



Newsletter from the Department of Animal Sciences and Industry
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UPCOMING EVENTS...

- ↪ The **KSU Dairy Days** will be held on January 27 and 28, 2011. These meetings will be held in conjunction with the Kansas Dairy Association and the DHIA Annual Meetings in Nemaha and Reno Counties.
- The program will begin at 10:30 a.m. on Thursday, January 27 at the Whiteside Amish Community Building in Whiteside, KS. To pre-register for this event, contact the Reno County Extension Office (620-662-2371; rn@oznet.ksu.edu). The day will conclude with door prizes and adjourn at 2:30 p.m.
- On Friday, January 28, 2011, the program will begin at 11:30 a.m. at Valentino's Restaurant in Seneca, Kansas. Pre-registration is not necessary. For more information, contact Meadowlark Extension District Office at 785-336-2184 or 785-364-4125 or email jholthau@ksu.edu.
- For a complete schedule for each of the days or more information, contact John Smith (jfsmith@ksu.edu; 785-532-1203).
- ↪ The **2011 KSU Swine Profitability Conference** will be held Tuesday, February 1 in Forum Hall of the K-State Student Union. A great program has been lined up including a luncheon keynote address from Governor Sam Brownback. The schedule is as follows:
- 9:15 a.m. Coffee and Donuts
 - 9:30 a.m. Lessons from Large Production Systems that Can Help the Competitiveness of Land-Based Producers – *Dr. Gene Nemechek, Tyson Foods*
 - 10:45 a.m. What Have I Done to Make My Land-Based System Successful – *Kent Condray, Clifton, KS*
 - 11:30 a.m. Lunch
 - 12:00 noon My Vision for Job Creation in Animal Agriculture – *Governor Sam Brownback*
 - 1:30 p.m. Short and Long-Term Price Outlook: How Will Consumer Preferences on the Welfare Front Impact Your Operation? – *Dr. Glynn Tonsor, Kansas State University*
 - 2:30 p.m. How to Keep Your Swine Operation off YouTube – *Cindy Cunningham, National Pork Board*
- Registration fee of \$30 per participant is due by January 25, 2011. For details on the conference, visit www.KSUswine.org. For more information, contact Jim Nelssen (785-532-1251; jnelssen@ksu.edu).
- ↪ An exciting and informative **Meat Processing Workshop** has been planned at Kansas State University in conjunction with the Kansas Meat Processors Association. The 34th Annual Midwest Processed/Cured Meat Workshop will be held on Saturday, February 5, 2011, at Weber Hall on the KSU Campus. This is a great opportunity to see, hear and ask questions as state award winning meat processors demonstrate the manufacture of their products. Learn about flavored bacon production, pricing for your operation, new cuts from the round, and more.
- Registration is \$95.00 per plant and includes lunch for two people if received by January 21, 2011. After that date, the fee will increase to \$105.00 per plant. For a registration form or more information, contact Liz Boyle (lboyle@ksu.edu; 785-532-1247).
- ↪ The Kansas Department of Commerce and USDA Rural Development will host two **“Writing a Successful Grant Application” workshops** in February. The February 22nd workshop will be held on the Flint Hills Technical College campus in Emporia; the February 24th workshop will be held in Hays (location TBD). Further information and registration details will be posted in the near future on the Kansas Department of Commerce website (www.kansascommerce.com). Please contact Mari Tucker at 785-296-6080 or mtucker@kansascommerce.com for additional information.

- ↪ The 98th annual **KSU Cattlemen's Day** will be held on Friday, March 4, 2011. Mark your calendars and watch for more details. The program and registration information will be coming soon to www.asi.ksu.edu/cattlemensday. For more information, contact Jim Drouillard (jdrouill@ksu.edu; 785-532-1204) or Dale Blasi (dblasi@ksu.edu; 785-532-5427).
- ↪ The **2011 Western Dairy Management Conference** will be held March 9-11, 2011 in Reno, Nevada. This conference offers the latest up-to-date dairy information. The seminar schedule will be as follows: March 9 & 10 from 8:00 a.m. to 5:00 p.m. and March 11 from 8:00 a.m. to Noon. For a complete schedule and registration information, go to www.wdmc.org. For more information, contact John Smith (jfsmith@ksu.edu; 785-532-1203).
- ↪ Please join us on Saturday, March 12, 2011 for the **Kansas Junior Swine Producer Day** held in Weber Hall on the KSU campus. Presentations and demonstrations by featured speaker, Al Schminke, Van Horne, Iowa, as well as K-State faculty will cover topics such as selecting your project, nutrition, show ring skills, and individual topics tailored to age. The schedule for the day includes:
- 9:00 Registration
 - 9:30 Welcome and Opening Remarks
 - 9:45 Selecting Your Youth Project
 - 10:15 Facilities and General Care
 - 11:00 Breakout Sessions – Breeds and Swine Identification (Beg.); Meat and Carcass Evaluation (Int.); OR Two Weeks to Show Day (Sr.)
 - 11:45 Educational Materials for your Swine Project
 - 12:00 Lunch
 - 12:30 Youth PQA+ Certification Session (*optional to attend, will last until 1:45*)
 - 1:00 Nutrition Know How
 - 1:45 Show Like a Pro
 - 2:15 Final Questions and Wrap-up
- For a complete schedule of events and registration, visit www.KSUswine.org or www.YouthLivestock.KSU.edu. For more information, contact Joel DeRouchey (jderouch@ksu.edu; 785-532-2280) or Chelsea Tomascik (tomascik@ksu.edu; 785-532-1264).
- ↪ Mark your calendars for Saturday, March 26, 2011 for the **Kansas Junior Meat Goat Producer Day**. The event will be held in Weber Arena on the KSU Campus. Watch for more information coming soon.
- ↪ Dates for the **2011 Horse Judging Camps** have been set. The Beginner Camp will be held on Monday, June 6 and the Advanced Camp on Thursday-Friday, June 9-10, 2011. More details will be coming soon.
- ↪ The 2011 **K-State Animal Sciences Leadership Academy** will be held June 8-11 at KSU. Twenty students will be selected to participate in this year's event. Applications are due by March 15, 2011. Visit www.YouthLivestockKSU.edu for application and more information. For more details, contact Chelsea Tomascik (785-532-1264; tomascik@k-state.edu).

| CALENDAR OF UPCOMING EVENTS | | |
|-----------------------------|--|-------------------|
| Date | Event | Location |
| January 27, 2011 | KSU Dairy Day | Whiteside, Kansas |
| January 28, 2011 | KSU Dairy Day | Seneca, KS |
| February 1, 2011 | KSU Swine Profitability Conference | Manhattan |
| February 5, 2011 | Annual Midwest Meat Processing Workshop | Manhattan |
| March 4, 2011 | KSU Cattlemen's Day | Manhattan |
| March 9-11, 2011 | Western Dairy Management Conference | Reno, Nevada |
| March 12, 2011 | Kansas Junior Swine Producer Day | Manhattan |
| March 26, 2011 | Kansas Junior Meat Goat Producer Day | Manhattan |
| June 6, 2011 | Horse Judging Camp – Beginner Section | Manhattan |
| June 9-10, 2011 | Horse Judging Camp – Advanced Section | Manhattan |
| June 8-11, 2011 | K-State Animal Sciences Leadership Academy | Manhattan |

WHAT'S NEW...

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

“Tis the season: New Year’s Resolutions”

It’s the New Year and the popular thing to do is to “resolve to do something better” this year than last year, and in years past---not a bad idea. The problem with New Year’s Resolutions isn’t the Resolutions themselves, but maybe the motivation, or the lack thereof, behind them.

I have a friend who used to drink too much, and then drive too much. He knew on all levels this was a bad thing, but he continued anyway. But he finally quit drinking because he was diagnosed with diabetes. He made a good resolution, with effective follow-through, not just because it was a good idea---it had *always* been a good idea---but because of a really good motivation. He had plenty of good, intellectual, reasons to quit this destructive behavior years ago, but it took a hard, in-your-face, reality check to make it happen.

Is that a model that we should follow? Definitely not. But it is a good metaphor for our business relationships and hard decisions that we put off until cold, hard, reality force our hand. Do we wait to do the right things only after our business is ‘diagnosed’ with serious problems, or are we proactive at seeking out discord and dysfunction in our work teams?

Only intentionality can overcome inertia. The workplace will continue to grind forward unless we invest something to intercept and alter its direction. The investment in prevention is much less than the cost of a cure down the road.

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

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

“The Decision”

If you’ve been growing your calves since fall weaning, you’ve likely been considering the next steps: sell them as feeders or finish them out.

The markets need to be considered in that decision process, as well as your access to feed resources and facilities. Depending on how you’ve managed your calves will also weigh into the decision. If you’ve used an accelerated growing program, with a target gain of 2.75-3.0 lbs/day, you may be able to step up and finish at least a portion of the cattle ahead of the normal May-June volume of finished calves. Performance, both past and future, will drive your ability to get the calves finished on time.

On the other hand, if you’ve grown the calves at a more moderate pace, they may work well in the marketplace as feeders. And if you’ve grown them at a very conservative pace, the lighter end may work for someone as stockers. Regardless, be sure to know your target market prior to selling, and group the calves according to your intended market. Analysis repeatedly shows that the 2 biggest drivers of feeder calf value in the auction marketplace are size and uniformity of lots.

If you decide to finish the calves, and you are determined to hit the April and May markets, it is critical to begin stepping up the grain fraction of the diet. Process the grain thoroughly to improve efficiency of utilization. In order to maintain a good mix of otherwise dry, fine, particles, it is helpful to include a moist ingredient, such as silage or wet byproducts.

Most importantly, consider all factors (grain, feeder, and fed cattle markets, forage supply, byproduct cost and availability, time and labor going into calving and planting seasons) when making this critical decision. Finishing cattle requires focus and attention to detail and should not be taken lightly. However, given sufficient planning and coordination, seeing your calf crop through to finish can be a rewarding experience. For more information contact Chris at cdr3@ksu.edu.

↪ **Effects of Supplemental Protein and Energy on Digestion and Urea Kinetics in Beef Cattle** - We measured urea kinetics in six cannulated Angus steers (908 lb) supplemented with energy and protein. Energy treatments included no energy or 1,200 g of glucose dosed daily. Casein (240 or 480 g) was dosed daily as a source of degradable intake protein. Steers had ad libitum access to low-quality prairie hay (4.7% crude protein). Doubly labeled urea was infused intravenously to measure urea kinetics.

Casein, but not glucose, reduced urea production and amount of urea recycled back to the gut. Glucose numerically increased the percentage of urea recycled, whereas casein reduced it.

Bottom Line...A better ability to predict the amount of urea recycled to the gut can enable more precise diet formulations for cattle. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information, contact Evan Titgemeyer (785-532-1220; etitgeme@ksu.edu) or Dale Blasi (785-532-5427; dblasi@ksu.edu).

↪ **Effects of Extended Zilmax Withdrawal on Performance and Carcass Traits of Finishing Beef Heifers** - Crossbred heifers (n = 450; 1025 ± 59 lb) were blocked into two groups on the basis of initial weight. A total of 54 feedlot pens were arranged in a 2 × 3 factorial arrangement. Factors were Zilmax fed to provide 0 or 7.56 g of zilpaterol-HCl per ton of diet dry matter and withdrawal times of 3, 10, or 17 days. Zilmax was fed for 20 days.

Bottom Line... Feeding Zilmax increased carcass weights, and the greatest improvement occurred with a 3-day withdrawal time. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information, contact Jim Drouillard (785-532-1204; jdrouill@ksu.edu) or Chris Reinhardt (785-532-1672; cdr3@ksu.edu).

↪ **Effect of Nitrogen Supplementation on Urea Recycling in Steers Consuming Corn-Based Diets** - Six ruminally and duodenally fistulated steers were used to measure the effects of supplemental nitrogen in the form of dried distillers grains with solubles or urea on urea recycling. Inclusion rates of urea and dried distillers grains with solubles were similar to those used commonly in corn-based diets fed to finishing cattle. Urea recycling was measured by using doubly labeled urea.

Bottom Line... Improved estimates of urea recycling by cattle consuming corn-based diets will lead to more precise diet formulation and less nitrogen excretion. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information, contact Evan Titgemeyer (785-532-1220; etitgeme@ksu.edu) or Chris Reinhardt (785-532-1672; cdr3@ksu.edu).

↪ **Effects of Dried Distillers Grains with Solubles and Increasing Dietary Wheat Middlings on Growth Performance, Carcass Characteristics, and Fat Quality in Growing-Finishing Pigs** - A total of 288 pigs (PIC TR4 × 1050, initially 100 lb) were used in an 84-d growth trial to evaluate the effects of dietary wheat middlings and dried distillers grain with solubles (DDGS) on growing-finishing pig growth performance, carcass characteristics, and carcass fat quality. Pens of pigs were balanced by initial weight and gender and were randomly allotted to 1 of 4 dietary treatments with 8 pigs per pen (4 barrows and 4 gilts) and 9 replications per treatment. Dietary treatments included a corn-soybean meal-based diet, a diet with 30% DDGS, or the diet with 30% DDGS with 10% or 20% wheat middlings. Treatment diets were formulated to constant standardized ileal digestible lysine:ME ratios within each phase. All treatments were fed in 4 phases. Overall (d 0 to 84), pigs fed increasing wheat middlings had decreased ADG and poorer F/G. There were no differences among treatments for ADFI. For carcass characteristics, increasing wheat middlings decreased percentage yield and HCW and tended to decrease loin depth. Pigs fed wheat middlings also had decreased back fat and increased percentage lean. Increasing DDGS from 0 to 30% decreased carcass yield and backfat depth, while increasing percentage lean and jowl iodine value. Increasing wheat middlings in the diet decreased feed cost per pig and feed cost per lb gain but also decreased total revenue. Similarly, feeding DDGS decreased feed cost per pig and feed cost per lb gain; however, because total revenue was not decreased as greatly by DDGS, feeding 30% DDGS increased income over feed costs (IOFC).

Bottom Line...In conclusion, alternative ingredients, such as DDGS and wheat middlings, can reduce feed cost; however, the full impact on growth performance and carcass value must be known to truly understand whether they influence net profitability. 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. Barnes, J.M. DeRouche, M.D. Tokach, R.D. Goodband, S.S. Dritz, and J.L. Nelssen.)

↪ **Effects of Feeding Excess Dietary Crude Protein from Soybean Meal and Dried Distillers Grains with Solubles on Nursery Pig Performance** – Two experiments were conducted to determine the effects of feeding excess dietary CP to nursery pigs. In Exp. 1, a total of 105 nursery pigs (PIC TR4 × 1050, initially 22.9 lb and 35 d of age) were used in a 21-d growth assay to determine the effects of feeding excess CP from soybean meal to nursery pigs. The pigs were fed a pelleted commercial starter diet for the first 14 d after weaning, and the experimental treatments were fed for the next 21 d. Treatments consisted of 3 corn-soybean meal-based diets formulated to different CP levels: (1) 22.5%, (2) 25%, and (3) 27.5% CP. Increasing CP from 22.5 to 27.5% had no effect on ADG, ADFI, or F/G. In Exp. 2, a total of 105 nursery pigs (PIC TR4 × 1050, initially 22.1 lb and 35 d of age) were used in a 21-d growth assay to determine the effects of excess CP from dried distillers grains with solubles (DDGS) on nursery pig growth. The pigs were fed a pelleted commercial starter diet for the first 14 d after weaning and the experimental treatments for the next 21 d. Treatments were corn-soybean meal-based diets formulated to 22.9 and 25% CP and a diet with 30% DDGS formulated to 25% CP. Increasing the CP concentration had no effect on ADG, ADFI, or F/G. However, pigs fed the DDGS had poorer F/G compared to pigs fed the corn-soybean meal-based diet formulated to 25% CP.

Bottom Line...Our data suggest that nursery pigs can tolerate CP levels up to 27.5% without negative effects on growth performance. Additionally, the inclusion of 30% DDGS in nursery pig diets did not have a significant impact on ADG or ADFI, but did negatively affect F/G. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by S.M. Williams, C.B. Paulk, J.D. Hancock, S. Issa, and T.L. Gugle.)

AS&I FACULTY SPOTLIGHT



Lily Edwards (lne@k-state.edu; 785-532-0938)
Assistant Professor/Animal Behavior and Welfare

Lily Edwards grew up in Rhode Island. She completed her B.A. in French at Amherst College in 2002. After teaching in Belgium for a year after graduating, she decided to continue her education in Animal Science, an area that she was always interested in but had not pursued as an undergraduate. She received her M.S. at the University of Rhode Island in 2006 studying behavior and welfare of captive zoo species. She completed her Ph.D. at Colorado State University in 2009 focusing on understanding and minimizing pre-slaughter stress of swine.

Dr. Edwards conducts research, advises students and teaches courses in animal behavior, welfare and ethical issues in agriculture. Her research interests broadly include the relationships between physiology and behavior specifically associated with euthanasia, pain and the marketing process of livestock.



Chelsea Tomascik (tomascik@k-state.edu; 785-532-1264)
Extension Assistant/Youth Livestock Coordinator

Chelsea Tomascik grew up in Cameron, Texas where her family raised registered Red Angus and commercial cattle. Chelsea grew up showing beef heifers as well as market steers and pigs and was active in many other FFA activities, leading her to complete a bachelor's degree in animal science. Chelsea graduated with her bachelor's degree in Animal Science from Texas A&M University in 2009.

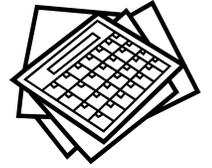
After interning in Washington, D.C. with the USDA Marketing Programs Branch, Livestock Check-off Programs, she decided to pursue a master's in communications. She is currently completing her master's in Agricultural Communications and Journalism at Texas A&M University with research focusing on incident planning and response at livestock shows in the United States.

Prior to coming to Kansas, Chelsea served as a graduate teaching assistant in the department of Agricultural Leadership, Education and Communications at Texas A&M University where she guest lectured classes in Web Design, Introduction to Agricultural Communications, and Theory and Practice in Agricultural Publications.

Chelsea is involved with all of the youth livestock programs put on by the Department of Animal Sciences and Industry. Some of these include: Junior Producer Days, K-State Animal Sciences Leadership Academy, Livestock Sweepstakes, and state livestock nominations.

WHAT PRODUCERS SHOULD BE THINKING ABOUT...

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



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

- Manage calving pens and pastures to minimize human, cow and calf stress. Stay organized.
- An observation schedule should be implemented for calving first-calf heifers and cows. First-calf heifers should be checked every 2 to 3 hours.
- Sanitation is key to reducing and/or eliminating calf scours. An excellent calving pasture management plan by Dr. David Smith from the University of Nebraska - Lincoln, can be found at <http://beef.unl.edu/beefreports/symp-2003-19-XVIII.pdf>.
- Make sure every calf consumes adequate colostrum during the first 4-12 hours after birth.
- Keep accurate calving records, including cow identification (ID), calf ID, birth date, calving difficulty score and birth weight. Other traits to consider recording are teat and udder scores, calf vigor score, and other pertinent information. This information along with Angus sire information is vital for enrolling cattle into the AngusSourceSM program.
- Calving books are essential sources of information; make sure you have a backup copy.
- Body condition score (BCS) cows. Thin and young cows will need extra energy to maintain yearly calving interval.
- If cow diets are going to be shifted from low- (poor quality forage or dormant grass) to high-quality forage (lush green grass) programs, begin a grass tetany prevention program at least 3 weeks prior to the forage switch.
- Given the high price of mineral supplements, conduct a needs assessment of your cowherd. Moreover, closely monitor daily intake to insure that it is consistent with label directions.
- When making genetic selections, use the most recent National Cattle Evaluation (NCE) and herd records judiciously.
- If new bulls are purchased, now is the time to start preparing them for their first breeding season. Bulls need to be properly vaccinated and conditioned to be athletic. Moderate body condition with abundant exercise is ideal.
- After calving and before breeding, vaccinate cows as recommended by your veterinarian.
- Plan to attend beef production meetings.

*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.*