



WEBER HALL  
ANIMAL SCIENCE & INDUSTRY

# News from KSU Animal Sciences

## UPCOMING EVENTS...

↪ **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 speaker Ed Hewlett. Topics that will be covered include project selection, nutrition, equipment and facilities, lamb meat cuts and cookery, the state livestock nomination process, sheep health, wellness, and diseases, wool education and judging, showmanship, clipping and grooming, and Youth for the Quality Care of Animals (YQCA) certification. The early registration deadline has passed, but participants may still register online for \$20 per person at <https://commerce.cashnet.com/KSUASIND>. On-site registration will also be available. T-shirts cannot be guaranteed for those who register after the early deadline (February 23). More information may be found on the K-State Youth Livestock website ([www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu)), under the junior producer day tab. This event has been added to the university Pulse calendar.

The K-State Sheep & Meat Goat Center will be having their annual sale on the same date, following the Junior Sheep Producer Day. This is a separate event, but 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](mailto: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, beef meat cuts and appropriate finish, the Dystocia Cow, grooming, cattle behavior and handling, health, reproduction, showmanship, and Youth for the Quality Care of Animals (YQCA) certification. All ages and skill levels are invited to attend. The early registration deadline has passed, but participants may still register online for \$20/person at <https://commerce.cashnet.com/KSUASIND>. On-site registration is also available. T-shirts cannot be guaranteed for those who register after the early deadline (March 2). More information may be found on the K-State Youth Livestock Program website ([www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu)) under the junior producer day tab. This event has been added to the university Pulse calendar. For more information, please contact Lexie Hayes ([adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264).

↪ The **K-State Research and Extension Sheep Production Workshop** will be on Saturday, 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](http://www.asi.k-state.edu/news/news_sheepevents.html) for more information.

### Department of Animal Sciences and Industry

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March, 2018 issue



↳ Plan to attend the **41st Annual Midwest Meat Processing Workshop** on Friday, April 6, 2018, at K-State. Join us at the workshop and see, hear, taste and ask questions as state award winners share their expertise and demonstrate the manufacture and techniques used to make award winning products. Wayne Beckman, retired from Kensington Meats and longtime KMPA award winner, will demonstrate making his award winning bone-in ham, and Darwin Decker from Heritage Meats in Leoti will demonstrate production of his award winning snack sticks. Dr. Brandon Goehring, Food Application Scientist with UltraSource, will demonstrate how to make a Bacon Explosion, as well as share his expertise with Prosciutto and thermal treatments for dry cure processes. Dylan Walton from Walton's, Inc. will join Dr. Terry Houser and KSU Meat Lab Manager John Wolf to demonstrate the use of a vertical cutter in comparison to a traditional horizontal cutter, followed by a beef cutting test. Nelson Gaydos, AAMP Outreach Specialist, will discuss how you can participate in the IFFA Quality Competition held in the U.S., a result of the partnership between AAMP and the German Butcher's Association. Angie Denton, KSU ASI communications coordinator, will teach you how to make the most out of social marketing tools to bring customers to your door. Francisco Najjar, Meat Science graduate student, will present some of his research on extended hanging times for pork carcasses and the resulting microbial quality of the product. Mark your calendar and come to this workshop to learn techniques to improve business strategies, product quality, and safety that could result in tastier product, longer shelf life, and greater sales and business opportunities. For more information, contact Liz Boyle ([lboyle@ksu.edu](mailto:lboyle@ksu.edu); 785-532-1247).

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

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](http://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](mailto:adhayes@ksu.edu); Joel DeRouchey at 785-532-2280 or [jderouch@ksu.edu](mailto:jderouch@ksu.edu); or Pam Van Horn at 785-532-5800 or [pvanhorn@ksu.edu](mailto: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.

- ↳ **Nomination Season Approaching** - The state livestock nomination season is rapidly approaching! Market Beef nominations will be due on May 1, 2018. All other species, which includes commercial heifers, market swine, commercial gilts, market lambs, commercial ewes, and ALL meat goats will be due June 15, 2018. Please remember there is not a registered breeding doe show at either state show, so all meat goats must be nominated to be eligible. The nomination deadlines are firm postmark deadlines. Any nomination envelope or package received must have a visible postmark prior to the deadline, or it will not be accepted. Certified mail is highly encouraged. Families are also encouraged to use the check list provided for each specie to make sure their nominations are complete. Incomplete or incorrect nominations will be returned to the family and cost \$20 to correct. For more information, please contact Lexie Hayes ([adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264).
- ↳ **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 three-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](mailto:lboyle@ksu.edu); 785-532-1247). The workshop fee is \$450 per person, and participants will be presented with a certificate with an International HACCP Alliance seal upon completion of the course. Registration is limited to 25 participants. For more information, contact Dr. Liz Boyle ([lboyle@ksu.edu](mailto:lboyle@ksu.edu); 785-532-1247). Registration is online at <http://haccp.unl.edu>.
- ↳ The **KSU Youth Horse Judging Camp – Beginning Section** will be held June 6, 2018, and the **KSU Youth Horse Judging Camp – Advanced Section** will be held June 4-5, 2018. Both camps will be held in Weber Arena on the KSU Campus. Registration for both camps must be paid by May 11, 2018. Camp will be limited to the first 30 participants. For more information, camp agenda and registration forms, visit the website <http://www.asi.k-state.edu/research-and-extension/youth-programs/judging-camps.html>. You can also contact James Lattimer, (785-532-2840; [jlattimer@ksu.edu](mailto:jlattimer@ksu.edu)).
- ↳ **K-State Livestock Judging Camps scheduled** – The camp is a three-day, intense judging camp designed for 4-H and FFA members (ages 14-18) who are seriously interested in enhancing their livestock judging and oral communication skills. Prior livestock judging experience is necessary for this camp. Workouts will be conducted similar to those at a collegiate level. Chris Mullinix, KSU Livestock Judging Team Coach, will conduct the training for each camp. The camp will focus primarily on the proper format, terminology and presentation of oral reasons. Camp participants will also be exposed to livestock evaluation skills and incorporating performance records in the decision making process. The 2018 camps will be: June 6-8 (Wednesday-Friday); June 11-13 (Monday-Wednesday); or June 15-17 (Friday-Sunday). For a complete schedule and registration information, visit <http://www.asi.k-state.edu/research-and-extension/youth-programs/judging-camps.html>. The registration deadline is May 21. For more information, contact Chris Mullinix (785-532-1917; [cmullinix@k-state.edu](mailto:cmullinix@k-state.edu)).
- ↳ Mark August 15, 2018, on your calendar for the **K-State Ranching Summit** to be held at the KSU Alumni Center. Watch for more details coming soon to [www.KSUbeef.org](http://www.KSUbeef.org).
- ↳ **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 K-State 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](mailto:adhayes@ksu.edu).

**CALENDAR OF UPCOMING EVENTS**

<b>Date</b>	<b>Event</b>	<b>Location</b>
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
May 1, 2018	Market Beef Nominations due	
June 4-5, 2018	KSU Youth Horse Judging Camp – Advanced Section	Manhattan
June 5-7, 2018	Introduction to HACCP Workshop	Manhattan
June 6, 2018	KSU Youth Horse Judging Camp – Beginning Section	Manhattan
June 6-8, 2018	K-State Livestock Judging Camps	Manhattan
June 11-13, 2018	K-State Livestock Judging Camps	Manhattan
June 15-17, 2018	K-State Livestock Judging Camps	Manhattan
August 15, 2018	K-State Ranching Summit	Manhattan
August 18-19, 2018	Kansas 4-H Livestock Sweepstakes	Manhattan

# WHAT'S NEW . . . .

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

### *“Is Agriculture a High-Risk Occupation?”*

Most of you reading this are likely involved in agriculture in some capacity. Do you think of being a farmer or rancher as a high-risk occupation?

The reality is that farming and ranching is a dangerous, high-risk occupation. A 2017 report from the U. S. Department of Labor contains some staggering statistics and emphasizes the need for safety. There were 5,190 fatal work-related injuries in 2016. Additionally, this is the first time that more than 5,000 fatal injuries have been reported since 2008. In 2016, farmers, ranchers, and agriculture managers were the second greatest civilian occupation with regard to fatal work-related injuries; with 260 reported fatalities in 2016. Sales and truck drivers had the greatest number of fatal work injuries (918). The leading cause of injuries was transportation incidents (2,083). These statistics are sobering. Agriculture can be dangerous business, and many times our daily activities put us on the road hauling commodities, equipment and livestock. The need for safety in our industry is real and present; don't be complacent about your safety and the safety of those around you.

The full report from the U.S. Department of Labor may be accessed at <https://www.bls.gov/news.release/pdf/cfoi.pdf>

For more information, contact Justin Waggoner at [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu).

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

### *“Body Condition Scoring: It's About More than the Score”*

Body condition scoring is one of the most valuable management tools at the disposal of the cattle manager. This one number gives us a direct indication of an individual cow's previous plane of nutrition and future reproductive capability. Although the individual body condition scores are important, we don't necessarily manage individual cows, we manage groups of cows. Thus it is important for us to look beyond the individual scores and look at the distribution of body condition scores within the herd.

If we have a herd (Herd 1) with an average body condition score of 5 that is essentially characterized by the classic bell curve, with a few thin cows (3.5's), the bulk of cows in the middle (4's and 5's) and few over-conditioned cows (7's) everything is good. Alternatively we could have a herd (Herd 2) with an average body condition score of 5 that is essentially the result of a few thin cows (3's) and some over conditioned cows (6's and 7's). Body conditioning scoring also has more value when it is done on the same group of cows at multiple times during the production year. If Herd 2 was scored at calving and had been previously scored at weaning and had an essentially normal distribution (similar to Herd 1). We need to ask ourselves what happened. Did we change anything? Although these examples are somewhat extreme they illustrate that we have to look beyond the individual body condition scores of cows at one point during the production year to get the most of body condition scoring.

A quick reference guide to body condition scoring may be accessed and downloaded at <https://www.bookstore.ksre.ksu.edu/pubs/MF3230.pdf>

For more information contact Justin Waggoner at [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu) .

↪ **sericea Lespedeza Control from Growing-Season Prescribed Burning Causes No Collateral Damage to Non-Target Species** - The objective of this study was to evaluate the effects of four consecutive years of prescribed fire applied to native tallgrass range in either April, August, or September on forage biomass production, soil cover, and basal plant cover. Nine fire-management units (14 ± 6 acres) were burned at one of three prescribed times: early spring (April 1), mid-summer (August 1), or late summer (September 1). Plant species composition and soil cover were assessed annually each July using a modified step-point technique.

**Bottom Line...** Burning during the summer for four consecutive years resulted in excellent control of sericea lespedeza, Baldwin's ironweed, western ragweed, and invasive woody-stemmed plants, compared to traditional spring, dormant-season prescribed burning. In addition, major wildflower species prevalence increased in areas treated with prescribed fires during the summer compared with adjacent areas treated with prescribed fire during the spring. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information contact, KC Olson (785-532-1254; [kcolson@ksu.edu](mailto:kcolson@ksu.edu)) or Bob Weaber (785-532-1460; [bweaber@ksu.edu](mailto:bweaber@ksu.edu)).

↪ **Restricting Intake and Increasing Energy Improves Efficiency in Newly Received Growing Cattle and Zelnate Has No Effect** - The objective of this study was to evaluate the effects of two limit-fed diets formulated to provide two levels of dietary energy and offered at two different intake rates to target similar gains and analyze the efficacy of a novel DNA-immunostimulant administered on arrival. A 56-day pen study was conducted utilizing 370 Angus × Brahman heifers shipped from Florida (1,455 mi) to study the effects of limit-feeding at two intakes based on prior research conducted at the Kansas State University Beef Stocker Unit, Manhattan, KS, to achieve similar gains and effects of Zelnate under the dietary conditions.

**Bottom Line...** Limit-feeding a higher-energy, lower-roughage diet at 2.2% of body weight daily is a more efficient feeding strategy than offering a higher-roughage, lower-energy diet at 2.4% of body weight daily to achieve similar gains, and Zelnate administered on arrival had no effect on performance or health. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information contact, Dale Blasi (785-532-5427; [dblasi@ksu.edu](mailto:dblasi@ksu.edu)).

↪ **Effect of Calsporin on Nursing Piglet Growth Performance and Fecal Microflora** - A total of 26 lactating sows and litters were used in a discovery study to evaluate the effects of Calsporin, a direct-fed microbial containing *Bacillus subtilis* C-3102, on fecal microflora of nursing pigs. The treatments consisted of providing a daily oral dose of Calsporin or a placebo control to piglets during the nursing phase. Sows were randomly assigned to treatments based on farrowing date, parity, and initial BW. The treatments were applied individually to piglets once a day from d 2 after farrowing and equalization until weaning on d 19. Sow BW, sow ADFI, piglet BW, piglet weight gain, litter size, and mortality were recorded on a weekly basis until weaning. Fecal scoring was conducted to categorize the consistency of the feces using a numerical scale from one to five. Also, fecal samples were collected directly from the rectum of the piglets and pooled by litter for microbial analysis. Fecal scoring and microbial analysis were performed on d 2 after birth, and after 1 or 2 weeks of treatment.

**Bottom Line...** As expected, and not a primary objective of this study, there was no evidence for differences among treatments on sow and litter performance. There was no evidence for differences on fecal score at the beginning of the trial and after 1 or 2 weeks of Calsporin supplementation. Microbial analysis revealed an increase in levels of total *Bacillus* sp. and a decrease in total aerobes in litters treated with Calsporin. There was no evidence for differences in number of *Lactobacillus* sp., *Enterococcus* sp., *Clostridium perfringens*, *Enterobacteriaceae*, and total anaerobes between control- and Calsporin-treated litters. In conclusion, once per day supplementation of Calsporin to nursing pigs resulted in slight changes in fecal microflora, but there was no influence on nursing pig fecal consistency. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by M.B. Menegat, C.M. Vier, H.S. Cemin, D.J. Shawk, J.M. DeRouchey, J.C. Woodworth, M.D. Tokach, S.S. Dritz, and R.D. Goodband)

↪ **Evaluation of Medium Chain Fatty Acids as a Dietary Additive in Nursery Pig Diets** – A total of 360 pigs were used to evaluate the effects of dietary medium chain fatty acid (MCFA) addition on nursery pig performance. Upon arrival to the nursery, pigs were randomized to pens (five pigs per pen) and allowed a six day acclimation period, at which point pens of pigs were blocked by BW and randomized to dietary treatment (nine pens per treatment). Medium chain fatty acids included hexanoic (C6), octanoic (C8), and decanoic (C10), and were guaranteed ≥ 98% purity. Treatment diets were formulated and manufactured in two dietary phases (dietary phase 1 = 15 to 25 lb BW; dietary phase 2 = 25 to 50 lb BW) and were formulated to meet or exceed NRC2 requirements. Treatments were constructed such that a dose response was created including 0, 0.25, 0.5, 1.0, and 1.5% MCFA blend (1:1:1 ratio C6, C8, and C10), as well as treatments with either 0.5% C6, 0.5% C8, or 0.5% C10. During phase 1, pigs fed increasing MCFA blend had increased ADG and ADFI, as well as improved F/G. Pigs fed 0.5% C6 and 0.5% C8 had greater ADG than pigs fed the control diet without MCFA. Pigs fed 0.5% C8 had greater ADFI than control fed pigs, and pigs fed 0.5% C6, 0.5% C8, or 0.5% C10 had improved F/G compared to control fed pigs. Pigs fed 0.5% C8 had a marginally significant increase in ADFI compared to pigs fed 0.5% blended MCFA. Pigs fed 0.5% C10 tended to have poorer F/G compared to pigs fed the 0.5% MCFA blend diet. During phase 2, ADG increased and ADFI marginally increased with increasing MCFA blend. Pigs fed 0.5% C10 had marginal improvement F/G compared to control fed pigs. Overall, ADG and ADFI were increased and F/G improved with increasing MCFA blend. Pigs fed 0.5% C6 or 0.5% C8 had greater ADG compared to pigs fed the control diet, and F/G was improved when pigs were fed 0.5% C6, 0.5% C8, or 0.5% C10 compared to control.

**Bottom Line...** In summary, adding a blend of MCFA in nursery pig diets led to linear improvement in ADG, ADFI, and F/G. Thus, the use of MCFA products in nursery pig diets offers a significant potential to improve growth performance and economic return to swine producers. Additional research is warranted to determine if commercially available products have a favorable MCFA profile, and if such products yield similar advantages in growth performance and economic return. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by J.T. Gebhardt, K.A. Thomson, J.C. Woodworth, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, and S.S. Dritz)

↪ **Effects of Dietary Ca and P Concentrations on Growth Performance of 13- to 25-lb Pigs** - A total of 360 nursery pigs were used in a 45-d growth study to determine the effects of feeding 2 standardized total tract digestible (STTD) P and 3 Ca concentrations on growth performance. In a completely randomized design, pens of pigs (10 pigs per pen, 6 pens per treatment) were allotted randomly to one of six dietary treatments. Dietary treatments were arranged in a 2 × 3 factorial, with two levels of STTD P (at or above NRC3 requirement estimates) and three levels of Ca (0.65, 0.90, and 1.20%). Diets formulated to meet NRC3 P requirement estimates contained 0.45 or 0.40% STTD P in phases 1 and 2, respectively, and diets formulated to exceed NRC P requirements contained 0.56 or 0.52% STTD P in phases 1 and 2, respectively. Diets were provided in three phases, with pigs fed experimental diets during phase 1 (d 0 to 10) and phase two (d 10 to 24), followed by a common phase 3 diet from d 24 to 45. During the treatment period (d 0 to 24), no Ca × P interactions were observed for ADG and ADFI. Increasing Ca concentration decreased ADG, but did not affect ADFI. Feeding high concentrations of STTD P tended to increase ADG, but did not affect ADFI, compared with pigs fed STTD P levels recommended by NRC. An interactive effect between Ca and STTD P was observed for F/G. When diets contained NRC levels of STTD P, pigs fed 1.20% Ca had poorer F/G than those fed 0.65 or 0.90% Ca; however, when high levels of STTD P were fed, the dietary Ca concentrations did not affect F/G. Day 24 BW decreased with increasing Ca concentrations, regardless of the STTD P levels in diets. From d 24 to 45, when all pigs received a common phase 3 diet, no interactive or main effects of Ca and STTD P concentrations were observed for ADG, ADFI, or final BW. However, pigs previously fed increasing concentrations of Ca had improved F/G regardless of dietary STTD P content. As a result of this compensatory gain, no treatment effects were observed for the overall growth performance.

**Bottom Line...** In conclusion, excess dietary Ca impairs ADG and F/G of nursery pigs, especially in low P content diets. The STTD P levels estimated by NRC3 meet the requirement of 13- to 25-lb pigs when diets contain low Ca concentrations, but are deficient when diets contain more than 0.90% Ca. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by F. Wu, M. D. Tokach, J. M. DeRouchey, S. S. Dritz, J. C. Woodworth, and R. D. Goodband.)

# AS&I Faculty Spotlight



**Jaymelynn Farney ([jkj@ksu.edu](mailto:jkj@ksu.edu); 620-820-6125)**

**Assistant Professor/Extension Beef Systems Specialist**

Jaymelynn Farney grew up in Fort Sumner, New Mexico, where her family had a cow-calf operation. Jaymelynn was very active in 4-H and FFA and because of this after graduating high school she went to El Dorado, KS, to be a member of the livestock judging team at Butler Community College. She completed her A.S. in agriculture degree and then continued her education at Kansas State University in Animal Science. Jaymelynn then went to Oklahoma State University to complete her M.S. in Ruminant Nutrition with an emphasis on receiving calf management. She then returned to Kansas State University to complete her PhD in Ruminant Nutrition, using the dairy cow as the model for how inflammation impacts production.

Jaymelynn is focusing her applied research programs on dealing with issues pertaining to Southeast Kansas cattle producers. Subsequently, she plans on researching fescue management, heifer and bull development programs, and stocker/backgrounding management systems. Jaymelynn is using her extension appointment to provide producers with knowledge of new technologies, feeds, and management strategies to improve efficiency of production in both cow-calf and stocker/backgrounder operations.

Jaymelynn lives in Southeast Kansas with her husband, Garet, and works at the Southeast Agricultural Research Center in Parsons.



**Sandy Johnson ([sandyj@k-state.edu](mailto:sandyj@k-state.edu); 785-462-6281)**

**Professor/Extension Livestock Production Specialist**

Sandy Johnson was raised on a diversified livestock farm north of Blair, Nebraska. An active 4-H'er, 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 member of the North Central Region Bovine 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.



**Justin Waggoner ([jwaggon@k-state.edu](mailto:jwaggon@k-state.edu); 620-275-9164)**

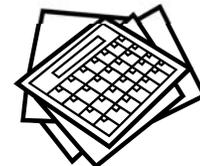
**Associate Professor/Extension Beef Systems Specialist**

Justin Waggoner was hired as the Beef Systems Specialist at Kansas State University's Southwest Area Extension Office in Garden City. Waggoner was raised on his family's farm in central Kansas and obtained his bachelor's (2000) and master's (2001) degrees in Animal Science from Kansas State University. He completed his doctorate in Ruminant Nutrition at New Mexico State University in 2007 where his work evaluated the impacts of morbidity on performance and profitability in feedlot cattle and nutrient utilization in stressed cattle.

Waggoner assists beef cattle producers in all sectors of the industry by providing them with information regarding nutritional and management strategies that improve profitability. Waggoner also continues pursuing his research interests regarding the influence of nutrition and management practices on cattle health and performance.

# What Producers Should Be Thinking About.....

## WHAT PRODUCERS SHOULD BE THINKING ABOUT IN MAY.....



### BEEF -- *Tips by Dale Blasi, Extension Beef Specialist*

Breeding season is beginning or continuing for many operations; therefore, both females and males must be reproductively fit.

- 1) Several estrus synchronization procedures have been developed. To determine the correct synchronization program to use, consider the following: age group of females (yearling replacement heifers vs. cows), commitment of time and efforts for heat detection, potential number of females that are anestrus (days postpartum, body condition, calving difficulty), labor availability, and the return on investment for total commitment to the breeding program.
- 2) Handle semen properly and use correct AI techniques to maximize fertility.
- 3) Natural service bull should have body condition, eyes, feet, legs and reproductive parts closely monitored during the breeding season. Resolve any problems immediately.
- 4) All bulls should have passed a breeding soundness examination prior to turnout.
  - Begin your calf preconditioning program. Vaccination, castration and parasite control at a young age will decrease stress at weaning time. This is a time to add value to the calf crop.
  - Implanting calves older than 60 days of age will increase weaning weight.
  - Properly identify all cows and calves. Establish premises numbers for compliance with state and national programs.
  - Use best management practices (BMPs) to establish sustainable grazing systems.
  - Use good management practices when planting annual forage sources and harvesting perennial forages.
  - Maintain records that will verify calving season, health programs, and management practices.

*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](mailto:lschrein@ksu.edu), or phone 785-532-1267.*