



Newsletter from the Department of Animal Sciences and Industry
 213 Weber Hall - Kansas State University - Manhattan, KS 66506
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UPCOMING EVENTS...

✦ The **KSU Dairy Days** will be held on January 26 and 27, 2012. These meeting will be held in conjunction with the Kansas Dairy Commission and the DHIA Annual Meetings in Nemaha and Reno Counties.

Registration will begin at 10:00 a.m. on Thursday, January 26 at the Whiteside Amish Community Building in Whiteside, KS. To pre-register for this event, contact the Reno County Extension Office (620-662-2371; cbarilla@oznet.ksu.edu).

On Friday, January 27, registration will begin at 10:00 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 Mike Brouk (mbrouk@ksu.edu; 785-532-1207).

✦ A **Prescribed Burning Workshop** will be held on February 16, 2012 from 5:30 – 9:00 p.m. at the Fire Department Meeting Room in Miltonvale, KS. For more information, contact Robin Slattery (785-325-2121; rslat@ksu.edu).

✦ The **2012 KSU Swine Profitability Conference** will be held Tuesday, February 28 in Forum Hall of the K-State Student Union. A great program has been lined up including presentations from Dr. Gene Nemechek, Pfizer Animal Health; Kent Condray, Clifton, KS; Glynn Tonsor, KSU; and Cindy Cunningham, National Pork Board as well as a presentation on "Humor for the Heart of Agriculture" from Damian Mason. The schedule is as follows:

- 9:15 a.m. Coffee and Donuts
- 9:30 a.m. *Special Lecture: Jack and Pat Anderson Lecture in Swine Health Management: Lessons from Large Production Systems that Can Help the Competitiveness of Land-Based Producers - Dr. Gene Nemechek, Pfizer Animal Health*
- 10:30 a.m. *What Have I Done to Make My Land-based System Successful - Kent Condray, Clifton, KS*
- 11:15 a.m. *Short and Long-Term Price Outlook: How Will Consumer Preferences on the Welfare Front Impact Your Operation? - Dr. Glynn Tonsor, Kansas State University*
- 12:00 noon Lunch
- 1:15 p.m. *How to Keep Your Swine Operation off You-Tube - Cindy Cunningham, National Pork Board*
- 2:00 p.m. *Humor for the Heart of Agriculture - Damian Mason*
- 3:00 p.m. Adjourn

Registration fee of \$25 per participant is due by February 15, 2012. For a copy of the brochure or on-line registration, visit www.KSUswine.org. For more information, contact Jim Nelssen (785-532-1251; jnelssen@ksu.edu).

January 2012

News from KSU Animal Sciences

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We Need Your Help!

Please send questions, comments or ideas for future newsletter topics to lschrein@ksu.edu or call (785) 532-1267.



UPCOMING EVENTS...

- ↪ The 99th annual **KSU Cattlemen's Day** will be held on Friday, March 2, 2012. The complete program and registration information will be coming soon to www.asi.ksu.edu/cattlemensday.
The morning program will include presentations on "Drought, a Dwindling Cow Herd, and the Global Marketplace – Implications for Cattle Pricing" and "Changes in Sources for High Quality Beef" as well as other pertinent information for cattle producers. Each presentation will be followed by an open question/answer session.
The afternoon program will include breakout sessions on beef cattle genomics, feed and cattle risk management for cow-calf producers, and an update on prevalence and testing for non-O157:H7 STECs. Sessions will also include information on cattle feeding programs and fat profiles of beef, limit feeding program for cows and calves as an alternative to roughages, and cow and heifer synchronization programs. The afternoon program will also offer opportunities to visit the Kansas Animal Breeding Service Unit (KABSU) where there will be presentations on preparing bulls for semen collection and bovine leucosis. Telltale signs from cattle necropsy will be demonstrated at the Sheep and Meat Goat Teaching Center.
For more information, contact Jim Drouillard (jdrouill@ksu.edu; 785-532-1204) or Dale Blasi (dblasi@ksu.edu; 785-532-5427).

- ↪ The KSU **Legacy Bull and Heifer Sale** will be held on March 2, 2012, at the conclusion of KSU Cattlemen's Day. The sale will begin at 3:30 p.m. at the Purebred Beef Unit. Sale offerings include 70 Angus, Simmental, SimAngus and Hereford bulls; 50 spring and fall bred females; 7 show heifer prospects; and 6 AQHA horses. For more information or a sale catalog, contact Ryan Breiner (rbreiner@ksu.edu; 785-532-6127).

- ↪ The **KSU Sheep Producer Day and Ribbon Cutting Ceremony for the new KSU Sheep and Meat Goat Unit** have been planned for Saturday, March 3, 2012. A ribbon cutting ceremony for the recently completed KSU Sheep and Meat Goat Unit will be held beginning at 9:00 a.m. with an opportunity to explore the facility. Enjoy a complimentary lamb and chevron lunch after the ceremony.
The afternoon Sheep Producer Day program will include presentations on flock health, balance of commercial and purebred sheep operations, how to measure profitability of your sheep operation and more. Watch for a complete schedule of details. For more information, contact Brian Faris (brfaris@ksu.edu; 785-532-1255).

- ↪ The **Midwest Meat Processors Workshop** will be held on Friday, March 30, 2012 in Weber Hall, Kansas State University. Mark the date on your calendar and watch for more details. For more information, contact Liz Boyle (lboyle@ksu.edu; 785-532-1247).

- ↪ Mark March 31, 2012 on your calendar for the **Kansas Junior Sheep Producer Day**. Possible topics to be covered by sheep industry professionals include: selection of your youth sheep project, nutrition, general care and management, shearing/fitting demonstration, DNA, showmanship and health/vaccinations. If you have ideas of topics you would be interested in learning about please email those to Chelsea Tomascik at Tomascik@ksu.edu by February 15, 2012. Registration fee is \$15.00 per person if post marked by March 9, 2012 and \$20.00 per person after that date. Full registration brochure, along with speaker information will be available by February 1, 2012 at www.YouthLivestock.KSU.edu. Please contact Chelsea Tomascik if you would like more information (tomascik@ksu.edu, 785-532-1264).

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
January 26, 2012	KSU Dairy Days	Whiteside, KS
January 27, 2012	KSU Dairy Days	Seneca, KS
February 16, 2012	Prescribed Burning Workshop	Miltonvale, KS
February 28, 2012	KSU Swine Profitability Conference	Manhattan
March 2, 2012	KSU Cattlemen's Day	Manhattan
March 2, 2012	Legacy Bull and Heifer Sale	Manhattan
March 3, 2012	KSU Sheep Day and Ribbon Cutting Ceremony	Manhattan
March 30, 2012	Midwest Meat Processors Workshop	Manhattan
March 31, 2012	KSU Junior Sheep Producer Day	Manhattan

WHAT'S NEW

Management Minute "Opportunities"

☞ **Management Minute** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Opportunities"*

"Opportunity". I used to be part of an organization that used that very word euphemistically. The top-down leadership in that organization mandated that the team was not to use the word "challenge", but instead replace that word with "opportunity". "We don't have 'challenges'", they insisted, "we simply must view those challenges as "opportunities".

Well, when it doesn't (hardly) rain for a year, or when the entire global economy falls over like the guy who stayed too long at the Christmas party, or when a key team leader leaves an already-shorthanded team---those are challenges, not opportunities, let's be honest. Intelligent, loyal, hard-working people need to be treated as such.

I've had a couple of bosses who were pretty honest about their HR commitments. Both told me essentially the same thing: "We do an annual review to appease the unwieldy HR megalith we've generated, not because we're going to reveal some heretofore undiscovered deficiency or merit in your performance. If you're doing something that needs either changed or commended, we won't wait until the end of the year to tell you." I like and appreciate that kind of honesty. Maybe HR doesn't, but I do.

That's not to say the annual review doesn't and can't have value. For the HR megalith, they (may) need a record trail if anything goes haywire down the road in your career path. But for the team, this can be a time for sharing long-range vision of the organization, and for gathering critical, essential, input (concerns, questions, needs, high points, etc.) from all members of the team.

The point is this: don't simply check the HR box; as always, use this one-on-one time to reinforce the two-way lines of communication essential to effective leadership.

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

Feedlot Facts "Performance Paradigm I: Carcass Gain"

☞ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Performance Paradigm I: Carcass Gain"*

Consider dressing percentage. All the old generalities still apply: steers dress higher than heifers, fed cattle higher than cows, beef breeds higher than dairy breeds, the average dressing percent of fed beef cattle is 62-64%. But what is the dressing percentage of the last pound of gain put on in the feedlot?

Here's the deal: a fed steers walks into the pen with the greatest percentage of the head, hide, hooves, horns, and offal he'll walk out of that pen with after 150 or 200 days on feed. So is he gaining 4 lbs per day of head, hide, hooves, horns, or offal? No, he's putting on mostly muscle and fat---most of which winds up on the carcass, not on the floor (so-to-speak). So what's the dressing percentage of that gain?---it's fairly high. Some serial slaughter studies suggest that over 80% of the live weight gained at the end of the feeding period is carcass; that is, if a steer is gaining 3.0 lbs per day live, he's also gaining 2.4 lbs of carcass daily.

Why does it matter? Because that mountain of performance data we've been collecting for the past few decades is potentially misleading, if you've switched to marketing on either a carcass weight or carcass value (grid) basis. The information is still true, but it no longer reflects the true relationship between the cost of gain and the value of gain. The cost of gain should now be calculated as daily cost over daily **CARCASS** gain, not daily **LIVE** gain, and the value of gain should be considered equal to the daily **CARCASS** cutout value, not the **LIVE** price.

The take home message is that cattle continue to gain carcass weight efficiently even at the end of the feeding period, after live efficiency would indicate that feeding is no longer cost effective. As a rule, when cattle approach yield grade 4 the increasing fat content of gain causes overall gain to slow and makes cost of carcass gain inefficient. But up until that point, remember that about 80% of all gain is going onto the carcass and feeding deep into yield grade 3 can be cost effective.

So if you're a carcass-based seller, re-evaluate your marketing window based on value and cost of carcass gain, rather than value and cost of live gain.

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

↳ **Human Chorionic Gonadotropin Increases Embryo Transfer Pregnancy Rates** - Mature beef cows at 3 locations (n = 719) received 1 fresh or frozen-thawed embryo 7 days post-estrus. At transfer, recipients alternately received either 1,000 IU hCG (1 mL, Chorulon; Intervet, Inc., Millsboro, DE) or 1 mL saline and were assigned a body condition score (BCS; 1 = thin, 9 = very fat). Pregnancy diagnoses were performed by transrectal ultrasonography at 35 and 65 days (mean) post-estrus at which time blood was sampled to measure progesterone in blood serum. Treatment with hCG at embryo transfer and transfer of fresh embryos increased the likelihood of pregnancy at the first diagnosis. Further, recipients having BCS >5 at the time of transfer tended to have greater pregnancy rates than recipients having BCS ≤5.

Bottom Line... Administering 1 mL Chorulon (1,000 IU human chorionic gonadotropin) to embryo transfer recipients at the time of embryo transfer improved transfer pregnancy rates by 7.9%. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information, contact Jeffrey Stevenson (785-532-1243; jss@ksu.edu) or Larry Hollis (785-532-1246; lhollis@ksu.edu).

↳ **Effect of Total Lysine:Crude Protein Ratio on Growth Performance of Nursery Pigs from 15 to 25 lb** - A total of 282 nursery pigs (PIC TR4 × 1050, initially 15.9 ± 0.15 lb BW and 3 d postweaning) were used in a 28-d growth trial to evaluate the effects of total lysine:CP ratio, using fish meal as a source of non-essential N, on growth performance. Pigs were allotted to 1 of 6 dietary treatments. Each treatment had 5 replications with 7 pigs per pen and 2 replications with 6 pigs per pen. Pigs and feeders were weighed on d 0, 7, 14, 21, and 28 to calculate ADG, ADFI, and F/G. A 2-phase diet series was used with treatment diets fed from d 0 to 14 and a common diet fed from d 14 to 28. All diets were in meal form. The 6 total lysine:CP ratios were 6.79, 6.92, 7.06, 7.20, 7.35, and 7.51%. From d 0 to 14, there was a trend for increased ADG with an increasing dietary total lysine:CP ratio up to 7.35%, with poorer performance in pigs fed the greatest lysine:CP diet. Increasing the total lysine:CP ratio tended to improve F/G for pigs fed 7.35%, with poorer F/G as total lysine:CP ratio increased to 7.51%. When a common diet was fed (d 14 to 28), there was no difference in ADG or F/G. A response was detected for ADFI due to an increase in ADFI from the pigs fed the intermediate diets (7.06 and 7.20% total lysine:CP) during the previous period.

Bottom Line... Overall (d 0 to 28), there was a trend for increased ADG and ADFI caused by the numerically highest values from pigs fed a total lysine:CP ratio of 7.35% and the numerically lowest values from pigs fed a total lysine:CP ratio of 7.51%. Dietary treatment did not influence F/G for the overall trial. These results indicated that feeding total lysine:CP ratio greater than 7.35% may decrease growth performance of nursery pigs. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by J. E. Nemecek, M. D. Tokach, S. S. Dritz, R. D. Goodband, J. M. DeRouchey, J. L. Nelssen, and J. Usry.)

↳ **The Effects of Sorghum Dried Distillers Grains with Solubles on Nursery Pig Performance** - Two experiments were conducted to determine the effects of sorghum dried distillers grains with solubles (DDGS) on nursery pig growth performance. In both experiments, sorghum DDGS were added to corn- or sorghum-based diets to determine their impact on ADG, ADFI, and F/G. In Exp. 1, a total of 360 nursery barrows (PIC 1050, initially 15.1 lb and 26 d of age) were used with 5 pigs per pen and 9 pens per treatment. Pigs were allotted to 1 of 8 dietary treatments arranged in a 2 × 4 factorial with main effects of grain source (corn vs. sorghum) and sorghum DDGS (0, 15, 30, or 45%). Overall (d 0 to 34), pigs fed the corn and sorghum diets had similar ADG and ADFI; however, F/G was poorer for pigs fed the sorghum-based diets compared with the corn-based diets. Also, increasing DDGS reduced ADG but increased ADFI, resulting in poorer F/G. In Exp. 2, a total of 180 nursery pigs (PIC 327 × 1050, initially 23.8 lb and 38 d of age) were used in a 21-d study with 6 pigs per pen and 5 pens per treatment. The dietary treatments were arranged in a 2 × 3 factorial with main effects of grain source (corn vs. sorghum) and DDGS (none, 30% corn DDGS, or 30% sorghum DDGS). Overall (d 0 to 21), no differences were found in ADG, ADFI, and F/G among pigs fed the corn- or sorghum-based diets. DDGS source (corn vs. sorghum) also did not influence growth performance; however, adding 30% DDGS to either the corn- or sorghum-based diets tended to reduce ADG. Pigs fed diets with DDGS had similar ADFI and F/G when compared with pigs fed the basal diets (0% DDGS).

Bottom Line... In conclusion, sorghum can be used as a suitable replacement for corn in nursery diets. In Exp. 1, feed efficiency was approximately 5% poorer in pigs fed sorghum-based diets vs. pigs fed corn-based diets, which is similar to the energy content differences between the two grains. However, increasing sorghum DDGS to 45% of the diet reduced pig growth performance, so its inclusion needs to be evaluated on an income over feed costs basis. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by K. M. Sotak, R. D. Goodband, M. D. Tokach, S. S. Dritz, J. M. DeRouchey, and J. L. Nelssen.)

AS&I Faculty Spotlight



Ken Odde (kenodde@k-state.edu; 785-532-1227)
Department Head

Dr. Ken 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.

Currently, Dr. Odde is Professor and Head, Department of Animal Sciences and Industry, Kansas State University. 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

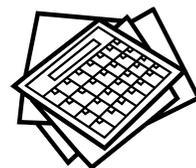


Curtis Kastner (ckastner@k-state.edu; 785-532-1234)
Professor/Director of Food Science Institute

Curtis Kastner has been an ASI Faculty member since 1975. He has served as the Coordinator of the Food Science and Industry undergraduate program, Research Coordinator, and Associate Department Head. Currently he serves as the Director of the Food Science Institute, which was started in 2001. The Institute is charged with coordinating and facilitating food science teaching, research, and extension efforts across campus. He also coordinates the interdisciplinary Food Safety and Security program for the Institute as well as the Education Theme Initiative for the National Center for Food Protection and Defense, a Center of Excellence for the Department of Homeland Security. His accomplishments have been recognized by being appointed to the National Advisory Committee for Meat and Poultry Inspection, awarded the "Educator's Award of the National Meat Processors Association, designated as the "Advanced Degree Graduate of Distinction Award" by his alma mater, Oklahoma State University, and awarded the Gamma Sigma Delta International Award for Distinguished Achievement in Agriculture.

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.*