

## **RAW POSTER SCIENTIFIC PROGRAM**

### **MONDAY, MARCH 8, 2021: AFTERNOON (PS1: 12:30-1:30 PM)**

#### **Undergraduate Student Poster Competition**

- Assessment of Nursing Calf Feed Intake Equations in Predicting Calf Feed Intake
- Spices in Free-Choice Mineral Offer Gain Advantages to Cattle on Tallgrass Native Range and Promise as Fly Control
- Effects of mowing on forage availability and quality during the summer
- Quantification of cooling effects on basic tissue measurements and exposed cross-sectional brain area in cadaver heads from market pigs
- Effects of Bacillus and Lactobacillus In Milk Replacer On Calf Health
- Genetic Parameters for Food Allergy Responses in Divergently-Selected Pig Lines
- Evaluation of form of supplement with or without ionophore on stocker steer performance while on brome grass
- Evaluating the effects of individual eating rates of feedlot heifers on ruminal fermentation using an ex vivo model
- Evaluation of an electronically-controlled floor cooling pad on semen quality in boars during moderate heat stress
- The relationship between litter size and functional teat number at farrowing on litter size at weaning
- Evaluation of electronically controlled cooling pad flush rates on heat stressed gilts

### **MONDAY, MARCH 8, 2021: AFTERNOON (PS2: 12:45-1:30 PM)**

#### **Nonruminant Nutrition**

- Effects of available space in pens and homeopathic product supplement consisting of botanicals and mineral mixture on the performance and production traits of finishing pigs
- Supplemental effects of unrefined fish oil, powdered/coated docosahexaenoic acid on the growth performance in weaner pigs
- Supplementation of Bacillus amyloqueliciens on systemic immunity of weaned pigs experimentally infected with a pathogenic E. coli
- Dietary supplementation of Bacillus subtilis modified intestinal microbiome of weaned pigs differently to antibiotics
- Effects of oligosaccharide-based polymer on blood profiles in weanling pigs experimentally infected with a pathogenic E. coli
- Phosphorus release values in growing pigs fed increments of OptiPhos Plus phytase in pelleted diets
- Effect of L-Trp source and standard ileal digestible (SID) Tryptophan to Lysine ratio on growth performance of nursery pigs.
- Effect of a sensory additive on sow feed intake during lactation



AMERICAN SOCIETY OF ANIMAL SCIENCE

# MIDWEST SECTION MEETING

## March 8-10 • Omaha, Nebraska

2021

- Energy Evaluation of Heat-Treated and Intact Extruded-Expelled Soybean Meal for Growing Pigs
- The Effects of Lactobacillus Fermentum on Nursery Pig Performance.
- The Effects of Lactobacillus Fermentum on Sow and Litter Performance.
- Addition of hydrogen chloride to collection bags or containers did not change basal endogenous losses or digestibility of amino acid in corn, soybean meal, or wheat middlings fed to growing pigs

### **MONDAY, MARCH 8, 2021: AFTERNOON (PS3: 4:45-5:30 PM)**

#### **Animal Behavior, Health and Well-Being**

- Effect of rearing cross-fostered piglets in litters of differing size relative to sow functional teat number on pre-weaning growth and mortality
- Effect of piglet characteristics on blood glucose levels at birth.
- Effect of type of desiccant used to dry piglets at birth on postnatal changes in rectal temperature
- Determining the efficacy and safety of differing caliber/ammunition combinations for the humane euthanization and subsequent mass depopulation of market weight pigs

#### **Beef/Small Ruminant Translational**

- Delaying weaning age of lambs grazing chicory (*Cichorium intybus*) increases body weight

#### **Genetics, Genomics and Bioinformatics**

- Gene expression profile of beef heifer placental caruncles is affected by pre-breeding and early gestation micronutrient supplementation
- Relationship of age and genetics with the methylation profile of beef cattle
- Genetic Parameter Estimates for Bull Prolificacy and its Relationship with Scrotal Circumference in a Commercial Beef Cattle Population

#### **Nonruminant Nutrition**

- The effect of sire line on reproductive performance during lactation
- The effect of sire line on grow-finish performance, carcass characteristics, and meat pricing variables for commercial crossbred pigs
- Evaluating the performance of grow-finish pigs supplemented with ButiPEARL® Z and KemTRACE® Chromium during natural heat stress exposure
- In vitro evaluation of purified fiber sources for production of short-chain fatty acids using pig cecal content as an inoculum
- Effects of *Saccharomyces cerevisiae* fermentation products on lactating sow performance
- Hybrid rye can replace corn in diets for growing pigs without impacting growth performance although pigs prefer to eat corn rather than hybrid rye if given a choice
- Effect of the Pelleting Process on Diet Formulations with Varying Levels of Crystalline AA and Reducing Sugars on Nursery Pig Growth Performance



AMERICAN SOCIETY OF ANIMAL SCIENCE

# MIDWEST SECTION MEETING

## March 8-10 • Omaha, Nebraska

2021

- Growth performance of weaned pigs fed barley differing in fermentable starch and fiber profile
- Extrusion enhances nutrient and energy digestibility of pulse grain-based diets fed to growing pigs
- Super dose phytase and carbohydrase cocktail enhance ileal nutrient and energy digestibility of corn-soybean diets in nursery pigs
- The effect of xylanase on finisher pig performance
- Inclusion of a live yeast to mixed cereal diets improves growth performance of nursery pigs
- Optimum SID Threonine to Lysine Ratio in Nursery Pigs
- Impact of a Dietary Phytogenic Feed Additive on Growth Performance of Growing Finishing Pigs
- Feeding in-shell hazelnuts (*Corylus* spp) to pigs alters fatty acid profile of pork fat

### **TUESDAY, MARCH 9, 2021: MORNING (PS4: 7:30-8:15 AM)**

#### **Ruminant Nutrition**

- Effect of corn silage inclusion rate on apparent total tract digestibility of dry matter, organic matter, and crude protein in finishing steers
- Evaluation of relationship between feed efficiency traits and energy metabolism using comparative slaughter studies in growing and finishing cattle
- Effect of protein source and soy hulls inclusion in finishing diets of feedlot cattle fed free-choice hay, on performance and carcass characteristics
- The impacts of feeding corn co-products and ionophores to growing Boer goats
- Characterization of the Fecal Bacterial Communities of Grass-fed and Grain-fed Bison Heifers
- Effect of a direct fed microbial feed additive on finishing beef cattle performance and liver abscess rate
- Effect of biochar supplementation in beef cattle growing diets on greenhouse gas emissions
- Effect of biochar supplementation in beef cattle finishing diets on greenhouse gas emissions and carcass performance

#### **Nonruminant Nutrition**

- Effect of feeding Levucell SB® 10 Titan Advantage and YANG on performance, blood parameters, and fecal VFA of nursery pigs
- A multistate evaluation of an additional iron injection administered to piglets before weaning
- The effect of a dacitic (rhyolitic) tuff breccia, a hydrated sodium calcium aluminosilicate (HSCAS), inclusion in corn-soybean meal diets on growth performance of individually housed grower pigs
- Effects of phytogenic feed additives on growth performance traits of finishing swine
- Evaluation of the effect of benzoic acid with or without a direct fed microbial on the performance and health of growing and finishing pigs



AMERICAN SOCIETY OF ANIMAL SCIENCE

# MIDWEST SECTION MEETING

## March 8-10 • Omaha, Nebraska

2021

- Cell wall bound ferulic and coumaric acids in diets based on corn and soybean meal or corn, soybean meal, and distiller dried grains with solubles are poorly fermented in the intestinal tract of pigs.
- Influence of feed grade amino acid inclusion level in late nursery and grower diets fed to pigs from 10 to 35 kg
- Influence of particle size of Enogen Feed corn and conventional yellow dent corn on lactating sow performance
- Evaluation of nutritional strategies to reduce growth rate of pigs beyond 90-kg body weight
- Effects of trace mineral source and level on growth performance and carcass characteristics of grow-finish pigs
- Effects of added Zn level on growth performance and hemoglobin of nursery pigs
- Flavors and sweeteners in nursery pig diets increased intake and reduced soft feces in the first weeks after weaning
- Impact of high protein dried distiller grains and soybean meal inclusion level on grow-finish pig performance and carcass traits
- Impact of increasing standardized ileal digestible valine:lysine in diets containing 30% dried distillers grains with solubles on early grow-finish pig performance
- Comparison of corn ethanol co-products from Brazil and USA apparent and standardized ileal digestibility of amino acids in pigs

### **TUESDAY, MARCH 8, 2021: AFTERNOON (PS5: 12:45-1:30 PM)**

#### **Physiology**

- Effects of induction on piglet blood parameters at time of farrowing.
- Use of Pregnancy Associated Glycoproteins to Determine Fetal Age Throughout Gestation
- Milk lactose concentration is altered in multiparous sows supplemented with sugar from mid-gestation through lactation
- Determination of deoxynivalenol (DON) content in biological samples as an indicator of DON intake in grower-finisher pigs
- Effect of breed and barn location on semen quality at an artificial insemination facility
- Effect of farrowing induction on the farrowing process and piglet survivability
- Colostrum intake level is related to level of total circulating proteins and essential amino acids
- Effects of air exposure and agitation on quality of stored boar semen samples
- Effects of natural honey inclusion in dilution and freezing extenders on frozen-thawed semen quality in boars
- Effects of L- $\alpha$ -amino butyrate supplementation on oocyte maturation
- Efficacy of Quisqualic Acid as an Amino Acid Transporter Inhibitor in Pig Oocytes

#### **Nonruminant Nutrition**

- Nutrient utilization of black soldier fly-derived feed ingredients is affected by growth stage and processing method based on in vitro assays
- The effect of supplementing sows with the leucine metabolite beta-hydroxy-beta-methylbutyrate and Vitamin D3 pre-parturition and during lactation on early piglet weight



AMERICAN SOCIETY OF ANIMAL SCIENCE

# MIDWEST SECTION MEETING

## March 8-10 • Omaha, Nebraska

2021

- The efficacy of feeding a bioactive peptide in comparison to narasin in growing pigs in a commercial system on growth performance and efficiency.
- Variability in the Oxidative Status of Fats and Oils Used in Livestock Diets in North America
- Effects of the inclusion of a capsicum oleoresin-based additive on growth performance, carcass composition and meat quality of pigs under heat stress conditions
- Evaluation of the effects of a feed sweetener on nursery pig performance
- Effect of feeding fermented soybean meal with coconut oil (Cocosoya) on the growth performance, nutrient digestibility, fecal score, gas emission and blood profile in weaning pigs
- Effect of low nutrient density diet with probiotic mixture (*B. subtilis* ms1, *B. licheniformis* SF5-1, and *S. cerevisiae*) supplementation on performance of weaner pigs
- The Effect of black pepper (Piperine) extract supplementation on growth performance, nutrient digestibility, fecal microbial, fecal gas emission, and meat quality of finishing pigs.
- Effects of increasing soybean oil supplementation prior to farrowing on sow and litter performance under commercial conditions
- Nutrient digestibility of deactivated soybean and soybean extruded at different temperatures by weanling pigs

### **WEDNESDAY, MARCH 10, 2021: MORNING (PS6: 7:30-8:15 AM)**

#### **Swine Translational**

- Affect of light regiment on farrowing performance in sows
- Rising 10-year trend in piglet pre-weaning mortality in breeding herds associated with sow herd size and number of piglets born alive
- Gestational inulin supplementation stabilizes glucose metabolism and improves reproductive performance of sows
- Efficacy of medium chain fatty acids and fatty acid-based feed additives as a mitigation strategy against porcine epidemic diarrhea virus and porcine reproductive and respiratory syndrome virus
- Effects of feeding corn distillers dried grains with solubles (cDDGS) diets with and without supplemental enzymes on growth performance of pigs: a meta-analysis
- Thresholds of outdoor temperatures on fertility measures of different parity sows in Spanish herds
- Evaluation of feed mitigant efficacy for control of porcine epidemic diarrhea virus and porcine reproductive and respiratory syndrome virus when inoculated either alone or together
- Meta-regression analysis to determine the relationship between growing pig body weight and variation
- Effects of mixing prior to automated packaging in extended boar semen
- Impact of Soybean Inclusion Level in Late Gestation on Offspring Performance



AMERICAN SOCIETY OF ANIMAL SCIENCE

# MIDWEST SECTION MEETING

## March 8-10 • Omaha, Nebraska

2021

### Nonruminant Nutrition

- The Effects of Medium Chain Fatty Acid Supplementation on Sow and Piglet Performance
- Full-fat rice bran as an alternative feed ingredient for corn in grow-finish pigs
- Amino acid supplementation during the adaptation period did not affect the standardized ileal digestibility of amino acids in corn and soybean meal fed to pigs
- Blend of additives in nursery pig diets as an antibiotics substitute increases the growth performance and intestinal health
- Effects of dietary SID lysine restriction in the growing period and number of dietary phases on growth performance of growing-finishing pigs.
- The association of benzoic acid and essential oils reduces the inflammatory response of weaned piglets and the diarrhea incidence in the nursery phase
- The effect of dacitic tuff breccia alone or in combination with poultry by-products on nursery pig growth performance.
- Nutritional value of high-protein yeast products fed to growing pigs in comparison to commonly used protein sources in swine diets
- The association of benzoic acid and essential oils increases the cecal biodiversity in weaned piglets and improves growth performance in finishing pigs
- Updated amino acid, choline, betaine, folic acid, and vitamin B12 concentrations in corn DDGS and wheat
- Digestible phosphorus requirements of growing pigs determined in experiments are greater than those estimated using modeling approach