



K News from KSU Animal Sciences

On behalf of the Department of Animal Sciences and Industry, I wish you a Merry Christmas and Happy New Year. This time of year allows us to reflect on the opportunities and challenges we have encountered and look to the future in 2023.

This past year offered many obstacles to our livestock industry with the severe drought in most locations in Kansas. This led to many producers making tough decisions about their operations and management choices that will have far reaching future implications. I am very proud of all of Extension personnel, state and local, who proactively provided information to producers in Kansas and beyond to assist in decision making.

I am particularly proud of the Animal Science Extension faculty and Extension Agents that have helped and mentored many new personnel hired in 2022. This provides us optimism and strength in our Extension program for future years. As we continue to build on our Land Grant mission of serving citizens in Kansas, let us know how we can continue to provide you with thoughtful advice.

*Thank you and have a Merry Christmas and Prosperous New Year.
Joel DeRouchev, Extension State Leader, Animal Sciences and Industry*

☞ **Calving Schools planned** – In anticipation of calving season, Kansas State University Animal Sciences and Industry and K-State Research and Extension are planning a series of calving schools in January. The program will outline overall calving management that includes stages of the normal calving process as well as tips to handle difficult calving situations. The schools will share tips on when and how to intervene to assist the cow or heifer. Presenters will also demonstrate proper use of calving equipment on a life-sized cow and calf model. Meetings scheduled include:

- Tuesday, January 3, 2023, evening, Kiowa County Fairgrounds, Greensburg, Kansas; RSVP to Comanche County Extension Office at 620-582-2411, levimiller@ksu.edu
- Tuesday, January 10, 2023, evening, Ellsworth Recreation Center, Ellsworth, Kansas, RSVP to Midway District Extension Office at 785-483-3157, clafalin@ksu.edu
- Thursday, January 12, 2023, evening, 4-H Building at the Old Iron Club, Fredonia, Kansas; RSVP to Wildcat District at 620-378-2167, Southwind District at 620-365-2242, or Greenwood County at 620-583-7455
- Thursday, January 19, 2023, evening, Mankato Community Center, Mankato, Kansas; RSVP to Post Rock Extension Office at 785-738-3597, blairet@ksu.edu

Updated details about the Calving Schools will be available at www.KSUBeef.org. For more information, contact the host location or A.J. Tarpoff (tarpoff@ksu.edu; 785-532-1255).

☞ The **2023 K-State Swine Profitability Conference** has been scheduled for Tuesday, February 7, 2023, at the Stanley Stout Center, Manhattan, KS. Watch for more details coming soon at www.KSUswine.org.

☞ **Make plans to attend KSU Cattlemen's Day 2023** - The 110th annual Cattlemen's Day will be hosted Friday, March 3, 2023. The trade show and educational exhibits will open at 8 a.m. in Weber Arena.

Registration for KSU Cattlemen's Day will be \$20 per person in advance or \$30 per person at the door. Morning refreshments and lunch are included with registration. A complete schedule will be coming soon to www.asi.ksu.edu/cattlemensday or call 785-532-1267.

If you are interested in exhibiting at Cattlemen's Day or have any questions, please contact Dale Blasi (dblasi@ksu.edu; 785-532-5427).

Department of Animal Sciences and Industry

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www.asi.ksu.edu - [Facebook.com/KSUASI](https://www.facebook.com/KSUASI)

December 2022



UPCOMING EVENTS...

- ✦ The **46th Annual Legacy Bull and Heifer Sale** will be March 3, 2023, at 4:00 p.m. at the Stanley Stout Center. Visit www.asi.k-state.edu/about/services/legacy/ for more information, as it becomes available, including the sale catalog.
- ✦ **Junior Swine Producer Day** is scheduled for Saturday, March 11, 2023, in Weber Arena on the K-State campus in Manhattan. This one-day educational event is devoted to the selection and management of youth swine projects. All ages and knowledge levels are invited! K-State faculty members, graduate students and guest speakers will cover topics including selection, meat science, ear notching, breeds, reproduction, equipment and daily care, herd health, nutrition, clipping and show day prep, and showmanship. An optional instructor led YQCA session will be offered at the conclusion of the program. A session over the state livestock nomination process will also be provided at the end of the day, concurrently with the YQCA training. The cost for junior swine producer day is \$20 per person, if registration is submitted by February 15, 2023, or \$25 per person after that date. All attendees, including youth and adults, must register. Only participants who register by February 15 will receive a t-shirt. Families may register online at <http://bit.ly/ksuasiregister>. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264, or Joel DeRouchey at jderouch@ksu.edu or 785-532-2280.
- ✦ **Junior Meat Goat Producer Day** will be hosted on Saturday, March 18, 2023, in Weber Arena on the K-State campus in Manhattan. This one-day educational event is devoted to the selection and management of youth meat goat projects. All ages and knowledge levels are invited! K-State faculty members, graduate students, undergraduate students, and guest speakers will cover topics including selection, meat science, nutrition, reproduction, health and wellness, facilities and equipment, clipping and grooming, and showmanship. An optional instructor led YQCA session will also be offered at the conclusion of the program. A session over the state livestock nomination process will also be provided at the end of the day, concurrently with the youth YQCA training. The cost for junior meat goat producer day is \$20 per person, if registration is submitted by February 22, 2023, or \$25 per person after the early deadline. All attendees, including youth and adults, must register. Only those who register by February 22 will receive a t-shirt. Families may register online at <http://bit.ly/ksuasiregister>. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.
- ✦ **Kansas 4-H EID Livestock Tag Order Deadlines Approaching** - Kansas 4-H EID Livestock Tag Orders are now open and can be submitted to the KSU Youth Livestock Program. All market animals or commercial females that will be nominated for the 2023 Kansas State Fair Grand Drive and/or Kansas Junior Livestock Show (KJLS) must be tagged with an official Kansas 4-H EID tag. Market beef tag orders are due by December 15, 2022, with small livestock tag orders being due January 15, 2023. We are hoping the supply chain issues have been resolved for the tag manufacturers and things will go more smoothly this year. The order forms, tagging resources, and summaries of the orders received may be found on the KSU Youth Livestock Program website, under the EID Tags tab (<https://www.asi.k-state.edu/extension/youth-programs/nominations/kansas-4-h-eid-tags.html>). All the new meat goat tags ordered this year will be the round meat goat tags that were piloted in 2021. If you still have some ribbon tags left, you may still use them, as either type will be accepted for state livestock nomination. Payment is required to accompany the completed order form for it to be accepted. Extension Units must designate an agent to be responsible for their tags, as well as keep records of the families and animals in which each tag is applied. For those units who would like to order all their tags at once, one check reflecting the total amount can be issued. However, both forms must be completed and mailed with the check.

SPECIAL NOTE ABOUT TAG USE: It is important that counties/units use their oldest tags first. Next year, we will begin repeating tag series numbers that have been used previously. Especially if you have beef tags left from 2018, you need to make sure those get used this year. Additionally, each Extension unit will need to keep an accurate record of the animals/families in which each tag is applied, per the acknowledgement signature on the tag order form. Only Kansas 4-H 840 EID tags will be accepted in cattle and swine, with 982 tags being used in sheep and goats. If you have old cattle 982 tags, please refrain from using them in state nominated animals.

For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
January 3, 2023	KSU Calving School	Greensburg, KS
January 10, 2023	KSU Calving School	Ellsworth, KS
January 12, 2023	KSU Calving School	Fredonia, KS
January 19, 2023	KSU Calving School	Mankato, KS
February 7, 2023	K-State Swine Profitability Conference	Manhattan
March 3, 2023	KSU Cattlemen's Day	Manhattan
March 3, 2023	Legacy Bull and Heifer Sale	Manhattan
March 11, 2022	K-State Junior Swine Producer Day	Manhattan
March 18, 2022	K-State Junior Meat Goat Producer Day	Manhattan

WHAT'S NEW...

Management Minute – Justin Waggoner, Ph.D., Beef Systems Specialist

“Mental Health Misconceptions and the Holidays”

Life is busy and during the Holidays, life becomes even busier. Decorations, holiday shopping, parties, school programs, traveling to spend time with family etc. the list of events and items on the “to do” list or calendar can become exceptionally long. Yes, the holidays can be busy, and it is commonly believed that the holidays are associated with increased rates of anxiety, depression, and suicide. However, contrary to popular belief numerous studies have found no direct link between the holidays, depression, and suicide rates. The CDC’s National Center for Health Statistics reports that suicide rates are actually lowest in the months of November, December, January, and typically highest from April to August. Health experts attribute the lower suicide rates to the increase in emotional support from co-workers, friends, and family during the holidays. This data also highlights the value of emotional support in mental health and suicide prevention during the rest of the year. For more information on the impact of the holidays on mental health and suicide, please see <https://www.cdc.gov/suicide/holiday.html>. In addition, Kansas State University Research and Extension has a number of resources available on stress management and suicide prevention at <https://www.ksre.k-state.edu/health/stress-management/resources.html>.

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

Feedlot Facts – Justin Waggoner, Ph.D., Beef Systems Specialist

“Feedyard Receiving Protocols”

The fall can be an exceptionally challenging time of year to start calves on feed, regardless if calves are home-raised, weaned calves, or newly received calves in a commercial feedyard. Successfully managing newly weaned or received calves and the process of adapting cattle to growing and finishing diets are important components of managing cattle that ultimately affect cattle performance for the remainder of the feeding period. What does a typical industry receiving protocol look like and how does the cattle feeding industry transition cattle to a finishing diet? A recent survey of consulting nutritionists conducted by Samuelson et al., (2016), which summarized responses from twenty-four consulting nutritionists (servicing more than 14,000,000 head annually) reported that 66% of the feed yards they service allow cattle to rest 12 to 24 hours prior to initial processing and nearly 30% allow cattle to rest more than 24 hours. The majority of the consulting nutritionists (64%) suggested that cattle should be provided access to hay for four days after arrival. Approximately 56% of the nutritionists surveyed used multiple step-up diets with an average forage concentration of 40.7% roughage. On average four transition diets were used with diets being fed for 6 days before moving to the next diet. Thus, cattle on average are transitioned to the finishing diet within 24 days of feeding the first step-up diet. Alternatively, approximately 40% of the nutritionists utilize a 2-ration blending program to adapt cattle (effectively a starter and finisher diet). Those that used a 2-ration program recommended 38% roughage in the starter ration and cattle adapted to the finishing diet within approximately 27 days.

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

↩ **IRM Redbooks for Sale** – It is not too late to order your 2023 IRM Redbooks. They are sold on a first come, first-serve basis. The price is \$6.50/book for orders of 10 or more; \$6.75/book for orders of less than 10 which includes postage. To order your supply of Redbooks, please contact Lois Schreiner (lschrein@ksu.edu; 785-532-1267).

↩ Watch the **KSU ASI Headlines** for November 2022 and find out the latest happenings in the department. Follow the link at <https://www.youtube.com/watch?v=meiKMR4rmF8&list=PLst4YxRiGX9TtKhYw87oYQJBVISZw9X3O&index=1>. For questions about the department, contact Dr. Mike Day, ASI Department Head, at 785-532-1259; mlday@k-state.edu.

WHAT'S NEW...

- ☞ **Office Specialist II - (Job #514261)** – This is a full-time, Unclassified Professional Staff, term contract position. This position prepares payment of non - travel related documents, serves as primary contact with vendors and oversees that payments are made in a timely manner. Other duties include but not limited to; answering the phone, filing, calling in work orders, assisting with vans, assisting all departmental staff, students and vendors with various questions related to the business office and taking all appropriate trainings to stay current on all processes. Manages vehicle fleet and departmental inventory. Review of applications begins immediately and continues until position is filled. For more information, contact Victor Gomez-Leon, Search Committee Chair, at 785-532-2652 or vgomezleon@ksu.edu. To apply, go to <https://careers.k-state.edu/cw/en-us/job/514261/office-specialist-ii>
- ☞ **Office Specialist III - (Job #514260)** – This is a full-time, Unclassified Professional Staff, term contract position. 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. Review of applications begins immediately and continues until position is filled. For more information, contact Morgan Zumbaugh, Search Committee Chair, at 785-532-1253 or mdzumbaugh@ksu.edu. To apply, go to <https://careers.k-state.edu/cw/en-us/job/514260/travel-and-student-hiring-associate>
- ☞ **Office Specialist V - (Job #514259)** – This is a full-time, Unclassified Professional Staff, term contract position. This position provides the highest-level administrative associate support to ASI and its Department Head in carrying forward the activities of the department. ASI is a highly complex department which includes teaching, research, and extension in both the animal and food sciences. These comprehensive efforts are supported by over 100 faculty and staff employees located in two academic buildings and at 14 animal and product units located in Manhattan. The ASI major is the largest undergraduate major at K-State and the FDSCI major is also a primary responsibility of the ASI Department. The entire ASI graduate program and a large majority of the FDSCI research and online graduate programs are supported by ASI faculty and staff. Research awards approach \$6M annually and research expenditures exceed \$17M annually. The ASI extension staff provide state level support to industries in animals and food that contribute approximately \$28B/annually in direct output to the Kansas economy. In addition, this position provides administrative support to the Livestock and Meat Industry Council which serves in a primary advisory role for ASI and oversees approximately \$15M in LMIC investments held at the K-State Foundation. This position coordinates aspects of these activities as needed by the Head and as directed by the Head through the department's Teaching, Research and Extension Coordinators, Graduate Program Chairs, Faculty Evaluation Committee, faculty, staff, and others, as necessary. This position is the focal point of activities for many of these efforts internally, and often serves as the first point of contact for many stakeholders, alumni, supporters, and students in ASI. Review of applications begins immediately and continues until position is filled. For more information, contact Michael Chao, Search Committee Chair, at 785-532-1230 or mdchao@ksu.edu. To apply, go to <https://careers.k-state.edu/cw/en-us/job/514259/office-specialist-v>
- ☞ **Budget/Fiscal Coordinator - (Job #514262)** – This is a full-time, Unclassified Professional Staff, term contract position. This position handles all post-award accounting and activities and serves as a back-up to the Business Manager for Business Office supervision (assistant business office manager). The individual in this position will be expected to have a strong level of competency in all levels of processing all types of payments and deposits for the department. Serves as technical supervisor for all financial document processing. Helps with sub-account, FIS account and code assignments when needed. Coordinates fiscal components and assists with HRIS related processes. Review of applications begins immediately and continues until position is filled. For more information, contact Sabrina Ault, Search Committee Chair, at 785-532-1258 or ssault@ksu.edu. To apply, go to <https://careers.k-state.edu/cw/en-us/job/514262/budgetfiscal-coordinator>

WHAT'S NEW...

↵ **Changes in the Perception of Ground Beef Quality as a Result of Primal Labeling** - The objective of this study was to determine the effect of providing primal source information to consumers prior to consumption on palatability ratings of ground beef from the same source. Ground beef chubs that were 80% lean and 20% fat were used for testing. Samples were served to consumers as 0.25 lb patties that were cooked internally to 160°F. Consumers were asked to evaluate and assess different palatability traits and evaluated samples identified as ground chuck, ground round, ground sirloin, and store ground along with a sample that offered no information.

The Bottom Line: Based on this research, the addition of primal source labeling improves consumer perception of the palatability traits of ground beef and the likelihood of consumer purchase. More information is available on this experiment and others in the KSU Cattlemen's Day report at www.KSUbeef.org. For more information, contact Travis O'Quinn (785-532-3469; travisquinn@ksu.edu) or Liz Boyle (785-532-1247; lboyle@ksu.edu).

↵ **Native Beef Collagenase MMP-9 may Contribute to Tenderness Improvement by Degrading Connective Tissues in Extended Aged Beef** - Collagen is one of the main components in the connective tissue and contributes to background toughness in beef. It is known that in living animals, collagen can be degraded and remodeled by collagenase matrix metalloproteinases (MMP); however, it is unclear if collagenase MMP can impact CT texture during postmortem aging of beef. Therefore, this study aimed to understand how collagenase MMP activity may impact postmortem connective tissue degradation in beef in three different cuts and four different aging periods. Beef boneless striploin, top sirloin butt, and heel were acquired from ten U.S. Department of Agriculture high choice beef carcasses and assigned to be aged for 3, 21, 42, or 63 days. Following each aging time, Warner-Bratzler shear force (WBSF), connective tissue shear force (CTSF), trained panel responses, collagen content, denaturation temperature of connective tissue, collagen crosslinks density, connective tissue degradation product, and native collagenase activity were measured, and collagenase identity was identified as MMP-9 through Western blot. Striploin was considered the most tender muscle, and tenderness was improved after 21 days of aging. In addition, CTSF data and trained panelists demonstrated softening of CT after 21 days of aging. Heel and top sirloin butt did not differ in collagen content and had greater collagen content than striploin. However, no aging effect was found for collagen content. Denaturation temperature of CT decreased and collagen crosslinks density increased after 42 days of aging for all cuts evaluated in this study. The MMP-9 activity decreased from 3 to 21 to 42 days, and it had the greatest activity in heel compared to the other two cuts. Heel and striploin had greater connective tissue degradation product than top sirloin butt. It was interesting to note that while striploin and heel showed a decrease in the degradation product from 3 to 21 to 42 days, top sirloin butt did not show any changes in degradation product during the entire 63 days of aging period.

The Bottom Line: These results provide an explanation on CT softening during postmortem aging. Understanding the mechanism of tenderness improvement from the softening of CT may help the industry improve the eating quality of lower quality beef cuts. More information is available on this experiment and others in the KSU Cattlemen's Day report at www.KSUbeef.org. For more information, contact Michael Chao (785-532-1230; mdchao@ksu.edu) or Liz Boyle (785-532-1247; lboyle@ksu.edu).

↵ **The Effect of Lactation Diets Supplemented with Krave AP on Sow and Litter Performance** – A total of 105 sows were used across four batch farrowing groups to evaluate the effects of feeding a feed flavor in lactation diets on sow and litter performance. Sow groups 1 and 2 farrowed in an old farrowing house during the summer months and groups 3 and 4 farrowed in a new farrowing house during the winter months. The farrowing house used for groups one and two was environmentally regulated by fans and drip coolers to adjust ambient temperature. The farrowing house used for groups three and four was environmentally controlled to maintain a target temperature by cool cells and fans. Sows were blocked by BW within parity on d 110 of gestation and allotted to one of two dietary treatments. Dietary treatments were a standard corn-soybean-based lactation diet (control) or the control diet with the addition of 0.05% feed flavor. Sows were fed their treatment diet from entry to the farrowing house (d 110 of gestation) until weaning at around 19 days of age. Farrowing house environment had a large impact and resulted in many interactions with the lactation feed flavor treatment. Sows fed the flavor treatment had a tendency for a higher ADFI overall compared with control fed sows. Adding the feed flavor to the diet increased feed intake and piglet ADG in an environment that was warmer where feed intake was suppressed, but had no effect in the new farrowing house where feed intake of all sows was much greater. More information is available on this experiment and others in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Mikayla S. Spinler, Jordan T. Gebhardt, Joel M. DeRouchey, Mike D. Tokach, Robert D. Goodband, and Jason C. Woodworth.)

WHAT'S NEW...

- ↪ **Effect of Sow Feeder Type and Drip Cooling on Sow Body Weight, Litter Performance, and Feeder Cleaning Criteria** - A total of six hundred mixed parity sows were used to evaluate the effect of different lactation feeders and drip cooling on lactating sow farrowing performance and litter growth performance during summer conditions. For the lactation feeder evaluation, the trial was conducted in two sequential groups with three hundred sows per group in the same facility in central Arkansas. Five rooms with sixty farrowing stalls per room were used for each group. At approximately d 110 to 112 of gestation, sows were blocked by body condition score, parity, and offspring genetics (Line 2 or Line 3 sires). Sows were then randomly allotted to one of three feeder designs: 1) PVC tube feeder; 2) Rotecna ball feeder; or 3) SowMax rod feeder. The three feeder designs were placed in one of three farrowing stalls with the same sequence (Rotecna, SowMax, and then PVC tube feeder) from the front to the end of all farrowing rooms to balance the environmental effect in each room. For the drip cooling evaluation, the trial was conducted during the second group of three hundred sows. Water drippers were blocked in three of every six farrowing stalls to balance the feeder types and the environmental effect in each room. Sows were weighed before entering the farrowing house and at weaning. Sows were provided approximately four lb per day of the lactation diet pre-farrowing. After farrowing, sows were provided *ad libitum* access to lactation feed. The weaning age was between 19 to 22 d. Viable piglets from sows bred to line 2 boars (7,562 piglets from 441 sows) were individually tagged with an RFID tag within 24 h after birth. Line 3 piglets were not tagged and not included in the litter performance data, but the sows of these piglets were included in the sow BW and feed disappearance data. After weaning, the cleaning times for each feeder type were recorded on a subsample of feeders. For the effect of lactation feeders, there was no evidence of difference in sow entry BW, exit BW, BW change, and litter performance between sow lactation feeders. However, sows on SowMax feeders had lower total feed disappearance, average daily feed disappearance, and total feed cost than sows on the tube feeders. Therefore, the feed cost per pig weaned from sows on the SowMax feeder was improved compared to the tube feeders. There was a marginal difference between feeders in washing time, with tube feeders requiring less washing time than Rotecna ball feeders; however, washing time varied greatly between the individual people that power washed the room. Sows with drip cooling had greater sow feed disappearance and litter growth performance and reduced BW change, but also had a marginal difference of decreased percentage of sows bred back by d 30 after weaning, which needs further research to determine the cause. More information is available on this experiment and others in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Zhong-Xing, Rao, Kyle Coble, Mike D. Tokach, Jason C. Woodworth, Joel M. DeRouchey, Robert D. Goodband, and Jordan T. Gebhardt.)
- ↪ **Evaluation of Essential Fatty Acids in Lactating Sow Diets on Sow Reproductive Performance, Colostrum and Milk Composition, and Piglet Survivability** – A total of 3,451 mixed parity sows and their litters were used to evaluate the effects of essential fatty acid intake on sow reproductive performance, piglet growth and survivability, and colostrum and milk composition. At approximately d 112 of gestation, sows were blocked by parity within farrowing room and randomly assigned to 1 of 4 experimental treatments. Lactation diets were corn-soybean meal-wheat-based and included 0.5 (Control) or 3% choice white grease (CWG), 3% soybean oil (SO), or a combination of 3% soybean oil and 2% choice white grease (Combination). Thus, sows were provided diets with low essential fatty acid (EFA; as linoleic [LA] and α -linolenic acid [ALA]) in diets with choice white grease or high EFA in diets with soybean oil. Prior to farrowing, sows were provided 4 lb/d of their assigned lactation diet and then allowed *ad libitum* access after parturition. Overall lactation ADFI increased when sows were fed the Combination and CWG treatments compared to sows fed the Control or diet with 3% SO. Regardless of differences among ADFI, daily LA and ALA intake of sows assigned to the Combination and SO treatments were greater than sows fed diets with lower EFA provided as CWG. There was no effect of sow EFA intake on piglet survivability from birth to 24 h or from 24 h to weaning. Overall, sows consuming high EFA provided in the Combination and SO diets produced litters with greater litter gain and litter ADG during the lactation period and heavier piglet weaning weights when compared to litters from sows fed diets with low EFA provided through CWG. Lactation diet EFA composition did not influence colostrum or milk dry matter, crude protein, or crude fat content. However, LA and ALA content in both colostrum and milk at weaning increased in response to increased EFA levels in diets that contained SO. There was no evidence for differences in wean-to-estrus interval, percentage of sows bred by d 7, percentage of sows bred by d 12, farrowing rate, or subsequent farrowing performance due to sow lactation EFA intake. In conclusion, increased LA, and ALA intake during the lactation period from soybean oil addition increased overall litter growth and average weaning weights of pigs but did not affect piglet survivability or subsequent reproductive performance of sows. More information is available on this experiment and others in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Julia Holen, Jason C. Woodworth, Mike D. Tokach, Robert D. Goodband, Joel M. DeRouchey, Jordan T. Gebhardt, Ashley E. DeDecker and Xochitl Martinez.)

ASI FACULTY SPOTLIGHT...



Cassie Jones (jonesc@k-state.edu; 785-532-5289)
Professor/ASI Teaching Coordinator

Dr. Cassie Jones is a Professor and Teaching Coordinator in the Department of Animal Sciences & Industry at K-State. Dr. Jones is originally from Beulah, ND, where her family raised Rambouillet sheep. She earned her B.S. and M.S. in swine nutrition at Kansas State University and her Ph.D. in nutritional sciences at Iowa State University. In her current role at K-State, Dr. Jones coordinates the animal science undergraduate teaching program, which is the largest major on campus with more than 800 undergraduate students and nearly 300 class sections offered annually. She serves as an academic advisor and teaches freshman orientation, as well as animal nutrition courses to undergraduate and graduate students. Dr. Jones also has a robust research program focused on understanding pathogen transmission through feed and ingredients. She is a regular resource to government and industry partners as they build science-based policy and implement best-practices for producing animal feed and pet food that is both nutritionally wholesome and safe. She and her husband, Spencer, have three children, Ty, Hayden, and Hadley, and raise Angus cattle in Wabaunsee County.



Mike Tokach (mtokach@k-state.edu; 785-532-2032)
**University Distinguished Professor/Research Coordinator/
Extension Swine Specialist**

Growing up on a diversified livestock and grain farm in North Dakota taught Dr. Mike Tokach many of the practical day-to-day problems that livestock producers can encounter. In his position as a swine extension specialist and researcher, Mike has the opportunity to help producers solve those problems. Following completion of a bachelor's degree in animal science at North Dakota State University in 1986, Mike earned a Master's degree in swine nutrition at Kansas State University in 1988. After completing his doctorate in swine nutrition at the University of Minnesota in March 1991, Mike joined the faculty at K-State.

Mike's focus is transferring information to swine producers and conducting practical nutrition research. He is a member of a highly productive Applied Swine Nutrition Team. Mike has presented invited seminars at over 350 animal and veterinary science meetings around the world. Mike has co-authored 442 refereed journal papers, 838 abstracts, 1,183 extension publications and field day reports, and 11 book chapters. Mike and his colleagues have generated over \$23 million in grants and gifts to Kansas State University to support swine research. Mike was named one of the 50 people that have made the greatest impact on the swine industry in the last 50 years by the National Hog Farmer Magazine. Mike's wife, Lisa, also specializes in swine as a veterinarian in the Abilene Animal Hospital. Mike and Lisa have three children, Sage, Rogan, and Fiona.

KSU Cow-Calf Checklist – December 2022

Management Considerations for February 2023

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

Cow herd management

- Target BCS at calving for spring-calving cows:
 - 5 for mature cows
 - 6 for young females
- Be ready to start your post-calving nutrition program for spring-calving cows.
- Evaluate fall-calving cows for BCS:
 - Adjust nutrition program as needed relative to weaning date
- If conditions allow, keep grazing crop residues and dormant pastures but be prepared to move cattle or provide supplemental feed.
- Increase energy content 1% for every degree F below the lower critical temperature (LCT).
- Put down bedding, remove snow, ensure cattle have access to wind protection.
- Supply adequate water volume and space in freezing conditions.
- Don't forget about your herd bulls!
 - Bulls need to be in a BCS \geq 5.0 prior to the next season of use
 - Keep young and mature bulls separate if possible and provide plenty of space to prevent injury
 - Spread sufficient fresh bedding to help avoid testicular frostbite

Calf management

- Do you have a plan for weaning and marketing fall-born calves?
 - Evaluate your feed resources and cost of gain relative to the value of gain
 - Talk to prospective buyers in advance of selling
- Evaluate calf health protocols, both spring- and fall-born calves.
- Monitor growth and pubertal development of replacement heifers.

General Management

- For spring-calving herds this calving season:
 - How are you going to record your calving data?
 - What information are you going to record?
- Take inventory of supplies and clean equipment prior to spring calving.
- 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.

We need your input! If you have any suggestions or comments on News from KSU Animal Sciences, please let us know by e-mail to lschrein@ksu.edu