. Tugnoli¹, B. Rossi^{*2} and A. Piva^{1,2}, ¹DIMEVET University of Bologna, Ozzano Emilia BO, Italy, ²Vetagro, Reggio Emilia, Italy*

208 18 **The Interactive Effects of a Matrix Coated Organic Acids Blend and Antibiotic Supplementation in Growing Pigs.**
M. M. Hossain¹, B. Jayaraman¹, S. C. Kim², K. Y. Lee³, I. H. Kim² and C. M. Nyachoti¹, ¹University of Manitoba, Department of Animal Science, Winnipeg, MB, Canada, ²Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea, ³Morningbio Co. Ltd, Cheonan, The Republic of Korea

Nonruminant Nutrition VIII: General

12:45 PM - 1:30 PM
Grand Ballroom Foyer

- 200 19 **A Novel Simultaneous Determination of Native and Isotopically-Labeled Plasma Amino Acids in Pigs by Gas Chromatography Mass Spectrometry.**
*W. S. McGilvray, D. M. Klein and A. Rakhshandeh**, Texas Tech University, Lubbock
- 99 20 **Effect of Dietary Lysine on the Skeletal Muscle Intramuscular Fat Content and Fatty Acid Composition of Late-Stage Finishing Pigs.**
T. Wang, M. S. Hasan, M. A. Crenshaw, A. T. Sukumaran, T. Dinh, and S. F. Liao*, Mississippi State University, Department of Animal and Dairy Sciences, Mississippi State
- 201 23 **Effect of Different Milk By-Product Types and Levels on Growth Performance, Blood Profiles, Immune Response, and Diarrhea Incidence in Weaning Pigs.**
*T. W. Goh*¹, B. O. Kim¹, S. H. Do¹, Y. G. Han¹ and Y. Y. Kim²*, ¹Seoul National University, School of Agricultural Biotechnology, Seoul, The Republic of Korea, ²Seoul National University, Seoul, The Republic of Korea
- 202 24 **Various Levels of Milk By-Products in Weaning Pig Diet on Growth Performance, Blood Profiles, Intestinal Morphology, Muscle Fiber Diameter and Diarrhea Incidence in Weaning Pigs.**
T. W. Goh, B. O. Kim, S. H. Do, H. S. Kim, D. H. Yoo and Y. Y. Kim*, Seoul National University, Seoul, The Republic of Korea
- 203 25 **Effect of Different Supplementation Levels of Palm Kernel Meal with β -Mannanase on Growth Performance, Blood Profiles, Pork Quality and Economic Analysis in Growing-Finishing Pigs.**
J. H. Lee, H. B. Yoo, S. H. Do, J. S. Hong and Y. Y. Kim*, Seoul National University, Seoul, The Republic of Korea
- 204 26 **Effect of Rapeseed Meal Supplementation on Nutrient Digestibility in Gestating Sows.**
J. H. Lee, W. L. Chung, S. O. Nam and Y. Y. Kim*, Seoul National University, Seoul, The Republic of Korea

POSTER SESSION V

Nonruminant Nutrition IX: Feed Processing/Ingredients

5:00 PM - 5:45 PM
Grand Ballroom Foyer

- 255 1 **Using Environmental Swabbing to Quantify the Effectiveness of Chemical Disinfectant to Reduce the Quantity of Porcine Epidemic Diarrhea Virus RNA on Feed Manufacturing Surfaces.**
M. B. Muckey¹, R. A. Cochrane¹, J. C. Woodworth¹, S. S. Dritz¹, C. R. Stark¹, A. D. Yoder¹, J. F. Bai¹, J. Zhang², P. C. Gauger², R. G. Main² and C. K. Jones¹, ¹Kansas State University, Manhattan, ²Iowa State University, Ames
- 256 2 **Evaluating the Roles of Surface Sanitation and Feed Sequencing on Mitigating Salmonella Enteritidis Contamination on Animal Food Manufacturing Equipment.**
M. Muckey, A. D. Yoder, R. A. Cochrane, A. R. Huss, S. S. Dritz, J. C. Woodworth and C. K. Jones*, Kansas State University, Manhattan
- 257 3 **Standardized Ileal Digestible Amino Acids and Digestible Energy Contents in High Protein DDGS Fed to Growing Pigs.**

Y. Rho*, C. Zhu, E. Kiarie and C. F. M. de Lange, University of Guelph, Department of Animal Biosciences, Guelph, ON, Canada

258 4 **Effects of Rapeseed Feeding on Swine Metabolome.**
J. F. Kurtz^{*1}, C. Chen², M. P. de Nanclares³, M. Trudeau², D. Yao¹, M. Saqui-Salces², P. E. Urriola², L. T. Mydland³, G. C. Shurson⁴ and M. Overland³, ¹University of Minnesota, Department of Food Science and Nutrition, Saint Paul, ²University of Minnesota, Department of Animal Sciences, Saint Paul, ³Norwegian University of Life Sciences, Department of Animal and Aquacultural Sciences, Norway, ⁴University of Minnesota, Saint Paul

259 5 **Effects of Enterococcus Faecium on Growth Performance, Blood Parameters, Relative Organ Weight, Breast Muscle Meat Quality, Excreta Microbial Shedding and Noxious Gas Emission in Broilers.**
R. X. Lan^{*1}, Y. M. Kim¹, H. M. Yun¹, C. M. Nyachoti² and I. H. Kim¹, ¹Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea, ²University of Manitoba, Winnipeg, MB, Canada

260 6 **Effect of Different Level of Lysine and Metabolic Energy on Growth Performance and Nutrient Digestibility in Broilers with Corn–Soybean Meal–Canola Meal as Based Diet.**
J. Y. Zhang^{*}, J. H. Park, J. W. Park, H. M. Yun and I. H. Kim, Dankook University, Department of Animal Resource and Science, Cheonan, The Republic of Korea,

261 7 **Porcine In Vitro Degradation and Fermentation Characteristics of Oats.**
J. W. Lee^{*}, M. Caffè-Treml and T. A. Woyengo, South Dakota State University, Brookings

262 8 **Nutritive Value of Extruded Cold-Pressed Camelina Cake for Pigs.**
J. W. Lee^{*}, C. L. Levesque and T. A. Woyengo, South Dakota State University, Brookings

263 9 **Evaluating Pellets Produced on Three Distinct Pellet Mill Series.**
A. D. Yoder^{*}, M. B. Muckey and C. K. Jones, Kansas State University, Manhattan

264 10 **Effect of Substituting Field Beans (*Vicia faba*) for Soybean Meal in Diets for Grow-Finisher Pigs.**
A. Torres-Pitarch^{*1,2}, E. G. Manzanilla¹, G. E. Gardiner³, D. Torrallardona⁴, J. V. O'Doherty² and P. G. Lawlor¹, ¹Teagasc Moorepark Grassland Research and Innovation Centre, Pig Development, Fermoy, Co. Cork, Ireland, ²University College Dublin, School of Agriculture and Food Science, Belfield, Dublin, Ireland, ³Waterford Institute of Technology, Department of Science, Waterford, Ireland, ⁴IRTA, Monogastric Nutrition, Constantí, Spain

265 11 **Ileal Digestibility of Amino Acids in Corn Condensed Distiller's Solubles and Whole Stillage for Pigs.**
X. Yang^{*}, J. Kim, D. Pangeni, A. Tekeste and S. K. Baïdoo, University of Minnesota, Southern Research and Outreach Center, Waseca

266 12 **Porcine in-Vitro Digestion and Fermentation Characteristics of Corn Wet Distillers' Grains and DDGS without or with Multi-Carbohydrase.**
C. A. Zangaro^{*1}, R. Patterson² and T. A. Woyengo¹, ¹South Dakota State University, Brookings, ²Canadian Biosystems, Calgary, AB, Canada

115 13 **Enhancing the Nutritive Values of Corn DDGS Via Pretreatment and Digestion.**
C. A. Zangaro^{*1}, R. Patterson², W. R. Gibbons¹ and T. A. Woyengo¹, ¹South Dakota State University, Brookings, ²Canadian Biosystems, Calgary, AB, Canada

267 14 **Determining Starch Gelatinization from Grains Collected at Various Locations within the Extrusion Process.**
A. D. Yoder^{*1}, M. B. Muckey¹, C. R. Stark¹, H. H. Stein² and C. K. Jones¹, ¹Kansas State University, Manhattan, ²University of Illinois at Urbana-Champaign

268 15 **Effect of Number of Dietary Phases Fed during the Wean-to-Finish Period on Growth Performance and Carcass Characteristics of Pigs Under Commercial Conditions.**
J. E. Estrada^{*1}, M. Ellis¹, N. M. Stas¹, N. C. Cooper¹, A. M. Gaines², C. M. Shull² and O. F. Mendoza², ¹University of Illinois at Urbana-Champaign, ²The Maschhoffs., LLC, Carlyle, IL

269 16 **Growth Performance and Carcass Traits of Low and High Fiber Diet Selection Lines of Pigs Fed Either Low or High Fiber Diets.**
J. A. Erceg^{}, J. G. Wiegert, R. Becerra, M. T. Knauer and E. van Heugten, North Carolina State University, Raleigh*

Physiology

5:00 PM - 5:45 PM
Grand Ballroom Foyer

320 17 **The Effect of Vitamin A Administration on Testicular Development in Peri-Pubertal Bulls.**
N. Negrin Pereira^{}, North Dakota State University, Fargo*

321 18 **Effect of Injectable Trace Mineral on Reproductive Performance in Beef Heifers.**
S. A. Springman¹, J. G. Maddux², M. E. Drewnoski³ and R. N. Funston¹, ¹University of Nebraska-North Platte, ²Maddux Ranches, Wauneta, NE, ³University of Nebraska-Lincoln

322 19 **Plasma Acyl Ghrelin and Non-Esterified Fatty Acids Are the Best Indicators for Hunger Status in Pregnant Gilts.**
P. Ren^{}, X. Yang, J. Kim, D. Menon, D. Pangeni, H. Manu, A. Tekeste and S. K. Baidoo, University of Minnesota, Southern Research and Outreach Center, Waseca, MN*

323 20 **Effects of Supplemental Citrulline on Intestinal Neutrophil Infiltration during Heat Stress and Nutrient Restriction in Growing Pigs.**
S. K. Kvidera^{}, E. A. Horst¹, E. J. Mayorga Lozano², J. T. Seibert¹, M. A. Al-Qaisi¹, J. W. Ross¹, R. P. Rhoads³ and L. H. Baumgard¹, ¹Iowa State University, Ames, ²Iowa State University, Department of Animal Science, Ames, ³Virginia Polytechnic Institute and State University, Blacksburg*

110 21 **Changes in Neonatal Foal Blood Chemistry during the First 72 Hours of Life.**
N. B. Duncan^{}, M. J. Crosby and A. M. Meyer, Division of Animal Sciences, University of Missouri, Columbia*

112 22 **Vaginal and Uterine Bacterial Communities in Postpartum Lactating Cows.**
B. A. Clemmons^{}, F. Guirado Dantas¹, G. A. Franco¹, S. T. Reese¹, O. I. Adeyosoye², T. P. Smith³, P. R. Myer¹ and K. G. Pohler¹, ¹University of Tennessee, Knoxville, ²Obafemi Awolowo University, Ile-Ife, Nigeria, ³USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*

120 23 **After All, Tomorrow is Another Day for the Transition Cow: Depending on Liver and Reproductive Health, of Course.**
Y. Schuermann^{}, A. St-Yves¹, N. Dicks¹, R. C. Bohrer¹, R. Mondadori², V. Higginson¹, V. Boyer¹, M. Taibi¹, E. Madogwe¹, V. Bordignon¹, A. Mustafa¹, B. Baurhoo¹ and R. Duggavathi¹, ¹McGill University, Sainte-Anne De Bellevue, QC, Canada, ²Federal University of Pelotas, Capão do Leão, Brazil*

121 24 **Impact of Estrus Expression and Conceptus Presence on Plasma and Uterine Glucose Concentrations up until Maternal Recognition of Pregnancy in Beef Cattle.**
E. J. Northrop^{}, J. J. Rich¹, R. A. Cushman² and G. A. Perry¹, ¹South Dakota State University, Department of Animal Science, Brookings, ²USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*

Nonruminant Nutrition X: Minerals

5:00 PM - 5:45 PM
Grand Ballroom Foyer

270 25 **Effects of Chromium Methionine and Zinc Source on Serum Metabolites, Endocrine Parameters, and the Antioxidant Status of Growing-Finishing Pigs.**
*X. Xu¹, Z. C. Li¹, H. L. Wang¹, L. Pan¹, X. K. Ma¹, Y. T. Xu¹, X. S. Piao¹, T. L. Ward² and F. Ji^{*3}, ¹China Agricultural*

University, Beijing, China, ²Zinpro Corporation, Eden Prairie, MN, ³Zinpro (Wuxi) Additives Bio-Technology Co., LTD., Shanghai, China

271 26 **Revision of the Simplified Balance Method to Evaluate Phosphorus Excretion by Growing-Finishing Pigs.**

*M. P. Létourneau Montminy^{*1,2}, L. Cloutier³, C. Couture⁴, M. Marcoux⁵ and C. Pomar⁵, ¹Université Laval, Quebec, QC, Canada, ²Université Laval, Département des Sciences Animales, Québec, QC, Canada, ³Centre de Développement du Porc du Québec Inc., Québec, QC, Canada, ⁴Laval University, Quebec, QC, Canada, ⁵Agriculture and Agri-Food Canada, Sherbrooke, QC, Canada*

Wednesday, March 15, 2017

POSTER SESSION VI

Animal Behavior, Housing and Well-Being

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

6 1 **Characterization of the Lying Down Sequence in Lame and Non-Lame Sows.**

*J. M. Mumm^{*1}, J. D. Stock¹, S. Azarpajouh¹, K. J. Stalder¹, A. K. Johnson¹ and J. A. Calderon Diaz^{2,3}, ¹Iowa State University, Department of Animal Science, Ames, ²Teagasc Moorepark Grassland Research and Innovation Centre, Pig Development, Fermoy, Co. Cork, Ireland, ³Polish Academy of Sciences, Institute of Genetics and Animal Breeding, Department of Animal Behaviour and Welfare, Jastrzębiec, Magdalena, Poland*

7 2 **Do Lame Sows Need More Time to Stand up?**

*J. M. Mumm^{*1}, S. Azarpajouh¹, J. D. Stock¹, K. J. Stalder¹, A. K. Johnson¹ and J. A. Calderon Diaz^{2,3}, ¹Iowa State University, Department of Animal Science, Ames, ²Polish Academy of Sciences, Institute of Genetics and Animal Breeding, Department of Animal Behaviour and Welfare, Jastrzębiec, Magdalena, Poland, ³Teagasc Moorepark Grassland Research and Innovation Centre, Pig Development, Fermoy, Co. Cork, Ireland*

8 3 **The Effect of Blunt Trimming Verses Functional Trimming on Sows.**

*A. Tinkle^{*1}, M. E. Wilson², M. A. Parsley³, M. J. Azain¹ and C. R. Dove¹, ¹University of Georgia, Athens, ²Zinpro Corporation, Eden Prairie, MN, ³Zinpro Corporation, Sheridan, IN*

9 4 **Effects of Genetics on Thermal Regulatory Responses to Repeated Heat Stress Exposure in Pigs.**

W. M. Rauw^{1,2}, E. J. Mayorga², S. Lei², J. C. M. Dekkers², J. F. Patience², N. K. Gabler², S. M. Lonergan² and L. H. Baumgard², ¹Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Departamento de Mejora Genética Animal, Madrid, Spain, ²Department of Animal Science, Iowa State University, Ames

117 5 **Effects of Floor Cooling on Late Lactation Sows Under Acute Heat Stress.**

*F. A. Cabezon^{*1}, A. P. Schinckel¹, J. N. Marchant-Forde², J. S. Johnson² and R. M. Stwalley³, ¹Purdue University, Department of Animal Sciences, West Lafayette, IN, ²USDA-ARS Livestock Behavior Research Unit, West Lafayette, IN, ³Purdue University, Department of Agricultural Biological Engineering, West Lafayette, IN*

10 6 **Effects of Increasing Space Allowance by Removing a Pig or Gate Adjustment on Finishing Pig Growth Performance.**

C. B. Carpenter^{}, C. J. Holder, R. D. Goodband, M. D. Tokach, J. M. DeRouchey, J. C. Woodworth and S. S. Dritz, Kansas State University, Manhattan*

Equine Science

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

- 54 7 **An Investigation of the Palatability of a Novel Ingredient Fed to Horses.**
*M. T. DeChant**, *E. Powell*, *G. A. Apgar* and *E. B. Venable*, *Southern Illinois University, Carbondale*

Extension – Beef/Small Ruminant

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

- 55 8 **Using Corn Gluten Feed in Post-Partum Diets of Beef Cows to Optimize Reproductive Performance.**
*E. G. Taylor*¹*, *R. P. Lemenager¹* and *K. R. Stewart²*, ¹*Purdue University, West Lafayette, IN*, ²*Purdue University, Department of Animal Sciences, West Lafayette, IN*

Ruminant Nutrition

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

- 357 10 **Two-Year Study: Effect of Backgrounding System on Growing and Finishing Performance and Carcass Characteristics of Beef Steers.**
*J. L. Cox*¹*, *K. Hales²*, *K. M. Ulmer¹*, *R. J. Rasby¹*, *S. D. Shackelford²*, *H. C. Freetly²* and *M. E. Drewnoski¹*, ¹*University of Nebraska-Lincoln*, ²*USDA-ARS, U.S. Meat Animal Research Center, Clay Center, NE*

- 358 11 **Identification of a Novel Rumen Bacteria Using Starch As a Selective Nutrient in Batch Cultures.**
*V. Bandarupalli**, *South Dakota State University, Brookings*

- 359 12 **In-Vitro Apparent Ruminal Digestibility of Diets Containing Corn Distillers Grain with Different Quantities of Crude Fat.**
*D. E. Williams*¹*, *R. L. Atkinson¹* and *P. M. Walker²*, ¹*Southern Illinois University, Carbondale*, ²*Illinois State University, Normal, IL*

- 360 13 **Effects of Feeding Two Levels of a Pelleted 30 Percent Pea Starch and 70 Percent Dry Distillers Grain Feed in Feedlot Finishing Diets on Animal Performance and Carcass Characteristics.**
*C. L. Engel**, *North Dakota State University, Carrington Research Extension Center, Carrington*

- 361 14 **Effects of Whole or Rolled Corn Diets on Steer Growing and Finishing Feedlot Performance.**
*C. L. Engel**, *North Dakota State University, Carrington Research Extension Center, Carrington*

- 362 15 **Novel Direct Fed Microbials to Control Acidosis and Liver Abscesses in Cattle.**
*S. K. Rohde**, *University of Nebraska-Lincoln, Department of Animal Science*

- 363 16 **Effects of Foliar Fungicide on Whole Plant BMR and Floury Corn Varieties.**
*R. T. Pate*¹*, *M. Weatherly¹*, *L. B. Hedges²*, *S. Mideros²*, *G. M. Fellows³* and *F. Cardoso¹*, ¹*University of Illinois at Urbana-Champaign, Department of Animal Sciences*, ²*University of Illinois at Urbana-Champaign, Department of Crop Sciences*, ³*BASF Corporation, Research Triangle Park, NC*

- 364 17 **Effects of Excess Dietary Sulfur on Mitochondrial Complex IV Activity in Beef Steers.**
*J. Hawley*¹*, *E. B. Kegley¹*, *D. L. Galloway¹* and *W. G. Bottje²*, ¹*University of Arkansas, Division of Agriculture*,

Department of Animal Science, Fayetteville, ²University of Arkansas, Division of Agriculture, Department of Poultry Science, Fayetteville

- 365 18 **Essential Oils and Prebiotics (Stay Strong and Start Strong) for New Born Calves.**
*C. Louwagie^{*1}, D. P. Casper², C. Chase¹ and K. Abdelsalam¹, ¹ South Dakota State University, Brookings, ²Formerly South Dakota State University, Brookings*
- 366 19 **Preference of Carinata Meal Compared with Other Oilseed Meals and Distillers Dried Grains by Dairy Heifers.**
*K. Rodriguez-Hernandez^{*1,2}, J. L. Anderson¹ and M. A. Berhow³, ¹ South Dakota State University, Dairy Science Department, Brookings, ²CIRNOC-INIFAP, Matamoros, Mexico, ³USDA-ARS, National Center for Agricultural Utilization Research, Peoria, IL*
- 367 20 **Effect of Monensin and Protein Supplementation on Intake and Ruminal Fermentation Parameters in Cattle Consuming Low-Quality Forage.**
*J. J. Martinez^{*1}, C. A. Loest², K. C. McCuiston¹, N. L. Bell¹, L. P. Sastre¹ and J. I. Solis¹, ¹Texas A&M University, Kingsville, ²New Mexico State University, Las Cruces*
- 368 21 **Effects of Balancing Feedlot Diets for Amino Acid Requirements and Effective Energy Using Rumen Protected Lysine on Growing Steer Performance.**
J. M. Prestegaard^{} and M. S. Kerley, University of Missouri, Columbia*
- 369 22 **Effects of Winter Grazing Stockpiled Cool-Season Grass Pastures and Method of Initiating Stockpiling on Fall-Calving Cow Production Costs in Comparison to Winter Drylot Hay Feeding Systems.**
*B. T. Stokes^{*1}, J. R. Russell¹, P. J. Gunn¹ and L. L. Schulz², ¹ Iowa State University, Department of Animal Science, Ames, ² Iowa State University, Department of Economics, Ames*
- 370 23 **Nellore Metabolism Receiving Exogenous Enzymes in Diets with High Concentrate Inclusion.**
*C. F. Nascimento^{*1}, L. L. Oliveira², N. C. D. Silva¹, F. D. Santos², W. D. C. Amancio², G. R. Siqueira³ and F. D. D. Resende³, ¹Universidade Estadual Paulista, Jaboticabal, Brazil, ²UNIFEB, Barretos, Brazil, ³Agência Paulista de Tecnologia dos Agronegócios, Colina, Brazil*
- 371 24 **Rumen Protein Degradation Characteristics Among Six Protein Feed Sources Using a Batch Culture System.**
M. M. Masiero^{}, A. L. Landers and M. S. Kerley, University of Missouri, Columbia*
- 116 25 **On the Associations Between Linear Body Measurements, Feeding Behavior Traits and Feed Efficiency Measures in Finishing Steers.**
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- 383 26 **Effect of Increasing Amount of Amaferm on Animal Performance in Receiving Feedlot Cattle.**
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