



# News from KSU Animal Sciences

December, 2017

## News from KSU Animal Sciences

### In This Issue

- Upcoming Events
- Management Minute
- Feedlot Facts
- 2017 KSU Cattlemen's Day Articles Featured
- 2017 KSU Swine Day Articles Featured
- Faculty Spotlight
- What Producers Should Be Thinking About...

**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](http://www.asi.ksu.edu)

## UPCOMING EVENTS...

☞ **Calving Schools Planned** – With the new year, beef producers are anxious for the 2018 calf crop. In anticipation of calving season, Kansas State University Animal Sciences and Industry and K-State Research and Extension are planning a series of calving schools in January.

The program will outline the normal processes of calving. The goals of the event are to increase knowledge and practical skills, and to increase the number of live calves born if they need assistance. The schools will also share tips on when and how to intervene to assist the cow and how those times may be different when dealing with young heifers. Presenters will also demonstrate proper use of calving equipment on life-size scale. Several of the meetings will also cover topics such as cow nutrition during the winter months, and managing cull cows. Meetings scheduled include:

- Wednesday, Jan. 3, 6 p.m. CST, Cloud County Fairgrounds, Concordia, Kansas; RSVP to Washington County Extension Office at 785-325-2121.
- Tuesday, Jan. 4, 6 p.m. CST, Oswego Community Center, Oswego, Kansas; RSVP to Cherokee County Extension Office at 620-724-8233 or Wildcat District Extension Office at 620-429-3849.
- Tuesday, Jan. 9, 10 a.m. CST, Kansas Wetlands Education Center, Great Bend, Kansas; RSVP to Cottonwood Extension Office at 620-793-1910.
- Thursday, Jan. 11, Noon MST, Morton County Civic Center, Elkhart, Kansas; RSVP to Crystal Bashford at 620-697-2558.
- Tuesday, Jan. 16, 6:30 p.m., Norton County 4-H Building, Norton, Kansas; RSVP to Twin Creeks Extension at 785-877-5755 (Norton), 785-675-3268 (Hoxie) or 785-475-8121 (Oberlin). Program will cover opportunities for marketing cull cows.
- Thursday, Jan. 18, 6 p.m., Alta Vista Baptist Church, 402 Main St., Alta Vista, Kansas; RSVP to Wabaunsee Extension at 785-765-3821.

More information about the Calving Schools is available at [KSUBeef.org](http://KSUBeef.org). For more details, contact A.J. Tarpoff ([tarpoff@ksu.edu](mailto:tarpoff@ksu.edu); 785-532-1255).

☞ **2018 KSU Dairy Days** – The following dates have been set for the 2018 KSU Dairy Days:

- Thursday, February 1, 2018, in Seneca, Kansas
- Friday, February 2, 2018, in Whiteside, Kansas

Mark the dates on your calendar and watch for more details coming to [www.asi.k-state.edu/research-and-extension/dairy/dairy-days.html](http://www.asi.k-state.edu/research-and-extension/dairy/dairy-days.html). For more information, contact Mike Brouk ([mbrouk@ksu.edu](mailto:mbrouk@ksu.edu); 785-532-1207).



↪ The 2017 **K-State Swine Profitability Conference** will be Tuesday, February 6, 2018, at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, KS. The schedule is as follows:

9:15 a.m. Coffee and Donuts  
9:30 a.m. **Managing Pig Health with Minimal Antibiotic Use in Commercial Pig Production**  
*Dr. Doug MacDougald, Southwest Vets*  
10:30 a.m. **Opportunities and Pitfalls of Producing Antibiotic Free Pork**  
*Ben Woolley and Ben Keeble, Sunterra Farms*  
11:15 a.m. **Rebuilding after a Catastrophe**  
*Terry Nelson, Husky Hogs*  
12:00 noon Lunch  
1:15 p.m. **Future Trends Impacting the Swine Industry**  
*Dr. Gary Louis, Seaboard Foods*  
2:15 p.m. **Life Lessons Learned While Practicing with Dr. Steve Henry**  
*Dr. Lisa Tokach, Abilene Animal Hospital*  
3:00 p.m. Adjourn

Pre-registration fee is \$25 per participant by January 26; with registration at the door \$50 per participant. The complete schedule and online registration information can be found at [www.KSUswine.org](http://www.KSUswine.org). For more information, contact Lois Schreiner at [lschrein@ksu.edu](mailto:lschrein@ksu.edu) or 785-532-1267.

↪ **K-State's Winter Ranch Management Series Set for February** – This seminar series, hosted in early 2018, will highlight “*Corrals, Calcium, Costs and Cows: Management and Profit Strategies for 2018*” and allow producers to ask questions of their local, district and state extension specialists. The meetings will feature a popular ‘town-hall’ style question and answer session between Kansas’ cattle producers and extension specialists and will be held in four locations throughout Kansas. Meeting times vary by location, but all will include a meal. Participants are asked to RSVP for a selected location by the close of business one week prior to the event. Registration fees, which cover a meal, vary by location. Interested participants should contact their local host contact for registration and RSVP details. Locations and dates include:

February 6 – Beloit, KS                      February 7 – Olsburg, KS  
February 8 – Walnut Creek                February 13 – Hepler, KS

More information about the K-State Winter Ranch Management Seminar Series is coming to [www.ksubeef.org](http://www.ksubeef.org). For more information, contact Bob Weaber ([bweaber@ksu.edu](mailto:bweaber@ksu.edu) or 785-532-1460).

↪ **Youth PQA Plus Training Discontinuing** - With the launch of the new, national, multi-species youth quality assurance program, Youth for the Quality Care of Animals (YQCA), the National Pork Board will be discontinuing its Youth PQA Plus program at the end of 2017. As of January 1, 2018, Youth PQA Plus will no longer be available as an option for young people seeking quality assurance training. However, the National Pork Board will honor Youth PQA Plus numbers until they expire, and agents will still be able to use their credentials to log on to the pork board website and verify a young person's certification status or current number. Youth needing quality assurance training for swine, or other livestock species, are encouraged to use YQCA for their certification. The YQCA program is available for youth ages 8-21. Young people may complete the training online for \$12/person, or attend a face-to-face training for \$3/person. More information may be found at [www.yqca.org](http://www.yqca.org). Extension Agents who would like to become an YQCA instructor may contact Lexie Hayes at [adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264 for details.

Quality Assurance requirements for Kansas State Fair Grand Drive and Kansas Junior Livestock Show exhibitors have not been finalized. This information will be released by March 1, 2018.

↪ **Make plans to attend Cattlemen's Day 2018** –The 105<sup>th</sup> annual Cattlemen's Day will be hosted Friday, March 2, 2018. The trade show and educational exhibits will open at 8 a.m. in Weber Arena.

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

If you are interested in exhibiting at Cattlemen's Day or have any questions, please contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu); 785-532-5427) or Jim Drouillard ([jdrouill@ksu.edu](mailto:jdrouill@ksu.edu); 785-532-1204).

↪ The **41<sup>st</sup> annual Legacy Bull and Heifer Sale** will be March 2, 2018, at 3:30 p.m. at the Stanley Stout Center. Visit [www.asiksu.edu/bullsale](http://www.asiksu.edu/bullsale) for more information, as it becomes available, including the sale catalog.

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

The K-State Sheep & Meat Goat Center will be having its annual sale on the same date, following the Junior Sheep Producer Day. The program schedule will allow participants who would like to participate in both events to do so.

For more information, please contact Lexie Hayes ([adhayes@ksu.edu](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, meat science, grooming, leadership, health, reproduction, showmanship, grooming, and Youth for the Quality Care of Animals (YQCA) certification. All ages and skill levels are invited to attend. A complimentary lunch and t-shirt will be provided for all participants. Registration is due by March 2, 2018, and is \$15/person. Registrations received after March 2 cannot be guaranteed a t-shirt and will be \$20/person. More information, a promotional flyer, and registration information may be found on the K-State Youth Livestock Program website: [www.youthlivestock.ksu.edu](http://www.youthlivestock.ksu.edu) under Kansas Junior Producer Days. Participants may register online at <https://commerce.cashnet.com/KSUASIND>. This event has been added to the university Pulse calendar. For more information, please contact Lexie Hayes ([adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264).

↪ **Livestock Fair Management Clinics Scheduled for April 10 and 12** – 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 learn 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, at the Jackson County Fairgrounds in Holton. 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 – 11:00 a.m.	<i>Break</i>
11:00 – 11:30 a.m.	<i>Fair Insurance</i>
11:30 – 12:00 p.m.	<i>Poultry Health &amp; Exhibit Management</i>
12:00 – 1:00 p.m.	<i>Lunch (provided)</i>
1:00 – 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 – 3:00 p.m.	<i>Open Forum Questions &amp; Discussion</i>
3:00 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 detailed 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).

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

<b>CALENDAR OF UPCOMING EVENTS</b>		
<b>Date</b>	<b>Event</b>	<b>Location</b>
January 3, 2018	ASI Calving School	Concordia
January 4, 2018	ASI Calving School	Oswego
January 9, 2018	ASI Calving School	Great Bend
January 11, 2018	ASI Calving School	Elkhart
January 16, 2018	ASI Calving School	Norton
January 18, 2018	ASI Calving School	Alta Vista
February 1, 2018	KSU Dairy Day	Seneca
February 2, 2018	KSU Dairy Day	Whiteside
February 6, 2018	KSU Swine Profitability Conference	Manhattan
February 6, 2018	Winter Ranch Management Workshop	Beloit
February 7, 2018	Winter Ranch Management Workshop	Olsburg
February 8, 2018	Winter Ranch Management Workshop	Walnut Creek
February 13, 2018	Winter Ranch Management Workshop	Hepler
March 2, 2018	KSU Cattlemen's Day	Manhattan
March 2, 2018	KSU Legacy Bull and Heifer Sale	Manhattan
March 17, 2018	Kansas Junior Sheep Producer Day	Manhattan
March 24, 2018	Kansas Junior Beef Producer Day	Manhattan
April 10, 2018	Livestock Fair Management Clinic – Western Session	Cimarron
April 12, 2018	Livestock Fair Management Clinic – Eastern Session	Holton
August 18-19, 2018	Kansas 4-H Livestock Sweepstakes	Manhattan

# WHAT'S NEW.....

*Merry Christmas and Happy New Year! This is a time of year to look back at 2017 and vision forward into 2018. For livestock producers, 2017 overall was a year of moderate and continued lowering of feed prices across Kansas. However, weather events and prairie fire challenges certainly were at the forefront of many producers in certain locations in Kansas. Fortunately, many of these same areas of devastation were blessed with spring rains that helped bring back the needed forage growth. We are very proud of the "togetherness" shown by the entire agriculture community in times of need in 2017. As 2018 begins, we encourage producers to utilize the vast resources available through local, area and state Extension personnel. We are proud to be associated with the excellent team of professionals partnering in our mission to meet the needs of our clientele in the livestock industries.*

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

## **Management Minute** "Effective Leadership"

### ↪ **Management Minute** – Justin Waggoner, Ph.D., Beef Systems Specialist *"Effective Leadership"*

The term leadership is simply defined as "the action of leading a group of people or an organization" or the "ability to lead other people." History has given us a number of examples of excellent leaders who have motivated groups or organizations to accomplish tremendous acts against overwhelming odds. Pick one. Any leader of your choice; what made this individual a great leader? Could we concisely come up with a list of traits or characteristics that made this individual an excellent leader? Now pick another. What made this individual a great leader? Do your two leaders have anything in common? What made these leaders effective? Although leadership has been the focus of tremendous study and numerous books, we still don't understand it. It's complicated. I would contend that the one thing all great leaders share is that they helped those they were leading get better and accomplish bigger things than those individuals thought was possible. As a leader, "what are you doing to help your people get better at what they do?"

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

### ↪ **Feedlot Facts** – Justin Waggoner, Ph.D., Beef Systems Specialist *"New Year often brings Cold Stress"*

The New Year often brings colder temperatures to the Sunflower State and the Great Plains. Most cattle producers appreciate that cold weather increases nutrient requirements. However, what increases? and by how much?

Cattle are most comfortable within the thermoneutral zone when temperatures are neither too warm nor cold. The upper and lower boundaries of the thermoneutral zone are referred to as the upper and lower critical temperature. During the winter months cattle experience cold stress anytime the effective ambient temperature, which takes into account wind chill, humidity, etc., drops below the lower critical temperature. The lower critical temperature is influenced by both environmental and animal factors including hair coat and tissue insulation (body condition). The table on the next page lists the estimated lower critical temperatures of cattle in good body condition with different hair coats. In wet conditions cattle can begin experiencing cold stress at 59°F, which would be a relatively mild winter day. However, if cattle have time to develop a sufficient winter coat, the estimated lower critical temperature under dry conditions is 18°F.

## **Feedlot Facts** "New Year often brings Cold Stress"

## ↪ **Feedlot Facts – “New Year often brings Cold Stress” (cont.)**

<b>Estimated lower critical temperatures for beef cattle</b>	
<b>Coat Condition</b>	<b>Critical Temperature</b>
Wet or summer coat	59°F
Dry fall coat	45°F
Dry winter coat	32°F
Dry heavy winter coat	18°F

Cold stress increases maintenance energy requirements but does not impact protein, mineral or vitamin requirements. The general rule of thumb (for a cow in good body condition, BCS = 5 or greater) is to increase the energy density of the ration by 1% for each degree (Fahrenheit) below the lower critical temperature. The classic response to cold stress in confinement situations is an increase in voluntary intake. However, it has been documented that cattle maintained in extensive environments (native range, wheat pasture, corn stalks) may spend less time grazing as temperatures decline below freezing, which reduces forage intake (Adams et al., 1986) and makes the challenge of meeting the cow’s nutrient requirements even greater. In many cases, feeding a greater amount of low-quality hay will replace grazed forages but may not provide sufficient energy. Therefore, providing additional energy by feeding a higher-quality hay or fiber-based supplement (DDGS, Corn gluten feed, or Soybean Hulls) may be required.

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

↪ **Feeding Nucleotides with Corn Germ Meal or Dried Corn Distillers Grain Does Not Promote Growth Performance of Receiving and Growing Calves** – The objective of this study was to determine: 1) the effects of corn germ meal in comparison to dried corn distillers grain, and 2) the effects of a nucleotide additive on growth performance, by receiving and growing cattle. Two hundred thirteen heifers were blocked by source, stratified by arrival weight and randomly assigned one of six treatments: 1) corn germ meal with 0 g/heifer daily nucleotide additive (corn germ meal 0); 2) corn germ meal with 2 g/heifer daily nucleotide additive (corn germ meal 2); 3) corn germ meal with 4 g/heifer daily nucleotide additive (corn germ meal 4); 4) dried corn distillers grain with 0 g/heifer daily nucleotide additive (dried corn distillers grain 0); 5) dried corn distillers grain with 2 g/heifer daily nucleotide additive (dried corn distillers grain 2); and 6) dried corn distillers grain with 4 g/heifer daily nucleotide additive (dried corn distillers grain 4). Heifers were individually weighed on days 0, 28, 56, 84, and 85.

**Bottom Line...** Corn germ meal can be used as an alternative to dried corn distillers grain, which it has similar growth performance in receiving and growing cattle. Feeding a nucleotide additive to newly arrived beef heifers has no effect on growth performance. For more information contact, Dale Blasi (785-532-5427; [dblasi@ksu.edu](mailto:dblasi@ksu.edu)).

↪ **Bulls Are More Efficient Than Steers with Similar Meat Quality** – The objective of the study was to evaluate the effects of castration and the use of growth promotion technologies in post-pubertal bulls on feeding performance, carcass traits, and meat quality characteristics compared to intact post-pubertal bulls. Twenty-four purebred bulls were used in a randomized complete block design to evaluate the effects of castration of post-pubertal bulls on feeding performance, carcass traits, and meat quality characteristics. Treatments included: intact or castrated with addition of growth-promoting technologies. There were four pens per treatment and cattle were fed a dry-rolled corn based finishing diet for 62 days. Cattle assigned to the castrated treatment were castrated using a Callicrate bander and implanted with 120 mg of trenbolone acetate and 24 mg of estradiol implant. The last 28 days of feeding, the castrated cattle were fed 1 lb/d of a pellet containing 300 mg/lb ractopamine hydrochloride beta-adrenergic agonist to provide 300 mg/hd/d of ractopamine hydrochloride. Cattle in the intact treatment were not implanted and were fed a similar amount of a placebo pellet the last 28 days on feed.

**Bottom Line...** Carcass traits, growth parameters, and meat quality characteristics were not improved by castrating post-pubertal bulls. For more information contact, Dan Thomson (785-532-4254; [dthomson@ksu.edu](mailto:dthomson@ksu.edu)) or Travis O’Quinn (785-532-3469; [travisquinn@ksu.edu](mailto:travisquinn@ksu.edu)).

↪ **Effect of Sow Lactation Crate Size on Litter Performance and Survivability** - A total of 529 litters of pigs were used to examine the effect of sow lactation crate size on nursing pig litter performance and survivability. The sow portion of the farrowing crate was maintained at a constant length and width of 7.4 and 2.0 ft, respectively. To form the treatments, crate width was adjusted accordingly, taking space away from one sow's crate to give it to another allowing for 3 crate widths: 4.8 (small), 5.4 (medium), and 6.0 ft (large). This allowed for blocks of three crates, where each treatment was represented. Sows were loaded into individual lactation crates at random, balancing for parity across treatments. Cross fostering occurred within 24 h of farrowing prior to obtaining d one litter weight in effort to equalize litter size across treatments. Data were analyzed using generalized mixed models where treatment was a fixed effect and block was a random effect. Born alive, piglets weaned, and pre-weaning mortality, were all fitted using a binomial distribution.

**Bottom Line...** Regardless of treatment, there was no evidence of differences in total piglets born (14.3), percentage of piglets born alive (92.3%), d 1 litter weight after cross fostering (40.0 lb), litter weaning weight (145.9 lb), litter ADG (5.4 lb/d), or number of piglets weaned (10.7). In addition, no evidence for differences was observed in the percentage piglets weaned (80.9%) or pre-weaning mortality (19.1%). In conclusion, increasing lactation crate size did not impact litter performance or pig survivability in this study. 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 L.L. Thomas, K.F. Coble, C.W. Hastad, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.M. DeRouchey, and J.C. Woodworth)

↪ **Effects of Amino Acid Ratios and Lysine Level on Nursery Pig Growth Performance** - A total of 2,268 pigs was used in a 28-day growth study with 54 pigs per feeder (experimental unit) and six replications per treatment. Pigs were randomly allotted to pens at weaning and fed a common starter diet for eight days. Pens were then blocked by BW and allotted to 1 of 7 dietary treatments in a randomized complete block design. Treatments were arranged in two levels of standardized ileal digestible (SID) Lys (low, 1.25% and high, 1.35%) and SID amino acid (AA) ratios relative to Lys (industry, 95% of maximum performance, and maximum performance). The seventh dietary treatment was a control diet (1.35% SID Lys). Industry ratios were 55% Met+Cys:Lys, 62% Thr:Lys, 18% Trp:Lys, and 65% Val:Lys. Maximum diet ratios were 60% Met+Cys:Lys, 65% Thr:Lys, 21% Trp:Lys, and 72% Val:Lys. The 95% ratios were formulated to target 95% of maximum performance and were 56% Met+Cys:Lys, 62% Thr:Lys, 19% Trp:Lys, and 67% Val:Lys. Diets were formulated to meet or exceed the Ile requirement with feed-grade Lys, Met, Thr, Trp, and Val added. The control diet contained less feed-grade AA (0.39% L-Lys HCl vs. 0.50 to 0.55% in other diets) and 5% enzymatically-processed soybean meal to achieve a similar conventional soybean meal level to the high SID Lys diets. Experimental diets were formulated using analyzed total AA for corn, soybean meal, and dried distillers grains with solubles and fed for 14 d in meal form. A post-treatment period with a common diet was fed from d 14 to 28. From d 0 to 14, feeding high Lys diets increased ADG and F/G compared with low Lys diets with no evidence for differences in ADFI. For ADG and F/G, pigs fed maximum AA ratios had improved performance compared to those fed industry ratios at low Lys, but not at high Lys levels.

**Bottom Line...** In conclusion, high AA ratios were more critical in diets formulated below the Lys requirement of the pig. 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 A.B. Clark, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, and K.J. Touchette)

↪ **The Effects of Feeding Benzoic Acid and Essential Oils on Sows and Litter Performance** - A total of 48 sows and their progeny were used in this study to determine if feeding sows and/or piglets benzoic acid (VevoVital, DSM Nutritional Products, Parsippany, NJ) paired with an essential oil blend (CRINA, DSM Nutritional Products, Parsippany, NJ) enhances sow and pig performance during lactation, piglet weight gain in the nursery, and survivability to market. For sow and preweaned piglet performance in the farrowing house, adding benzoic acid and an essential oil blend to the maternal diet did not affect litter performance or weaning weight of the piglets. Fecal swabbing litters the day before weaning showed the pigs did not eat the creep feed. Nursery pigs weighed on day 12 or day 45 postweaning were not heavier due to the maternal diet or the presence/absence of creep feed in the farrowing crate. Also, survivability of pigs from weaning to market did not increase due to maternal diet.

**Bottom Line...** From this study, it appears that benzoic acid paired with an essential oil blend does not affect sow and pig performance or survivability to market. 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.T. Thayer, J.L. Nelssen, A.J. Langemeier, J.M. Morton, Z. Ou, and J.R. Bergstrom)

# AS&I Faculty Spotlight



**Ron Pope ([rvpope@k-state.edu](mailto:rvpope@k-state.edu); 785-532-5404)**  
**Instructor/Beef Cattle Production and Management**

Ron Pope is from Oklahoma and Texas. He teaches three sections of ASI 105, Animal Sciences & Industry laboratory, during the fall semester and two sections in the spring semester. He advises 45 undergraduate students. He is also responsible for conducting tours of the department for outside visitors. This includes school field trips, prospective students, and interested groups.

Ron and his wife Nita have four children (all K-State alums), five grandsons, Blake, Rhett, Chisum, Bret, and Ryatt and two granddaughters, Vanessa and Kate. Their children are Russell ASI, BS 1999 and his wife Misty EDEL, BS 1999; Marie EDEL, BS 2002 and her husband Jeff Jones ASI, BS 1999; Bill ASI, BS 2005 and his wife Heather AS, BS 2005, DVM 2010 from Colorado State University; and Ronny ASI, BS 2006 and his wife Kelsey AGECE, BS 2008, MS 2009.



**Ken Odde ([kenodde@k-state.edu](mailto:kenodde@k-state.edu); 785-532-1227)**  
**Department Head**

Dr. Ken Odde is Professor and Head, Department of Animal Sciences and Industry, Kansas State University. Dr. Odde received a bachelor's degree in animal science from South Dakota State University, a master's degree in reproductive physiology, a doctor of veterinary medicine and a doctorate in physiology from Kansas State University. Dr. Odde served as Assistant Professor, Associate Professor and Professor at Colorado State University from 1983 to 1994. He taught and conducted research in beef cattle reproduction and health. In 1994, Dr. Odde returned to his home area in South Dakota and joined the technical services team at SmithKline Beecham Animal Health. He was a member of the technical services team at Pfizer Animal Health following their acquisition of SmithKline Beecham Animal Health. In 2000, Dr. Odde left Pfizer to become Vice President of Veterinary Operations at AgSpan and then had his own consulting business. Dr. Odde joined North Dakota State University as Professor and Head, Department of

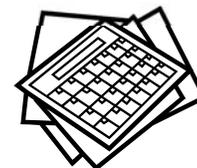
Animal & Range Sciences in January of 2003. Starting in June, 2005, he served as Professor and Director, Beef Systems-Center of Excellence, a public-private partnership designed to grow cattle feeding and processing in ND, and the research and education support to the beef industry.

Dr. Odde is a member of several associations, including American Society of Animal Science, American Veterinary Medical Association and American Association of Bovine Practitioners and is a frequent speaker at veterinary and cattle producer meetings.

Dr. Odde has announced that he will be stepping down as Department Head but will remain on faculty in the Animal Sciences and Industry Department.

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

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



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

- Historically, cull cow prices are beginning to rise. Finish culling cows in order of priority:
  1. Those that fall within the "Four-O Rule" (Open, Old, Onry, Oddball).
  2. Those with physical/structure problems (feet and legs, eyes, teeth, etc.).
  3. Poor producers.
- Continue feeding or grazing programs started in early winter. Fully utilize grain sorghum and cornstalk fields, severe winter weather may begin to limit crop residue utilization, be prepared to move to other grazing and feeding systems.
- Supplement to achieve ideal body condition scores (BCS) at calving.
- Control lice, external parasites will increase feed costs.
- Provide an adequate water supply. Depending on body size and stage of production, cattle need 5-11 gallons of water per head per day, even in the coldest weather.
- Sort cows into management groups. Body condition score and age can be used as sorting criteria. If you must mix age groups, put thin and young cows together, and feed separately from the mature, properly conditions cows.
- Use information from forage testing to divide forage supplies into quality lots. Higher-quality feedstuffs should be utilized for replacement females, younger cows, and thin cows that may lack condition and that may be more nutritionally stressed.
- Consult your veterinarian regarding pre- and postpartum vaccination schedules.
- Continue mineral supplementation. Vitamin A should be supplemented if cows are not grazing green forage.
- Plan to attend local, state and regional educational and industry meetings.
- Develop replacement heifers properly. Weigh them now to calculate necessary average daily gain (ADG) to achieve target breeding weights. Target the heifers to weigh about 60 to 65% of their mature weight by the start of the breeding season. Thin, light weight heifers may need extra feed for 60 to 80 days to "flush" before breeding.
- Bull calves to be fed out and sold in the spring as yearlings should be well onto feed. Ultrasound measurements should be taken around one year of age and provided to the association.
- Provide some protection, such as a windbreak, during severe winter weather to reduce energy requirements. The lower critical temperature (LCT) is the temperature at which a cow requires additional energy to simply maintain her current body weight and condition. The LCT for cattle varies with hair coat and body condition (Dry, heavy winter coat = 18 degrees, wet coat = 59 degrees). Increase the amount of dietary energy provided 1% for each degree (including wind chill) below the LCT.

*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.*