



WEBER HALL
ANIMAL SCIENCE & INDUSTRY



News from KSU Animal Sciences

UPCOMING EVENTS...

- ↪ Plan to attend the **Northeast Kansas Sheep and Goat Meeting** on February 22, 2018, from 7 – 9 p.m. at the Highland Community Building, Highland, KS. Dr. Alison Crane will provide an overview of kid and lamb care, and updates on current best practices for deworming and parasite management. Visit http://www.asi.k-state.edu/news/news_sheepevents.html for more information.
 - ↪ The **48th Annual LMIC Stockman's Dinner** will be Thursday, March 1, at 6 p.m. at the Four Points by Sheraton, Manhattan, KS. Sam Hands will be honored as Stockman of the Year. To register online, go to www.ksufoundation.org/rsvp/asi or contact Chelsea Albrecht at 785-532-7417.
 - ↪ **Make plans to attend Cattlemen's Day 2018** –The 105th annual Cattlemen's Day will be hosted Friday, March 2, 2018. The schedule includes:
 - 8 a.m. Commercial Trade Show (Weber Arena)
 - 10 a.m. Morning Presentations:
 - Welcome** – *Evan Titgemeyer, Interim Department Head, ASI*
 - Introduction of Speakers** – *Ken Odde, ASI*
 - Trade Issues in the Beef Industry** –
Gregg Doud, Commodity Market Council President
 - Beef Cattle Outlook and International Trade as a Key Driver of Profitability**
Dr. Glynn Tonsor, KSU Agricultural Economist
 - 12 noon Lunch - Commercial Trade Show
 - Afternoon Break-out Sessions:*
 - Weber Hall Room 111**
 - 1 p.m. Feeding Cull Cows for Profit – *Terry Houser*
 - 2 p.m. Bud Box Operations – *Justin Waggoner*
 - Weber Hall Room 123**
 - 1 p.m. Development of Work Skills through Internships – *Ken Odde and Karol Fike*
 - Weber Hall Room 146**
 - 1 p.m. Can Split-time Insemination Improve Profit in Your AI Program – *Sandy Johnson*
 - 2 p.m. Late Season Burning: a Strategy for Sericea Control – *KC Olson*
 - Purebred Beef Unit**
 - 1 p.m. Tour of the Feed Intake Measurement Facility – *Bob Weaber*
 - 2 p.m. Using Postmortem Examination to Enhance Herd Health Management – *A.J. Tarpoff*
- 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. For more information and a schedule, visit <http://www.asi.k-state.edu/events/cattlemens-day/index.html> 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) or Jim Drouillard (jdrouill@ksu.edu; 785-532-1204).

Department of Animal Sciences and Industry

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

February, 2018 issue



↪ The **41st Annual Legacy Bull and Female Sale** will be March 2, 2018, at 3:30 p.m. at the Stanley Stout Center. The sale will include 14 Angus, 8 Simmental and 7 Hereford bulls along with 38 registered females. The sale catalog and other sale information can be found at www.asi.ksu.edu/legacysale. For more information, contact Dr. Bob Weaber at 785-477-1287.

↪ A **Meet and Greet with Dr. Alison Crane**, new K-State Research and Extension Sheep and Meat Goat Specialist will be Saturday, March 3, 2018, at 3 pm at the 4-H Building of the Bourbon County Fairgrounds, Fort Scott, KS. Dr. Crane will discuss what K-State Research and Extension can offer local sheep families. Visit http://www.asi.k-state.edu/news/news_sheepevents.html for more information.

↪ The **2018 K-State Sheep Day** will be March 10, 2018, at the KSU Stanley Stout Center, 2200 Denison Avenue, Manhattan, KS. The schedule includes:

8 a.m.	Registration
8:30 a.m.	Welcome
8:45 a.m.	Keynote, Industry Perspective and Guard Dog Research <i>Dr. Reid Redden, Texas A&M University Extension Sheep & Goat Specialist</i>
9:45 a.m.	Break
10 a.m.	Implementing the Use of Genetics in Your Flock <i>Rusty Burgett, National Sheep Improvement Program, Program Director</i>
11 a.m.	Break
11:15 a.m.	Record Keeping and the Use of Electronic ID systems <i>Dan Persons, Producer, U.S. Shearwell Sales & Support Representative</i>
Noon	LUNCH, provided with paid registration
1:30 p.m.	Sheep Health in Kansas and Resources <i>Dr. Emily Reppert, KSU Vet School: Food Animal Vet & Clinical Medicine</i>
2:30 pm.	Shearing and Wool Handling Demonstration <i>Alex Moser, Producer & U.S. Shearing Qualifier, 24th in the world</i>
3 p.m.	KSA Annual Meeting, Silent Auction winners announced at conclusion

Registration for K-State Sheep Day will be \$15 for KSA members or \$25 for non-members and is due by March 1. Registration at the door is \$20 for KSA members and \$30 for non-members. Refreshments and lunch are included with registration. To register, contact Lois at 785-532-1267 or lschrein@ksu.edu. For more information, contact Alison Crane at 785-532-1672 or arcrane@ksu.edu.

↪ **Kansas Junior Sheep Producer Day – March 17, 2018** - The 2018 Kansas Junior Sheep Producer Day is scheduled for Saturday, March 17, 2018, in Weber Hall on the Kansas State University campus. This event will be a fun-filled, educational day of activities in which youth, parents, sheep project leaders, and adults can increase their knowledge and experience of sheep production and management. This interactive, educational event will stimulate enthusiasm and provide a foundation for the management and care of youth sheep projects. Presentations and demonstrations will be provided by K-State faculty and graduate students, as well as guest speakers. Topics that will be covered include project selection, nutrition, equipment and facilities, meat science, the state livestock nomination process, sheep health, wellness, and diseases, wool, showmanship, grooming, and Youth for the Quality Care of Animals certification. A complimentary lunch and t-shirt will be provided for participants. Registration is due by February 23, 2018, and is \$15/person. Registrations received after February 23 cannot be guaranteed a t-shirt and will be \$20/person. More information, a promotional flyer, and registration information may be found on the K-State Youth Livestock Program website: www.youthlivestock.ksu.edu under Kansas Junior Producer Days. Participants may register online at <https://commerce.cashnet.com/KSUASIND>. This event has been added to the university Pulse calendar.

The K-State Sheep & Meat Goat Center will be having its annual sale on the same day, following the Junior Sheep Producer Day. The program schedule will allow participants who would like to participate in both events to do so. For more information, please contact Lexie Hayes (adhayes@ksu.edu or 785-532-1264).

↪ **Kansas Junior Beef Producer Day – March 24, 2018** - The 2018 Kansas Junior Beef Producer Day is scheduled for Saturday, March 24, 2018, in Weber Hall on the Kansas State University campus. This event will be an interactive, educational day in which youth, parents, beef project leaders, and adults can increase their knowledge about youth beef production and management. K-State faculty, staff, and guest speakers will cover topics such as market and breeding project selection, nutrition, the state nomination processes and updates, meat science, grooming, leadership, health, reproduction, showmanship, grooming, and Youth for the Quality Care of Animals certification. All ages and skill levels are invited to attend. A complimentary lunch and t-shirt will be provided for all participants. Registration is due by March 2, 2018, and is \$15/person. Registrations received after March 2, 2018, cannot be guaranteed a t-shirt and will be \$20/person. More information, a promotional flyer, and registration information may be found on the K-State Youth Livestock Program website: www.youthlivestock.ksu.edu under Kansas Junior Producer Days. Participants may register online at <https://commerce.cashnet.com/KSUASIND>. This event has been added to the university Pulse calendar. For more information, please contact Lexie Hayes (adhayes@ksu.edu or 785-532-1264).

↪ The **K-State Research and Extension Sheep Production Workshop** will be held on March 24, 2018, from 10 a.m. – 3 p.m. at the United Methodist Church, Clay Center, KS. Funded in partnership with USDA Risk Management Agency, this workshop will feature speakers Bridger Feuz, Barton Stam and Hudson Hill. There is a \$10 registration fee. Lunch will be included. Visit http://www.asi.k-state.edu/news/news_sheepevents.html for more information.

↪ Plan to attend the **41st Annual Midwest Meat Processing Workshop** on April 6, 2018, at K-State. Join us at the workshop to see, hear, taste and ask questions as state award winners share their expertise and demonstrate the manufacturing techniques used to make award winning products. Mark your calendar and watch for more details coming soon. For more information, contact Liz Boyle (lboyle@ksu.edu; 785-532-1247).

↪ **Livestock Fair Management Clinics Scheduled for April 10 and 12** – Dates are set for Livestock Fair Management Clinics. Every other year, K-State Research and Extension and the Department of Animal Sciences and Industry host a Livestock Fair Management Clinic for county fair board members, Extension Agents, and other adult volunteers involved in local livestock fair management and leadership. This professional development opportunity consists of an activity filled day to increase awareness and how different county fairs operate and provide a forum for open communication for individuals with local livestock fairs across Kansas.

There will be two different locations on two different days with the same general agenda. Tuesday, April 10, 2018, will be the first session at the Gray County Fairgrounds in Cimarron. The second session will be on Thursday, April 12, 2018, in Holton at the Jackson County Fairgrounds. Lunch and refreshments will be provided. The agenda includes:

8:45 – 9:15 a.m.	Registration
9:15 – 9:30 a.m.	Welcome
9:30 – 10:45 a.m.	County Fair Board Structure and Management - members, by-laws, tax exempt status, superintendent selection, and Extension/Fair Board relationships
10:45 – 11 a.m.	Break
11 – 11:30 a.m.	Fair Insurance
11:30 – 12 p.m.	Poultry Health & Exhibit Management
12 – 1 p.m.	Lunch (provided)
1 – 1:45 p.m.	Official 4-H Livestock Policies and Extension's role at County Fairs
1:45 – 2:30 p.m.	Timing of Livestock Shows during the County Fair - balancing potential for heat stress vs. crowd attendance, length of fair, accommodating families/multiple fair activities
2:30 – 3 p.m.	Open Forum Questions & Discussion
3 p.m.	Wrap-up and Adjourn

Registration is \$15/person and is due by April 1, 2018. Checks can be made payable to "KSU-ASI" and mailed to "Livestock Fair Management Clinic, Attn: Lexie Hayes, 214 Weber Hall, KSU, Manhattan, KS 66506." For a registration form and a tentative agenda, please visit the website, www.YouthLivestock.KSU.edu. Information is linked to the event on the calendar at the top of the page. If you have any questions please contact Lexie Hayes at 785-532-1264 or adhayes@ksu.edu; Joel DeRouchey at 785-532-2280 or jderouch@ksu.edu; or Pam Van Horn at 785-532-5800 or pvanhorn@ksu.edu.

- ↪ The **4-H Wildlife Habitat Education Program Contest** will be Wednesday, April 25, 2018, at the Claythorne Lodge, Columbus, Kansas. For the past 28 years, Kansas has held state wildlife habitat evaluation contests in which the winning team was eligible to advance to the national contest. The contest is about teaching young people about wildlife, the needs of wildlife, and their habitat. If you are interested in participating as a member of a team or as an individual in the 2018 contest, please contact Charles Lee, Extension Specialist, Wildlife, Room 131 Call Hall, 1530 Mid-Campus Drive North, Kansas State University, Manhattan, KS 66506, or call 785-532-5734 by March 20, 2018. A \$5 donation/fee is requested from each person to help defray lunch expenses.

- ↪ **Developing and Implementing a HACCP Plan for Meat and Poultry Workshop** will be June 5-7, 2018, in Weber Hall, Kansas State University, Manhattan, KS. This 3-day workshop uses curriculum recognized by the International HACCP Alliance for meat and poultry processors and is led by an International HACCP Alliance Lead Instructor. For more information, contact Dr. Liz Boyle (lboyle@ksu.edu; 785-532-1247).

- ↪ **Kansas 4-H Livestock Sweepstakes Date** - Mark your calendars! The 2018 Kansas 4-H Livestock Sweepstakes will be August 18-19 in Manhattan!

- ↪ **Youth Livestock Opportunities Promotion** - The KSU Youth Livestock Program website includes several pages to promote educational opportunities for youth. Extension agents are invited to submit spring shows scheduled in their county or district. This year, we also added a page for camps, clinics, and local events. This includes, but is not limited to showmanship clinics, judging contests, skillathon sessions, or field days that are open to all youth. Those who wish to share a youth event being hosted in their area may submit the flyer, contact information, and details to Lexie. We hope to make sure families know about the wonderful youth livestock opportunities happening across the state. Events and activities will be posted on the website for informational purposes only, and no endorsement or support is implied. To submit a show, event, or activity, please email Lexie Hayes at adhayes@ksu.edu.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
February 22, 2018	Northeast KS Sheep and Goat Meeting	Highland
March 1, 2018	LMIC Stockman's Dinner honoring Sam Hands	Manhattan
March 2, 2018	KSU Cattlemen's Day	Manhattan
March 2, 2018	KSU Legacy Bull and Female Sale	Manhattan
March 3, 2018	Spring Sheep Meeting	Fort Scott
March 10, 2018	K-State Sheep Day	Manhattan
March 17, 2018	Kansas Junior Sheep Producer Day	Manhattan
March 24, 2018	Kansas Junior Beef Producer Day	Manhattan
March 24, 2018	KSRE Sheep Production Workshop	Clay Center
April 6, 2018	Midwest Meat Processors Workshop	Manhattan
April 10, 2018	Livestock Fair Management Clinic – Western Session	Cimarron
April 12, 2018	Livestock Fair Management Clinic – Eastern Session	Holton
April 25, 2018	Wildlife Habitat Education Program Contest	Columbus
June 5-7, 2018	Introduction to HACCP Workshop	Manhattan
August 18-19, 2018	Kansas 4-H Livestock Sweepstakes	Manhattan

WHAT'S NEW.....

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

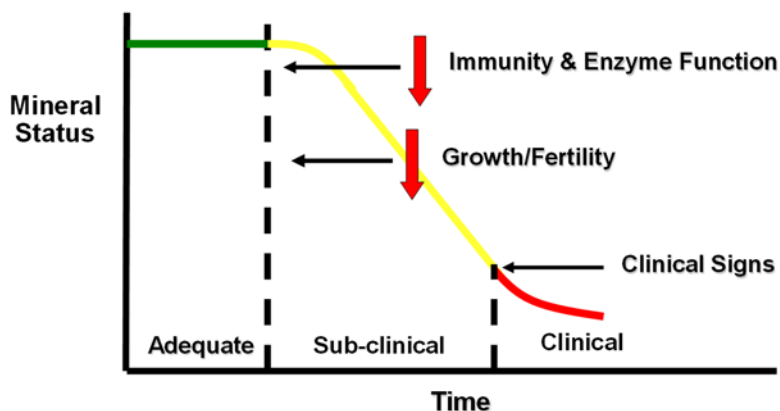
“Continuing Education”

As a manager or small business owner, “what’s your policy on continuing education for your employees...do you have one?” If an employee comes to you and asks for time away from the operation or business to attend a three-hour seminar on a topic that is directly relevant to what he or she does would you support it? Would you pay for the seminar? Would you compensate the employee for the time away from the job? If you do not have an existing policy on continuing education, it may be something to consider. Now that millennials make up the workforce, the data clearly indicates that it is going to take more than just a steady paycheck or salary to keep them engaged. Allowing employees to attend seminars and expand their knowledge often benefits the organization. Individuals who have the opportunity for professional development reportedly experience greater job satisfaction, are more engaged and committed to the business than those who do not. Additionally, allowing your people to pursue continuing education opportunities demonstrates that the business is willing to invest in its people. If you don’t have a policy in place, give it some thought. For more information, contact Justin Waggoner at jwaggon@ksu.edu.

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

“The Basics of Mineral Nutrition”

Most beef cattle producers recognize that mineral nutrition is important. However, a mineral program is only one component of an operation’s nutrition and management plan. An exceptional mineral program will not compensate for deficiencies in energy, protein or management. Additionally, the classical signs associated with clinical deficiency of a particular mineral (wasting, hair loss, discoloration of hair coat, diarrhea, bone abnormalities etc.) are not often or are rarely observed in production settings. The production and economic losses attributed to mineral nutrition in many situations are the result of sub-clinical deficiencies, toxicities and antagonisms between minerals which are often less obvious (reduced immune function, vaccine response, and sub-optimal fertility). The figure below, adapted from Wikse (1992), illustrates the effect of trace mineral deficiency on health and performance and the margin between adequate mineral status and clinical deficiency.



Many producers erroneously assume that the science of mineral nutrition is relatively complete. However, mineral nutrition is complicated and our knowledge of mineral nutrition is actually relatively incomplete. There are 17 minerals required in the diets of beef cattle. However, no requirements have been established for several minerals that are considered essential (Chlorine, Chromium, Molybdenum, and Nickel). Minerals may be broken down into two categories. 1. The macrominerals whose requirements are expressed as a percent of the total diet (calcium, phosphorous, magnesium, potassium, sodium, chlorine and sulfur). 2. The microminerals or trace minerals (required in trace amounts) whose requirements are expressed as parts per million (ppm) or milligrams per kilogram of dry matter consumed (chromium, cobalt, copper, iodine, iron, manganese, molybdenum, nickel, selenium and zinc).

↪ **Feedlot Facts – “The Basics of Mineral Nutrition” (cont.)**

Mineral status of an animal is a function of the total diet (both water and feed) and stored mineral reserves within the body. Water may be a substantial source of mineral; however the variation in water consumption, makes estimating the contribution of mineral from water sources difficult. Mineral content of forages is influenced by several factors including plant species, soil, maturity, and growing conditions. These factors, and others not mentioned, makes estimating the dietary mineral content of grazing cattle challenging. Most commercial mineral supplements are formulated to meet or exceed the requirements for a given stage of production. This ensures that deficiencies are unlikely, but providing supra-optimal levels of minerals may be unnecessary unless specific production problems exist. A mineral program does not have to be complex or expensive to be successful. Minerals are an important component of beef cattle nutrition that should not be over-looked as sub-clinical deficiencies of minerals likely contribute to more production and economic losses than we realize.

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

↪ **Office Specialist II (Student Services Office) position open** - Full-time, University Support Staff position (Job no 503194). This position maintains and monitors the scholarship and graduate program in the Department of Animal Sciences & Industry. This position assists with the Legacy Sale and the Horse and Livestock Judging Camps. This position will support faculty, staff and students in both Weber Hall and Call Hall. Duties include helping students with information pertaining to academics and procedures; greeting visitors, students and staff in person or via phone; answering questions and providing requested information by applying knowledge of policies and procedures for the department and university; operating copy machine; assisting faculty with various projects, such as word processing, preparation of presentations, correspondence and basic account entry; sending/receiving mailings; managing student workers; and completing special projects. Application deadline: Screening of applications will begin immediately and continues until the position is filled. For more information, contact Dr. Dave Nichols, Search Committee Chair, at 532-1239 or dnichols@ksu.edu. To apply, go to <http://careers.k-state.edu/cw/en-us/job/503194/office-specialist-ii>

↪ **Decline in Brahman Breed Influence of Beef Calf Lots Marketed by Video Auction from 1995 to 2015** – The objective was to characterize the potential change in the percentage of lots of beef calves with Brahman influence among calves originating from various regions of the United States marketed through summer video auctions from 1995 through 2015. Information describing factors about lots sold through a livestock video auction service (Superior Livestock Auction, Fort Worth, TX) was obtained from the auction service in an electronic format. These data were collected for all lots of beef calves that were offered in 171 summer sales from 1995 through 2014. There were 80,574 lots (9,685,247 total calves) used in the analyses. There was a decrease in percentage of lots with Brahman influence in the United States during the 21 years. Percentage of lots with Brahman influence decreased in four regions: West Coast, Rocky Mountain/North Central, South Central, and Texas. There was no change in percentage of lots with Brahman influence originating from the Coastal (AL, FL, GA, LA, MS, and SC) and Sub-Coastal (AR, KY, NC, TN, VA, and WV) regions.

Bottom Line... The percentage of lots of beef calves with Brahman influence appears to be decreasing in the United States. It remained unchanged in the Coastal and Sub-Coastal regions where Brahman influenced calves are adapted to warmer, more humid climates. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, Karol Fike (785-532-1104; karol@ksu.edu) or Bob Weaber (785-532-1460; bweaber@ksu.edu).

↪ **Survey of Cattle Feedlot Facilities in the High Plains Region of the United States** – The objective was to obtain descriptive data regarding outdoor cattle feeding facilities currently used by feedlots in the High Plains region of the United States. Feedlots were randomly selected from an existing database containing contact information for feedlots located in the High Plains (Texas, Oklahoma, New Mexico, Colorado, Kansas, Nebraska), with a minimum one-time capacity of 5,000 cattle. An individual electronic invitation was sent to feedlots to participate in the study. The survey was divided into four categories: general information; shipping and receiving area; cattle feeding pens; and hospital area. The survey was conducted during summer of 2015.

Bottom Line... This paper provides a thorough description of outdoor cattle feeding facilities in the High Plains region in the United States to serve as a benchmark for those looking to build a new facility or enhance an existing cattle feedlot. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, Dan Thomson (785-532-4254; dthomson@ksu.edu) or Bob Weaber (785-532-1460; bweaber@ksu.edu).

↪ **Brahman Genetics Negatively Impact Protein Degradation and Tenderness of *Longissimus Lumborum* Steaks, but do Not Influence Collagen Cross-Linking** – The objective of this study was to evaluate the effect of Brahman genetics on protein degradation, collagen cross-linking, and meat tenderness of strip loin steaks. Steers from the University of Florida Multi-breed Herd born in 2012 and 2013 were classified into four breed categories based on percentage of Brahman genetics. Steers were harvested at a 0.5 in. of back fat and following chilling, a 3-inch loin roast was collected and wet-aged in a vacuum bag until 14 days postmortem. Following aging, each roast was fabricated into three steaks for objective tenderness analysis, trained sensory panel analysis, and protein degradation and collagen analyses.

Bottom Line... Decreases in tenderness of strip loin steaks from steers with greater percentages of Brahman genetics is likely due to reduced protein degradation and is possibly related to solubility of collagen. For more information contact, Jim Drouillard (785-532-1204; jdrouill@ksu.edu) or Travis O'Quinn (785-532-3469; travisquinn@ksu.edu).

↪ **Effects of Increasing Dietary Lysine on Performance of Lactating Sows in Commercial Conditions** - A total of 710 mixed parity sows (Line 241; DNA, Columbus, NE) were used in a 21-day study to determine the effect of standardized ileal digestible (SID) lysine (Lys) intake during lactation on sow and litter performance and subsequent reproductive performance of primiparous and multiparous sows housed in a commercial production system. On day 112 of gestation, females were weighed and blocked by BW within expected farrowing date and parity (1 to 7) and randomly assigned to one of four dietary treatments within blocks. Dietary treatments were corn-soybean meal-based and consisted of increasing SID Lys (0.75, 0.90, 1.05, and 1.20%). Treatments were formulated by increasing both crystalline Lys and soybean meal to maintain a similar soybean meal to crystalline Lys ratio. Other feed-grade amino acids (AA) were added as needed to maintain a similar ratio to Lys across treatments. All other nutrients met or exceeded the NRC4 requirement estimates. Dietary metabolizable energy was the same across all dietary treatments.

Bottom Line... Sow BW at weaning increased, and sow BW loss from post-farrow to weaning or day 112 to weaning decreased as SID Lys increased. Sow backfat loss increased as SID Lys increased. Conversely, longissimus muscle depth loss decreased as SID Lys increased. Percentage of females bred by day seven after weaning increased as SID Lys increased in parity one sows, with no difference in parity two or 3+ sows. Litter weight at day 17 and litter gain from day two to 17 increased as SID Lys was increased up to 1.05%, with no improvement thereafter. For subsequent litter characteristics, there were no differences in total born, percentage born alive, stillborn, or mummies. In conclusion, our results suggest that increasing dietary SID Lys can reduce sow protein loss in lactation. The optimal level of dietary SID Lys required by the sow may vary based on response criteria and parity. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by K.M. Gourley, J.C. Woodworth, J.M. DeRouchey, M.D. Tokach, S.S. Dritz, R.D. Goodband, S.J. Kitt, and E.W. Stephenson)

↪ **Validation of Individual Computerized Sow Feeding Systems in Lactation** - Two experiments evaluated the accuracy of individual computerized feed delivery systems for lactating sows. The feeders volumetrically dispense feed based on rotations of a screw auger. In Experiment one, 29 prototype feeders were used across three farrowing groups. On day 0, one feeder was selected to calibrate the computer system to the bulk density of the lactation diet. Feeders were programmed for five feeding periods per day with feeding period allowing up to four feed drops triggered by the sow. Sows activate a trigger within the feed bowl to receive a targeted amount of feed (1.5 lb) and the computerized feeder records the delivery amount based on calibration values. In addition, total lactation feed intake was recorded by weighing the quantity of feed provided to the feeding system for each sow throughout lactation. Feed delivered by a single trigger activation on d 0, d 10, and d of weaning was collected and weighed with a scale and compared to the computer record. Additionally, total feed delivered over the lactation period was compared between the recorded computer measurement and scale weight. Average percentage difference between the two measurements ranged from 0.01 to 36.6% for a single trigger event. Computer-recorded total lactation feed intake was marginally less than the actual weight of feed delivered. Individual feeders had recorded total feed delivery ranging from 77 to 122% of actual weight delivered. Based on these results, a new feeder design, identical to the commercially marketed GESTAL Solo (plastic hopper manufactured with injection mold instead of rotational mold), was tested in Experiment 2. In Experiment 2, 29 feeders were used in a single farrowing group to evaluate the new sow feeders. Feeders were calibrated and data were collected using the same procedures as Experiment 1, except individual feed drops were collected eight times per feeder throughout lactation. Average percentage difference across all feeders ranged from 3.8 to 13.4%. There was no evidence of difference between the computer-recorded total lactation feed and actual weight of feed delivered. Individual feeders had recorded total feed delivery ranging from 90.4 to 106.4% of actual weight delivered.

Bottom line... Overall, this study shows the new feeder model was less variable in feed drops and total feed delivery than the old prototype. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by G.E. Nichols, K.M. Gourley, J.M. DeRouchey, J.C. Woodworth, M.D. Tokach, S.S. Dritz, R.D. Goodband, and H.L. Frobose)

AS&I Faculty Spotlight



Terry Houser (houser@k-state.edu; 785-532-1253)

Associate Professor/Extension Meat Specialist

Dr. Terry A. Houser was born in Cambridge, Nebraska, in 1975. He is the youngest of seven children born to Clifford Houser Sr. of Cambridge, Nebraska, and Verna Raye Horton of McCook, Nebraska. He attended the University of Nebraska-Lincoln from 1994-1998 for his B.S. degree and competed on both the Meat Judging Team and Meat Animal Evaluation Team while being very active in Alpha Gamma Rho Fraternity. In addition to campus activities, Terry completed two internships including one at Usinger's Famous Sausage in Milwaukee, Wisconsin, and the other at Wimmer's Meat Products in West Point, Nebraska.

In 1999, Terry started his graduate program at Iowa State University in the area of Meat Science under the guidance of Dr. Joseph G. Sebranek and graduated with a M.S. in 2001 and a Ph.D. in 2004. His graduate research focused on irradiation, non-meat ingredient functionality, and needleless injection technologies for delivering vaccines to livestock. Upon completion of his Ph.D. he started his career as an Assistant Professor and Extension Meat Specialist at the University of Florida in Gainesville. In January 2007, he joined the Animal Science Faculty at Kansas State University and currently has a 50% Extension, 40% Research and 10% Teaching appointment in the area of Meat Science. While at K-State he has taught numerous courses on meat and livestock evaluation, meat processing and fabrication. His current research focuses on bacon quality and improving the value of cull animals.

Terry's hobbies include competition bbq, hunting, and raising livestock. He and his wife Amanda live in Leonardville, Kansas and enjoy raising purebred Hereford and Angus cattle along with riding and showing cutting horses.



Travis O'Quinn (travisquinn@k-state.edu; 785-532-3469)

Assistant Professor/Meat Quality and Palatability

Dr. Travis O'Quinn was born in League City, TX. Through his youth, Dr. O'Quinn was actively involved in 4-H and FFA, participating on numerous judging teams including meat, livestock and land. He graduated with his B.S. (2008) and M.S. (2010) degrees from Texas Tech University and earned a Ph.D. in Meat Science from Colorado State University (2012). Upon graduation, he returned to Texas Tech to conduct a post-doctoral research project working to develop a palatability-based beef grading system for the largest beef producer in New Zealand. Travis joined the Department of Animal Sciences and Industry at Kansas State University in July of 2014 and currently has a 60% research and 40% teaching appointment.

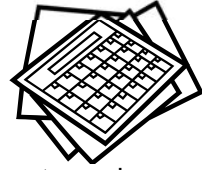
Dr. O'Quinn's research interests center on beef palatability and the factors affecting the traits of tenderness, juiciness and flavor. He has conducted research involving more than 13,000 beef consumers from across the country. He has worked extensively to evaluate the factors affecting beef flavor and to identify the production and management practices that can modify the flavor profile of beef. He has also worked to develop a technique to quantify and predict beef juiciness. He oversees the state 4-H and FFA meat judging programs and works to help increase student involvement in the meat industry through the growth of these programs.

Travis enjoys training and mentoring students, both undergraduate and graduate. He currently serves as the faculty advisor and coach of the K-State Meat Judging Team, as well as the K-State Meat Animal Evaluation Team. He is also the faculty advisor to the Meat Science Academic Quiz Bowl team.

In his free time, Travis enjoys spending time with his wife, Megan. The two live in Wamego, KS, and are avid sports fans, keeping up with all things college football, MLB and NFL.

What Producers Should Be Thinking About.....

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN APRIL.....



BEEF -- Tips by Dale Blasi, Extension Beef Specialist

Many producers should consider calving in this month. Stress is minimized and forage/grass management may be optimized.

- Keep calving areas as clean and dry as possible. Give each calf a dry, comfortable and clean environment.
- Supplement and feed cows to maintain or improve body condition prior to the breeding season (cows should be in moderate body condition by the start of the breeding season to maximize fertility).
- For thin, young cows, consider feeding fat to improve rebreeding rates. Research indicates that when feeding about 0.4 lb. per head per day of a plant source (soybean, sunflower, safflower oils), fat can increase first-service conception and pregnancy rates (0% to 15%). Feeding fat can be effective both before and after calving. Consult your nutritionist.
- Mineral supplementation should include greater levels of magnesium (intake should be between 15 to 30 grams (g) per head per day, or at least 11% of the mineral mix) for grass tetany prevention.
- Plan your breeding season, both AI and natural service. Make sure all supplies and semen are on hand prior to the breeding season. For natural-service programs assign yearling bulls to 10-15 cows, 2- and 3-year-old bulls to 20-25 cows, and older bulls to 25-40 cows. Breeding for 65 days should be long enough; less than 90 days is a key sign of good management. Some suggest the service capacity of a yearling bull (less than 24 months) is equal to his age in months at turn out.
- Bulls should be in good body condition prior to the breeding season. Thin bulls can run out of stamina. Now is the time to make sure bulls are physically capable of performing for the upcoming summer breeding season.
- Breeding soundness examinations are recommended for all bulls!
- Consider using estrus synchronization and AI. Several synchronization systems to overcome anestrus are available. Selection depends on labor, facility and implementation costs.
- Consider breeding heifers three weeks prior to the mature cow herd to give them a greater chance to rebreed.
- Maintain top management concerning calf scours (sanitary conditions, early detection, electrolyte/dehydration therapy).
- Vaccinate calves as per veterinarian consultation. Castrate males that are not candidates for breeding stock prior to pasture turnout. Implant calves that will be sold at weaning.
- Wait for fly control until critical numbers are reached (100 to 200 horn flies per animal).
- Deworm cows and bulls if needed. Expect performance response to be variable dependent on location, weather, grazing system, history, infestation level and management.
- Use prescribed burning techniques to eradicate Eastern Red Cedar trees and improve forage quality.
- Good fences make good neighbors. Summer pastures should have had fences checked, repaired or replaced by now.
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand; downtime can make a large difference in hay quality.

*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, or phone 785-532-1267.*