

### **News from KSU Animal Sciences**

March, 2016

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## Department of Animal Sciences and Industry

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## **UPCOMING EVENTS...**

- Kansas Junior Sheep Producer Day March 19, 2016 The 2016 Kansas Junior Sheep Producer Day is scheduled for Saturday, March 19, 2016 in Weber Hall on the Kansas State University campus. This event will be an interactive, educational day in which youth, parents, sheep project leaders, and adults can increase their knowledge about youth sheep production and management. K-State faculty, staff, and guest speakers, the Teague family, will cover topics such as market and breeding project selection, health and wellness, feeding, nutrition and management, wool education and judging, meat science, breed identification, showmanship, and grooming. All ages and skill levels are invited to attend. T-shirts are only guaranteed for those who registered by the early deadline (Feb. 24th). Although the early registration deadline has passed, families may still participate. Online registration will be open until Thursday, March 17<sup>th</sup> at https://commerce.cashnet.com/KSUASIND. Participants may also register onsite. The registration fee is \$20/person. More information, a promotional flyer, and registration information may be found on the K-State Youth Livestock Program website: www.youthlivestock.ksu.edu under Kansas Junior Producer Days. An event for this program has been created on the Animal Sciences Pulse calendar.
- Fair Management Clinics to be held April 7 and 8, 2016. Every other year, K-State Research and Extension and the Department of Animal Sciences and Industry hosts a Livestock Fair Management Clinic for county fair board members, Extension Agents, and other adult volunteers involved in local livestock fair management and leadership. This professional development opportunity consists of an activity filled day to increase awareness and how different county fairs operate and provide a forum for open communication for individuals with local livestock fairs across Kansas. There will be two different locations on two different days with the same general agenda. Thursday, April 7, will be at the Greenwood County Fairgrounds in Eureka. Friday, April 8, will be at the Trego County Fairgrounds in WaKeeney. Lunch and refreshments will be provided. The agenda includes:

8:45 - 9:15 a.m. Registration 9:15 - 9:30 a.m. Welcome 9:30 - 11:00 a.m. County Fair Management & Facilities - insurance, liability, budget, fair board duties, extension/fair board relationships 11:00 - 11:15 a.m. Break 11:15 – 12:00 p.m. Biosecurity Efforts for Animals and Fair Patrons 12:00 - 12:45 p.m. Lunch (provided) 12:45 – 1:30 p.m. Judges for County Fairs - locating, compensation, & expectations Premium Sale Structure and Marketing Options for Animals 1:30 - 2:15 p.m. 2:15 - 2:45 p.m. Open Forum Questions and Discussion 2:45 - 3:00 p.m. Wrap-up and Adjourn

Registration is \$15/person and is due by March 18. 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, <a href="www.YouthLivestock.KSU.edu">www.YouthLivestock.KSU.edu</a>. 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 <a href="adhayes@ksu.edu">adhayes@ksu.edu</a>; or Joel DeRouchey at 785-532-2280 or <a href="jedrouch@ksu.edu">jedrouch@ksu.edu</a>. An event for this program has been created on the Animal Sciences Pulse calendar.

K-State Animal Sciences Leadership Applications being Accepted – Due April 1, 2016. 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.

Twenty high school students (current 9th-12th graders) will be selected to participate in each session (2 sessions will be held) based upon educational, community, and agricultural involvement; as well as through an extensive essay application. Applications must be submitted by April 1, 2016. More information is available at <a href="https://www.YouthLivestock.KSU.edu">www.YouthLivestock.KSU.edu</a>. The application is also posted on the K-State Animal Sciences Leadership Academy page on the youth livestock website. For more information, please contact academy director, Sharon Breiner at <a href="mailto:sharonjbreiner@gmail.com">sharonjbreiner@gmail.com</a>.

- An <u>Adult PQA Plus Training</u>, will be held on Thursday, April 21, 2016, from 9:00 a.m. 3:30 p.m. at the Stanley Stout Center in Manhattan. Whether you are a current PQA+ advisor or would like to become certified, you must attend this or a similar training in another state in order to conduct PQA+ trainings. Some of the changes to the program require you to go through the training process in person and successfully compete an examination for certification. If you are interested in the training, please contact Lois at <a href="mailto:lschrein@ksu.edu">lschrein@ksu.edu</a> or 785-532-1267. For more information, contact Mike Tokach (785-532-2032; <a href="mailto:mtokach@ksu.edu">mtokach@ksu.edu</a>) or Joel DeRouchey (785-532-2280; <a href="mailto:jderouch@ksu.edu">jderouch@ksu.edu</a>).
- Kansas State University will be hosting the 2<sup>nd</sup> 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: April 30 Community Building, Iola, KS; May 21, Northeast Kansas Heritage Complex, Holton, KS; June 4 First National Bank, Washington, KS; and June 25 Sedgwick County Extension Office, Wichita, KS. The schedule includes:

8:00 Welcome
 8:15 Meat Cutting Basics
 9:15 All About Rubs & Spices
 9:45 Break
 10:00 BBQ Food Safety
 10:30 Science of Smoking
 12:30-2:30 Afternoon Station Rotations
 BBQ Regionality: A Difference in Sauce
 Meat Cuts to Stretch the BBQ Dollar
 Taste the Difference: It's All in the Wood
 3:00 Competition BBQ Expert Roundtable
 1:30 Closing & Evaluations

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 <a href="www.asi.k-state.edu/barbecue101workshop.html">www.asi.k-state.edu/barbecue101workshop.html</a>. For more information, contact Travis O'Quinn (<a href="mailto:travisoquinn@ksu.edu">travisoquinn@ksu.edu</a>; 785-532-3469).

- 2016 Livestock Nomination Materials Released The updated 2016 state livestock nomination materials have been released. Information, updates, and forms may be found on the youth livestock website (<a href="www.youthlivestock.ksu.edu">www.youthlivestock.ksu.edu</a>) under "Nominated Livestock". This information was also emailed directly to counties and extension units via the KSRE listsery on March 10<sup>th</sup>. There are a handful of changes and updates to the process for 2016, but the most notable modifications are that all swine nominations will require submission of ear notches, all sheep and goat nominations require the scrapie tag #, and the verbiage on the declaration form has been updated. All species will continue requiring DNA as part of the nomination process. A "Rookie Guide" has also been created to help guide new families through the nomination process with as little stress as possible. Market Beef nominations are typically due on May 1<sup>st</sup>, however, that is a Sunday for 2016. So, market beef nominations that are postmarked May 2<sup>nd</sup> will be accepted this year ONLY. All other specie nominations will continue to be due on June 15<sup>th</sup>. If you have questions about eID tags, please contact Dave Kehler at <a href="dkehler@ksu.edu">dkehler@ksu.edu</a>. Official DNA envelopes may be ordered through the KSRE bookstore. If you have questions about youth livestock nominations, please contact Lexie Hayes at adhayes@ksu.edu or (785)532-1264.
- 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.

The following dates are set for the 2016 camps. June 6-8; June 10-12; and June 17-19. For more information and a registration form, 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 <a href="www.asi.ksu.edu/p.aspx?tabid=1141">www.asi.ksu.edu/p.aspx?tabid=1141</a>. You can also contact James Lattimer, (785-532-2840; <a href="mailto:jlattimer@ksu.edu">jlattimer@ksu.edu</a>) or Katie Jordan at (katiejordan@ksu.edu).
- Beef Improvement Federation Convention to be held in Manhattan, KS, June 14-17, 2016. The 2016 Beef Improvement Federation (BIF) Annual Meeting and Research Symposium will be June 14-17 at the Hilton Garden Inn and Conference Center in Manhattan, Kansas. The theme for this year's program is "Progress on the Prairie." Hosted by Kansas State University, the event will start at noon on Tuesday, June 14 with registration and at 1 p.m. a Young Producers Symposium. A welcome reception begins at 6:30 p.m.

The meeting will allow the research community and industry to meet and discuss issues surrounding the genetic improvement of beef cattle and for attendees to learn about technologies and management practices that can aid in the profitability of their operations.

On Wednesday, June 15, the meeting will start at 8 a.m. with a welcome and general session. Presentations and technical breakout sessions will follow through June 16. Attendees are invited to participate in producer tours on Friday, June 17. Sessions to be covered include a variety of presentations on: "Opportunities for the Beef Value Chain: Can we become more coordinated and more profitable," and "Protecting producer profit for the future." For a complete schedule, visit <a href="http://beefimprovement.org/convention/general-information">http://beefimprovement.org/convention/general-information</a>.

A link to online registration for the conference is coming soon. Early registration is offered at a discounted rate and ends May 1. Day-only, student and spouse discount rates will also be available. A room block is available at the conference hotel; go online to <a href="http://beefimprovement.org/convention/general-information">http://beefimprovement.org/convention/general-information</a> for room block instructions.

The Beef Improvement Federation was formed more than 45 years ago to standardize beef cattle performance programs and evaluation methodology and to create greater awareness, acceptance and usage of these concepts for the genetic improvement of beef cattle. It represents more than 40 state and national beef cattle associations. For more information about this year's event, contact Bob Weaber, Associate Professor/Extension Beef Specialist with Kansas State University at 785-532-1460 or <a href="mailto:bweaber@k-state.edu">bweaber@k-state.edu</a>.

Kansas 4-H Livestock Sweepstakes – Save the Date – August 20-21. The 2016 Kansas 4-H Livestock Sweepstakes will be held August 20-21, 2016 on the K-State campus in Manhattan. 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 contest for each of these events will be selected during the livestock sweepstakes weekend. There is also a team sweepstakes award for the county or extension unit team with the best combined performance in all four events. Individual sweepstakes awards are based on livestock judging, open meat judging (cannot participate in the intermediate division and be eligible), and livestock skillathon. More information, rules, and registration details will be released later this spring.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
March 19, 2016	Junior Sheep Producer Day	Manhattan
April 7, 2016 April 8, 2016 April 21, 2016 April 30, 2016	Livestock Fair Management Clinic Livestock Fair Management Clinic PQA+ Advisor Training BBQ 101 Workshop	Eureka, KS WaKeeney, KS Manhattan Iola, KS
May 2, 2016 May 21, 2016	Market Beef Nominations Due BBQ 101 Workshop	Holton, KS
June 4, 2016 June 6-8, 2016 June 7, 2016 June 7-9, 2016 June 8-9, 2016 June 8-11, 2016 June 10-12, 2016 June 14-17, 2016 June 17-19, 2016 June 25, 2016 June 29 – July 2, 2016	BBQ 101 Workshop K-State Livestock Judging Camp KSU Youth Horse Judging Camp-Beginners HACCP Workshop KSU Youth Horse Judging Camp-Advanced Animal Sciences Leadership Academy K-State Livestock Judging Camp Beef Improvement Federation Convention K-State Livestock Judging Camp BBQ 101 Workshop Animal Sciences Leadership Academy	Concordia, KS Manhattan Manhattan Manhattan Manhattan Manhattan Manhattan Manhattan Manhattan Michita, KS Manhattan
August 20-21, 2016	Kansas 4-H Livestock Sweepstakes	Manhattan

## WHAT'S NEW....

Management Minute "Partnership and Marriage" Management Minute - Chris Reinhardt, Ph.D., Extension Feedlot Specialist

#### "Partnership and Marriage"

For those who are married, you may have heard someone say, "Marriage is hard. A good marriage takes work." Although that sentiment is true at some level, understanding the foundation for a strong and happy marriage requires looking at marriage at a deeper level.

A successful marriage takes commitment and sacrifice. To people who have not built a long, successful marriage (or who have not raised children), those are just two words. In the context of marriage, "commitment" and "sacrifice" by necessity go together. People who want a successful marriage are both committed TO sacrifice.

Partnership, like a successful marriage, requires compromise. We can look at compromise as two people meeting each other half-way across a bridge over a river or chasm. People whose partnerships are doomed to fail are those who, at the opening of the partnership, say that the other partner must "meet me half-way". The question then becomes, "Who determines where the half-way line is?" and the answer, is secretly, "I do." The reason this mentality dooms the partnership to failure is that what I may have defined as the half-way point, the other party may define as barely having started across the bridge or is nearly all the way to the other side. If both parties think that the other party has barely started across the bridge from their respective sides, and feels that they alone are being asked to sacrifice and come the furthest across the bridge, there is no room for compromise. This partnership will fail.

Imagine a marriage in which both spouses only consider their own best interest or convenience or pleasure during decision conversations: every decision becomes an argument and a stalemate, and the relationship becomes strained and rife with distrust. Now imagine a marriage in which both spouses enter into each situation with only the best interest and happiness of their spouse at the root of their choices and decisions. Compromise becomes easy and uncomplicated, and the relationship thrives and leaps forward; the spouses grow in respect and trust for the other; opportunities abound.

For strong, lasting partnerships, <u>each</u> partner must make decisions that will not only benefit themselves if they do not benefit their partner. Each partner must be committed to sacrifice freedom in the short run in exchange for success, growth, and opportunity in the long run. Willingly (not strategically or grudgingly) giving up something for the benefit of the partner will build trust and strengthen the alliance.

Like a marriage, if partners go into the partnership with the illusion that the partnership will not involve sacrifice, then the partnership will crumble.

For more information contact Chris at <a href="mailto:cdr3@ksu.edu">cdr3@ksu.edu</a>.

Feedlot Facts
"A Cowboy's
Guide to the
VFD"

#### Feedlot Facts – Chris Reinhardt, Ph.D., Extension Feedlot Specialist

#### "A Cowboy's Guide to the VFD"

The veterinary feed directive (VFD) is essentially a prescription, written by your veterinarian, to your feed supplier, authorizing the supplier to sell you a medicated feed, and authorizing you to use an antibiotic in your feed, for some label-approved purpose. This will create some change in how we do business, and there will be some challenges. But to best prepare for those challenges, there are three key elements ranchers and cattle feeders should consider sooner, rather than later.

The first issue is that the veterinarian cannot write the VFD unless the veterinarian has a valid veterinarian-client-patient-relationship, or VCPR. The veterinarian has to have intimate knowledge of you, your operation, and your livestock, in order to be authorized to write the VFD. The basis for this VCPR will be determined independently by the veterinary governing body in each state, but a veterinarian friend of mine, Dr. Dave Rethorst of the K-State Veterinary Diagnostic Lab puts it simply: "If the vet can find your ranch, in the dark, at two in the morning to attend to a calvy heifer, you've probably got a valid VCPR."

#### **Feedlot Facts** – "A Cowboy's Guide to the VFD" (cont.)

The second issue is that the VFD is a written document. A digital version can be transmitted to the feed supplier initially, but a written version must follow shortly thereafter. The point is two-fold: (1) because the VFD is written and signed by your veterinarian, use of the medicated feed cannot be approved by a phone call. You had better give your veterinarian time to get the documents submitted prior to your need for the medicated feed. (2) The VFD is submitted to the feed supplier, with a copy going to the producer, and a third copy remaining with the veterinarian. This is certainly an additional layer of management which hasn't been required before. But for all parties to demonstrate that the sale and the use of the product was legal, the paper trail must be in place throughout the system.

The third issue is simply that the label-approved uses of the medications will not change with implementation of the VFD. Put another way, producers will still be able to use the drugs in the manner for which they have already been approved. However, some unapproved uses of certain products will most likely stop or be greatly curtailed, because a veterinarian must sign a document stating the intended purpose of the medicated feed, having prior knowledge of the need and the use.

The VFD won't change the ranching world a great deal, but it will require some additional planning and subsequent record keeping. And if you don't currently have a veterinarian involved in your operation, you'll need to choose to either get a vet involved in your operation now, or lose the ability to buy certain medicated feeds in the future.

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

Breeding Objectives Indicate Value of Genomics for Beef Cattle— Multiple-trait breeding objectives were used to assess the incremental economic returns from adding genomic information to a genetic evaluation system for cattle. Three alternative objectives were studied: 1) postweaning feed efficiency, 2) sires used to produce market progeny sold on a quality and yield grid at harvest, and 3) sires used to produce replacement females in a cow-calf production system with calves sold at weaning.

A seedstock producer using genomically enhanced genetic evaluation can expect to produce incremental profit of \$346.50 for their fully integrated commercial customer who uses single terminal sire to produce 60 progeny. Likewise, that seed- stock producer should expect to produce \$326.00 additional profit for the cow-calf using a maternal sire to produce 15 replacement females. These outcomes result from the increased accuracy of genetic evaluation when genomic information is incorporated.

**Bottom Line....** Genotypes increase accuracy of genetic evaluation relative to using only phenotypes and this increase in accuracy can yield economic returns in commercial production that are more than sufficient to offset the costs incurred by seedstock producers. View the complete research report at <a href="www.asi.ksu.edu/cattlemensday">www.asi.ksu.edu/cattlemensday</a>. For more information contact, Michael MacNeil (406-232-6331; <a href="macneil@ksu.edu">macneil@ksu.edu</a>) or Bob Weaber (785-532-1460; <a href="macneil@ksu.edu">bweaber@ksu.edu</a>).

Breed and Gender Interact to Affect the Sale Price of Beef Calves Sold through Video Auctions from 2010 through 2014—Information describing factors that could potentially affect the sale price of lots of beef calves that were marketed through a livestock video auction service was obtained from the auction service. These data were collected for lots of beef calves offered in 116 sales from 2010 through 2014. There were 2,106,181 total steer calves and 1,239,645 total heifer calves used in the analyses. There were 19 factors evaluated, 16 of which affected sale price and included a gender by breed description interaction.

**Bottom Line....** Value of specific breed composition of beef calves is influenced by gender and may be related to buyers purchasing certain breeds of heifer calves as replacements for the breeding herd. View the complete research report at <a href="www.asi.ksu.edu/cattlemensday">www.asi.ksu.edu/cattlemensday</a>. For more information contact, Karol Fike (785-532-1104; <a href="karol@ksu.edu">karol@ksu.edu</a>) or Bob Weaber (785-532-1460; <a href="bweaber@ksu.edu">bweaber@ksu.edu</a>).

The Effects of Increasing Stocking Density on Finishing Pig Growth Performance and Carcass Characteristics A total of 405 pigs from 2 consecutive finishing groups (group 1 initially 145 ± 3.9 lb, group 2 initially 134 ± 5.5 lb) were used to examine the effects of stocking density on finishing pig growth performance and carcass characteristics. Pigs were randomly allotted to pens upon entry into the finishing facility. Pens of pigs were balanced by initial BW and randomly allotted to 1 of 3 treatments with either 7 or 8 replications per treatment (group 1 and 2, respectively). Pens were stocked with 9 pigs, and adjustable gates provided treatments that allowed for 9, 8, or 7 ft2 per pig. All pigs were fed the same diets in 3 phases. There was a two-hole feeder in each pen providing 1.56 in. of feeder space per pig. In both studies, as stocking density decreased, ADG and ADFI increased, but there was no difference in

F/G. In group 1, these effects were evident when pigs reached approximately 238 lb; however in group 2. decreases in ADG and ADFI were already observed when pigs averaged 163 lb. As a result, final weight was 8.5 and 11.7 lb lower in groups 1 and 2, respectively, when comparing the lowest and highest stocking density treatments. In group 1, there were no differences in carcass characteristics with the exception of an increase in BF as stocking density decreased. In group 2, HCW and BF increased and carcass yield decreased as stocking density decreased. The k-value for each body weight was calculated at each of the three space allocations using the formula reported by Whittemore. When comparing growth performance to a suggested required k-value of 0.0336, performance should have been affected above 267.2, 224.1, and 183.6 lb at 9, 8, and 7 ft2 per pig, respectively. In group 1, these pen weights were not reached until after d 42 (239.8 lb), d 28 (206.9 lb), and d 14 (176.7 lb) for the 9, 8, and 7 ft2 per pig treatments, respectively. However, even after d 14 negative effects of increased stocking density were observed on ADFI. In group 2, performance should not have been affected until after d 56 (258.9 lb), d 27 (190.5 lb) and d 14 (162.7 lb) for the 9, 8, and 7 sq ft<sub>2</sub> per pig treatments. Similar to group 1, feed consumption, and consequently ADG, decreased linearly after d 14 as stocking density increased, before pigs reached the k-value that should have influenced performance. The data suggest that the accepted kvalue of 0.0336 might underestimate the impact of increased stocking density on ADG and ADFI.

**Bottom Line...**Overall, this study indicates that increasing stocking density resulted in poorer ADG driven by a reduction in ADFI. More information is available on this experiment and others in the KSU Swine Day Report at <a href="www.KSUswine.org">www.KSUswine.org</a> (This study conducted by L. L. Thomas, R. D. Goodband, M. D. Tokach, J. M. DeRouchey, J. C. Woodworth, and S. S. Dritz)

P Effects of Added Copper and Zinc on Growth Performance and Carcass Characteristics of Finishing Pigs Fed Diets with or without Ractopamine HCI A total of 480 pigs were used to determine the interactive effects of supplemental Cu, Zn, and Ractopamine HCl on finishing pig growth performance, carcass characteristics, and antimicrobial susceptibility of enteric bacteria. Dietary treatments were arranged in a 2 x 2 x 2 factorial with main effects of added copper sulfate (CuSO<sub>4</sub>: 0 vs. 125 ppm Cu), added zinc oxide (ZnO; 0 vs. 150 ppm Zn), and Ractopamine HCl (0 vs. 10 ppm during the last 28 d prior to marketing; Paylean®; Elanco Animal Health, Greenfield, IN). All finishing diets were fed in four phases in meal form and contained 11 ppm Cu and 73 ppm Zn from the trace mineral premix. The study design was structured as a randomized complete block design and replicated with two finishing groups. Pigs were randomly allotted to pens upon entry into the finisher barn. Pens of seven (group 1) or eight (group 2) pigs were balanced on initial BW and randomly allotted to 1 of the 4 mineral treatment diets with two treatment replications per weight block and four weight blocks per finishing group. At 28 d prior to marketing, pens within each block and mineral treatment were randomly assigned to receive either 0 or 10 ppm Ractopamine HCl in addition to the mineral treatment. At the conclusion of the 90-d (group 1) or 83-d (group 2) finishing period, carcass characteristics were measured. Adding Cu or Zn alone resulted in numerical improvements in overall F/G and caloric efficiencies; however, the improvements were not additive (Cu  $\times$  Zn, P = 0.065, 0.068, and 0.064 for F/G and caloric efficiency on a ME and NE basis, respectively). No significant improvements were observed in overall ADG or ADFI due to added Cu and/ or Zn. In contrast, Ractopamine HCI improved overall ADG, F/G, and caloric efficiency, thereby increasing final BW by 3% with no change in ADFI. Ractopamine HCI also increased HCW, percentage carcass yield, and HCW F/G. Adding Zn or Cu alone to diets containing Ractopamine HCl numerically improved percentage carcass yield and HCW F/G, but this effect was not present when the mineral was added to the control diet or when the minerals were fed in combination in the Ractopamine HCl diets (Cu x Zn x Ractopamine). Regardless of HCW, pigs fed Ractopamine HCI had decreased backfat, increased loin depth, and percent fat-free lean. No effects of added minerals on these carcass traits were observed.

**Bottom Line...**In summary, the addition of 125 ppm Cu and/or 150 ppm Zn to diets containing Ractopamine HCl failed to improve finishing pig growth performance and carcass characteristics while 10 ppm Ractopamine HCl increased lean tissue deposition and improved feed and caloric efficiency. More information is available on this experiment and others in the KSU Swine Day Report at <a href="https://www.KSUswine.org">www.KSUswine.org</a>. (This study conducted by J. A. Feldpausch, R. G. Amachawadi, H. M. Scott, M. D. Tokach, S. S. Dritz, J. C. Woodworth, T. G. Nagaraja, R. D. Goodband, and J. M. DeRouchey)

# AS&I Faculty Spotlight



#### Jim Nelssen (<u>inelssen@k-state.edu</u>; 785-532-1251) Professor/Swine Nutrition and Management

Dr. Jim Nelssen is an extension specialist and swine nutritionist at Kansas State University. He is the swine nutrition faculty coordinator and is responsible for coordination of Kansas State off-site nurseries.

Dr. Nelssen grew up in Smith Center, Kansas, where he was active in 4-H and FFA. Jim received his B.S. in Animal Science (1978) and his M.S. in swine reproductive physiology (1980) from Kansas State University. He received his Ph.D. in Swine Nutrition from the University of Nebraska in 1983. Later that year Jim started his career at Kansas State University as an Assistant Professor and Extension Swine Specialist. He was promoted to associate professor in 1989 and a full professor in 1995.

Jim's focus is transferring information to swine producers and conducting practical nutrition research. Jim has presented invited seminars at over 190 animal and veterinary science meetings around the world in addition to numerous presentations to local producer groups. Jim has authored or co-authored 123 refereed journal papers, 320 abstracts, 492 extension publications, and 4 book chapters. In 2005, Jim was named one of the 50 people that have made the greatest impact on the swine industry in the last 50 years by the National Hog Farmer Magazine.

Jim has three children.



#### Kelly Getty (kgetty@k-state.edu; 785-532-2203) Associate Professor/Meat Safety and Quality

Kelly J.K. Getty, Ph.D., originally from Allen, KS, received her B.S. (1988) and Ph.D. (1999) in Food Science from Kansas State University and M.S. (1994) from Pennsylvania State University in Food Science.

Dr. Getty started at Kansas State University with the Food Science Institute in 2001 and started a joint-appointment in Spring 2005 in the Department of Animal Sciences & Industry (50%). Dr. Getty's appointment within Animal Sciences and Industry is split between 30% teaching and 20% research.

Dr. Getty teaches Fundamentals of Food Processing and team-teaches Meat Animal Processing and Meat Technology (distance course). She coordinates distance education efforts for the Food Science program and advises six distance M.S. students.

Her research efforts involve control of pathogens in fermented and direct-acidified sausages and jerky. Collaborators include: Drs. Elizabeth Boyle, Daniel Y.C. Fung, Deanna Retzlaff, and Curtis L. Kastner. Prior to Kansas State University, Getty was an assistant professor at Clemson University where she taught meat science courses and conducted meat and food safety research. Getty also worked at Pizza Hut, Inc. and the American Meat Institute.

Dr. Getty and her husband Chris reside in Manhattan with their two children.

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

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



BEEF -- Tips by Dale Blasi, Extension Beef Specialist

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

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

We need your input! If you have any suggestions or comments on **News from KSU Animal Sciences**, please let us know by e-mail to <u>Ischrein@ksu.edu</u>, or phone 785-532-1267.