

Register Now for KSU Swine Day November 16



Register now for KSU Swine day happening Thursday, November 16 at the KSU Alumni Center.

The schedule for the day is as follows:

- 8:00 a.m. Trade Show
- 9:15 a.m. Welcome
Dr. Mike Day, Department Head, Animal Sciences & Industry
- 9:30 a.m. Latest Update on K-State Applied Swine Nutrition Research-
15-minute rotations including topics on Swine Nutrition,
Management, Feed Processing, and Feed Safety
K-State Swine Faculty
- 11:30 a.m. Lunch with Technology Trade Show
- 1:30 p.m. Latest Update on K-State Applied Swine Nutrition Research
- 2:15 p.m. Lessons from a Legacy in the Swine Industry
Wayne Cast
- 3:15 p.m. Question-and-Answer Session
- 3:30 p.m. Reception with K-State Call Hall Ice Cream

Pre-registration is \$25 per participant and due by November 8. 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. For more information, contact Katie Smith (katiesmith@ksu.edu or 785-532-1267.)

IRM Redbooks for Sale

The 2024 IRM Redbooks are here and will be sold on a first-come, first-serve basis. The price is \$7.50 per book for orders of 10 or more and \$7.75 per book for orders of less than 10, which includes postage. To order your supply of Redbooks, please contact Katie Smith (katiesmith@ksu.edu or 785-532-1267.)

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Online Better Process School for Acidified Foods Planned for Nov. 2-3

Online Better Process School for Acidified Foods will be offered in an online format November 2 and 3 from 8 a.m. to 12 p.m. each day. Registration is \$400 and the deadline to register is October 20. 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. To register for the course, please go to 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.)

Upcoming Events

November 2-3, 2023

**Better Process School for
Acidified Foods- Online**

November 16, 2023

**K-State Swine Day
Manhattan, KS**

February 4, 2024

**Swine Profitability Conference
Manhattan, KS**

February 29, 2024

**Stockmen's Dinner
Manhattan, KS**

March 1, 2024

**Cattlemen's Day-
Manhattan KS**

March 2, 2024

**KSU Junior Beef Producer Day
Manhattan, KS**

March 16, 2024

**KSU Junior Sheep Producer Day
Manhattan, KS**

Upcoming Events

Youth for the Quality Care of Animals (YQCA) Launches New Program Year



The national, multi-species youth livestock quality assurance program, Youth for the Quality Care of Animals (YQCA), launched the new program year on October 1. Therefore, a new set of educational modules are now available for youth to complete. Extension Agents and Ag Teachers who requested to become certified instructors to teach face-to-face classes should have received an email the first week of October. The training is completed entirely online, through an instructor's account. Once the certification process is complete, approved instructors will receive the 2023-2024 curriculum via email and are welcome to begin teaching classes. Members who would like to participate in an online training should complete the web-based course. Youth interested in an instructor-led course can find the in-person courses available by registering through the platform. Youth may complete the online training for \$12/child or participate in an instructor-led session for \$3/child. The test-out option is only available for youth who are 12 or 15 as of January 1. All participants must register and pay through the YQCA site, regardless of the type of training. A young person's YQCA certification is valid for one year, so youth need to re-certify annually. The Kansas State Fair Grand Drive and KJLS are expected to continue requiring all exhibitors to complete YQCA to be eligible to exhibit in the 2024 shows. Youth will need to re-certify prior to ordering nomination envelopes (for market animals and commercial females) or entry (those only showing registered breeding females). Since certification is valid for one year, exhibitors who take the course this fall, or in early winter, will be set for the 2024 year. The YQCA staff has also developed Help Documents and videos to guide families through the process, from registration through printing the completion certificate. For more information, contact Lexie Hayes (adhayes@ksu.edu; 785-532-1264).

Swine Profitability Conference sets dates for 2024

Swine Profitability Conference is scheduled for Tuesday, February 4, 2024, at the Stanley Stout Center, Manhattan, KS. Watch for more details coming soon at www.KSUswine.org.

53rd Annual Stockmen's Dinner 2024

The 53rd Annual Stockmen's Dinner scheduled for February 29, 2024, at the Stanley Stout Center. More details will be published later this fall, including information on registration and who is being honored as the 2024 Stockmen of the Year.

Save the date for the 2024 Cattlemen's Day

The 2024 Cattlemen's Day date has been set for March 1, 2024, in Weber Hall and Arena in Manhattan, KS. More information about the schedule, tradeshow, and registration information will be available later this year. Information will be published on www.KSUBeef.org as it becomes available.



Save the date for 2024 K-State Junior Producer Days

Save the Date! The 2024 K-State Junior Producer Day dates have been set for next spring. Since it is an even year, it will be beef and sheep. These are one-day educational events during which families learn about the selection and management of youth livestock projects. The junior day programs will be on a Saturday in Weber Hall, on the K-State campus in Manhattan. Junior Beef Producer Day will be March 2, with Junior Sheep Producer Day scheduled for March 16. Stay tuned for more information, including the tentative schedule and registration details, later this spring.

Check out the monthly ASI headlines at <https://bit.ly/KSUASIHeadlines>

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 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>.

Laboratory Client Services Assistant (Job #516069)

– The Kansas Artificial Breeding Service Unit (KABSU) is a unit in the ASI department of Kansas State University that provides reproductive resources to livestock, equine and canine customers throughout Kansas and neighboring states. It is a self-funded fee-for-service business unit that serves a clientele profile of over 800 customers. KABSU interacts daily with approximately 35-40 customers through in-house direct contact or by telephone, written, or electronic communication. This position will receive and catalog over 300 cryogenic samples daily of livestock, equine and canine breeding semen as well as maintain a catalog inventory of over 2 million animal breeding samples cryogenically stored in the KABSU facility. The wholesale value of the maintained inventory is over 20 million dollars. The incorrect identification of a sample, a misplaced sample location or the loss of sample viability due to improper cryogenic handling will result in liability claims and a substantial loss of revenue to KABSU. To apply, go to <https://careers.k-state.edu/cw/en-us/job/515771/dairy-teaching-and-research-center-manager>.

Office Specialist III (Job #516100)- This position processes payment documents, primarily travel-related documents (authorizations and reimbursements) for the department. Manages undergraduate hiring processes with support provided by the Budget/Fiscal Coordinator and Human Capital Representative as needed. Supports Meat Lab, Call Hall Dairy Bar, Dairy Plant, KABSU, other earnings units and FSI (as needed) for ASI, inclusive of deposits processing. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/512403/animal-technician-ii>.

**WE'RE
HIRING**



What's New for Beef Cattle Producers

Management Minute

“What’s Your Talent Management Strategy”

Do you have a “Talent Management” strategy? This is the strategy which an organization or business uses to hire, manage, retain, and develop current employees for leadership roles. Many businesses, organizations and even universities lose exceptionally talented employees because their strengths and talents were not recognized. Additionally, an effective talent management strategy provides a mechanism to develop future leaders and managers. Managers play a key role in an organizations talent management strategy, as they must identify talented, exceptional employees. Managers also serve as mentors, providing coaching and feedback to develop employees. Research conducted by the American Society for Training and Development documented that those organizations with the most successful talent management systems, asked managers to discuss the talents and skills of their most talented employees with other managers and leaders. Discussing the organizations most talented employees creates an internal talent pool that various departments can draw from to fill current positions. Do you have exceptional employees in your organization? What is your talent management strategy? Are you at risk of losing your best employees?

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

Feedlot Facts

“Feeding Newly-Weaned Calves”

One of the primary challenges associated with weaning calves is simply getting newly-weaned calves to consistently consume feed. The transition from a milk and grazed forage to grazed forage and supplement, hay and supplement, or a ration containing novel feeds delivered in a bunk isn't always easy. However, a little preparation and following a simple feeding management strategy can help calves make this necessary transition. 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 in Hays, 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*

<u>Day</u>	<u>Weaning Diet</u>	<u>Hay</u>	<u>Feedstuff Order</u>
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	0.5% Bodyweight	

---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

KSU Cow-Calf Checklist – October 2023

Management Considerations for December 2023

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

Cow Herd Management

- If not already done, take inventory of and test harvested forages for the following:
 - Moisture/dry matter
 - Crude protein
 - Energy (oNEm, NEg, and/or TDN)
 - Fiber components (ADF, NDF)
 - Macro-minerals (calcium, phosphorus, magnesium, potassium, salt)
 - Nitrates and/or prussic acid when appropriate
 - Starch for silage crops
- Calculate forage needs based on herd inventory, cattle weight, and days, and develop a plan to ensure that adequate harvested forage is available if grazing is limited (<https://www.agmanager.info/hay-inventory-calculator>.)
- Body condition score cows to develop informed supplementation strategies (both spring and fall-calving herds).
 - Targeted BCS at calving: 5 for mature cows, 6 for young females (2,3, & 4 year olds)
 - Record scores with the BCS Record Book (<https://bookstore.ksre.ksu.edu/Item.aspx?catId=562&pubId=19320>) from KSRE!
- Consider utilizing crop residues for late-fall and winter grazing needs. Assess down grain in the field and be aware of nitrates and prussic acid (around the time of frost for sorghums.)
- For spring-calving cow herds:
 - Schedule pregnancy checking if not already done.
 - How were pregnancy rates relative to last year?
 - Do we need to re-think our fall/winter nutrition program?
- For fall-calving cow herds:
 - 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 synchronization protocols.
- Review your marketing strategy for cull cows.
 - Cows with a BCS \geq 6.0 will likely sell well with current market prices.
 - Look for opportunities to increase value by adding weight prior to market.
- Ensure bulls undergo breeding soundness exams prior to fall/winter service.
- Manage young and mature bulls during the offseason to ensure bulls are BCS \geq 5.0 prior to the next season of use.

Calf Management

- If not already done, make arrangements to wean spring-born calves.
 - Finalize plans to either market calves or retain and add weight post-weaning.
 - If marketing calves, communicate your strategy to prospective buyers in advance.
- 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.
- If retaining calves post-weaning:
 - Review your nutrition plan.
 - Ensure you have sufficient forages available to match cow herd needs.
 - Closely observe feed and water intake the first few weeks.
 - Make sure all cattle have sufficient access to feed and water.
- Review/update your health protocols as needed for either weaned or new-born calves.
- Consider either supplementing fall-calving pairs or creep feeding fall-born calves to maintain calf performance on low-quality winter forages.
- For replacement heifers, manage your program to properly develop them prior to your given breeding time.

Forest/Pasture Management

- Make plans for controlling invasive species for the next growing season.
- Winterize water sources if applicable.
- Work on fencing/facility projects as time/weather allows.

General Management

- Develop and/or review your risk management plans for the coming year.
- Evaluate your short and long-term herd inventory goals with current conditions.
- Update lease arrangements as necessary.
- Schedule an annual meeting with your lender, insurance agent, and extension professional.
- Consider opportunities to lock prices in, if possible, for co-products and commodity feeds.
- Understand what nutrients you are targeting to purchase and price feeds on a cost per unit of nutrient basis.

What's New for Beef Cattle Producers

Sire Distribution of Calves in a Beef Herd with Use of Fixed Time Artificial Insemination Followed by Immediate Bull Exposure for Natural Service in Cows and Heifers

Our objective was to determine the relative percentages of calves sired by either natural service sire or fixed time artificial insemination (FTAI) sire within the same estrous period.

Study Description: During two consecutive years, heifers and cows were synchronized and inseminated using the 7-day CO-Synch + CIDR FTAI protocol. All females were exposed to natural service bulls immediately following insemination. After calving, DNA was collected from a random subset of calves born in the first 21 days of the calving season for parentage analysis. Calves born from heifers totaled 59 in Year 1 and 82 in Year 2; calves born from cows totaled 89 in Year 1 and 102 in Year 2.

Results: In Year 1, among calves born from heifers, the percentage sired by natural service was 5.1% (n = 3/59). Among calves born from cows, the percentage sired by natural service was 14.6% (n = 13/89). In Year 2, among calves born from heifers, the percentage sired by natural service was 9.8% (n = 8/82). Among calves born from cows, the percentage sired by natural service was 20.6% (n = 21/102).

The Bottom Line: If commercial producers use FTAI followed by immediate bull exposure in beef females, it can be expected that natural service bulls may sire 5 to 20% of calves born early in the calving season while reducing time and labor associated with bull turnout. More information is available on this experiment and others in the KSU Cattlemen's Day report at KSUbeef.org. For more information, contact David M. Grieger (785-532-1229 or dgrieger@ksu.edu) or Sandy Johnson (785-462-6281 or sandyj@ksu.edu).

Consumer Sensory Evaluation of the Impact of Bone-In Versus Boneless Cuts on Beef Palatability

The objective of this study was to determine palatability traits of beef cuts of differing bone status and quality grade. Paired (n = 12 pairs; 24 total/cut/grade) boneless and bone-in ribeye rolls, and short loins were procured. Short loins were fabricated into boneless strip loins with corresponding bone-in tenderloins or bone-in strip loins with boneless tenderloins. Post aging, subprimal cuts were fabricated into steaks that were randomly selected for further analysis. Consumer sensory panelists (n = 144) were recruited from Manhattan, KS, and the surrounding area and paid for their participation in the study. Panels were conducted in a lecture-style classroom at Kansas State University.

Results: In totality, bone status had a minimal impact on palatability traits. Bone state had no impact (P > 0.05) on consumer juiciness and overall liking for tenderloins and ribeyes, but in the strip loin, bone-in steaks were rated juicier (P < 0.05) and higher (P < 0.05) for overall liking when compared to boneless steaks. Moreover, bone state had no impact (P > 0.05) on consumer tenderness and flavor ratings for any of the three cuts. Bone state had no impact (P > 0.05) on the percentage of consumers that rated juiciness as acceptable for tenderloins and ribeyes, but in strip loins, bone-in steaks had a higher (P < 0.05) percentage of acceptable consumer responses than boneless cuts. The percentage of acceptable samples for tenderness and overall acceptability were not (P > 0.05) impacted by bone state in tenderloins and strip loins; however, in ribeyes, the percentage of acceptable consumer ratings was higher (P < 0.05) for bone-in cuts for both traits. Bone state also did not (P > 0.05) impact premium, better than everyday, and everyday quality perceptions among ribeyes; but the percentage of consumers rating ribeye samples unsatisfactory was higher (P < 0.05) for boneless ribeye steaks.

The Bottom Line: A similar overall eating experience could be derived from a boneless or bone-in steak from the same cut and quality grade.

More information is available on this experiment and others in the KSU Cattlemen's Day report at KSUbeef.org. For more information, contact Travis O'Quinn (785-532-3469 or travisquinn@ksu.edu) or Liz Boyle (785-532-1247 or lboyle@ksu.edu).



What's New for Swine Producers

Effects of Varying the Acid-Binding Capacity-4 in Diets Utilizing Specialty Soy Products with or without Pharmacological Levels of Zinc on Nursery Pig Performance

A total of 1,057 pigs (PIC TR4 × [Fast LW × PIC L02]; initially 13.7 lb) were used to evaluate the effects of acid-binding capacity-4 (ABC-4) with or without pharmacological levels of Zn on nursery pig performance. At weaning, pigs were allotted to 1 of 4 dietary treatments based on initial weight. There were 22 pigs per pen and 12 replications per treatment. Dietary treatments were arranged in a 2 × 2 factorial consisting of a low and high ABC-4 level with or without pharmacological levels of Zn provided by ZnO. The low ABC-4 diets contained 13.0 and 10.75% novel soy protein concentrate (AX3 Digest; Protekta; Plainfield, IN) in phase 1 and 2, respectively. The high ABC-4 diets contained 15.85 and 13.15% enzymatically treated soybean meal (HP 300; Hamlet Protein; Findlay, OH) in phase 1 and 2, respectively, replacing the soy protein concentrate on an SID Lys basis. The low ABC-4 diets without ZnO were formulated to 150 and 200 meq in phase 1 and 2, respectively. Replacing novel soy protein concentrate with enzymatically treated soybean meal increased the ABC-4 of the diet by approximately 104 to 127 meq/kg. Diets with added ZnO increased the ABC-4 of the diet by approximately 60 to 65 meq/kg. Pigs were fed experimental diets during phase 1 (d 0 to 7) and phase 2 (d 7 to 21). Following phase 2, pigs were placed on a common diet for an additional 21 d (d 21 to 42). During the experimental period, ABC-4 × ZnO interactions were observed ($P \leq 0.026$) where pigs fed a low ABC-4 diet had improved ($P < 0.05$) ADG and F/G when ZnO was not present, but no differences ($P > 0.10$) were observed based on ABC-4 level when ZnO was added. Overall, there was an ABC-4 × ZnO interaction ($P = 0.002$) observed where pigs fed a high ABC-4 had increased ($P < 0.05$) removals and mortalities when ZnO was not present, and no differences ($P > 0.10$) due to ABC-4 level were observed when ZnO was added. For economics, there was an ABC-4 × ZnO interaction ($P \leq 0.039$) where pigs fed low ABC-4 diets had increased ($P < 0.05$) gain value, feed cost, and IOFC when ZnO was not present, and no differences ($P > 0.10$) due to ABC-4 level were observed when ZnO was added. In summary, a low ABC-4 diet can improve growth performance, reduce the instance of removals and mortalities, and improve economics in nursery pigs when ZnO is not present in the diet. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Ethan B. Stas, Alan J. Warner, Chad W. Hastad, Mike D. Tokach, Jason C. Woodworth, Joel M. DeRouchey, Robert D. Goodband and Jordan T. Gebhardt.)

Effect of Benzoic Acid Feeding Strategy on Weanling Pig Growth Performance and Fecal Dry Matter

A total of 350 weanling barrows (DNA 200 × 400, DNA; initially 13.0 ± 0.08 lb) were used in a 38-d study to evaluate the effects of different benzoic acid feeding strategies on nursery growth performance and fecal dry matter. Pigs were randomly assigned to pens (5 pigs per pen) and pens were allotted to 1 of 5 dietary treatments with 14 pens per treatment. Diets were fed in 3 phases: phase 1 from weaning to d 10, phase 2 from d 10 to 18, and phase 3 from d 18 to 38. Dietary treatments were formulated to provide 0, 0.25, or 0.50% benzoic acid (VevoVital, DSM Nutritional Products, Parsippany, NJ) added at the expense of corn. Treatment 1 served as the control without benzoic acid throughout all three dietary phases. Inversely, treatment 2 included 0.50% benzoic acid throughout all three phases. Treatment 3 contained 0.50% benzoic acid for phase 1 and phase 2, and 0.25% benzoic acid in phase 3. Treatment 4 contained 0.50% benzoic acid for phase 1 and phase 2, but no benzoic acid in phase 3. Finally, treatment 5 contained 0.50% benzoic acid in phase 1, 0.25% benzoic acid in phase 2, and no benzoic acid in phase 3. From d 0 to 10 (phase 1), pigs fed 0.50% benzoic acid had increased ($P = 0.034$) ADG, improved ($P = 0.049$) F/G, and were heavier ($P = 0.040$) on d 10 than those fed the control diet. From d 10 to 18 (phase 2), pigs fed 0.50% benzoic acid had increased ($P < 0.01$) ADG compared to pigs fed either none or 0.25% benzoic acid, while pigs fed 0.25% benzoic acid had poorer ($P < 0.001$) feed efficiency compared to pigs fed 0 or 0.50% benzoic acid. From d 18 to 38 (phase 3), pigs fed 0.50% and 0.25% benzoic acid had increased ($P < 0.01$) ADG and ADFI compared with pigs fed no benzoic acid. For the overall experimental period (d 0 to 38), pigs fed 0.50% in the first two phases and 0.25% benzoic acid in the final phase had a greater ($P < 0.05$) ADG than pigs fed no benzoic acid through all three phases, or pigs fed 0.50% in the first two phases and no benzoic acid in the final phase, with the other treatments intermediate. Additionally, pigs fed 0.50% in the first two phases and 0.25% benzoic acid in the final phase had improved ($P < 0.05$) F/G compared with pigs fed no benzoic acid throughout all three phases, pigs fed 0.50% in the first two phases and no benzoic acid in the third phase, or pigs fed 0.50%, 0.25%, and no benzoic acid, respectively. There was no evidence for differences ($P > 0.10$) in fecal DM among treatments for samples collected on d 10 or d 18. These data suggests that nursery pigs fed benzoic acid had improved growth performance compared to control pigs. However, when the benzoic acid was removed from the diet before the end of the nursery phase, the pigs experienced a reduction in performance which resulted in similar overall nursery performance to the control diet without benzoic acid. More information is available on this experiment and others in the KSU Swine Day report at KSUSwine.org. (This study conducted by Katelyn N. Gaffield, Joel M. DeRouchey, Mike D. Tokach, Jason C. Woodworth, Robert D. Goodband, and Jordan T. Gebhardt.)



ASI Faculty Highlight



Mike Tokach (mtokach@ksu.edu or 785-532-2032)
University Distinguished Professor
Professor, Extension Specialist & Research Coordinator

Dr. Mike Tokach is a University Distinguished Professor of Animal Sciences and Industry at Kansas State University. Tokach joined K-State in 1991 and, as a swine nutrition researcher and extension specialist, is an author on more than 450 articles in scientific journals, 11 book chapters and more than 1,200 extension and non-refereed articles. Tokach has received more than \$25 million in research grants and gifts. He also has been awarded seven patents for his research and has given more than 370 invited lectures at national and international conferences. Tokach has also advised and mentored more than 120 advanced-degree students and visiting professors since joining the university. Mike's wife, Lisa, also specializes in Swine as a veterinarian. Together, they have three children; Sage, Rogan, and Fiona.



Sandy Johnson (sandyj@ksu.edu or 785-462-6281)
Professor/Extension Specialist- Reproductive Physiology & Cow-Calf Management

Sandy Johnson was raised on a diversified livestock farm north of Blair, Nebraska. An active 4-Her, her projects included cattle, swine, sheep and horses. She received a B.S. degree in Animal Science from the University of Nebraska in 1982 and a M.S. degree in Reproductive Physiology from the University of Missouri in 1984. A deep appreciation for applied integrated research was developed during three years spent working as a research technician at the University of Nebraska West Central Research and Extension Center in North Platte. A move to West Virginia was made to pursue a Ph.D. Her dissertation examined the role of the follicle in the formation of short-lived corpora lutea in postpartum beef cows. Sandy received a Ph.D. degree from West Virginia University in Reproductive Physiology in 1991 and continued there as a post doctoral fellow until 1993. She held a teaching position at Fort Hays State University before beginning her current position in October of 1998 as Extension Livestock Specialist at the Northwest Research and Extension Center in Colby.

Sandy is a founding member of the Beef Reproductive Task Force, which has hosted the Applied Reproductive Strategies in Beef Cattle Workshops, updated the Estrous Synchronization Planner and organized the Beef Cattle Reproduction Leadership Team. All efforts are aimed at promoting wider adoption of reproductive technologies among cow-calf producers and to educate cow-calf producers in management considerations that will increase the likelihood of successful AI breeding. Her research interests include the areas of estrous synchronization, costs of breeding systems and cow-calf management.

*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*