



News from KSU Animal Sciences

UPCOMING EVENTS...

✦ **New YQCA Certification Materials Available** - The national, multi-species youth livestock quality assurance program, Youth for the Quality Care of Animals (YQCA), launched its second year of the program on October 1. Therefore, a new set of educational modules are now available for youth to complete. Extension Agents and Ag Teachers who requested to become certified to teach face-to-face classes should have received an email directly from the YQCA staff the first week of October. Once the certification process is complete, approved instructors will receive the 2018-2019 curriculum and are welcome to begin teaching classes. Youth may complete the online training for \$12/child, or participate in an instructor-led session for \$3/child. A young person's YQCA certification is valid for one year. The Kansas State Fair Grand Drive and KJLS will require all exhibitors to complete YQCA to be eligible to exhibit in the 2019 shows. For more information, contact Lexie Hayes (adhayes@ksu.edu; 785-532-1264).

✦ KSU Animal Sciences and Industry Department will be hosting the **2018 Kansas Certified Wool Classing School and Kansas Sheep Shearing School** on October 19-21 at the KSU Sheep and Meat Goat Center, Manhattan, KS. Topics covered in the Wool Classing School include wool fiber growth, development and production; objective measurement of wool; genetic selection programs and more. Lisa Surber, Level IV Wool Classing instructor, will teach the class. The class is limited to 16 students. Topics covered in the Kansas Sheep Shearing School include professional shearing pattern; tagging and eyeing equipment maintenance and repair; wool handling and preparation and more. The school is limited to 20 students. Registration fee includes tuition and materials. For more information, contact Alison Crane (arcrane@ksu.edu; 785-532-1672).

✦ The Kansas Sheep Association in cooperation with Kansas State University Research and Extension is sponsoring the first-ever **Kansas Sheep Symposium** on October 26-27 at the Atrium Hotel and Conference Center in Hutchinson, KS. This will be an event for all sheep producers and will cover a variety of topics, including management tips, online marketing, and industry update. The event will begin with a tour of local sheep operations on Friday. Also on Friday is a producer forum featuring a variety of operating methods, an industry related trade show, and time for one-on-one interaction.

Saturday morning will begin with updates from our industry partners, as well as seminars from Brent Stroh, a North Dakota producer of a mixed specie diversified livestock and crop farm; and Marvin Ensor, retired extension specialist from Texas who will be discussing small ruminant production, finewool, hair, and goats in West Texas. Ohio sheep producer Susan Shultz, secretary of the American Sheep Industry (ASI), will be the main speaker at the noon luncheon and will discuss the role of ASI and more in the US sheep industry.

The afternoon will be broken into several breakout sessions targeted at specific producer groups. Some of the topics included are: using flock records to your advantage, developing an online sale, and tapping into the handspinner market. Other topics will include management of the sheep flock including nutrition, parasites, and pasture management, and an overview of the club lamb industry, including thoughts of where it is heading and how to manage the donor and recip flocks.

For details on this event, follow Kansas Sheep Association on Facebook and like the event or contact kssheep@ruraltel.net . For more information, contact Alison Crane (arcrane@ksu.edu; 785-532-1672).

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

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- ↪ **Make plans now to attend the 2018 KSU Swine Day.** The 2018 KSU Swine Day will be hosted Thursday, November 15, at the KSU Alumni Center. The schedule for the day includes:
- 8:00 a.m. – 4:00 p.m. Trade Show
 - 9:15 a.m. Welcome - *Dr. Evan Titgemeyer, Interim Department Head, Animal Sciences and Industry*
 - 9:30 a.m. Latest update on K-State Applied Swine Nutrition Research: 15-minute rotation on topics on Swine Nutrition, Management and Feed Processing - *K-State Swine Faculty*
 - 11:30 a.m. Lunch with Trade Show
 - 1:30 p.m. Latest update on K-State Applied Swine Nutrition Research (continued)
 - 1:45 p.m. Implementing the Secure Pork Supply Plan for Kansas Producers
David Hogg and Dr. Sara McReynolds, Kansas Department of Agriculture
 - 2:30 p.m. Emerging Diseases and How Diagnostic Labs are Adapting to help Producers
Dr. Rodger Main, Veterinary Diagnostic Laboratory Director, Iowa State University
 - 3:30 p.m. Question and Answer Session
 - 4:00 p.m. Reception with Call Hall Ice Cream

Pre-registration fee is \$25 per participant by November 7; with registration at the door \$50 per participant. There is no charge for any students if they are pre-registered. The complete schedule and online registration information can be found at www.KSUswine.org. For more information, contact Lois Schreiner at lschrein@ksu.edu or 785-532-1267.

- ↪ The 2019 **K-State Swine Profitability Conference** has been scheduled for Tuesday, February 5, 2019, at the Stanley Stout Center, Manhattan, KS. Watch for more details coming soon at www.KSUswine.org.

- ↪ **Junior Swine Producer Day Scheduled** - The 2019 Kansas Junior Swine Producer Day will be Saturday, March 9 in Weber Arena. Mark your calendar! This is a family-friendly education event dedicated to youth, parents, project leaders, and agents with interest in the swine project. A detailed agenda and registration information will be released later this fall. For more information, contact Lexie Hayes (adhayes@ksu.edu; 785-532-1264).

- ↪ **2019 Kansas 4-H Livestock Sweepstakes Date Set** - Save the date! The 2019 Kansas 4-H Livestock Sweepstakes will be August 24-25 in Manhattan. This event includes the state 4-H Livestock Judging Contest, Meat Judging Contest, Livestock Skillathon and Livestock Quiz Bowl. Members may compete in as many contests as they would like. Specific details and contest rules will be released by June 1. Please mark your calendars to attend. This event has also been added to the K-State Pulse Calendar. For more information, contact Lexie Hayes (adhayes@ksu.edu; 785-532-1264).

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
October 1, 2018	New YQCA Certification Materials Available	
October 19-21, 2018	Kansas Certified Wool Classing School	Manhattan
October 19-21, 2018	Kansas Sheep Shearing School	Manhattan
October 26-27, 2018	Kansas Sheep Symposium	Hutchinson
November 15, 2018	KSU Swine Day	Manhattan
February 5, 2019	KSU Swine Profitability Conference	Manhattan
March 9, 2019	Junior Swine Producer Day	Manhattan
August 24-25, 2019	Kansas 4-H Livestock Sweepstakes	Manhattan

WHAT'S NEW

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

“Preferred Employer”

If only 70% of our cows settle in a given breeding season, and we need to cull the other 30% for infertility, how much selection pressure can we implement based on other production traits such as weaning weight, marbling, calf feedlot performance, or any number of other valuable traits? Zero. But if you have a 90 or 95% weaned calf crop, you can cull cows based on production traits of interest and make substantial improvements in your genetics.

The same is true for your workplace. If you have the kind of workplace people are looking to leave when the next opportunity arises, good employees with ability, intelligence, and ambition are going to grab the next bus out of town for better pay, better working conditions, or simply a better growth and career opportunity. What you are stuck with are the people who cannot leave because no one will have them.

The goal of any progressive organization should be to be the preferred employer in the region or in the industry. That employer will attract the best and brightest people around who want opportunity and want to work in a positive environment. Word will travel through your satisfied team members who will want to bring in more like-minded individuals to be on their team.

Assess your workplace and your people. Are you consistently attracting high-quality personnel or are you chronically trying to fill empty positions vacated by young, talented people with potential? Do your people give 110% because they love what they do and whom they work with, or is there a mad rush for the door at 5? Self-assessment plus vulnerability creates opportunities for growth. But without one or the other, you will be stuck in a quagmire of your own making.

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

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

“Preconditioning for Profit”

Vaccine and antimicrobial technologies continue to improve at a breakneck pace. Yet we continue to see that calves that are unprepared for life in the feedlot and which undergo significant stress during and after weaning *en route* to the feedlot will have morbidity upwards of 30% and first treatment success is often only about 50%. Calves that get mild respiratory disease in the feedlot will have 0.2-0.4 lb. lower ADG and those calves requiring multiple treatments for respiratory disease will gain 0.6 lbs less for the entire feeding period. This translates to about 15 lb. less carcass weight and 10-15% fewer choice carcasses. It pays to keep calves healthy.

Preconditioning can mean different things to different people, from giving calves a single vaccination prior to weaning, all the way up to two full rounds of vaccination, before and after weaning, weaning the calves from their dams for 45 to 60 days, and transitioning the calves onto a total mixed ration, eating from feedbunks, and drinking from waterers. As far as animal performance is concerned, the extent of preconditioning needed to minimize problems at the feedlot and maximize feedlot performance depends on the extent of stress imposed on the calf during transition.

Studies at K-State suggest that single-source calves shipped four hours to a feedlot will benefit from pre-weaning vaccination, weaning and feeding for at least two weeks before shipment to the feedlot. However, if calves are going to be shipped more than eight hours from home, they will be commingled with other sources of calves either in transit or upon arrival at the feedlot, and are likely to experience adverse weather conditions during the transition period to the feedlot, vaccination and weaning for six to eight weeks before shipment would be preferred.

Investing time, technology, and labor into the calf crop has very real costs for the rancher. But the high purchase price of weaned calves entering the feedlot means the financial risk of respiratory disease and the uncertainty that respiratory disease causes feedlot producers has very real costs as well. Many feedlot producers are willing to pay ranchers a premium to mitigate some of the disease risk that causes the feedlot economic uncertainty — consider it “biological risk management.” When certified preconditioned calves are sold at special preconditioned calf sales, they have the potential to bring significant premiums over non-preconditioned, “commodity” calves.

Respiratory disease is the most costly disease in the cattle industry, and the greatest factor affecting calf performance in the feedlot. If you can prevent or control disease, you can, to a certain extent, control performance of calves. Feedlots are paying premiums for calves that are prepared for life at the feedlot. Why? Because they perform and are predictable — predictability is the opposite of risk. As a rancher, you can and should be paid for your investments of time, money and management.

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

- ↪ The Department of Animal Sciences and Industry at Kansas State University is seeking applicants for the position of **Animal Technician II (Dairy Unit)**. This is a full-time, Unclassified Staff position (job no. 504903). This position exists to feed the milk herd at the Dairy Teaching and Research Center. Application deadline: Screening begins immediately and will continue until a suitable candidate is identified. For more information, contact Mike Scheffel, Search Committee Chair, at 537-0941 or scheffel@k-state.edu. To apply, go to <http://careers.k-state.edu/cw/en-us/job/504903/animal-technician-ii>.
- ↪ **IRM Redbooks for Sale** – The 2019 IRM Redbooks are here and will be sold on a first-come, first-served basis. The price is \$6/book for orders of 10 or more; \$6.25/book for orders of less than 10 which includes postage. To order your supply of redbooks, please contact Lois Schreiner (lschrein@ksu.edu; 785-532-1267).
- ↪ **Sericea Lespedeza Control Strategies Differ in Their Impacts on Overall Range Health and Native Plant Species Composition** - The objective of this study was to evaluate the effects of sericea lespedeza (*Lespedeza cuneata*) control strategies of late summer prescribed burning and fall herbicide application on soil cover, native plant populations, and biological diversity. We established 16 individual units within an 80-acre native tallgrass pasture. Each unit was assigned to one of four treatments: control, spray only, burn only, or burn-plus-spray. Burn only and burn-plus-spray units were burned in early September. Spray only and burn-plus-spray units were sprayed with metsulfuron methyl (Escort XP, DuPont, Wilmington, DE) in late September. The change in soil cover and plant community composition from prior to treatment application to 1 year after treatment was measured.
- Bottom Line...** The benefits of curbing a major invasion of sericea lespedeza may make burn-plus-spray a desirable short-term strategy in some instances, but wide-spread or extended use of the practice should be applied with caution. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, KC Olson (785-532-1254; kcolson@ksu.edu) or Bob Weaber (785-532-1460; bweaber@ksu.edu).
- ↪ **Effects of Monosodium Glutamate on 11- to 50-lb Nursery Pigs** - 1,134 nursery pigs were used in a 48-d growth study to determine the effects of monosodium glutamate (MSG; Ajinomoto Heartland, LLC, Chicago, IL) on growth performance. Pigs were fed one of six dietary treatments: 0, 0.5, 1.0, 1.5, or 2.0% MSG, or a high salt treatment formulated to match the sodium content of the 1.0% MSG treatment. Experimental diets were fed in three phases from day 0 to 12, d 12 to 26, and d 26 to 48. Phase 1 was in pellet form and phases 2 and 3 were in meal form. Pigs were randomly allotted to pens at weaning and pens were then allotted to treatment according to BW in a randomized complete block design with seven replications per treatment. During phase 1 (day 0 to 12), no significant differences were detected among MSG treatments, but pigs fed the high salt diet tended to have poorer F/G than pigs fed the 1% MSG treatment. In phase 2 (day 12 to 26), increasing MSG decreased ADG, ADFI, and worsened F/G while pigs fed the high salt diet had decreased ADG and poorer F/G than pigs fed the 1% MSG diet. In phase 3 (day 26 to 48), no significant differences were detected among the MSG treatments; however, pigs fed the high salt diet had decreased ADG and ADFI compared with those fed the 1% MSG diet. Pig BW was reduced on day 26 and 48 for pigs fed the MSG diets and pigs fed the high salt treatment had decreased BW compared to pigs fed 1% MSG. For the overall nursery period (day 0 to 48), increasing MSG decreased ADG and tended to decrease ADFI. Furthermore, pigs fed the high salt treatment had decreased ADG and ADFI and poorer F/G compared to their 1% MSG counterparts.
- Bottom Line...** Results from this study indicate that feeding MSG may have had a negative impact on ADFI and, therefore, subsequent BW and ADG. In addition, the high salt treatment formulated to match the sodium content of the 1% MSG diet had consistently poorer performance than the 1% MSG treatment, suggesting that high salt content may negatively affect pig growth. Further research is warranted to determine the effects of feeding monosodium glutamate to nursery pigs in diets balanced for sodium content. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by A.B. Clark, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, and K.J. Touchette)

↪ **Effects of Increasing Salt Concentration on Growth Performance of 25- to 67-lb Nursery Pigs** - A total of 300 pigs were used in a 34-day growth trial to determine the effects of added dietary salt on the growth performance of nursery pigs weighing 25 to 67 lb. Upon entry to the nursery, pigs were allotted by BW and fed a phase 1 common starter diet (0.50% Na and 0.67% Cl) for 11 day and then a common phase 2 diet (0.35% Na and 0.59% Cl) from day 11 to 25 after weaning. At day 25 after weaning, considered day 0 in the trial, pigs were allotted by pen weight and assigned to one of five dietary treatments containing either 0.20, 0.35, 0.50, 0.65, or 0.80% salt. This corresponds to calculated dietary Na levels of 0.10, 0.16, 0.22, 0.28, and 0.34%, respectively. Calculated Cl levels were 0.23, 0.32, 0.41, 0.50, and 0.59%, respectively. A common diet containing 0.35% lb/ton salt (0.16% Na and 0.29% Cl), was then fed from d 27 to 34.

From day 0 to 14, ADG, ADFI, and F/G improved as added salt increased from 0.20 to 0.65%, with no further benefits observed thereafter. From d 14 to 27, there was no significant effect on ADG; however, pigs fed 0.50% added salt had numerically the greatest ADG. Average daily feed intake increased and F/G marginally worsened with increasing added salt. From day 0 to 27, ADG and F/G improved using up to 0.5% added salt while ADFI increased. From day 27 to 34, when pigs were fed a common diet, there was no evidence of difference to indicate that previous dietary treatments influenced ADG; however, ADFI, and d 34 BW increased while F/G worsened with increasing salt previously fed from day 0 to 27.

Bottom Line... In conclusion, results of this study indicate that the pig's Na and Cl requirement estimate changes and that diets for pigs weighing 25 to 45 lb, should be formulated with enough added salt to provide 0.28% Na and 0.48% Cl, which in this study was 0.65%. However, from 45 to 67 lb, 0.20% Na and .39% Cl (0.50% added salt) was sufficient to maximize growth performance. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by D.J. Shawk, M.D. Tokach, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, S.S. Dritz, and A.B. Clark)

↪ **Dietary Supplementation of Choline or Potassium in Low Crude Protein Diets on Growth and Carcass Performance of Finishing Pigs from 245 to 295 lb** - A total of 284 pigs were used in a 26-day trial to determine the effect of added choline or potassium on growth and carcass performance of finishing pigs fed low CP diets. Pens of seven or eight pigs were allotted by BW and randomly assigned to one of four dietary treatments with nine replications per treatment. Experimental treatments included a 12% CP, positive control diet with 10.6% SBM; a 10% CP, negative control diet with 4.0% SBM; the negative control with added choline; or potassium such that the added choline or potassium matched the amount that was provided in the 12% CP diet. At day 26, pigs were transported to a packing plant for processing and carcass data collection. For overall growth performance, there was no evidence for differences in ADG or ADFI; however, there was a marginal improvement in F/G for pigs fed the positive control diet with 12% CP compared with the mean of pigs fed the diets with 10% CP. Adding choline or potassium to the diet did not influence performance.

Bottom Line... For carcass characteristics, there was no evidence for differences in HCW, yield, backfat, loin depth, or lean percentage. In summary, marginally poorer F/G observed in pigs fed the 10% CP diet with 4.0% SBM was not influenced by supplementation with choline or potassium. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by J.A. Soto, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, and R.D. Goodband)

↪ **Effect of Supplementation of Choline in Moderate and Low Crude Protein Diets on Growth Performance of Finishing Pigs from 245 to 275 lb.** - A total of 254 pigs was used in a 19-day trial to determine the effects of added choline on growth performance of finishing pigs fed moderate and low CP diets. Pens of seven or eight pigs were allotted by BW and randomly assigned to one of four dietary treatments with eight replications per treatment. Experimental treatments were arranged in a 2 x 2 factorial with main effects of CP (12 or 10%) and choline (none or added) to reach a final diet concentration of chloride of 823 mg/lb. of diet. For overall growth performance, there was no evidence for CP x choline interaction or choline effect. Pigs fed diets with 12% CP had marginally increased ADG compared with pigs fed diets with 10% CP, which resulted in a heavier final BW. Pigs fed the diets with 12% CP also had improved F/G compared with pigs fed the 10% CP diets.

Bottom Line... In conclusion, supplementing diets with a high concentration of choline did not influence growth performance of pigs fed moderate or low CP diets. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by J.A. Soto, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, and R.D. Goodband)

ASI Faculty Spotlight



**A.J. Tarpoff (tarpoff@k-state.edu; 785-532-1255)
Assistant Professor/Extension Beef Veterinarian**

Anthony John (A.J.) Tarpoff was born and raised in Edwardsville, Illinois. A.J.'s family owned and operated a beef processing plant and a steakhouse. He received his B.S. in Animal Science at Kansas State University in 2010. In 2012, he received his D.V.M., and M.S. in Biomedical Science at Kansas State University.

After earning his D.V.M., he accepted an associate feedlot veterinarian position at Alberta Beef Health Solutions in Southern Alberta, Canada. His focus in practice was herd based cattle production medicine, research field trials, hands on feedlot employee training, disease surveillance and mitigation, and Federal Import/Export duties.

A.J. returned to KSU in 2016 as the Beef Extension Veterinarian with a 70% Extension, 20% Research, and 10% teaching appointment.



**Casy Winn (ccwinn@k-state.edu; 785-532-5044)
Instructor/Rodeo Coach**

Casy was raised in Nephi, Utah. He grew up working on the family horse and cattle ranch. He also worked on a local dairy farm. Upon graduation from Utah State University in 1993, he began a teaching and coaching career in Lake Los Angeles, California, then to Duchesne County Utah, and eventually to his hometown at Juab High School.

In high school, Casy was actively involved in 4-H, FFA, wrestling and rodeo. He was the 1981 Juab County Beef Carcass Contest winner, 1982 Utah state 4-H champion horseman, 1984 state champion FFA individual soil judge, on the 1985 region champion wrestling team, and a 1985 NHSRA national finals qualifier in the bullriding. He also served on the 4-H youth council, FFA officer team, and in leadership positions with his church youth group.

At Utah State University, Casy was a member of the rodeo team, twice earning a year-end 3rd place position in the bullriding and finishing among the top 10 team ropers. Casy also competed in open and professional events, earning reserve champion in the RMRA bullriding in 1988.

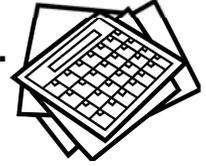
Casy coached wrestling for 20 years. He led Duchesne High School to a 5th place in the 2A classification in 1999. Then at Juab Jr. High they won 5 region team titles, finished 2nd twice in the 2A classification, and were 3rd at state in 3A. Also, on those teams were numerous individual region and state champions.

Casy, along with his wife, Wendy, and their children, Dixon, Shad, and Kyleigh, spend their time training horses, practicing for and competing in rodeos. They own Winn Rodeo Livestock raising rodeo cattle and training horses. Along with this they have produced, managed and contracted stock for several junior rodeo associations. Casy served as the director for the Utah State 5th and under Rodeo Association and on the UHSRA livestock committee. He has also judged Jr. High, high school and open rodeos.

Casy joined Kansas State University in the summer of 2015 as the Head Rodeo Coach and Equine Instructor.

What Producers Should Be Thinking About.....

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



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

Cow herd management for spring-calving cows

- ☑ In late fall and early winter, start feeding supplement to mature cows using these guidelines:
 - Dry grass — 1-2 pounds (lb.) per day of a 40% crude protein (CP) supplement
 - Dry grass — 3-4 lb. per day of a 20% CP supplement
 - Dry grass — 10 lb. good nonlegume hay, no supplement needed
- ☑ Compare supplements based on cost per pound of nutrient.
- ☑ Utilize crop residues.
- ☑ Strip-graze or rotate cattle to improve grazing efficiency.
- ☑ Cows in average body condition can be grazed at 1-2 acres per cow for 30 days, assuming normal weather. Available forage is directly related to grain production levels.
- ☑ Limiting nutrients are usually rumen degradable protein, trace minerals and vitamin A.
- ☑ Control lice.

General management

- ☑ Document your cost of production by participating in Standardized Performance Analysis (SPA) programs.
- ☑ Review management decisions; lower your costs per unit of production.
- ☑ Check your financial management plan and make appropriate adjustments before the end of the year.

*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.*