

## KSU Beef Stocker Field Day to be Hosted September 26

Come help us celebrate the 25th KSU Beef Stocker Field Day, which will be Thursday, September 26, at the KSU Beef Stocker Unit in Manhattan. The day will start at 9:30 a.m. with registration and coffee and will conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream at 4:45 p.m.



The schedule is as follows:

- 9:30 am Registration/Coffee
- 10:00 am Introductions
- 10:15 am 25 Years: Looking back and moving forward- *Dale Blasi, K-State*
- 10:30 am Beef Cattle Outlook - *Glynn Tonsor, K-State*
- 11:15 am Beef on Dairy - Opportunities and Challenges  
*David Clawson, High Plains Ponderosa Dairy*  
*Jason Shamburg, Kansas Dairy Development, Inc.*  
*Dr. Tera Barnhardt, Heritage Vet Partners*  
Moderator: *Wes Ishmael, Hereford World Executive Editor*
- 12:30 pm Barbeque Brisket Lunch - View Posters
- 1:00 pm Coccidiosis: The Silent Thief Robbing Profits in your Stocker Operation - *Joe Dedrickson, HuvePharma, Inc.*
- 2:00 pm Recommendations for Managing Calves the First 30 Days on Feed - *Dan Thomson, Production Animal Consultation (PAC)*
- 2:45 pm Break
- 3:15 pm Future Trends in the Kansas Cattle Feeding Industry - *Justin Waggoner, K-State*
- 4:00 pm Rethinking Your Pasture Burning Plans: Save Time, Save Money, and Improve Range Conditions - *KC Olson, K-State*
- 4:45 pm Cutting Bull's Lament 2024

Pre-registration is \$25 and due by September 13.. For complete details and registration, visit <https://www.asi.k-state.edu/events/stockerfieldday/>. For more information, contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu) or 785-532-5427) or Katie Smith ([katiesmith@ksu.edu](mailto:katiesmith@ksu.edu) or 785-532-1267).

## Register Now - Better Process School for Acidified Foods Online

Online Better Process School for Acidified Foods will be offered in an online format October 10 and 11 from 8 a.m. to 12 p.m. each day. Registration is \$400 and the deadline to register is September 25. The training is for food processors that process and sell acidified foods and/or acid foods. Participants will receive a certificate of completion upon passing two tests. The training meets FDA requirements. For more information or to register visit the following link <https://foodsci.k-state.edu/extension/extension-events.html>. The course is being offered by Kansas State University and University of Missouri. For questions, please contact Kelly Getty, Co-Director of the Kansas Value Added Foods Lab ([kgetty@ksu.edu](mailto:kgetty@ksu.edu) or 785-532-2203).

## HACCP Workshop Hosted in September

Implementing Your Company's HACCP Plan will be hosted September 25-27, 2024, in Olathe, Kansas. These workshops use curriculum recognized by the International HACCP Alliance for meat and poultry processors. The registration fee is \$450 per person and is available online at <http://bit.ly/HACCPCourse>. For more information, contact Dr. Liz Boyle ([lboyle@ksu.edu](mailto:lboyle@ksu.edu) or 785-532-1247).

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## Upcoming Events

- September 25-27, 2024**  
**HACCP Workshop - Olathe, KS**
- September 26, 2024**  
**Beef Stocker Field Day**
- October 5, 2024**  
**ASI Family & Friends Reunion**
- October 10-11, 2024**  
**Better Process School for Acidified Foods Online**
- November 21, 2024**  
**Swine Day**

# Upcoming Events

## KSU Swine Day to be Hosted November 21

Registration is now open for KSU Swine Day, to be hosted at the K-State Alumni Center in Manhattan, Kansas, on Thursday, November 21. The trade show, with more than 30 exhibitors, will begin at 8 a.m., followed by a great program with updates on K-State Applied Swine Nutrition Research, and featuring a presentation from PJ Corns and Kyle Coble with JBS on "Creating Opportunities in a Large Production System."



The schedule is as follows:

- 8:00 am Technology Trade Show  
*The trade show will conclude at 4 pm*
- 9:15 am Welcome - *Dr. Mike Day, K-State*
- 9:30 am Innovation Update - *Dr. Marshall Stewart, K-State Senior VP Executive Affairs and Chief of Staff*
- 9:45 am Latest Update on K-State Applied Swine Nutrition Research
- 11:30 am Lunch with Technology Trade Show
- 1:30 pm Latest Update on K-State Applied Swine Nutrition Research
- 2:30 pm Creating Opportunities in a Large Production System  
*Dr. Kyle Coble and PJ Corns, JBS Live Pork LLC*
- 3:15 pm Question-and-Answer Session
- 3:30 pm Reception with K-State Call Hall Ice Cream

Pre-registration is \$25 per participant and due by November 13. On-site registration is \$50 per participant. There is no charge for any students if they are pre-registered. The complete schedule and online registration information can be found at [KSUswine.org](https://KSUswine.org). For more information, contact Katie Smith ([katiesmith@ksu.edu](mailto:katiesmith@ksu.edu) or 785-532-1267).

## Youth for the Quality Care of Animals (YQCA) Certification Requests Due for Sept. 20

Youth for the Quality Care of Animals (YQCA) is a national, multi-species youth livestock quality assurance program that was launched in 2017. Youth may participate in the program online or through a face-to-face class with a certified instructor. This is a fee-based program, which is \$12/child for the online course or \$3 for a face-to-face session. Kansas has renewed its partnership with the program for 2024-2025, which allows extension agents and ag teachers to have the opportunity to obtain their certification and teach youth the curriculum through face-to-face sessions. The current program year is coming to a close on September 30 and the new curriculum will launch in early October. Agents who were certified last year will receive information on re-certifying as the new program year approaches. Any new or additional agents who would like to become certified need to email Lexie Hayes at [adhayes@ksu.edu](mailto:adhayes@ksu.edu) by September 20 to be added to the approved list for Kansas. Once agents complete the certification process, the YQCA staff will distribute the new materials and their certification will be valid until September 1, 2025. Any instructor or family who did not create an account on the new platform when the program transitioned in March of 2022, will need to do so soon. Everyone is encouraged to use the help documents and videos available to make the process go smoothly and make sure accounts are set up correctly from the beginning. This will minimize complications later. Although a final decision will be confirmed by each respective show board later this fall, we do anticipate exhibitors will continue to be required to complete YQCA certification annually to participate in the Kansas State Fair Grand Drive and the Kansas Junior Livestock Show.

## Register Now for K-State ASI Family & Friends Reunion

Register now for the 10th Annual K-State ASI Family & Friends Reunion to be hosted Saturday, October 5 at the Stanley Stout Center. The event will begin at 4 p.m. with dinner served at 5:30 p.m. Activities available during the event include great food, live music, Junior Wildcat Barnyard and more. Dr. Dell and Joyce Allen will be presented the Don L. Good Impact Award for their decades of contributions to the agriculture and livestock industry. Early registration deadline is September 27, 2024. Cost for adults is \$30, students are \$10 and children under the age of 5 are free. Registration cost increases to \$50 for adults after September 27. For more information or to register visit [asi.ksu.edu/familyandfriends](https://asi.ksu.edu/familyandfriends). For questions contact Katie Smith ([katiesmith@ksu.edu](mailto:katiesmith@ksu.edu) or 785-532-1267.)



# What's New

## Management Minute

### “Customer Service Matters”

Justin Waggoner, KSU Extension Beef Cattle Specialist, Garden City, KS

Good customer service is essential to any business or organization. It does not matter if it is a restaurant or a tow truck service, having staff members that leave customers or anyone that encounters your business with that “wow that was great” feeling directly influences the bottom line. Customer service has become more important than ever as consumers are now gathering information and making purchasing decisions based on the experiences of others reviews . What is customer service? Customer service is often defined as the assistance provided by a company to those that purchase the goods or services it provides. Now on to the tough part, how do we as business or organization provide that assistance?

Susan Ward ([www.thebalancesmb.com](http://www.thebalancesmb.com)) offers a few simple things that business can do to improve their customer service experiences. First, answer the phone. Potential customers want to talk to a person and don't want to leave a message. Second, don't make promises you can't keep. As the old saying goes “say what you are going to do and do what you said you were going to”. Third, listen. Simply listening to what a potential customers need is important, there is nothing worse than listening to sales pitch for something you don't want. Fourth, be helpful even if you don't make the sale, today. The service provided today has the potential to turn in to something much larger in the future. Fifth, train your staff to do something extra, like showing the customer where the product is located. Lastly, empower your staff to offer something extra without asking permission.

## Feedlot Facts

### “Starting Newly Weaned Calves”

Justin Waggoner, KSU Extension Beef Cattle Specialist, Garden City, KS

One of the greatest challenges cattle producers often experience during weaning is getting newly weaned calves to consume feed in bunk. Unfortunately, successfully addressing this challenge is essential to success. Simply stated, “Cattle that don't eat don't perform.” Preparing calves, understanding how much dry feed calves will likely consume and developing a feeding strategy/plan is one of the best ways to ensure success in the weaning pen.

Feeding both cows and calves a small amount of the supplement or weaning ration prior to weaning, in the weaning pen or pasture can be used help acclimate calves to both the feeds and the environment. Additionally, feed intake of weaned calves is often low (1.0 to 1.5% of bodyweight, dry basis) immediately following weaning. Calves also have relatively high nutrient requirements. Thus, the weaning diet must be nutrient dense to meet the nutrient requirements of the calves at the expected intakes previously mentioned. Unfortunately, the dry feeds calves are often most familiar with (typically grass hays) are not necessarily nutrient dense. At the K-State Agriculture Research Center, Hays, KS, a feeding management protocol for weaning calves has been developed that works well for transitioning weaned calves to a total mixed ration. The protocol is summarized in the table below. Essentially, high-quality grass hay and the weaning ration are offered each at 0.5% of the calves' current bodyweight, dry basis, on the day of weaning. The weaning ration is placed in the bottom of the bunk and the hay is placed on top. The amount the weaning ration is steadily increased, while the amount of hay offered remains constant. In addition, on day 4 the hay is placed on the bottom of the bunk. Over a period of 7-10 days the dry intake of the calves is steadily increased and should reach approximately 2.2-2.5% of the calves bodyweight by 10-14 days following weaning.

**Table 1. K-State ARC-Hays Weaning Feed Management Protocol\***

Day	Weaning Diet	Hay	Feedstuff Order
1	0.5% Bodyweight	0.5% Bodyweight	Diet bottom/hay on top
2	0.7% Bodyweight	0.5% Bodyweight	Diet bottom/hay on top
3	0.9% Bodyweight	0.5% Bodyweight	Diet bottom/hay on top
4	1.1% Bodyweight	0.5% Bodyweight	Hay bottom/diet on top
5	1.3% Bodyweight	0.5% Bodyweight	Hay bottom/diet on top
6	1.5% Bodyweight	0.5% Bodyweight	Hay bottom/diet on top
7	1.8% Bodyweight		
8	---Increase diet by 0.25 to 0.50 lb per calf/day---		

\*Remove any uneaten feedstuffs before feeding current days ration

For more information, contact Justin Waggoner at [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu)

# KSU Cow-Calf Checklist - September 2024

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## Management Considerations for November 2024

*By Jason M. Warner, Ph.D., Extension Cow-Calf Specialist*

### Cow Herd Management

- For spring-calving cow herds:
  - If not already done, make plans for weaning calves.
    - Test your forages and have feedstuffs on hand prior to weaning.
    - Check and clean waterers and prepare weaning/receiving pens.
  - Evaluate cow BCS at weaning.
    - Record scores with the BCS Record Book (<https://bookstore.ksre.ksu.edu/Item.aspx?catId=562&pubId=19320>) from KSRE!
    - Use BCS to strategically supplement cows during fall, if needed.
    - Female requirements are lowest at weaning so weight and BCS can be added more easily in early fall rather than waiting until closer to calving.
  - Schedule pregnancy checking and fall health work if not already done.
    - How were pregnancy rates relative to last year?
    - Do we need to re-think our fall/winter nutrition program?
  - Evaluate the cost of gain relative to the value of gain when making feeding and marketing decisions for cull cows.
- For fall-calving cow herds:
  - If not already done, review your calving health protocols as needed.
  - Have calving equipment cleaned and available to use as needed.
  - Plan to adjust your nutrition program to match needs of lactating cows.
  - Use the estrus synchronization planner (<https://www.iowabeefcenter.org/estrussynch.html>) to help plan fall synchronization protocols.
- Plan your mineral supplementation for this coming fall and winter.
  - Record date and amount offered and calculate herd consumption.
  - If consumption is 2X the target intake, then cost will be too!
  - Risk of grass tetany is greatest for lactating cows. Consider magnesium levels in mineral supplements for cows grazing cool-season forages and winter annuals this fall.
- Schedule breeding soundness exams for bulls used for fall and winter service.
  - Monitor BCS, particularly on young bulls.
- If bulls are BCS  $\leq 5.0$ , consider supplementing to regain BCS going into winter.

### Calf Management

- Consider the economic value by implanting nursing fall-born calves and weaned spring-born calves.
- If not already done, schedule your breeding protocols for fall replacement heifers in advance of the breeding season.
  - If synchronizing with MGA, make sure intake is consistent at 0.5 mg of melengestrol acetate per hd per day for 14 days, and remove for 19 days prior to administering prostaglandin.

### General Management

- Take inventory of and begin sampling harvested forages for fall feed needs.
  - Be aware of possible presence of molds and other anti-nutritional compounds in hay harvested at higher than typical moisture levels.
  - Test for nitrates and prussic acid when appropriate.
  - Use the forage inventory calculator (<https://www.agmanager.info/hay-inventory-calculator>) to balance forage inventories with fall/winter grazing acres.
- If grazing crop residues following harvest, keep the following in mind:
  - The bottom 1/3 of the stalk is where nitrates accumulate.
  - Be aware of prussic acid in new regrowth of sorghum plants, and the time around frost is the greatest risk.
  - High amounts of down grain will require a change in management.
- Use the Management Minder tool on *KSUBeef.org* (<https://www.asi.k-state.edu/extension/beef/tools.html>) to plan key management activities for your cowherd for the rest of the year.
- With high feeder calf prices, consider price risk management tools.
- Begin preparing for cold weather (i.e. tank heaters, windbreaks, bedding).

# What's New for Swine Producers

## **Evaluation of Anchovy Fish Meal with or without Added Fish Solubles Compared to Other Specialty Protein Sources on Nursery Pig Performance**

A total of 2,172 pigs (L337 × 1050 PIC; initially 11.4 lb) were used to evaluate anchovy fish meal with or without added anchovy fish solubles compared to other specialty protein sources on nursery pig performance in a commercial environment. At weaning, pigs were randomly allotted to 1 of 6 dietary treatments containing 6 different specialty protein sources added on an SID Lys basis. Dietary treatments consisted of diets with: 1) 7.0% enzymatically treated soybean meal (HP 300; Hamlet Protein; Findlay, OH); 2) 3.5% spray-dried bovine plasma (APC Inc, Ankeny, IA); 3) 5.0% microbially enhanced soybean meal (MEPro, Prairie Aquatech, Brookings, SD); 4) 5.2% microbially enhanced soybean meal with added anchovy fish solubles (TASA, Lima, Peru); 5) 4.85% anchovy fish meal (TASA Prime, TASA, Lima, Peru); and 6) 5.1% anchovy fish meal with added fish solubles (TASA Swine, TASA, Lima, Peru). Pigs were fed experimental diets in phases 1 and 2 based on feed budget with phase 1 fed at 5 lb/pig and phase 2 fed at 12 lb/pig. Experimental diets were fed for approximately 21 d after weaning and then all pigs were fed a common corn-soybean meal-based diet until the completion of the study. During the experimental period (d 0 to 21), pigs fed bovine plasma or anchovy fish meal had increased ( $P < 0.05$ ) ADG compared to pigs fed anchovy fish meal with solubles, with pigs fed other treatments intermediate. Pigs fed bovine plasma had improved ( $P < 0.05$ ) F/G compared to pigs fed anchovy fish meal with solubles, with pigs fed other treatments intermediate. Overall (d 0 to 42), a tendency was observed ( $P = 0.061$ ) with pigs fed anchovy fish meal having numerically greater ADG compared to those fed the other treatments. On a per pig placed basis, there was a significant treatment effect ( $P = 0.032$ ) where pigs fed anchovy fish meal had numerically higher ADG compared to the other treatments without significant mean separation. In conclusion, results of this trial indicated that anchovy fish meal as the sole specialty protein source can be utilized in nursery pig diets, but added fish solubles in combination with fish meal requires further investigation. More information is available on this experiment and others in the KSU Swine Day report at [KSUSwine.org](http://KSUSwine.org). (This study conducted by Ethan B. Stas, Mike D. Tokach, Joel M. DeRouchey, Jason C. Woodworth, Robert D. Goodband, and Jordan T. Gebhardt.)

## **Evaluation of Phase Feeding and Complete Diet Blending at Different Standardized Ileal Digestible Lysine Levels on Growing-Finishing Pigs' Growth Performance, Carcass Characteristics, and Diet Economics**

A total of 2,160 mixed-gender pigs (PIC 337 × 1050; initially  $54.8 \pm 9.4$  lb) were used in the 120-d study to compare feeding strategies (phase feeding vs. complete diet blending) at different SID Lys levels (90 vs. 100% of requirement estimates) on finishing pig growth performance, carcass characteristics, and economics. Pens of pigs were randomly assigned to 1 of 4 treatments following a completely randomized block design with barn and initial body weight as blocking factors. The treatments included two feeding programs, a 5-phase feeding strategy at either 90% (Phase-90) or 100% of SID Lys requirement estimates (Phase-100); or two programs with complete diet blending, with pre-defined mixing proportions of a low and high SID Lys diet to meet 90 (Blend-90) or 100% (Blend-100) of the SID Lys requirement estimates for 50- to 280-lb pigs. Pigs in the phase-feeding strategies were fed on a feed budget with 47, 144, 147, 138, and 136 lb of feed per pig for phases 1 to 5, respectively. Body weights at any period of the trial and overall ADG (d 0 to 120) were not affected by the feeding strategy nor by diet SID Lys levels. In contrast, the overall ADFI of pigs fed by diet blending was lower than the ADFI of those fed by phase feeding ( $P = 0.002$ ), resulting in improved F/G ( $P < 0.001$ ). The SID Lys levels did not influence overall ADFI or F/G. Hot carcass weight, carcass yield, lean percentage, fat depth, and loin depth were not affected by the feeding program. Despite the lower overall ADFI of pigs fed by diet blending, the feeding strategy resulted in no significant differences in economic criteria except for feed cost per lb of gain at the high price scenario ( $P = 0.049$ ). With low diet cost, the 90% SID Lys level resulted in lower feed cost per pig and feed cost per lb of gain than 100% SID Lys, but this was not reflected in income over feed cost (IOFC). In conclusion, diet blending at either 90 or 100% of the SID Lys requirement estimate improved F/G by reducing ADFI without impacting ADG or carcass characteristics. At current prices used in this study, feeding strategies at either 90 or 100% SID Lys did not significantly affect IOFC, but feeding 90% of the SID Lys recommendation reduced the feed cost. More information is available on this experiment and others in the KSU Swine Day report at [KSUSwine.org](http://KSUSwine.org). (This study conducted by Ron Aldwin S. Navales, Mike D. Tokach, Dwayne A. Krogstad, Joel M. DeRouchey, Jordan T. Gebhardt, Robert D. Goodband, and Jason C. Woodworth.)

## **Determining the Impact of ProbiCon L28 and BioPlus 2B on Finishing Pig Growth Performance and Carcass Characteristics**

These data represent the growth performance of pigs enrolled in a study to determine the impact of two direct fed microbial products on *Salmonella* and *Escherichia coli* prevalence pre- and post-harvest. A total of 650 finishing pigs in two groups were randomly assigned to pen via a completely randomized design, and pens were assigned to one of three treatments: 1) a control treatment with pigs fed a standard corn-soybean meal finishing diet (with no added probiotic); 2) the control diets with ProbiCon L28 (NexGen Innovations, LLC, Lubbock, TX) supplemented through water lines using a water medicator system at a target concentration of  $1.0 \times 10^6$  CFU/head/day; and 3) the control diet with added BioPlus 2B ( $5.0 \times 10^8$  CFU/lb of feed;  $\sim 3.0 \times 10^9$  CFU/head/day; CHR Hansen, Inc, Milwaukee, WI). No evidence of difference ( $P > 0.10$ ) between treatments was observed for overall ADG, ADFI, or F/G or any of the carcass traits. However, there was a tendency for a treatment effect for loin depth ( $P = 0.070$ ). Pigs fed the BioPlus 2B treatment had numerically greater loin depth compared to other treatments, but there were no significant pairwise differences between treatments ( $P > 0.05$ ). The results of this study suggested that probiotics used in this study and supplied through the water or feed had no impact on growth or carcass characteristics of finishing pigs. More information is available on this experiment and others in the KSU Swine Day report at [KSUSwine.org](http://KSUSwine.org). (This study conducted by Macie E. Reeb, Jimeng Bai, Mike D. Tokach, Jordan T. Gebhardt, Jason C. Woodworth, Robert D. Goodband, Joel M. DeRouchey, Jessie L. Vipham, Qing Kang, John W. Schmidt, Dayna M. Brichta-Harhay, Morgan Miller, and Sara E. Gragg.)

# What's New for Swine Producers

**Evaluation of Variation in Nursery Pig Growth Performance Utilizing Different Allotment Strategies** -A total of 360 pigs (200 × 400 DNA) were used in a 43-d nursery trial (initially 12.4 ± 0.37 lb) to evaluate multiple strategies for allotting pigs to pens in swine research trials. At placement, the population was split into 3 cohorts with similar average weight and standard deviation. Each cohort was randomly assigned to 1 of 3 allotment strategies. Strategy 1 (random) utilized a simple randomization strategy with each pig randomized to pen independent of all other pigs. Strategy 2 [body weight (BW) distribution] sorted each pig within the cohort into 1 of 5 BW groups. One pig from each weight group was then randomly assigned to pen such that distribution of BW within pen was uniform across pens. Strategy 3 (BW grouping) sorted pigs within the cohort into 3 BW categories: light, medium, and heavy. Within each BW category, pigs were randomly assigned to pen to create pens of pigs from each BW category. There were 72 pens in the trial with 5 pigs per pen and 24 pens per allotment strategy. For all strategies, once pigs were allotted to pens, pens were allotted to 1 of 2 treatments for a concurrent trial. Treatment diets consisted of basal levels of Zn and Cu from the trace mineral premix for the duration of the study (110 and 17 mg/kg, respectively; NC), or diets (PC) with carbadox (50 g/ton; Mecadox, Phibro Animal Health, Teaneck, NJ) fed in phase 1 and 2, pharmacological levels of Zn and Cu (2,414 mg/kg Zn from ZnO; 168 mg/kg Cu from CuSO<sub>4</sub>) in phase 1 and only Cu (168 mg/kg Cu from CuSO<sub>4</sub>) in phase 2. There were no allotment × treatment interactions (P>0.10). Pigs fed the PC diet had improved (P<0.001) ADG, ADFI, F/G, and final BW compared to pigs fed the NC diet. The coefficients of variation (CV) within pen between all pens on each allotment strategy and for the entire population of each allotment strategy were calculated. For between-pen and within-pen CV, pigs allotted using the BW grouping strategy had the lowest CV at allotment and final weigh day. Results were used to estimate the replication required with each allotment strategy to obtain significant differences with different percentage responses. Fewer replications are required to discern significant differences in ADG and final BW when allotting pigs utilizing BW grouping. However, there is no meaningful difference between allotment strategies in the replications required to detect significant differences for overall feed efficiency. When conducting nursery research with pen serving as the experimental unit, the data of this trial would support that a BW grouping allotment strategy would produce the least within-pen and pen-to-pen variation. More information is available on this experiment and others in the KSU Swine Day report at [KSUSwine.org](http://KSUSwine.org). (This study conducted by Abigail K. Jenkins, Jordan T. Gebhardt, Jason C. Woodworth, Joel M. DeRouchey, Mike D. Tokach, and Robert D. Goodband.)

**Evaluating HiPhorius Phytase in Two Diet Formulation Strategies on Finishing Pig Growth Performance, Serum Chemistry, Bone Mineralization, and Carcass Characteristics** -Two experiments were conducted to determine the effects of HiPhorius (DSM Nutritional Products, Parsippany, NJ) phytase on finishing pig growth performance, serum chemistry, bone mineralization, and carcass characteristics. In Exp. 1, 1,161 pigs (PIC 337 × 1050; initially 80.9 ± 1.06 lb) were used in a 105-d trial. There were 27 pigs per pen and 10 or 11 replications per treatment. Treatments consisted of: 1) Control diet with no added phytase and formulated to NRC (2012) requirement estimates for standard total tract digestible (STTD) P; 2) 600 FYT/kg added phytase formulated to the same STTD P as the control diet considering a release of 0.13% STTD P and 0.095% STTD Ca; 3) 1,000 FYT/kg added phytase formulated to the same STTD P as the control diet considering release of 0.16% STTD P and 0.107% STTD Ca; and 4) high STTD P (no phytase; approximately 22% above NRC requirement estimates). All diets were formulated to a 1.30:1 STTD Ca:STTD P ratio. Overall, pigs fed NRC (2012) or high STTD P had increased ADG (P<0.05) compared to pigs fed the treatments with added phytase. Pigs fed diets with phytase tended to have decreased (P= 0.056) 25-hydroxyvitamin-D<sub>3</sub> compared to pigs fed NRC levels of STTD P without phytase. In Exp. 2, 1,160 pigs (PIC 337 × 1050; initially 167.4 ± 2.92 lb) were used in a 58-d trial. There were 27 pigs per pen and 11 replications per treatment. Treatments were the same as in Exp. 1, except diets were formulated to the same total Ca:P ratio (the phase 1 ratio was 1.15:1; the phase 2 ratio was 1.12:1) without an STTD Ca release consideration from phytase. Overall, there were no differences in ADG, ADFI, or F/G among treatments (P>0.10). For pigs fed NRC or high STTD P, there was an increase (P<0.05) in metacarpal bone density, and a tendency for increased bone ash weight (g) (P<0.10) and percentage bone ash (P<0.10) compared to pigs fed treatments containing phytase. In conclusion, regardless of diet formulation strategy, pigs fed diets with phytase had decreased growth performance (Exp. 1) and bone mineralization (Exp. 2). The unexpected result may be caused by several, or a combination of, factors, such as low or no monocalcium phosphate being included in the diets with phytase, lower analyzed than formulated P (based on sampled diets), not enough phytate-bound P in the diets for phytase to provide sufficient P, too wide of an analyzed Ca:P ratio that may have reduced phytase activity compared to the intended Ca:P ratio, or the expected P attributed to the phytase being overestimated. More information is available on this experiment and others in the KSU Swine Day report at [KSUSwine.org](http://KSUSwine.org). (This study conducted by Macie E. Reeb, Jason C. Woodworth, Joel M. DeRouchey, Mike D. Tokach, Robert D. Goodband, Jordan T. Gebhardt, and Jon R. Bergstrom.)



# ASI Faculty Highlight

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**Victor Gomez Leon (vgomezleon@ksu.edu or 785-532-2652)**  
**Assistant Professor - Dairy Extension Specialist**

Victor grew up helping his family's agricultural enterprises in Colombia. In 2011, he earned his bachelor's degree in Veterinary Medicine and Animal Science and, in 2012, he moved to Brazil to pursue a master's and subsequently a Ph.D. in Veterinary Medicine. This experience provided him hands-on skills on reproductive techniques and the opportunity to apply them in large commercial livestock operations. Victor's enthusiasm for teaching and his multilingual skills have led him to train students, veterinarians, and producers by providing workshops, seminars, and field training. In 2017, Victor had the unique opportunity to perform his Ph.D. research projects in collaboration with Dr. Milo Wiltbank and Dr. Oliver Ginther at University of Wisconsin – Madison (UW), where he continued to work as a post-doctorate researcher until January of 2021. Victor's research has been mostly focused on basic and applied reproductive physiology. He has studied the mechanisms controlling follicle selection, which could be translated to strategies to decrease double ovulation and twins in lactating dairy cows. He has also studied pregnancy losses in recipients of IVF embryos as well as the luteolysis and return to ovulation in non-pregnant animals.

Victor's position at K-State as Assistant Professor/Extension Specialist-Dairy matches his main career goal of integrating research into a collaborative extension program that meets the dairy producers' needs. With his expertise and passion for research, he aims to develop a program informed and driven by data obtained from studies with animal models. This will be mostly focused on reproduction and its interaction with other areas such as health, nutrition, and management of dairy cattle. Victor is eager to develop a high-quality and innovative research/extension program by integrating his expertise to the dairy team and the K-State faculty group.

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**Lindsey Hulbert (lhulbert@ksu.edu or 785-532-0938)**  
**Associate Professor - Animal Behavior**

Dr. Lindsey Hulbert grew up in the southwest (AZ, NM) then began her career in animal physiology and behavior in Lubbock, Texas, through an undergraduate research program at Texas Tech University. Her first research projects involved understanding how housing and management conditions affect the behavior and stress responses in swine. Her research evolved into how stress affects the health and immune systems in other species, including laboratory rodents, beef and dairy calves, and poultry. She also worked for the USDA-Agriculture Research Services, Livestock Issues Research Unit in Lubbock. Dr. Hulbert was a post-doctoral at the University of California, Davis before moving to K-State in January of 2013. Dr. Hulbert has a passion for animals, science, and training students. In addition, she enjoys spending time with her family and her hobbies include Zumba and Salsa.

*We need your input! If you have any suggestions or comments on  
**News from KSU Animal Sciences**, please let us know by email to [katiesmith@ksu.edu](mailto:katiesmith@ksu.edu)*

# Jobs Available - Now Hiring

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**Animal Technician II Full- (Job #517217)** This is a full time, USS Staff position. The Dairy Teaching and Research Center (DTRC) is seeking applicants for a full-time Animal Technician II. This position will be responsible for equipment operation, equipment, and facility maintenance, and, in a smaller portion, general animal care and milking. Duties and job duties and responsibilities are as follows: Equipment operation (60%) – Equipment and Facility Maintenance (20%) General Animal Care and Milking (20%). For the full job description, or to apply go to: <https://careers.k-state.edu/cw/en-us/job/517217/animal-technician-ii>

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**Research Assistant - KSU Commercial Cow-Calf Unit (Job #517949)**- This is a Full-Time, Unclassified, Term position. This position will support the operations of the KSU Commercial Cow-Calf Unit under the direct supervision of the Farm Manager. The incumbent must be willing to be called to work to collect animals who have escaped in the evenings, weekends and/or on Holidays, and be willing to work outdoors in extreme heat or cold temperatures. The incumbent will be deemed "Essential" during periods of Inclement Weather directed by the University Administration and will be expected to report to work as usual. For more information or to apply, go to: <https://careers.k-state.edu/jobs/research-assistant-manhattan-kansas-kansas-united-states-9c8748bf-777a-46c7-959a-fcd19a67dfe4>

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**Animal Technician Supervisor - Dairy Teaching and Research Center (Job # 515576)** -This is a full-time, unclassified professional staff, term contract position. This position is critical to the overall operation of the KSU Dairy Teaching and Research Center. It involves supervision of other employees and the care and comfort of the animals housed at the DTRC at Kansas State University. Incumbent functions as the assistant manager of the Dairy Teaching and Research Center and is responsible for ensuring the safety of the cows and other dairy unit employees. Assumes responsibility for operation of the dairy unit in the manager's absence. Incumbent is responsible for milking cows at least two days each week and for making vital animal observations during the milking process. Incumbent is responsible for collecting sterile samples of milk to be tested for antibiotics or bacteria. To apply, go to <https://careers.k-state.edu/cw/en-us/job/515576/animal-technician-supervisor>.

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**Animal Technician I - Swine Unit (Job # 518114)**- This is a part-time, USS staff position. This position provides essential workload and responsibility for the KSU Swine Unit associated with animal care, health, and well-being as well as supporting research efforts. This position assists and supports the research efforts at the KSU Swine Teaching and Research Center, especially that conducted within the farrowing and nursery phases of production. It also supports the activities of graduate student-led research efforts to ensure that equipment and facilities are ready to accomplish the protocol objectives. For more information or to apply, go to <https://careers.k-state.edu/jobs/animal-technician-i-manhattan-kansas-united-states>

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