

Livestock Sweepstakes Aug. 17-18

Livestock Sweepstakes will be hosted on the K-State campus August 17-18. The entry deadline has passed, but those who entered youth will be receiving additional details and reminders as the event approaches. The livestock judging contest, livestock skillathon, and quiz bowl qualifying exam will be on Saturday, with the meat judging contest, head-to-head quiz bowl rounds, and awards ceremony being on Sunday. Through these events, the youth who will represent Kansas at the national contests will be selected. We look forward to having Kansas 4-H youth on campus to kick off the school year! For more information, contact Lexie Hayes (adhayes@ksu.edu or 785-532-1264.)



KJLS Deadline Approaching

The deadline to enter the Kansas Junior Livestock Show is August 15. All entries must be made online, using the link on the KJLS website: <https://www.kjls.net/>. Rules, the schedule, and additional details are also posted on their website. Everyone is encouraged to double check the rules prior to entry and arrival to make the check-in process goes as smoothly as possible. Families who state nominated have to use the same account they did during the nomination process for nominated animals to be available for entry. It is important to remember that a complete nomination does not constitute show entry. Nomination only makes animals eligible to be entered and shown at KJLS. Exhibitors must submit an official entry, through the unique KJLS entry link posted on the KJLS website, as well as pay the appropriate fees to be able to participate. Exhibitors will enter showmanship during the entry process, as well as sign up for the LEAD Challenge if they are interested. Scholarship applications are also due August 15. Agents and FFA advisors will receive instructions regarding approving entries for youth from their respective organizations after entries close. This will all be done online, similar to approving nominations and state fair entries. For information about entries or the show, please contact the KJLS staff directly.

KLA/KSU Field Days

Dates have been set for the 2024 KLA/Kansas State University Ranch Management Field Days. Downey Ranch will host the first event August 15 in Wabaunsee County. The August 22 field day will be in Gove County at Hoeme Ranch & Cattle.

Each event will begin at 3:30 p.m. and include presentations on the history of the host operation and management practices used today, as well as educational sessions and a complimentary beef dinner. The Farm Credit Associations of Kansas and Huvepharma are sponsoring both events.

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 or 785-532-1247).

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Upcoming Events

August 15, 2024

KSU/KLA Ranch Management Field Day
Wabaunsee Co. - Downey Ranch

August 17-18, 2024

4-H Livestock Sweepstakes

August 22

KSU/KLA Ranch Management Field Day
Gove Co. - Hoeme Ranch & Cattle

September 6-8, 2024

KSU College Rodeo

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

State Livestock Show Schedules & Information

As the Kansas State Fair Grand Drive and KJLS approach, it is important that families familiarize themselves with the rules and be prepared for check-in in order for the process to go smoothly. Schedules and rules are posted on each show's respective website. The barns open on Thursday, September 5 for the Grand Drive, which is celebrating its 25th anniversary this year. Check-in kicks the weekend off on Friday morning, showmanship on Friday afternoon, market shows on Saturday, and breeding animals showing on Sunday. Exhibitors will pick up their packets in the show office, located in the sheep and swine barn office complex, upon arrival. Each packet contains exhibitor check-in cards, as well as other items purchased during show entry, including gate badges, Gala tickets, etc. Exhibitors who need to substitute one nominated animal for another may do so in advance through the [link](#) posted on the Grand Drive website and their Facebook page. This will expedite the check-in process. All families are also encouraged to follow the Grand Drive and KJLS social media platforms as the shows approach. Both share lots of information and reminders leading up to the shows, including stalling maps.

Check the KJLS website for the schedule and details. The barns open on Friday, September 27. Check-in, showmanship, breeding, and market shows happen throughout the weekend, by specie. The weekend begins with sheep and meat goats, wrapping up with swine and beef on Sunday. Families need to refer to the schedule before arrival for details. The LEAD Challenge will happen throughout the weekend, with awards presented on Sunday. Exhibitors will pick up their packets, which contain their t-shirt, check-in cards, and other materials, by the end of the day Friday in the sheep and swine barn. Follow the KJLS Facebook Page for announcements and details as the show approaches.

Kansas State Fair Grand Drive -

<https://www.kansasstatefair.com/p/competitions/grand-drive-25th-anniversary>

KJLS - <https://www.kjls.net/>



Kansas State Rodeo Scheduled for September

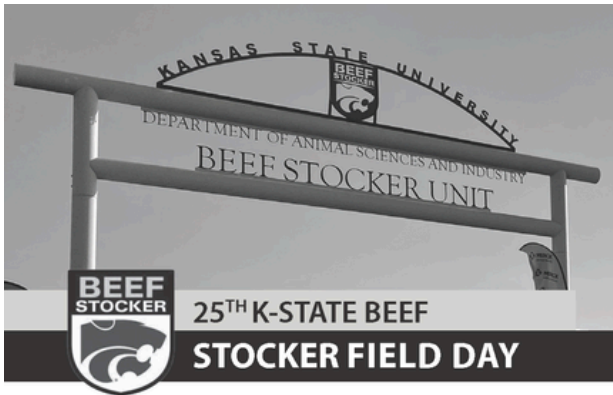
Due to the construction of the Bilbrey Family Event Center, the 2024-25 school year K-State Rodeo will be hosted September 6-8 at Wells Arena at CiCo Park in Manhattan. Performances will take place Friday night, Saturday afternoon and night, and Sunday afternoon.

The Friday and Saturday night performances will start at 7:30 p.m., with the Saturday and Sunday afternoon sessions beginning at 1 p.m. Tickets are available to be purchased in advance at the following Manhattan locations: Call Hall Dairy Bar, Tractor Supply, Yee-Haw Outfitters and Outpost Western Store. Tickets are also available in Wamego at Vanderbilts or in Topeka at R Bar B Saddle and Tack. Tickets will be available at the door on a first-come, first-served basis, or until sold out.

Tickets are \$15 for adults, \$10 for students, military and K-State alumni, and children five and under are free. For more information, contact K-State rodeo coach, Casy Winn (435-681-0201 or ccwinn@ksu.edu).

Upcoming Events

Register Now For K-State Beef Stocker Field Day



THURSDAY, SEPT. 26, 2024 • 9:30 A.M.
KSU BEEF STOCKER UNIT • MANHATTAN, KS

Join us in celebrating our
25TH ANNIVERSARY

Register at KSUBeef.org or 785-532-1267

REGISTRATION FEE: \$25

After Sept. 13 registration is \$35



Event Sponsored By:



Come help us celebrate the 25th KSU Beef Stocker Field Day, which will be hosted on 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 or 785-532-5427) or Katie Smith (katiesmith@ksu.edu or 785-532-1267).

Save the Date- 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 or 785-532-2203).

Make Plans to Attend ASI Family & Friends Reunion

Make plans to attend the 10th annual ASI Family & Friends Reunion. This year's date is Saturday, October 5 at the Stanley Stout Center. Dr. Dell and Joyce Allen will be presented with the Don L. Good Impact Award for their decades of contributions to the agriculture and livestock industry. Visit asi.ksu.edu/familyandfriends to register or view more details.



What's New

Management Minute

“Be a Better Coach in the Workplace”

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

Being a manager and managing people isn't easy, especially when an employee or group of employee's performance needs improvement. The goal of coaching is to improve the quality of the work of the employee or group and is not necessarily part of a disciplinary action (although it is often associated with it). Coaching in the workplace can be an effective way to address issues that limit performance. Below are a few tips from www.thebalancecareers.com on coaching in the workplace.

- State the issue or the problem directly. Keep the focus on the issue or problem and not the person.
- Involve the employee in the process. Asking the employee or group for help in creating a solution is a great way to show you have confidence in them.
- Identify what issues or road blocks exist that limit the employee or group's performance. The most common issues are time, additional training or resources.
- Come up with plan that identifies specific actions that need to be done to address the issue by everyone involved (including the manager).
- Schedule time for a follow-up conversation. Feedback is essential, but should be positive.

Feedlot Facts

“Silage Harvest; Are you Ready?”

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

Fall silage season is coming and will quickly be upon us. One of the busiest, most fast-paced operations that occur on many feedyards and livestock operations is silage harvest. Cutters and choppers in the fields, trucks racing from the field to the pile or bunker, multiple tractors pushing and packing silage. The speed at which we can harvest silage today is amazing, but we should never allow the speed at which can accomplish a task to compromise safety. In the infamous words of Dr. Keith Bolsen “Every silage accident could have been prevented.” NOW is the time to remind personnel on our team about silage safety!

Listed below are a few things to consider during this year's silage harvest.

- Don't become complacent. Stay aware of the surroundings. Let's face it there are a lot of highly repetitive operations in putting up silage. One of the number one factors that lead up to an accident is almost always complacency or lack of situational awareness.
- People (especially children) should never be allowed near a drive over pile or bunker silo during filling. If people have to approach the area, get on the radio inform the drivers/operators. Those on the ground in the area should always wear a bright colored orange safety vest.
- Make Direct Eye Contact. Remind all personnel to make direct eye contact with equipment operators when approaching or entering a work area. (even if they have made radio contact). Always wear high visibility clothing in areas with high equipment activity.
- Never inspect or make repairs to equipment near the bunker or pile. Equipment should be removed from the area as soon as possible. Repairs almost always involve people on foot and potentially people who may not be familiar with silage activities and the associated risks.
- Truck drivers should always slow down when approaching houses and intersections on all roads, every time. Those houses along the road belong to our neighbors and friends, some of which have children. The increased traffic on gravel roads creates dust, and the crops are tall, both of which reduce visibility at intersections. Our neighbors should not fear going to their mail box due to our silage trucks...

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

KSU Cow-Calf Checklist - August 2024

Management Considerations for October 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 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 to help plan fall synchronization protocol
 - <https://www.iowabeefcenter.org/estrussynch.html>
- 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 service.
 - Monitor BCS, particularly on young bulls.
 - If bulls are BCS \leq 5.0 after summer breeding, consider supplementing to regain BCS going into fall.

Calf Management

- Schedule any pre-weaning vaccination or processing activities if not already done.
- 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>).
 - 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 to plan key management activities for your cowherd for the rest of the year.
- With high feeder calf prices, consider price risk management tools for fall-calves.

What's New for Swine Producers

Effects of Various Modified Corn Protein Inclusion Rates on Nursery Pig Growth Performance- This experiment was conducted to determine the optimum feeding strategy of a modified corn protein product (MCP; P4000; Cargill Starches, Sweeteners, & Texturizers, Blair, NE) on growth performance and fecal dry matter of nursery pigs. A total of 360 barrows (DNA 200 × 400; initially 12.0 ± 0.14 lb) were used in a 42-d growth trial. Pigs were weaned at approximately 21 d of age, randomly allotted to pens in 1 of 2 weight blocks based on initial BW (initially 10.8 and 13.2 lb), and then allotted to 1 of 6 dietary treatments in a completely randomized design. There were 5 pigs per pen and 12 pens per treatment across 2 barns. Dietary treatments were corn-soybean meal-based and arranged in a 2 × 3 factorial with 2 levels of MCP in phase 1 (10 or 12%) and 3 inclusion rates of MCP in phase 2 (4, 6, or 8%). Treatment diets were formulated in two dietary phases and fed from d 0 to 10 and d 10 to 23, respectively, with a common phase 3 diet that did not contain any MCP fed for the remainder of the study. A tendency was observed for a 3-way interaction for weight block × phase 1 diet × phase 2 diet (P= 0.064) on d 42 BW. This interaction was a result of feeding increasing levels of MCP quadratically increasing, then decreasing, BW of lightweight pigs, regardless of phase 1 inclusion. However, in heavyweight pigs, increasing MCP in phase 2 diets quadratically decreased, then increased, BW of pigs fed 10% MCP in phase 1, while increasing MCP in phase 2 linearly decreased BW in heavyweight pigs fed 12% MCP in phase 1. Additionally, during the common period (d 23 to 42) there was a 3-way interaction (P= 0.038) for ADG, in which lightweight pigs previously fed 10 and 8% MCP (phase 1 and 2, respectively) had decreased ADG, while feeding increasing MCP in phase 2 to lightweight pigs fed 12% MCP in phase 1 quadratically increased, then decreased, common period ADG. However, for heavyweight pigs the previous MCP feeding strategies did not affect ADG during the common period. During phase 1 (d 0 to 10) pigs fed 10% MCP had greater (P= 0.032) ADFI than those fed 12% MCP, resulting in a tendency (P= 0.065) for greater ADG. Throughout the experiment (d 0 to 42) feeding 10% MCP in phase 1 tended (P= 0.077) to increase ADG. During phase 2 (d 10 to 23) feeding increasing levels of MCP quadratically improved, then worsened (P= 0.018) feed efficiency, leading to a tendency for a quadratic effect (P= 0.066) on feed efficiency throughout the treatment period. There were no 2- or 3-way interactions observed (P>0.10) on fecal dry matter. Nevertheless, pigs fed 12% MCP had greater (P= 0.024) fecal dry matter at d 10 compared to those fed 10% MCP. However, the inverse was true on d 23, in which pigs fed phase 1 diets with 10% MCP had greater (P= 0.016) fecal dry matter compared to those fed 12% MCP. In summary, feeding 10% MCP in phase 1 tended to improve BW, ADFI, and ADG compared to a 12% MCP level. Moreover, 6% MCP during phase 2 appeared to have a positive impact on feed efficiency during the treatment period but did not impact overall feed efficiency. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Rafe Q. Royall, Ty H. Kim, Jason C. Woodworth, Mike D. Tokach, Joel M. DeRouchey, Jordan T. Gebhardt, Robert D. Goodband, Keith Mertz, and John F. Patience.)

Evaluation of Precision, Accuracy, and Efficiency of Scale Stabilization Settings Using LeeO Pig Tracking System- This trial was conducted to evaluate the optimum scale head settings for LeeO scale systems to balance accuracy, precision, and efficiency in weighing pigs. LeeO scales allow for the adjustment of both stabilization time (mSec) and stabilization weight (g). The pig weight that is accepted by the technology is only registered after staying within the set stabilization weight for the set stabilization time. Prior to beginning animal research, precision and accuracy were assessed for two scales. The nursery scale used a 25-lb test weight and the finisher scale used a 50-lb test weight. The CV estimates were 0.1% or less when the test weight was measured multiple times within each combination of settings for both nursery and finishing weights. Accuracy did not differ (P>0.10) based on stabilization time for either scale. However, when weighing the 25-lb test weight, the longest stabilization time of 1,000 mSec resulted in the smallest difference from the true weight (P<0.05). To assess scale settings, 30 nursery and 33 finishing pigs were weighed multiple times using different settings to determine accuracy, precision, and efficiency. Each pig was weighed 5 times on the predetermined settings for a total of 45 weights for each nursery pig and 20 weights for each finishing pig. Coefficient of variation (CV) was used as an estimation of precision, which was calculated by dividing the standard deviation of the 5 weights for that combination of scale head settings by the average weight of the 5 weights for that setting. To estimate accuracy, the absolute difference of the average weight of the 5 weights for that setting combination from the overall average weight for that pig was calculated. Efficiency was measured one of two ways. The nursery pig procedure included the elapsed time from when the first weight was collected for that combination of scale head settings until the fifth weight that was collected was divided by the total number of weighing events for that setting. The finishing pig procedure included the sum of the times that it took to lock in all five weights for that combination of scale head settings and dividing that sum by the total number of weighing events for that setting. There were no differences in accuracy for nursery or finishing pig scales based on stabilization time or weight (P>0.10). There was a significant difference in precision for the nursery pig scale based on both stabilization time (P= 0.003) and stabilization weight (P= 0.003); with CV improving as stabilization weight became smaller and stabilization time became longer. Conversely, efficiency for collecting both nursery and finishing weights improved with larger stabilization weight and shorter stabilization time (P<0.001). In the finishing experiment, CV was improved (P<0.05) for the 500 g × 1,000 mSec and 500 g × 500 mSec settings compared to the 1,000 g × 250 mSec setting, with the 1,000 g × 500 mSec setting intermediate. To balance precision and efficiency, a setting of 50 g × 500 mSec for the nursery and 500 g × 1,000 mSec for the finisher is recommended. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Abigail K. Jenkins, Zhong-Xing Rao, Jordan T. Gebhardt, Jason C. Woodworth, Mike D. Tokach, Joel M. DeRouchey, Robert D. Goodband, Tyler Holck, Joel Stave, and Claire Christensen.)

What's New for Swine Producers

Effects of Folic Acid on Nursery Pig Growth Performance and Serum Homocysteine-A total of 350 barrows (DNA 200 × 400; initially 13.2 ± 0.12 lb) were used in a 38-d growth study to determine the effects of folic acid on nursery pig growth performance and blood measurements. Pigs were weaned at approximately 21 d of age and randomly allotted to 1 of 5 dietary treatments in a completely randomized design. A total of 70 pens were used with 5 pigs per pen and 14 replications per treatment. Dietary treatments were corn-soybean meal-based and consisted of increasing folic acid: 0, 5, 10, 20, or 40 ppm. Treatment diets were fed in three phases from d 0 to 10 (phase 1), d 10 to 23 (phase 2), and d 23 to 38 (phase 3) after weaning. For phase 1 (d 0 to 10), there were no differences ($P>0.10$) in BW, ADG, or ADFI across treatments. However, increasing folic acid resulted in poorer F/G (linear, $P= 0.032$). For phase 2 (d 10 to 23), there was a marginally significant response in BW, ADG, and ADFI where performance was reduced as folic acid increased with the poorest performance observed when pigs were fed 20 ppm (quadratic, $P\leq 0.079$). No treatment differences ($P>0.10$) were observed for F/G. For phase 3 (d 23 to 38) and overall (d 0 to 38), there was a significant response in final BW, ADG, ADFI, and F/G where performance was reduced with increasing folic acid with the poorest performance observed when pigs were fed 20 ppm (quadratic, $P\leq 0.049$). On days 10 and 23, 70 pigs were bled to determine serum homocysteine concentration, and a marginally significant treatment × day interaction was observed (linear folic acid, $P= 0.069$). An increase (linear, $P= 0.037$) in homocysteine concentrations was observed as folic acid increased from 0 to 40 ppm in the diet on d 10; however, no differences were observed across increasing folic acid treatments on d 23 ($P= 0.450$). Pigs had increased ($P<0.001$) homocysteine concentrations on d 10 compared to d 23. In summary, the addition of folic acid resulted in reduced growth performance with the greatest impact being observed when pigs were fed 20 ppm. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Larissa L. Becker, Jordan T. Gebhardt, Mike D. Tokach, Robert D. Goodband, Joel M. DeRouchey, and Jason C. Woodworth.)

Evaluating the Effects of Soybean Meal Levels and Valine, Isoleucine, and Tryptophan Adjustment in Diets with or without Dried Distillers Grain Solubles on Finishing Pig Performance and Carcass Characteristics- A total of 1,080 pigs (PIC 337 × 1050; initially 58.4 ± 1.26 lb) were used in this 121-d experiment to determine the effects of added soybean meal (SBM) versus using an amino acid (AA) adjustment in diets with dried distillers grains with solubles (DDGS) on growth performance and carcass characteristics. Pens were randomly assigned to 1 of 4 dietary treatments in a completely randomized design. There were 27 pigs per pen and 10 replications per treatment. Treatments diets consisted of: 1) a control diet containing high SBM with no DDGS; 2) DDGS-based diet with a medium level of SBM; 3) DDGS-based diet with low SBM + Val, Ile, and Trp to equal levels as in diet 2; and 4) Treatment 3 but without the Val, Ile, and Trp adjustment (still meeting requirement estimates for all AA). Overall, from d 0 to 83, pigs fed the DDGS-based diets had decreased ADG ($P= 0.014$) compared to pigs fed the control diet. There was an improvement ($P<0.05$) in feed efficiency for pigs fed the high SBM diet without DDGS as compared to pigs fed diets including DDGS and low levels of SBM with no AA adjustment, with the other two treatments intermediate. There was a tendency ($P= 0.074$) for a treatment difference in HCW between treatments. Pigs fed the high SBM diet without DDGS had increased HCW ($P= 0.018$) compared to pigs fed the three diets containing DDGS. There were no differences between treatments for percentage lean, loin depth, or backfat ($P>0.10$). In conclusion, pigs fed diets containing no DDGS and higher levels of SBM had improved growth performance and HCW compared with pigs fed DDGS-based diets. When feeding diets containing DDGS, pigs fed without the AA adjustment had poorer overall feed efficiency ($P<0.05$) than those fed the control diet with pigs fed the other two diets intermediate, showing the importance of the AA adjustment in maintaining performance. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Macie E. Reeb, Jason C. Woodworth, Joel M. DeRouchey, Mike D. Tokach, Robert D. Goodband, and Jordan T. Gebhardt.)

Effect of Sulfate or Hydroxychloride Forms of Zinc, Manganese, and Copper on Growth Performance, Weight Variation, Carcass Characteristics, and Economics of Grow-Finish Pigs- A total of 1,026 grow-finish pigs (337 × 1050 PIC; initially 57.2 ± 0.73 lb) were used in a 124-d trial to compare sulfate and hydroxychloride forms of Zn, Mn, and Cu on growth performance, carcass characteristics, weight variation, and economics of grow-finish pigs. Pigs were housed in mixed gender pens with 27 pigs per pen and 19 pens per treatment. The treatments were structured as a completely randomized design and consisted of a control diet containing 150, 16, and 110 ppm of Cu, Mn, and Zn, respectively, from sulfate sources or the same inclusion provided by hydroxychloride sources. Experimental diets were corn-soybean meal-DDGS-based and fed in meal form in phase 1 from 57 to 110 lb, phase 2 from 110 to 165 lb, phase 3 from 165 to 220 lb, and phase 4 from 220 to 300 lb. In the grower period (57 to 173 lb), there was a tendency ($P= 0.052$) to improve F/G when sulfate Mn, Zn, and Cu were fed. In the finisher period (d 61 to 124), pigs fed hydroxychloride mineral sources had improved ($P= 0.041$) ADG. For pig body weight variability, there was no evidence of differences ($P\geq 0.10$) on the coefficient of variation between treatments. Pigs marketed at the end of the study which were fed hydroxychloride sources tended to have greater HCW ($P= 0.054$) compared to sulfate sources, but no evidence for differences ($P\geq 0.10$) were found in any other carcass trait at any marketing event. There was a tendency ($P= 0.088$) to reduce feed cost per lb of gain when using sulfate sources compared to hydroxychloride forms; however, IOFC was not impacted by mineral source ($P>0.10$). In conclusion, these data suggest there were no differences in pig weight variability, overall pig growth performance, or carcass characteristics between mineral sources. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted Hilario M. Cordoba, Jason C. Woodworth, Robert D. Goodband, Joel M. DeRouchey, Mike D. Tokach, Jordan T. Gebhardt, and Chris P.A. van de Ligt.)

ASI Faculty Highlight



Kelsey Bentley (kbentley@ksu.edu or 919-502-9293)
Assistant Professor/Extension Specialist
Small Ruminant Immunology and Parasitology

Dr. Kelsey Bentley, originally from Micro, North Carolina, grew up in a family deeply involved in youth livestock programs. She completed her bachelor's degree in Animal Science at North Carolina State University, where she was actively involved in the livestock judging team and served as a flock technician for the NC State Small Ruminant Unit.

Kelsey pursued a master's in Animal Physiology at West Virginia University and coached the livestock judging team. Although the Covid-19 pandemic interrupted her ability to coach, she continued her research efforts by utilizing the Katahdin flock at the Southwest Agricultural Research and Extension Center in collaboration with Virginia Tech. Her master's work focused on Katahdin lambs' response to CD&T vaccination and remains a cornerstone of her research. She was the recipient of the Distinguished Ruby Doctoral Fellowship and earned her Ph.D. from West Virginia University in 2024. Her doctoral research examined the multifaceted immune outcomes influenced by selection

for parasite resistance in Katahdin sheep, encompassing the exploration of antibodies in ewe colostrum and milk, and the evaluation of differential lipopolysaccharide-induced behavioral, immune, and plasma metabolome responses.

Kelsey is currently the Small Ruminant Extension Specialist, with responsibilities divided into 60% extension, 25% research, and 15% teaching. She is dedicated to improving the sheep industry and supporting youth involvement in this sector. Her research now centers on animal health and well-being, shifting focus from Katahdin hair sheep to the Polypay flock at Kansas State University.

Outside of work, Kelsey enjoys gardening and cooking with her husband, Cooper. They have a beloved dog named Sage and manage a small flock of club lambs marketed to local youth back in North Carolina.



Chris Mullinix (cmullinix@ksu.edu or 785-532-1917)
Advanced Instructor
Co-Coach of Meat Animal Evaluation Team
Co-Faculty Advisor for KSU Purebred Beef Unit

In the fall of 2013, Chris Mullinix returned to Kansas State University as an Instructor of Animal Sciences, the head Livestock Judging Team Coach and Co-Coach of the Meat Animal Evaluation Team. Chris was born and raised on a diversified cattle and farming operation in central Maryland where his family continues to run a Hereford cow herd, an Angus herd and a feedyard. For the 16 years prior to his return to Manhattan, Chris was an Associate Professor on faculty with Butler Community College where he has coached more than 30 national contest winning collegiate teams and was recognized with numerous teaching/student advising awards at a regional and national level. Chris has led a total of eight National Champion teams and six Reserve National Champion teams in his tenure at K-State, while coaching a record 33 Academic All-Americans. Although Chris will continue working with Meat Animal Evaluation Team, he has stepped away from coaching the livestock team allowing for the transition to his faculty advising role at the Purebred Beef Unit and expanding his

responsibilities as an integral part of ASI's recruitment team. In his free time, Chris is an avid K-State sports fan and enjoys working with youth and breeders at livestock events. To date, Chris has judged livestock exhibitions in 43 different states and Canada including prestigious events such as the North American in Louisville, the American Royal, the Houston Livestock Show and Rodeo, the Fort Worth Stock Show and Denver's National Western. Chris is married to another K-State Animal Science graduate, Elissa (Good) Mullinix. Elissa completed both her B.S. and M.S. degrees in the department and currently teaches agriculture coursework at Manhattan High School in addition to her duties as advisor to their FFA program. Chris and Elissa are blessed with three children – Mason, Kinsley and Cameron.

*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*

Jobs Available - Now Hiring

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>

Animal Technician II (Job #517301)- This is a Part-Time, USS Staff position. This is a relief emergency milking position. Duties include setting up milking equipment, carefully moving cows to and from the milking parlor, prepping cows properly for milking (predipping and cleaning of teats), diagnosing abnormal milk (if mastitis exists then proper milking and disposal of milk must occur), attaching milking machines, and post-dipping teats after milking. The employee sanitizes the equipment before and after each milking shift. In addition, the employee conducts regular inspection of the milk tank compressors, milk line and pump to ensure bulk storage tanks are operating correcting and cooling milk before, during, and after each milking shift. Other miscellaneous animal care duties may be assigned during the milking shift. To apply go to: <https://careers.k-state.edu/cw/en-us/job/517301/animal-technician-ii>

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. 50% Plan and supervise data collection activities and data processing for research projects dealing with the nutrition and management of a range-based cow herd, its associated calf crop, and its associated pasture resources. Specific tasks include but are not limited to daily management of ongoing research projects, management of graduate and undergraduate student labor, application of quality - control procedures for data collections activities and maintaining inventories of research supplies and animal health supplies. The incumbent shares responsibility for the daily care of all beef cattle that are under the ownership or management of the KSU Commercial Cow-Calf Unit. 20% Responsible for keeping accurate and detailed records including but not limited to: documentation of research procedures and results, management of animal production records, documentation of student worker training, documentation of compliance with animal welfare standards, and documentation of compliance with regulations concerning animal research and animal production. 10% Supervise and train graduate and undergraduate students in field and laboratory procedures that involve data collection, data analysis, research documentation, and general ranch tasks. Assist the Farm Manager with coordination of collaborative research projects between the faculty and graduate students of Animal Sciences and Industry, Agronomy, Biology, Konza Prairie, off-campus KSU research stations, other universities, and industry partners. 10% Cooperate with the Farm Manager and managers of the other KSU ASI animal units to promote efficient use of labor and equipment. 10% Coordinate maintenance and repair of equipment used in research and animal care. To apply, go to: <https://careers.pageuppeople.com/742/cw/en-us/job/517949/research-assistant>

Animal Technician II- (Job #517188)- This is a full-time, USS Staff position. This position exists to operate and maintain the feed mill facility and feed the milk herd at the Dairy Teaching and Research Center. Some of the duties include but are not limited to the following: 65% Grinds hay and mixes all feed ingredients for total mixed rations, records amounts fed, and obtains weigh back data when required by experimental protocol. Delivers total mixed rations to feed weaned replacement heifers, dry and lactating cows. 10% Manages storage and receipt of delivered bedding (sawdust and straw) and feed (hay, straw, silage) and other commodities. 10% Services and maintains, oil, fluid, and filter changes of feeding equipment (skid loaders, tractors, trucks, etc.). 10% Directs daily scraping of pens to remove animal waste. Assists in weekly sand bedding of free stalls and cleaning maternity pen. 5% Works cooperatively and safely with others to assist with any calving problems or animal health issues as directed. One weekend per month may be required in rotation with other middle managers to oversee daily operations. Other duties as assigned. To apply go to: <https://careers.k-state.edu/cw/en-us/job/517188/animal-technician-ii>

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>.

Jobs Available - Now Hiring

Dairy Teaching and Research Center Manager (Job #515771)- This is a Full-time, Unclassified Professional Staff, Term Contract. The DTRC Manager is responsible for the day-to-day management of personnel, animals, and unit facilities at the DTRC. The incumbent will also work closely with faculty and students to facilitate research trials at the DTRC. Animal care – The DTRC Manager oversees the routine care (feeding, milking, reproductive management, herd health, waste management, etc.) of the mature cows and young stock. The incumbent will work with herd veterinarians and faculty supervisors to establish, execute, and evaluate standard operating protocols for maintaining optimum animal care, herd production, and research study outcomes. Operational management – The DTRC Manager will oversee and conduct routine daily operational management of the facility. Supervision – The DTRC Manager will lead a talented team of employees to ensure adequate care of livestock and daily operations of the DTRC. To read more details and to apply, go to <https://careers.k-state.edu/cw/en-us/job/515771/dairy-teaching-and-research-center-manager>

Animal Technician II (Job # 517538)- 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 exists to milk, feed and provide care of the DTRC dairy herd, which is used for teaching and research purposes. 60% Employee sets up the milking equipment, puts cows into milking stalls, dips teats before and after milking, attaches milking equipment and milks a minimum of 40 cows per hour until all cows are milked. Employee works either a morning, evening, or night shift milking 200-400 cows representing an investment of approximately \$500,000 per shift. Employee is responsible for sanitizing equipment before milking with a specified sanitizer. Employee must prepare the parlor before each milking including checking compressor, milk line and pump, and ensuring bulk milk storage tank is operating. Employee must identify off-line cows to prevent their milk from getting into the bulk tank. Value of one tank is approximately \$8,000.00. Failure to perform will result in loss of milk and revenue. 25% Employee rakes manure from free stalls and levels free stall surface each shift. Employee is responsible for feeding replacement heifers, cleaning calf hutches, weighing calves, assisting with vaccination, dehorning, castration, and clipping extra teats. Employee assists with lot scraping and general cleanup of facilities including hallway, break room, rest rooms and office. Employee moves cows from pens and tie-stall barn to milking parlor and back; releases and ties up cows in tie-stall barn; and assists in cleaning and feeding in tie-stall barn as needed. 5% Before each milking, employee must make a general survey of cows to check for any abnormalities in calving, milk fever, or any sick animal. Employee is responsible for calling the manager or veterinarian, if needed. If necessary, employee may give some treatment. Employee cares for newborn calves by sterilizing the navel, injecting vitamins, and other necessary medication. Employee is responsible for recognizing common health problems of the cows as an essential part of the job. While milking, employee must be able to recognize mastitis and milk fever (with mastitis being the most common). When mastitis is detected, it is the employee's responsibility to treat the condition under the direction of the manager, make records of the treatment, and discard the milk from treated cows. These off-line cows are milked separately and treated again, if necessary. 5% Observation and recording of "heat" or estrus is an important part of the milker's job. When cows are moved, they express more activity than at other times of the day. 5% Employee has contact with graduate and undergraduate students, faculty, other unit employees, and non-university visitors. Employee must communicate and work well with these groups. Other duties as assigned by supervisor include but are not limited to the collection of milk samples for research projects and training students. Responsibilities vary some among seasons of the year. Fewer cows are milked during the summer than during fall, winter, and spring. This position is deemed "Essential" for Inclement Weather purposes and would report to work as normal. To apply go to: <https://careers.k-state.edu/cw/en-us/job/517538/animal-technician-ii>

Research Technician (Job #517776)- This position will be working in the Animal Breeding and Genetics lab under Dr. Maci Mueller. The incumbent will assist by aiding in daily operations, which include: cleaning and sanitizing the lab and equipment, training undergraduate students, maintain accurate safety records and documentation, procure lab supplies, collection of data and analysis, recording of data, and assisting with other areas of research projects. To apply go to: <https://careers.k-state.edu/cw/en-us/job/517776/research-technician>

**Be sure to check out the monthly
KSU ASI Headlines
asi.ksu.edu/Headlines**