



News from KSU Animal Sciences

May, 2016

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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

UPCOMING EVENTS...

➤ **Kansas State University will be hosting the 2nd annual Barbecue 101 workshops in 2016.** Barbecue 101 is a one day workshop focusing on teaching the basics of grilling and smoking to consumers of all ages and experience levels. The topic areas will provide a unique perspective on the science of barbecuing as well as give insight to selecting meat, wood, rubs, spices and sauces to use at your next barbecue. Dates and locations for the workshops include: May 21 - Northeast Kansas Heritage Complex, Holton, KS; June 4 – First National Bank, Washington, KS; and June 25 – Sedgwick County Extension Office, Wichita, KS.

Registration is \$50 for an individual or \$80 for a couple. Registration closes one week prior to each scheduled event. Registration fee includes lunch, apron and Barbecue 101 Course Book containing cooking guides, recipes and barbecue tips and tricks. Space is limited at each location. For a registration form and more information, visit www.asi.k-state.edu/barbecue101workshop.html. For more information, contact Travis O'Quinn (travisquinn@ksu.edu; 785-532-3469).

➤ **Top Hand Awards to be given at K-State Cattle Feeders College on May 24.** The 2016 K-State Cattle Feeders College will be held on May 24 at the Finney County Exhibition Building, 409 Lake Avenue, Garden City, KS. Top Hands will be recognized in the cattle division. A representative of the nominating feedyard and the award recipient must be present to accept awards. Nominations are due by May 20, 2016 to Justin Waggoner at jwaggon@ksu.edu.

Registration for the K-State Cattle Feeders College will begin at 5:00 p.m. This college will offer in depth and hands-on educational sessions for individuals directly involved in the milling and maintenance departments. Featured speakers include Dr. Keith Bolsen, Mr. Mark Cooksey and Mr. Kurt Wenzel. Dinner will be provided. There is no cost to attend, but registration is required by May 20, 2016. To register, please contact Justin Waggoner (620-275-9164; jwaggon@ksu.edu) or Katelyn Barthol (620-272-3670; kbarth25@ksu.edu). For more information, go to www.southwest.ksu.edu.

➤ **Silage Quality Control, Questions, Answers and Discussion** – You are invited to an evening with renowned silage expert and K-State Emeritus Professor, Dr. Keith Bolsen. Silage Quality Control, Questions, Answers and Discussion will be presented on Wednesday, May 25, 2016 beginning at 6:00 p.m. at the K-State Southwest Research-Extension Center, 4500 E. Mary Street, Garden City, KS. Dinner will be served. To RSVP or for more information, contact Justin Waggoner (620-275-9164; jwaggon@ksu.edu).



- ↪ **K-State Livestock Judging Camps** - 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, coach of over 30 national championship teams and KSU livestock judging 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 registration deadline is May 23. 2016 camps will be held on June 6-8; June 10-12; and June 17-19. For more information and registration, visit <http://www.asi.k-state.edu/students-and-programs/youth-programs/judging-camps.html> For more information, contact Chris Mullinix (785-532-1917; cmullinix@k-state.edu).
- ↪ The **KSU Youth Horse Judging Camp – Beginners Section** will be held June 7, 2016 and the **KSU Youth Horse Judging Camp – Advanced Section** will be held June 8-9, 2016. Both camps will be held in Weber Arena on the KSU Campus. Registration for both camps must be paid by May 13, 2016. Camp will be limited to the first 30 participants. For more information, camp agenda and registration forms, visit the website www.asi.ksu.edu/p.aspx?tabid=1141. You can also contact James Lattimer, (785-532-2840; jlattimer@ksu.edu) or Katie Jordan at (katiejordan@ksu.edu).
- ↪ **Developing and Implementing a HACCP Plan for Meat and Poultry and FSPCA Preventive Controls for Human Foods Workshop will be held June 7-9, 2016**, in Weber Hall, Kansas State University, Manhattan, KS. This 3 day workshop uses curriculum recognized by the FDA to meet Preventive Control Qualified Individual requirements and the International HACCP Alliance for meat and poultry processors. This workshop is led by a FSPCA Lead Instructor and International HACCP Alliance Lead Instructor. The workshop fee is \$400 per person, and participants will be presented with a certificate with an International HACCP Alliance seal upon completion of the course. Registrants will have to pay a separate \$50 fee for the FSPCA certificate following the workshop as that is not included in the \$400 registration fee. Registration is limited to 25 participants. For more information, contact Dr. Liz Boyle (lboyle@ksu.edu; 785-532-1247). Registration is online at <http://haccp.unl.edu>.
- ↪ **K-State Animal Sciences Leadership Academy** - Kansas State University will host two sessions of the K-State Animal Sciences Leadership Academy in 2016 for young livestock industry leaders! They will be held June 8-11 and June 29-July 2. This four-day event will focus on increasing young leaders' knowledge of Kansas' diverse livestock industry as well as building participant's leadership skills. Students will stay in university housing with event staff for the duration of the event. For more information, please contact academy director, Sharon Breiner at sharonbreiner@gmail.com.
- ↪ **Beef Improvement Federation Convention to be held in Manhattan, KS, June 14-17, 2016**. Registration is now open for the 2016 Beef Improvement Federation (BIF) Annual Meeting and Research Symposium. Themed "Progress on the Prairie," this year's event will be June 14-17 in Manhattan, Kansas, and headquartered at the Hilton Garden Inn and Conference Center. Early registration deadline is May 15. Attendees can save \$100 by pre-registering. Online and pdf registration options are available at <http://www.asi.k-state.edu/events/2016bif>. This year's BIF symposium features two and a half days of educational programming and a full day of tours. The first morning's general session — "Opportunities for the Beef Value Chain: Can we become more coordinated and more profitable?" — will feature Ted Schroeder and Glynn Tonsor, Kansas State University (K-State); John Stika, Certified Angus Beef (CAB) LLC; Brad Morgan, Performance Food Group; and Keith Belk, Colorado State University (CSU). The second day's general session, "Protecting producer profit for the future," will include David Lalman, Oklahoma State University; Chip Ramsay, Rex Ranch; Mark Enns, CSU; and Clay Mathis, King Ranch Institute for Ranch Management. The afternoon breakout sessions will focus on a range of beef-production and genetic-improvement topics. The conference also features a Young Producer Symposium on Tuesday afternoon, designed to network and equip young cattle producers with essential knowledge as they grow their role in the business. For more conference details, including registration information, complete schedule and lodging information visit <http://www.asi.k-state.edu/events/2016bif> or contact K-State hosts Bob Weaber, bweaber@ksu.edu, 785-532-1460; or Lois Schreiner, lschrein@ksu.edu, 785-532-1267. Each year the BIF symposium draws a large group of leading seedstock and commercial beef producers, academics and allied industry partners. The attendance list is a "who's who" of the beef value chain, offering great networking opportunities and conversations about the issues of the day. Program topics focus on how the beef industry can enhance value through genetic improvement across a range of attributes that affect the value chain.

↪ **State Livestock Nominations – Due June 15th** - All small animal state livestock nominations (non-market beef) are due June 15th. This includes commercial heifers, market swine, commercial gilts, market lambs, commercial ewes, and ALL meat goats. There is not a separate division for registered breeding does at either state show, so all meat goats must be nominated in order to be eligible to show. The 2016 nomination information has been distributed to county offices and may be found on the Youth Livestock Program website. The 2016 Declaration and Specie Nomination Forms MUST be used for nominations to be accepted. All families are encouraged to use the specie checklist as a guide to ensure their nominations are complete upon submission. This resource may be found on the Youth Livestock Program website, or through the local county office. Please double check that there are not any blank fields or questions on the Declaration and Nomination Forms before placing them in the mail. As a reminder, ear notches are required for swine nominations and scrapie tag numbers are required for sheep and goats. Nominations received without this information will be considered incomplete and returned to the family for completion. Confirmation letters will be sent to families once their nominations have been processed, and reports will regularly be posted on the Youth Livestock Program website. Families are encouraged to use one of these options to verify their nominations. A complete nomination does NOT constitute show entry. The Kansas State Fair and KJLS will release entry information to agents and through their respective websites as entry season draws near. State Fair Grand Drive entries will be due July 15th, and KJLS entries will be due August 15th. Animals who are nominated, but do not follow the appropriate entry processes set forth by each show, will not be permitted to show. For nomination questions, please contact Lexie Hayes at adhayes@ksu.edu.

↪ **Youth PQA+ Certification** - All exhibitors who state nominate swine projects MUST have a Youth PQA+ certification number at the time of nomination, or by June 15th. There is a field for this information on the swine nomination form, under the contact information. Any nominations received without the appropriate Youth PQA+ number will be considered incomplete. Kansas youth may obtain their certification by participating in a class provided by an extension agent who is currently certified to teach Youth PQA+, or by completing the Pork Board's online Youth PQA+ training. If you are an agent interested in becoming certified to teach Youth PQA+, please contact Lexie Hayes at adhayes@ksu.edu. The youth and adult PQA certifications are separate processes. So, if you are certified to teach the adult portion, you may not certify youth without going through the appropriate training. If you have questions about youth who are too young to receive a certification number (less than 8 years old), please contact Lexie.

↪ The **2016 Dr. Bob Hines Kansas Swine Classic** is scheduled for July 8-9, 2016, at CiCo Park in Manhattan. This two-day event includes educational workshops, showmanship contest, and a prospect and market hog show. It is open to all Kansas youths ages 7 through 18 as of January 1, 2016. New for this year – all market pigs will be shown together and divided into classes based on weight. There will no longer be separate barrow and gilt classes.

This year's Classic will feature a swine photography contest along with a swine skillathon. For the Swine Photography Contest, youth may submit up to 2 swine photos. Photos should be 8x10 size and should not be framed or matted. Photos will be placed in plastic sleeves and displayed throughout the weekend. Outlined below is a schedule of this year's program.

Friday, July 8

| | |
|------------------|---------------------------------------|
| 8:00 a.m. | Barn open for arrival |
| 12:00 p.m. | All hogs in place |
| 1:00 p.m. | Swine photo check-in by the show ring |
| 1:00 – 3:00 p.m. | Swine Skillathon in the show ring |
| 4:00 p.m. | Ice cream party by the show ring |
| 5:30 p.m. | Showmanship Contests |

Saturday, July 9

8:00 a.m. Prospect Hog Show followed by Market Hog Show

Entries must be postmarked by June 25, 2016. More information and registration is available at www.KSUswine.org. For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu) or Lexie Hayes (785-532-1264; adhayes@ksu.edu).

↪ **Kansas 4-H Livestock Sweepstakes – August 20-21** - The 2016 Kansas 4-H Livestock Sweepstakes will be held August 20-21 on the K-State campus in Manhattan, KS. Mark your calendars! This is the corresponding date to previous years. The 4-H Livestock Sweepstakes event includes the state 4-H livestock judging contest, meat judging contest, livestock skillathon, and livestock quiz bowl. The members who will represent Kansas at the national 4-H contest for each of these events will be selected during the livestock sweepstakes weekend. The tentative deadline to enter will be August 1. All entries must be made by the local Extension Office. Additional details will be released soon.

↪ The **2016 KSU Beef Stocker Field Day** will be held on Thursday, September 22, 2016 at the KSU Stocker Unit, Manhattan, KS. Watch for more details coming soon to www.KSUbeef.org. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427).

↪ Join us for the 2nd annual **AS&I Family and Friends Reunion to be held on Friday, October 7, 2016**, from 6:00 – 9:30 p.m. at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, Kansas. Last year's event was truly amazing with over 1,100 family and friends reuniting at the inaugural event. The Don L. Good Impact Award will be presented to Certified Angus Beef. Other activities will include great food, live music, Junior Wildcat Barn Yard and more surprises!! Watch for more information and a registration form, coming soon to www.asi.ksu.edu/familyandfriendsreunion.html.

↪ **Welcome to the 2016 Youth Livestock Program Intern** - Please help us give a warm welcome to Emily Voris, who will be joining us as the Youth Livestock Program Intern this summer. Emily will be a junior majoring in Animal Sciences and Industry this fall. She is a California native who was a member of the NEO livestock judging team. Emily has some international experience, as she has been involved in youth and livestock educational programs in Africa. As a 4-H and FFA alum, Emily enjoys sharing her passion for agriculture with the next generation. She will officially join us as the intern on May 23rd.



CALENDAR OF UPCOMING EVENTS

| Date | Event | Location |
|------------------------|---|-----------------|
| May 21, 2016 | BBQ 101 Workshop | Holton, KS |
| May 24, 2016 | K-State Cattle Feeders College | Garden City, KS |
| May 25, 2016 | Silage Quality Control, Questions, Answers and Discussion | Garden City, KS |
| June 4, 2016 | BBQ 101 Workshop | Washington, KS |
| June 6-8, 2016 | K-State Livestock Judging Camp | Manhattan |
| June 7, 2016 | KSU Youth Horse Judging Camp-Beginners | Manhattan |
| June 7-9, 2016 | HACCP/FSPCA Preventive Controls Workshop | Manhattan |
| June 8-9, 2016 | KSU Youth Horse Judging Camp-Advanced | Manhattan |
| June 8-11, 2016 | Animal Sciences Leadership Academy | Manhattan |
| June 10-12, 2016 | K-State Livestock Judging Camp | Manhattan |
| June 14-17, 2016 | Beef Improvement Federation Convention | Manhattan |
| June 15, 2016 | State Livestock Nomination Due | |
| June 17-19, 2016 | K-State Livestock Judging Camp | Manhattan |
| June 25, 2016 | BBQ 101 Workshop | Wichita, KS |
| June 29 – July 2, 2016 | Animal Sciences Leadership Academy | Manhattan |
| July 8-9, 2016 | Dr. Bob Hines Kansas Swine Classic | Manhattan |
| August 20-21, 2016 | Kansas 4-H Livestock Sweepstakes | Manhattan |
| September 22, 2016 | KSU Beef Stocker Field Day | Manhattan |
| October 7, 2016 | AS&I Family and Friends Reunion | Manhattan |

WHAT'S NEW.....

Management Minute "Continual Training - Get on Board!"

↪ **Management Minute** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist

"Continual Training - Get on Board!"

Unlike things like technology implementation, the geographical location of your business, or any economies of scale your business may have, superior management of your most precious assets---your PEOPLE---are difficult if not even impossible for your competitors to duplicate. This is because relationships are not created through some cookbook formula that can be taught in a management theory class or a self-help book. Healthy relationships and a positive, rewarding, energetic work place requires long-term intentionality and sacrifice.

One way we can enhance the belief by the team is a commitment by the organization to helping everyone be better at each aspect of their job duties.

We normally think of training as either (1) for new employees so they learn the rudiments of their new job, or (2) some safety or compliance training to appease the liability police. But that completely ignores the third possibility (3) that training could make your business run better, your employees more skilled and more content in their work, and your business more efficient and more profitable.

Research indicates that a culture which is committed to continual training results in greater return on equity vs. a company which is not so committed. This may be because (a) the actual training itself results in significantly improved worker productivity over time resulting in greater returns, or (b) the company which is committed to continual personal improvement may also be committed to other factors which result in greater worker satisfaction and reduced turnover. Reduced turnover---provided the workers are valuable, dedicated, and talented---will in itself result in improved efficiency by reducing the productivity lag caused by open positions and the continual re-starting of the process of workers learning to do their respective jobs.

Find ways to keep workers engaged and growing in their role. Their output (personal productivity) will increase, as will their input (contributions to overall team productivity and morale). Every investment you make which results in enhanced job satisfaction and employee retention will yield huge benefits long-term in the form of company efficiency and productivity.

For more information, contact Chris at 785-532-1672 or cdr3@ksu.edu.

↪ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist

"Shade for Developing Bulls"

When feeding young bulls for sale, a compromise must be made between absolute maximum performance and long-term health of the bulls.

If only short-term performance were the goal, we'd feed a finishing diet and short-term ADG would be maximized; however, we would suffer a significant number of losses due to laminitis and other acidosis-related ailments. Therefore, we try to strike a balance by including in the diet an abundance of good quality forage in addition to grain and grain by-products, in order to maintain a healthy rumen and minimize if not even eliminate the risk of acidosis and laminitis. Bulls with good genetics for intake will often gain near if not equal to their maximum genetic potential on a well-balanced forage-and-concentrate diet.

However, in certain parts of the U.S., summer heat combined with humidity and lack of wind can make for uncomfortable conditions throughout the middle of the day, from late morning until early evening. This added external heat load discourages maximum consumption by the bulls and hurts performance. Anything the producer can do during the summer months to encourage feed consumption will enhance ADG without increasing the risk of acidosis and foot problems. In addition, if feeding conditions can be made more comfortable during midday, there may be a reduced risk that cattle will come to the bunk in the evening hours hungry after several hours of not eating because of heat.

Placing shade near or directly over the feed bunk area is one way that cattle---especially black-hided cattle---can be made more comfortable, resulting in increased feed intake and better ADG during the hottest summer conditions.

Feedlot Facts "Shade for Developing Bulls"

↪ **Feedlot Facts** – “Shade for Developing Bulls” (cont.)

When constructing shade structures, there should be a minimum of 20 ft² of shaded area per animal in the pen; more shaded area is better to provide more shaded loafing space for cattle when they're not eating. If the shaded area is on dirt, the shade should be oriented longitudinally north-and-south so that the shaded area moves west-to-east with the juxtaposition of the sun. This will allow the moisture in the shaded area to dry, preventing accumulation of mud in the shaded area. However, if the shaded area is strictly on the concrete feed bunk pad, this consideration is not critical.

Performance of developing bulls is a function of total daily nutrient intake. If we've done a good job of balancing the needs for energy, protein, vitamins, minerals, and good quality and quantity of forage, the only x-factor left in the equation is consumption of the diet. By enhancing the comfort of cattle during times of hot, humid weather, we may be able to enhance short-term rate of gain without risking the long-term health of the bulls.

For more information contact Chris at cdr3@ksu.edu.

↪ **K-State Crowned National Champion Meat Animal Evaluation Team** - The Kansas State University Meat Animal Evaluation Team won National Champion honors in the 2016 Meat Animal Evaluation Contest in Lincoln, Neb. The team was recognized Friday, April 15 in Lincoln, Neb., following the three-day competition.

In dominating fashion, eight of K-State's 17 team members placed in the top 10 overall. Collectively, the team brought home K-State's first national title in the contest's 53-year history. For complete results and a list of team members, see below. The team is coached by Travis O'Quinn and Chris Mullinix and assisted by graduate student Austin Langemeier.

The event, previously known as the AKSARBEN contest, now rotates between host institutions across the country. The competition includes live market animal carcass predictions and pricing, breeding animal evaluation and meats judging competition and truly serves as a capstone judging experience for students with its incorporation of so many industry applicable concepts.

Team Results:

Champion Team –
Market Animal
Division
Meats Division
Breeding Division
Beef Division
Sheep Division
Reserve Champion
Team – Swine
Division

Individual Results:

Barrett Simon, Leon,
Kan. – High
Individual Overall, 1st
Market Animal, 1st
Breeding, 6th Meats,
1st Beef, 1st Sheep
Blake Foraker, Burton,
Kan. – 2nd Overall,
2nd Market Animal,
1st Meats, 4th Beef,
3rd Swine, 2nd Sheep
Rob Johnson, Niantic,
Ill. – 4th Overall, 7th Breeding, 2nd Meats, 2nd Beef, 5th Swine, 6th Sheep
Joseph Limbach, Eugene, Mo. – 5th Overall, 8th Market Animal, 3rd Breeding, 7th Beef, 3rd Sheep
Lauren Prill, Wichita, Kan. – 6th Overall, 6th Breeding, 4th Meats, 8th Beef, 8th Sheep
Riley Lafrentz, Bienfait, Saskatchewan – 8th Overall, 7th Market Animal, 5th Beef
Allison Schulz, Iron Ridge, Wis. – 9th Overall, 4th Sheep
Tanner Aherin, Phillipsburg, Kan. – 10th Overall
Austin Deppe, Maquoketa, Iowa – 3rd Market Animal
Joelle Sylvester, Wamego, Kan. – 5th Market Animal
Samantha Trehal, Kiowa, Colo. – 9th Breeding
Grace Hammer, Wallace, Kan. – 10th Swine



Members of the National Champion Meat Animal Evaluation Team from KSU pictured (seated, l to r) are: Barrett Simon, Leon, KS; Payton Stoppel, Russell, KS; Samantha Trehal, Kiowa, CO; Allison Schulz, Iron Ridge, WI; Grace Hammer, Wallace, KS; Lauren Prill, Wichita, KS; Joelle Sylvester, Wamego, KS; and Michael Cropp, Damascus, MD. Back row (standing, l to r) are: Chris Mullinix, KSU; Austin Langemeier, KSU; Blake Foraker, Burton, KS; Zach Godde, Galesburg, MI; Rob Johnson, Niantic, IL; Ted Creech, Lloydminster, Alberta; Joseph Limbach, Eugene, MO; Austin Deppe, Maquoketa, IA; Tanner Aherin, Phillipsburg, KS; Cody Knight, Shawnee, KS; Riley Lafrentz, Bienfait, Saskatchewan; Ken Odde, KSU; and Travis O'Quinn, KSU

- ↪ **Temporary Agricultural Technician (Milker – 2 positions available)** – The Department of Animal Sciences and Industry has two temporary positions available at the Dairy Unit in Manhattan, Kansas. Hours are 20-30 hours each week, varied shifts. Some weekend shifts may be required. Must be able to lift 75-100 pound bales of hay, 50 pound sacks of grain and 20 pound nozzles. Pushes and/or persuades 1600 pound cows to comply. Must know milking procedures and techniques, preventive maintenance of milking equipment, ability to detect estrus and common diseases of dairy cattle, treat mastitis and other mammary diseases. Must know sanitary milking practices and unpredictability of animals. Physical exertion – considerable. Positions open until filled. For more information, contact Dr. Jeff Stevenson at 785-532-1243 or jss@ksu.edu. To apply, go to <https://admin.ks.gov/services/state-employment-center/sec-home/state-employment/online-application> (Requisition #333333)
- ↪ **Effects of Intensive Late-Season Sheep Grazing Following Early-Season Steer Grazing on Population Dynamics of *Sericea Lespedeza* in the Kansas Flint Hills** – To evaluate the effects of late-season sheep grazing following locally-conventional steer grazing on vigor and reproductive capabilities of sericea lespedeza (SL). We used eight 80-acre pastures that were assigned randomly to one of two treatments: early-season grazing with beef steers from April 15 to July 15 followed by rest for the remainder of the year, or steer grazing from April 15 to July 15 followed by intensive grazing by mature ewes. Ewes were assigned randomly to graze one of four pastures; remaining pastures were not grazed from August 1 to October 1.
- Bottom Line...** Late-season, intensive sheep grazing on native tallgrass prairie decreased vigor and reproductive capabilities of SL. Sheep appeared to preferentially select SL, whereas steers avoided it. Late-season sheep grazing decreased forage biomass by 953 lb dry matter per acre compared with late-season rest; however, residual biomass on pastures grazed during the late growing season was sufficient to prevent soil-moisture loss and erosion during the dormant season. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, KC Olson (785-532-1254; kcolsonl@ksu.edu) or Bob Weaber (785-532-1460; bweaber@ksu.edu).
- ↪ **Effects of Copper Sources and Levels on Nursery Pig Growth Performance** A total of 225 pigs (PIC 327 × 1050, initially 25.5 lb) were used in a 21-d trial to evaluate the effects of copper source and level on nursery pig growth performance. Pens of pigs were balanced by initial BW and randomly allotted to 1 of 5 dietary treatments with 9 replications per treatment. The 5 corn and soybean meal-based diets were arranged in a 2 × 2 + 1 factorial with main effects of copper source — copper sulfate (CuSO₄) or tribasic copper chloride (TBCC) — and copper level (100 or 200 ppm) with a negative control. From weaning to 25 lb, pigs were fed a common phase 2 diet with added Zn and Cu levels of 1,965 and 17 ppm, respectively.
- Bottom Line...** Overall (d 0 to 21), no copper source × level interactions were observed for any growth criteria. There were also no effects of copper, copper level, or copper source. These data suggest that adding high levels of copper from either CuSO₄ or TBCC to late nursery diets did not result in improved performance. Additional research should be conducted to determine if a late nursery Cu response is dependent on Zn concentrations in earlier diets. More information is available on this experiment in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by J. A. De Jong, L. Bailey, J. M. DeRouchey, M. D. Tokach, R. D. Goodband, and S. S. Dritz)
- ↪ **Effect of Soy Protein Sources on Nursery Pig Performance** A total of 480 nursery pigs (PIC C-29 × 359, initially 12.9 lb) were used in a 38-d growth trial to determine the effects of soy protein sources on pig performance. There were 10 pigs per pen and 8 replications per treatment. The 6 dietary treatments were a negative control, corn-soybean meal-based diet (30.1% soybean meal), and diets containing five different specialty protein sources including: Nutrivance, HP 300, soy protein concentrate (SPC), or NF8 or fish meal replacing 10% of the soybean meal in the negative control diet. Experimental diets were fed in two phases (5 lb per pig on d 0 to approximately d 14 and d 14 to 24) with a common diet fed from d 24 to 38. Diets contained 25 and 10% dried whey in phases 1 and 2, respectively. From d 0 to 14, pigs fed diets containing Nutrivance or NF8 had greater ADG than pigs fed the negative control, high SBM diet. Also, pigs fed the NF8 diet had greater ADG than pigs fed diets containing SPC or fish meal. The growth response was a result of greater ADFI for pigs fed the Nutrivance diet and improved feed efficiency for the NF8 diet. From d 14 to 24, pigs fed the diets containing fish meal or HP 300 had greater ADG than pigs fed NF8, with pigs fed NF8 having poorer F/G compared with pigs fed all other treatments. From d 0 to 24, pigs fed the diet containing HP 300 had greater ADG than pigs fed the negative control, high SBM diet, with other treatments being intermediate. Pigs fed the diet containing HP 300 had improved F/G compared with pigs fed all other protein sources except fish meal. Pigs fed the fish meal diet also had improved F/G compared with pigs fed the diet containing NF8.
- Bottom Line...** The improvement in performance from d 0 to 14 for pigs fed the diet containing Nutrivance resulted in a 0.5 lb heavier pig on d 14 as compared to the negative control diet. The 0.5 lb advantage in BW over the negative control was maintained to the end of the trial (d 38) and was similar to the final BW of pigs fed the HP 300 diet; however, the weight advantage was no longer statistically significant. More information is available on this experiment in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by M. D. Tokach, S. S. Dritz, J. M. DeRouchey, J. C. Woodworth, and R. D. Goodband)

AS&I Faculty Spotlight



Jaymelynn Farney (jkj@ksu.edu; 620-421-4826 ext. 17)
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 plans to focus 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. Additionally, Jaymelynn plans on 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; 785-462-6281)
Associate Professor/Extension Livestock Production Specialist

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

Sandy is a 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.



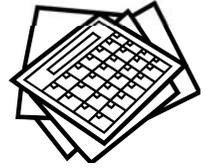
Justin Waggoner (jwaggon@k-state.edu; 620-275-9164)
Associate Professor/Extension Beef Systems Specialist

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. "As a Kansas native, I am excited about the opportunity to serve beef cattle producers and county agents in Southwest Kansas."

Waggoner hopes to assist beef cattle producers in all sectors of the industry by providing them with information regarding nutritional and management strategies that improve profitability. Waggoner also intends to continue 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 JULY.....



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

Cowherd Nutrition

- Provide plenty of clean, fresh water.
- Provide free-choice mineral to correct any mineral deficiencies or imbalances.
 - ✓ Monitor intake to insure levels are consistent with label specifications.
- Monitor grazing conditions and rotate pastures if possible and/or practical.
- If ammoniated wheat straw is planned for winter needs, follow these rules:
 - ✓ Best time is immediately after harvest, prior to weather deterioration.
 - ✓ Ammoniation process is temperature sensitive, fastest during hot days.
 - ✓ Apply 3% Anhydrous Ammonia (60 pounds/ton of straw).
 - ✓ Do **not** ammoniate wheat hay or any other intermediate or high quality forage; production of imidazole can cause cattle hyperactivity and death.
 - ✓ Will double crude protein content, enhances intake, and be cost effective.
- Consider early weaning if drought conditions develop and persist.
- Consider creep feeding only if cost effective.

Herd Health

- Monitor and treat Pink Eye cases.
- Provide fly control. Consider all options, price and efficiency will dictate the best option(s) to use.
- Monitor and treat foot rot cases.
- Avoid handling and transporting cattle during the hottest part of the day-reduce heat stress.
- Vaccinate replacement heifers for Brucellosis if within proper age range (4 - 10 months).
- Continue anaplasmosis control program (consult local veterinarian).

Forage/Pasture Management

- Check and maintain summer water supplies.
- Place mineral feeders strategically to enhance grazing distribution.
- Check water gaps after possible washouts.
- Harvest hays in a timely manner, think quality and quantity.
- Harvest sudan and sudan hybrids for hay in the boot stage (normally three to four feet in height). It is a good idea to run a routine nitrate test on a field before harvesting hay.
- Plan hay storage placement wisely. Putting hay conveniently near feeding sites reduces labor, time demands, and equipment repair cost.

General Management

- Good fences and good brands make good neighbors.
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand, down time can make a big 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.