

Register Now - Swine Profitability Conference

Registration is now open for the 36th Annual Swine Profitability Conference happening on Tuesday, February 3, 2026 at the Stanley Stout Center.

The schedule includes:

9:15 a.m.	Coffee and Donuts
9:30 a.m.	Welcome
9:45 a.m.	US Pork Market and Opportunities to Grow Market Share <i>Brian Earnest, Animal Protein for CoBank</i>
10:30 a.m.	Lessons about Hog Trailer Contamination/ re-contamination at Harvest Plants - <i>Dr. Cesar Corzo, University of Minnesota</i>
11:15 a.m.	How we Implemented On-farm Technology to Optimize Labor - <i>Fred Kuhr, Dykhuis Farms</i>
12:00 p.m.	Lunch
1:15 p.m.	Rezac Livestock: Our Generational Legacy Story - <i>Nicole Harrison, Rezac Livestock</i>
2:15 p.m.	In-barn strategies to Address Wean-Finish Mortality - <i>Dr. Chris Sievers, Swine Vet Center, St. Peter, Minnesota</i>
3:00 p.m.	Adjourn



Pre-registration is \$25 per participant if registered by January 23. Registration on/after January 24, or at the door is \$50 per participant. The complete schedule and online registration information can be found at asi.ksu.edu/SwineProfit. For more information, contact Katie Smith (katiesmith@ksu.edu or 785-532-1267).

Registration Now Open - Cattlemen's Day



The 113th Cattlemen's Day will be hosted on Friday, March 6, 2026 at the Billbrey Family Event Center (located directly next to the Stanley Stout Center) in Manhattan, KS. Registration is \$25 per participant if registered by February 20, or \$35 if registered on/after February 21 or at the door. Registration is complimentary for K-State students. Morning refreshments and lunch are included with registration. More information about the schedule, registration, tradeshow and sponsorships is available soon at asi.ksu.edu/cattlemensday. For questions, please contact Katie Smith (katiesmith@ksu.edu or 785-532-1267).

IRM Redbooks for Sale

The 2026 IRM Redbooks are now for sale and will be sold on a first-come, first-serve basis. The price is \$7.65 per book for orders of 10 or more and \$8.00 per book for orders of less than 10, which includes postage. To order your supply of Redbooks, contact Katie Smith (katiesmith@ksu.edu or 785-532-1267).

Department of Animal Sciences and Industry

Kansas State University
218 Weber Hall, 1424 Claflin Road
Manhattan, KS 66506
785-532-6533 | asi@ksu.edu

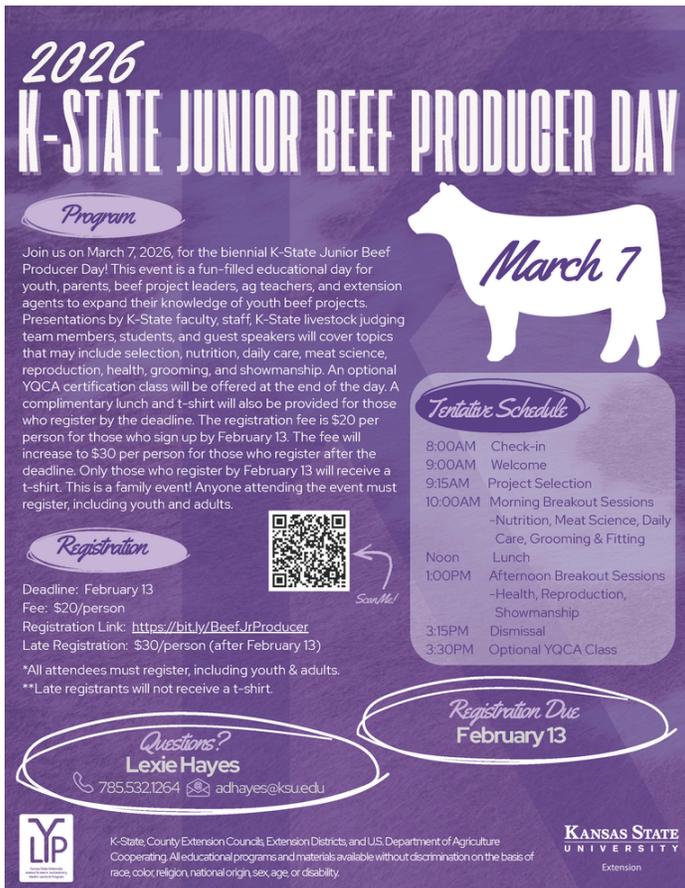


Upcoming Events

- January 15, 2026
KSU Calving School - Sharon Springs, KS
- February 3, 2026
Swine Profitability Conference
- February 19-21, 2026
K-State College Rodeo
- March 1, 2026
K-State Youth Meat Judging Contest
- March 5, 2026
Stockmen's Dinner
- March 6, 2026
Cattlemen's Day
- March 6, 2026
Legacy Bull Sale
- March 7, 2026
K-State Junior Beef Producer Day
- March 28, 2026
K-State Sheep Day
- April 11, 2026
K-State Junior Sheep Producer Day
- April 13 and 16, 2026
Livestock County Fair
Management Clinics
- April 18, 2026
Judging Team Reunion

Upcoming Events

Register Now - 2026 Junior Producer Days



2026 K-STATE JUNIOR BEEF PRODUCER DAY

Program

Join us on March 7, 2026, for the biennial K-State Junior Beef Producer Day! This event is a fun-filled educational day for youth, parents, beef project leaders, ag teachers, and extension agents to expand their knowledge of youth beef projects. Presentations by K-State faculty, staff, K-State livestock judging team members, students, and guest speakers will cover topics that may include selection, nutrition, daily care, meat science, reproduction, health, grooming, and showmanship. An optional YQCA certification class will be offered at the end of the day. A complimentary lunch and t-shirt will also be provided for those who register by the deadline. The registration fee is \$20 per person for those who sign up by February 13. The fee will increase to \$30 per person for those who register after the deadline. Only those who register by February 13 will receive a t-shirt. This is a family event! Anyone attending the event must register, including youth and adults.

March 7

Tentative Schedule

- 8:00AM Check-in
- 9:00AM Welcome
- 9:15AM Project Selection
- 10:00AM Morning Breakout Sessions
 - Nutrition, Meat Science, Daily Care, Grooming & Fitting
- Noon Lunch
- 1:00PM Afternoon Breakout Sessions
 - Health, Reproduction, Showmanship
- 3:15PM Dismissal
- 3:30PM Optional YQCA Class

Registration

Deadline: February 13
 Fee: \$20/person
 Registration Link: <https://bit.ly/BeefJrProducer>
 Late Registration: \$30/person (after February 13)

*All attendees must register, including youth & adults.
 **Late registrants will not receive a t-shirt.

Questions?
Lexie Hayes
 785.532.1264 | adhayes@ksu.edu

Registration Due February 13

KANSAS STATE UNIVERSITY
 Extension

K-State, County Extension Councils, Extension Districts, and U.S. Department of Agriculture Cooperating. All educational programs and materials available without discrimination on the basis of race, color, religion, national origin, sex, age, or disability.



2026 K-STATE JUNIOR SHEEP PRODUCER DAY

Date
4.11.2026
 Manhattan, KS

Registration
 Due: 3.20.2026
 Cost: \$20/person
<https://bit.ly/SheepJrProducer>
 *All adults & youth must register to attend.
 **Only those registered by 3/20/26 will receive a t-shirt.
 ***Late registration is \$30/person.

Questions
Lexie Hayes
 785.532.1264
adhayes@ksu.edu

Program

Join us for the biennial K-State Junior Sheep Producer Day on Saturday, April 11, 2026. Presentations will be provided by featured guests, as well as K-State faculty, staff, and students. This event will be an educational day of activities in which youth, parents, extension agents, ag teachers, and sheep project leaders can increase their knowledge of youth sheep project selection and management. A variety of topics will be shared, including an optional YQCA certification at the end of the day. All ages and skill levels are invited! Lunch and a t-shirt are included. The registration fee is \$20/person for those who sign up by March 20 or \$30/person for those who register after that date. Only those who register by the deadline will receive a t-shirt. This is a family event! Anyone attending, including both youth and adults, must register. There will be an optional tour of the sheep and meat goat center offered on Friday evening and Saturday after jr. day.

Tentative Schedule

Friday, April 10
 5:00-7:00PM Optional Tour of Sheep & Goat Center

Saturday, April 11
 8:00AM Check-in
 9:00AM Welcome
 9:15AM Selection
 10:00AM Nutrition
 10:45AM Morning Breakout Sessions

- facilities & equipment, reproduction, project management purchase to show

NOON Lunch
 1:00PM Health
 1:45PM Afternoon Breakout Sessions

- wool, showmanship, clipping & grooming

3:45PM Dismissal
 4:00PM Optional YQCA Class
 4:00-6:00PM Optional Sheep & Goat Center Tour

KANSAS STATE UNIVERSITY
 Extension

K-State, County Extension Councils, Extension Districts, and U.S. Department of Agriculture Cooperating. All educational programs and materials available without discrimination on the basis of race, color, religion, national origin, sex, age, or disability.

Registration is now open for the 2026 K-State Junior Producer Days! Junior Beef Producer Day will be Saturday, March 7, with Junior Sheep Producer Day scheduled for Saturday, April 11. Both events will be hosted at the new Bilbrey Family Events Center, north of the K-State campus in Manhattan. These events are one-day educational events for families to learn more about the selection and management of a specific specie. Youth, adults, extension agents, project leaders, and volunteers of all ages and skill levels are invited to attend! Presentations will be provided by K-State faculty, staff, students, extension agents, former exhibitors, and guest speakers. Topics range from selection, to nutrition, reproduction, health, clipping and grooming, and showmanship. This is a family learning event! Everyone who plans to attend must register, including both youth and adults. The cost is \$20/person by the deadline, or \$30 after the deadline for both events. Only those who register by the appropriate deadline will receive a t-shirt.

Junior Beef Producer Day registrations are due February 13, using this link: <https://bit.ly/BeefJrProducer>.

Junior Sheep Producer Day registration may be submitted through <https://bit.ly/SheepJrProducer>. The deadline is March 20.

Junior Producer Day event registrations are non-refundable.

An optional YQCA instructor-led training will be offered at the end of each program. Specific details about the YQCA certification will be shared with those who indicate on their registration that they plan to stay for the additional class. The K-State Sheep & Meat Goat Center is also offering an opportunity to tour their facility the night before the program, or following the event on Saturday. More information about the junior day events, including each of the flyers, are available on the @ksuylp Facebook page and the KSU YLP website: <https://www.asi.k-state.edu/extension/youth-programs/events/ks-jr-producer/>. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.

Upcoming Events

55th Annual Stockmen's Dinner

The 55th annual Stockmen's Dinner is scheduled for Thursday, March 5, 2026, at the Stanley Stout Center in Manhattan, KS. Plan now to join us as we honor Tracy and Yvonne Brunner as the 2026 Stockman of the Year. Registration is \$50 per person and the deadline to register is February 19.

To register, visit asi.k-state.edu/events/stockmensdinner/. For questions, contact Katie Smith (katiesmith@ksu.edu or 785-532-1267.)

K-State Sheep Day March 28

Kansas State SHEEP PRODUCER DAY 2026

Join us on March 28th for the K-State Sheep Producer Day. This event offers sheep producers the opportunity to learn about current research at K-State, gain practical insights, and connect with fellow producers.

TENTATIVE SCHEDULE

8:00 AM	Check-in with coffee & donuts
9:00 AM	Welcome
9:15 AM	Undergraduate Research Update
10:15 AM	Immune Response to Parasitism
11:15 AM	CIDR Study
12:30 PM	Lunch - Sponsored by Superior Farms
1:30 PM	NDSU Research Update
3:00 PM	Dismiss

REGISTRATION

Deadline: March 13th
Cost: \$15.00 per person
Late Fee: \$30.00 per person
Registration Link: <https://bit.ly/SheepDay2026>



EVENT SPONSERS



Questions?
Dr. Kelsey Bentley
919-502-9293 | kbentley@ksu.edu

9 AM - 3 PM
28
MARCH

STANLEY STOUT CENTER
2200 DENISON AVE,
MANHATTAN, KS 66502



Youth Meat Judging Contest to be Hosted on March 1st

REGISTER NOW! REGISTRATION LINK BELOW!

KANSAS STATE UNIVERSITY

YOUTH MEAT JUDGING CONTEST

MARCH 1, 2026

REGISTRATION ON [JUDGINGCARD.COM](https://www.judgingcard.com) - CLICK SYMBOL OR LINK BELOW!

QUESTIONS TO ERIN BEYER ERBEYER@KSU.EDU

- AT LEAST 6 CLASSES, 40 RETAIL ID, AND QUESTIONS
- MEAT LAB AT WEBER HALL
- REGISTRATION OPENS AT 7:00AM
- CONTEST BEGINS AT 8:00AM
- AWARDS FOR TOP 10 AND HIGH TEAM
- YOUTH OF ALL AGES ARE WELCOME

<https://www.judgingcard.com/Registration/Info.aspx?ID=24341>

We are excited to announce our spring youth meat judging contest will be hosted on March 1st! The contest date is earlier than last year due to meat lab construction and will be hosted on Sunday, March 1st. There will be a variety of classes with real product, 40 retail ID cuts, and multiple sets of questions. Youth of all ages are welcome, but everyone will judge in one division. The cost is \$15 per person and registration is available at <https://www.judgingcard.com/Registration/Info.aspx?ID=24341>. We hope to see everyone there for a fun and educational day of meat judging. For more information or questions, contact Erin Beyer (erbeyer@ksu.edu).

49th Annual Legacy Bull Sale

The 49th Legacy Sale will be Friday, March 6, 2026, at the Stanley Stout Center.

This year's offering will include Angus, Simmental and Hereford bulls, a group of bred cows and commercial heifers. For more information and to find the catalog after Feb. 10 visit asi.ksu.edu/legacysale

Upcoming Events

SowBridge Educational Series for Swine Producers

If you work in or with breeding and gestation units, gilt development systems, or farrowing barns, the SowBridge program is for you. This program helps improve your understanding of important topics and increase productivity in your breeding herds and farrowing systems. Since 2007, the series has reached producers and industry professionals across the U.S. and around the world. Sessions are recorded and the audio is provided to subscribers as it becomes available.

SowBridge 2026-2027 runs from February 2026 through January 2027. Registrations are accepted anytime during the year. SowBridge is provided via 12 monthly electronic presentation sessions by swine industry experts. Session recordings ensure subscribers don't miss a thing.

The SowBridge Series' \$200 fee includes all 12 sessions and supporting materials. Additional subscriptions from the same operation are half that cost. The registration deadline is Jan. 15, 2026, to ensure participants will receive materials for the first session on Feb. 4. For a complete schedule and registration form, visit KSUswine.org. For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu)

Livestock County Fair Management Clinic



SAVE THE DATE

2026 Livestock County Fair Management Clinic

April 13 & 16, 2026
7-9pm
Hosted online via Zoom

Kansas State University
K
Animal Sciences and Industry

K-STATE
Research and Extension

The biennial Livestock County Fair Management Clinic has been scheduled for April 13 and 16 via Zoom. This clinic is designed for county fair board members, Extension agents and volunteers involved in local livestock fair management and leadership. This virtual educational opportunity consists of a forum for open communication for individuals working with livestock at their local fairs. K-State faculty, staff, seasoned fair board members, and extension agents will facilitate discussion directly related to livestock activity at local livestock fairs in Kansas. The program is geared towards the input and participation of county fair board members, superintendents, and extension agents. The clinic has been divided over two evenings, with different topics being covered each night. Registration details will be available through local extension offices soon.

Small Livestock EID Tag Order Deadlines January 15

Small Livestock EID tag orders are due by January 15. These tags are required in market swine, commercial breeding gilts, market lambs, commercial breeding ewes, and all meat goats that will be state nominated for the Kansas State Fair or KJLS. The order form is posted on the EID Tags page of the youth livestock program website. A signed and completed form, as well as payment, must be received by the deadline for the order to be accepted. Additional information regarding EID tags may be found on the youth livestock program website: www.asi.k-state.edu/extension/youth-programs/nominations/kansas-4-h-eid-tags.html.

YQCA Scholarship

The national youth livestock quality assurance program, Youth for the Quality Care of Animals (YQCA), is continuing the scholarship program they initiated in 2025. Applications are now open and will close on February 15. High school seniors through college students who are 21 years of age are encouraged to apply. Last year, Kansas had two of the scholarship recipients! For more information, visit the YQCA program website: <https://yqcaprogram.org/local/2026-scholarship-program>.

K-State Judging Reunion - April 18

Save the date for this year's Judging Teams Reunion to be hosted on Saturday, April 18 at the Stanley Stout Center in Manhattan, KS. Teams that end in 6 will be recognized, along with our current teams attending K-State. If you'd like to sign up to receive future communication, you can fill out your information at the following link: <https://bit.ly/JudgingTeamContactInfo>.

More information about the judging reunion will be available in January, 2026 at <https://www.asi.k-state.edu/events/judging-reunion/>.

For questions contact Payton Dahmer (dahmerp@ksu.edu or 417-448-4934) or Katie Smith (katiesmith@ksu.edu or 785-532-1267).

What's New

Management Minute

“Winter Safety in the Workplace”

Justin Waggoner
KSU Extension Beef Cattle Specialist
Garden City, KS

January and February are historically some of the coldest months of the year in Kansas and often bring extreme weather conditions that can be challenging for agricultural workers that work in the elements. Falls, slips, and trips continue to be one of the leading causes of workplace injuries (U.S. Bureau of Labor Statistics) and although falls and slips can occur anytime, extra precautions are required during the winter months. Employees and supervisors should be trained to recognize the symptoms of cold stress and appropriate control measures and safe work practices. Hypothermia is real, especially for those that work outside for extended periods. Safety experts suggest that clothing be worn in layers to retain body heat. However, how and what type of layers those clothes are made of is important. At least 3 layers is recommended, cotton or other breathable synthetic fiber should be the first or base layer. Wool or down is suggested for the middle layer, and the third or outer layer should be composed of material that will block the wind such as the nylon outer shell found on many ski-jackets. Employers should also consider scheduling maintenance or other outdoor tasks to the warmest part of the day and limiting the amount of time spent outdoors on extremely cold days.

Portable heaters are often used as heat sources in many shops and barns. Portable heaters are one of the most common causes of carbon monoxide poisoning and structural fires. If heaters are used in confined spaces, always remember that ventilation is required to avoid carbon monoxide poisoning. Additionally, the areas where heaters are used should be checked for combustible materials and heaters should never be left unattended.

The U. S. Department of labor, OSHA website offers other tips and resources for working outside in the winter and may be accessed at <https://www.osha.gov/winter-weather/preparedness>.

Feedlot Facts

“Feeding Strategies During Extreme Cold Weather Events”

Justin Waggoner
KSU Extension Beef Cattle Specialist
Garden City, KS

As we all know there is no typical weather pattern in Kansas. We experienced a mild fall this year and thus far winter has been interesting with record high temperatures followed by some cold and windy days, that remind us it is January. Cold stress increases maintenance energy requirements but does not impact protein, mineral or vitamin requirements. The classic response to cold stress in backgrounding or feedlot cattle is an increase in voluntary intake, reduced gain and poorer feed conversion (Young, 1981). Managing feed intakes during any extreme weather event can be challenging. The variation in voluntary intake of cattle coupled with behavioral responses exhibited during extreme weather events may increase the risk of digestive disorders, primarily bloat and acidosis and overall pull and treatment rates. Adding additional roughage to the diet is commonly used as strategy to offset the negative effects associated with weather events. Some nutritionists and operations will top-dress or cover rations with pre-determined amounts of hay. Other operations or nutritionists may utilize storm rations that utilize increased amounts of roughage. Most nutritionists will increase the total roughage concentration in the diet by 2-4% on dry matter basis in storm rations (i.e. if the finishing diet normally contains 9% roughage, then the storm rations may have 11-13% roughage). Ideally, feeding additional roughage should be started 24 hours prior to the weather event and cattle are usually transitioned back to the original diet 24-36 hours after the storm has passed. In the event of a prolonged extreme cold weather event, dietary energy concentrations may be increased as a means of addressing the increased energy requirement associated with cold stress and maintaining cattle performance.

For more information, contact Justin Waggoner at jwaggon@ksu.edu

KSU Cow-Calf Checklist - January 2026

Management Considerations for March 2026

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

Cow Herd Management

- Start post-calving nutrition programs for spring-calving females.
 - Begin lactation rations once first calving cycle is complete.
 - Make sure thin (BCS \leq 4.0) females are on an increasing plane of nutrition going into breeding.
- Pregnancy check and wean fall-calving cows if not already done.
- Evaluate your mineral program for the coming spring and summer seasons.
 - What was your average consumption last year?
 - Do you need to make changes this year to achieve targeted consumption?
- Consider magnesium supplementation levels, particularly for lactating cows grazing wheat, rye, or triticale in the spring.
- If synchronizing females for breeding, schedule your protocols now well in advance of the breeding season and mark your calendars.
 - Use the estrus synchronization planner available to you.
 - <https://www.iowabeefcenter.org/estrussynch.html>
 - Inventory your A.I. supplies and check your semen tanks.
- Evaluate herd bulls for BCS and adjust as needed prior to breeding.
 - Bulls need to be in a BCS \geq 5.0 prior to the next season of use.
 - Schedule breeding soundness examinations with your veterinarian.

Calf Management

- Market your fall-born calves if not already done.
- Schedule your spring calf working activities and visit with your veterinarian to discuss your calf health protocols.
- Monitor growth and pubertal development of replacement heifers.
 - Heifers should be having active estrous cycles prior to breeding.

General Management

- Make sure you complete your spring calving records!
 - Don't forget late-calving females as you focus on other spring projects.
- Rethink your turn-out dates if pastures were stressed from drought last year.
 - Plan/adjust your feeding dates accordingly.
- Take inventory of any feed/forage that will be left over from winter.
- Cover piles or close bags if silage is left over and won't be fed until fall.
- Clean up any soiled bedding or unused/wasted feed to reduce the breeding and development of stable flies as the weather warms up.
- Finish pasture management projects started last year:
 - Repair or replace fences as needed.
 - Burn if conditions allow, cut and pile trees, particularly Cedar trees!
 - Clean and repair tanks and equipment as needed so watering sources are working properly when cattle are turned out to pasture.
- If making bull selection decisions:
 - Review your herd performance relative to your marketing and genetic goals.
 - Study EPDs impacting your marketing and genetic goals and do your homework well before sale day.

What's New for Swine Producers

Evaluation of Trypsin Inhibitor Unit Level with or without the Addition of Protease and an In-feed Acidifier on Nursery Pig Growth Performance, Fecal Dry Matter, and Nutrient Digestibility- A total of 360 barrows (DNA 200 × 400; initially 12.9 ± 0.59 lb) were used in a 40-d growth trial to evaluate the effects of increasing trypsin inhibitor with or without the addition of protease and benzoic acid on nursery pig growth performance, fecal dry matter, and nutrient digestibility. Pigs were weaned at approximately 21 d of age and randomly allotted to pens. Pens of pigs were blocked by initial BW and allotted to one of eight treatments in a randomized complete block design with five pigs per pen and nine pens per treatment across two barns. The eight treatments were arranged in a 2 × 2 × 2 factorial design with main effects of trypsin inhibitor (1.4 or 2.8 TIU/mg of complete feed), protease (none or 50 mg/kg ProAct 360), and benzoic acid (none or 0.5% VevoVital). Soy flour (80 TIU/mg) was added at the expense of soybean meal (7 TIU/mg) to create the 1.4 or 2.8 TIU/mg of complete feed levels. Diet formulation was based on analyzed nutrient values of the soy flour and soybean meal, assuming digestibility coefficients for soy flour equivalent to those of soybean meal. Experimental diets were fed in three phases: phase 1 from d 0 to 10, phase 2 from d 10 to 24, and phase 3 from d 24 to 40. Feces were collected from three pigs per pen on d 10 and 40 to determine fecal DM, and d 40 fecal samples were used to determine apparent total tract digestibility (ATTD) of DM and CP. The main effect of TIU negatively impacted ($P \leq 0.014$) growth performance in all phases, while the main effect of acidifier tended ($P \leq 0.089$) to improve ADG and F/G in phase 3. No significant main effects of protease in the phases were observed. Overall, from d 0 to 40, there was a three-way interaction observed ($P = 0.024$) where in low TIU diets, pigs fed diets with either acidifier or protease had numerically lower ADG compared to the low TIU control and the low TIU diet with both acidifier and protease. However, in high TIU diets, pigs fed either acidifier or protease had greater ADG compared to the high TIU control diet without any additive and the high TIU diet with both acidifier and protease. A similar TIU × protease × acidifier interaction was marginally significant for ADFI ($P = 0.054$). Pigs fed diets with 2.8 TIU/mg of complete feed had increased d 10 fecal DM; however, there were no differences on d 40. For the ATTD of DM and CP, there was an interaction ($P = 0.028$) between TIU and acid, where pigs fed the acidifier had improved ATTD compared to pigs fed no acid in a diet containing 1.4 TIU/mg of complete feed; however, pigs fed 2.8 TIU/mg of complete feed had similar ATTD regardless of acid inclusion. For overall main effects, increased TIU worsened ($P < 0.05$) ADG, ADFI, and F/G; protease tended to worsen ($P = 0.067$) F/G; and acidifier had no effects on growth performance. This study suggests that increased dietary TIU negatively affects nursery pig performance, but the inclusion of either a protease or benzoic acid may help mitigate a portion of the effect of high TIU, even as low as 2.8 TIU/mg of complete feed. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Sierra M. Collier, Skyler D. Ward, Katelyn N. Gaffield, Robert D. Goodband, Mike D. Tokach, Jason C. Woodworth, Joel M. DeRouchey, Hari B. Krishnan, and Jordan T. Gebhardt).

Effect of Standardized Ileal Digestible Lysine to Crude Protein Ratio on Growth Performance of 100 to 275 lb Pigs- Four experiments were conducted to determine the effect of SID Lys to CP ratio (SID Lys:CP) on growth performance and blood urea nitrogen (BUN) of 100 to 275 lb pigs. In each experiment, pens of pig were blocked by BW and randomly assigned to one of five dietary treatments in a randomized complete block design. There were eight to 10 pigs per pen and 13 or 14 replications per treatment in each experiment. A total of 621, 663, 624, and 609 pigs were used in Exp. 1 through 4, respectively. The pigs were DNA 600 × 241 and had initial BW of 100.3 ± 1.17 lb, 121.5 ± 1.08 lb, 187.0 ± 1.88 lb, and 228.7 ± 1.34 lb for Exp. 1 to 4, respectively. Pens were mixed gender, and each experiment lasted 21 d. Dietary treatments were corn-soybean meal-based and formulated to contain 0.94, 0.83, 0.71, and 0.63% SID Lys for Exp. 1 to 4, respectively. Within each experiment, diets provided SID Lys:CP ratios of 85.0, 92.5, 100.0, 107.5, and 115.0% of requirement estimates calculated from NRC (2012). Intermediate SID Lys:CP levels were achieved by blending diets with the lowest and highest SID Lys:CP ratio. Pen weight, number of pigs per pen, and feed delivery were recorded to calculate ADG, ADFI, and F/G. Blood samples were collected on d 14 of each experiment and analyzed for BUN. Dose response curves were evaluated using linear, quadratic polynomial, cubic polynomial, and broken-line linear (BLL) models. In Exp. 1, increasing SID Lys:CP had no effect on final BW and ADG, but it increased (linear, $P < 0.001$) ADFI and worsened (linear, $P < 0.001$) F/G. In Exp. 2, increasing SID Lys:CP ratio did not influence final BW, but tended to decrease (linear, $P = 0.053$) ADG, increase (quadratic, $P = 0.025$) ADFI, and worsen (linear, $P < 0.001$) F/G. In Exp. 3, increasing SID Lys:CP ratio decreased (linear, $P \leq 0.046$) final BW and ADG, and worsened (linear, $P < 0.001$) F/G. In Exp. 4, increasing SID Lys:CP had no influence on final BW and ADG, but tended to increase (linear, $P = 0.069$) ADFI and worsened (linear, $P = 0.009$) F/G. Across experiments, increasing SID Lys:CP decreased (linear, $P \leq 0.001$) nitrogen (N) intake and BUN. The cubic models provided the best fit for Exp. 1, 2 and 4, while the linear model provided the best fit for Exp. 3. In conclusion, increasing SID Lys:CP worsened F/G and decreased BUN in 100 to 275 lb pigs. Based on the local minimum determined using the cubic models, the estimated SID Lys:CP ratios to optimize F/G for pigs weighing 100 to 153 lb, 121 to 172 lb, and 228 to 275 lb were 5.55%, 5.43%, and 5.23%, respectively. For pigs weighing 187 to 238 lb, the requirement was estimated to be below 5.13% based on the linear model. These SID Lys:CP ratios are below NRC (2012) estimates. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Ron Aldwin S. Navales, Abigail K. Jenkins, Ty H. Kim, Julian Arroyave, Joel M. DeRouchey, Katelyn N. Gaffield, Jordan T. Gebhardt, Robert D. Goodband, Mike D. Tokach, and Jason C. Woodworth).

ASI Faculty Highlight



Joann Kouba (jkouba@ksu.edu or 785-532-1240)

Professor - Equine Physiology

Dr. Kouba was born and raised in Bellevue, Nebraska. She entered Northeast Missouri State University in 1989, majoring in Animal Science with an Equine emphasis. Following graduation, she began her graduate career in Animal Physiology at Clemson University in Clemson, South Carolina. While at Clemson, she was actively involved in their undergraduate teaching program and her thesis focused on the use of Domperidone to treat pregnant mares grazing endophyte-infected tall fescue. She then moved to Texas and started on her Ph.D. in Equine Reproductive Physiology at Texas A&M University. While at A&M, Dr. Kouba was also heavily involved in their undergraduate program, teaching courses in horse training, horsemanship, reproduction and management, as well as the introductory animal science labs. Her dissertation dealt with the control of prolactin secretion in the pregnant mare, and the interaction between various reproductive hormones and endogenous opioids.

In the fall of 2001, Dr. Kouba joined the KSU faculty as the horse teaching and research specialist with a 80% teaching and 20% research appointment. Since 2001, she has taught 10 on-campus equine courses as well as 2 distance courses, advises ~60 students annually, and mentors equine graduate students pursuing advanced degrees with a reproductive physiology emphasis. Beyond her on-campus classes, Dr. Kouba also believes in enhancing educational opportunities for students through international experiences. She has led 3 equine study tours, visiting England, Scotland, Ireland, Spain, Portugal and Morocco. Her research program focuses on understanding how reproduction is controlled in the mare and stallion, and the interaction between nutrition and reproductive function.

In addition to her equine interests, Dr. Kouba and her family also enjoy showing and breeding German Shepherds.



KC Olson (kcolson@ksu.edu or 785-532-1254)

Professor - Range Beef Cattle Nutrition and Management

KC is a professor of range beef cattle nutrition and management and the W.M. and F.A. Lewis Distinguished Chair in the Department of Animal Sciences & Industry at Kansas State University. He teaches a number of courses at KSU and takes great pride in helping train the next generation of Great Plains ranchers and farmers. KC's research program addresses questions that affect profitability of the cow-calf and stocker segments of the Kansas beef industry. Specific areas of research include management of invasive range plants; nutritional management of cattle grazing native range; fire ecology; and factors influencing grazing behavior.

KC holds advanced degrees from Kansas State University and North Dakota State University. KC is active in the American Society of Animal Science, the Society for Range Management, the American Registry of Professional Animal Scientists, the American College of Animal Nutrition, the Weed Science Society of America, and the Tallgrass Legacy Alliance. He was the 2019 winner of the Animal Management Award bestowed by the American Society of Animal Science.

KC, his wife Karli, and sons Charles and Theodore live on a beautiful ranch in North Lyon County. In his off time, KC enjoys spending time with his family, being active in his church, and being one of the most highly leveraged ranchers in the Flint Hills. He has a very close relationship with his banker.

*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*