



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

August, 2015

### News from KSU Animal Sciences

#### In This Issue

- Upcoming Events
- Management Minute
- Feedlot Facts
- 2015 KSU Cattlemen's Day Article Featured
- 2014 KSU Swine Day Articles Featured
- Faculty Spotlight
- What Producers Should Be Thinking About...

#### We Need Your Help!

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

➤ **Kansas Junior Livestock Show entries and scholarship applications are due August 15th.** All entries must be submitted online using the entry form available on the KJLS website: [www.kjls.org](http://www.kjls.org). The rule book and scholarship application forms are only being offered electronically this year through the website. Exhibitors will still need to print off a hard copy of their entry form, obtain the required signatures, and mail it to the KJLS. Late entries will be accepted until August 31st, but the entry fee will double.

➤ The **Kansas Livestock Sweepstakes** has been scheduled for August 22-23, 2015. This all-around event will feature contests in Livestock Judging, Meats Judging, Livestock Skillathon, and Livestock Quiz Bowl. A special prize will be awarded to the county that does the best in all four contests. The tentative schedule includes:

#### **Saturday, August 22**

- 7:30 a.m. Sweepstakes Check-in Desk Opens (Coaches only) and Quiz Bowl Registration Opens (Coaches only) – Weber Hall West Lobby
- 8:00 a.m. Quiz Bowl Participants Qualifying Exam (30 Minutes) - Weber 123
- 8:15 a.m. Livestock Judging Check-in Opens (Coaches only) – Weber Hall West Lobby
- 9:00 a.m. Livestock Judging Contest Begins - Meet in Weber 123
- 12:00 p.m. Lunch is provided for Livestock Judging Contest participants. Non-participants may eat at this time, but must have purchased meal tickets during online registration– Weber Hall
- 3:00 p.m. Quiz Bowl Teams Posted by lunch throughout Weber Hall (Time is Approximate) Break after the conclusion of livestock judging for dinner on your own and to check into hotel
- 4:00 p.m. Skillathon Check-in Opens (Coaches Only) – Weber 123
- 4:30 p.m. Skillathon Begins for all Counties/Districts – Weber 123
- 7:30 p.m. Quiz Bowl Prelims – Meet in Weber 123
- Competition Rooms – Weber 111 & 146
- \*Quiz Bowl Semi-finals & Finals will take place Sunday afternoon.

#### **Sunday, August 23**

- 6:30 a.m. Meats Judging Contest Registration (Coaches only) – Weber 111
- 7:00 a.m. Meats Judging Contest Begins – Weber 111
- 11:30 a.m. Lunch is provided for Meats Judging Contest participants. Non-participants may eat at this time, but must have purchased meal tickets during online registration– Weber Hall (Time is Approximate)
- 12:30 p.m. Quiz Bowl Semi-finals – Weber 146 & Umberger 105
- 1:30 p.m. Ice Cream Social -Weber West Hall Lobby
- 2:00 p.m. Quiz Bowl Finals – Umberger 105
- Awards Presentation to immediately follow – Umberger 105
- \*Awards presentation to follow Quiz Bowl Finals as quickly as possible

Rules and complete schedule can be found at [www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu). Registration is now closed. For more information, contact Lexie Hayes ([adhayes@ksu.edu](mailto:adhayes@ksu.edu); 785-532-1264).



☞ **Flint Hills Beef Fest planned for August** - Make plans now to attend the Flint Hills Beef Fest which will be held August 21-23, 2015. Founded in 1986, the Flint Hills Beef Fest is an annual celebration of the grass cattle industry for which the Flint Hills region of Kansas is known. Several contests involving cattle are designed to showcase the quality and economic competitiveness of Flint Hills cattle. Events will take place on the Lyon County Fairground in Emporia, Kansas. For more details and a complete schedule of events, please visit [www.beeffest.com](http://www.beeffest.com)

☞ **Food Preservation Update for Agents** – Is food preservation new to you? Or do you need an update to your food preservation knowledge? As part of a grant from the Kansas Health Foundation, four food preservation classes will be held for Extension Agents in locations across Kansas. The dates and locations are:

September 15 – Abilene, KS  
September 17 – Hays, KS  
September 23 – Dodge City KS  
September 29 – Iola, KS

So save the date that works for you! More information and registration will be coming soon. For more information, contact Karen Blakeslee (785-532-1673; [kblakesl@ksu.edu](mailto:kblakesl@ksu.edu))

☞ **KSU Beef Stocker Field Day to be held September 24** - The 2015 KSU Beef Stocker Field Day will be held on Thursday, September 24 at the KSU Beef Stocker Unit in Manhattan. The schedule is as follows:

9:30 a.m. Registration/Coffee  
10:15 a.m. Introductions  
10:30 a.m. Charting the Course in Choppy Waters – *Dr. Glynn Tonsor, Agricultural Economist, KSU*  
11:15 a.m. Producer Panel – Breaking into the Stocker Business – Managing Risk  
Moderator: *Wes Ishmael, Contributing Editor, BEEF magazine*  
*Rodney Derstein, Kismet, KS*  
*Justin Keith, Allen, KS*  
*Sam Sterling, Pratt, KS*  
*Mike Utech, Emporia, KS*  
12:15 p.m. Barbeque Brisket Lunch – View posters/demonstrations  
1:15 p.m. Innate Immunity and BRD in Stocker Calves –  
*Jim Sears, Senior Technical Services Veterinarian, Bayer*  
2:15 p.m. Veterinarian Panel – Health Issues – What we Think  
Moderator: *Dale Blasi, KSU Beef Cattle Specialist*  
*Stan Perry, DVM*  
*Phil Benz, DM*  
*James Allen, DVM*  
3:30 p.m. Break  
4:00 p.m. Breakout Sessions (30 minutes/breakout)  
Dealing with Old World Bluestem  
– *Dr. Walt Fick, Range Specialist, KSU*  
Lungs: When Things aren't Right (Wet Lab)  
– *Gregg Hanzlicek, KSU Veterinary Medicine Diagnostic Lab*  
New Pen Construction: Considerations, Requirements and Costs  
– *Bill Hollenbeck, Beef Stocker Unit; Pat Murphy and Joe Harner, Livestock Systems Engineers, KSU*  
5:30 p.m. Cutting Bull's Lament 2015

The day will conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream. Pre-registration is \$25 by September 15. For complete details and registration, visit [www.KSUbeef.org](http://www.KSUbeef.org). For more information, contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu); 785-532-5427).

☞ **Developing and Implementing Your Company's HACCP Plan for meat, poultry, and food processors** will be held October 7-9, 2015 in Olathe, KS. Information and registration for the 2.5 day International HACCP Alliance accredited workshop is online at <http://haccp.unl.edu>. The workshop fee is \$400 per person, and participants will be presented with a certificate with an International HACCP Alliance seal upon completion of the course. For more information, contact Dr. Liz Boyle at [lboyle@ksu.edu](mailto:lboyle@ksu.edu) or 785-532-1247.

Join us for the **AS&I Family and Friends Reunion to be held on Friday, October 9, 2015**, from 5:30–9:30 pm at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, Kansas. This inaugural event will celebrate the K-State Animal Sciences & Industry family and thank our industry friends for decades of contributions to animal agriculture. Activities include great food, live music, a commemorative limited edition take-home poster created by noted artist and K-State AS&I alum, Dino Cornay, Junior Wildcat Barn Yard and more surprises!!

The first Don L. Good Impact Award will be presented during the reunion. Named for the former department head of K-State Animal Sciences and Industry, the award recognizes positive impact on the livestock and meat industry or agriculture.

Dr. Miles McKee, AS&I Professor Emeritus is the first recipient of this award. Dr. McKee has taught, mentored and been a friend to thousands of ASI students spanning more than four decades. Join us as we honor one of the most influential teachers and animal scientists of the century!

We will also be hosting a Tailgate/Watch Party for the football game (KSU vs. TCU) on Saturday, October 10, 2015. Time will be 2 hours before the scheduled game time which is to be determined. Come join us for the fun! For more information and a registration form, visit [www.asi.ksu.edu/familyandfriendsreunion.html](http://www.asi.ksu.edu/familyandfriendsreunion.html)

**KANSAS STATE UNIVERSITY**  
**Family & Friends REUNION**  
 Animal Sciences & Industry

**SAVE THE DATE!**  
**OCTOBER 9, 2015**

**ANIMAL SCIENCES & INDUSTRY**  
**KANSAS STATE UNIVERSITY**

**Activities include:**  
 • Food & beverages throughout the evening  
 • Live music  
 • Jr. Wildcat Barn Yard  
 • "Surprise" guests!

**Don L. Good IMPACT AWARD**  
 The first Don L. Good Impact Award will be presented to Miles McKee, Professor Emeritus, Kansas State University. Dr. McKee has taught, mentored and been a friend to thousands of ASI students spanning more than four decades. Join us as we honor one of the most influential teachers and animal scientists of the century!

**KANSAS STATE UNIVERSITY**  
**Family & Friends REUNION**  
 Animal Sciences & Industry  
**Bring the family and join us Friday, October 9, 2015**  
 from 5:30 PM to 9:30 PM at the Stanley E. Stout Center

**Animal Sciences & Industry**  
 210 Weber Hall  
 Manhattan, KS 66506

**PRSRIT STD.**  
 U.S. POSTAGE  
**P A I D**  
 Permit #9  
 Topeka, KS

**This inaugural event will celebrate the K-State Animal Sciences & Industry family and thank our industry friends for decades of contributions to animal agriculture.**

**Noted artist and K-State alum, Dino Cornay, will create an original commemorative drawing for the event. Limited-edition signed and numbered prints will be provided to the first 1,500 event attendees! Begin your collector's series with the first edition!**

**Keep up to date with us on social media as plans develop for this exciting event:**  
[www.asi.ksu.edu/familyandfriendsreunion.html](http://www.asi.ksu.edu/familyandfriendsreunion.html)

**@KStateFamilyFriend** **www.facebook.com/KStateFamilyFriend**

## CALENDAR OF UPCOMING EVENTS

Date	Event	Location
August 15, 2015	KJLS entry and scholarship application deadline	
August 21-23, 2015	Flint Hills Beef Fest	Emporia
August 22-23, 2015	Kansas Livestock Sweepstakes	Manhattan
September 15, 2015	Food Preservation Update for Agents	Abilene, KS
September 17, 2015	Food Preservation Update for Agents	Hays, KS
September 23, 2015	Food Preservation Update for Agents	Dodge City, KS
September 24, 2015	KSU Beef Stocker Field Day	Manhattan
September 29, 2015	Food Preservation Update for Agents	Iola, KS
October 7-9, 2015	HACCP Workshop	Olathe
October 9, 2015	AS&I Family and Friends Reunion	Manhattan

# WHAT'S NEW.....

## Management Minute "Win-Win or No Deal"

### ↪ Management Minute – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Win-Win or No Deal"

I recently had the opportunity to listen to a cattleman speak at a conference on the subject of, among other things, loyalty and building informal alliances in your business. The general take-homes were very useful, and included concepts such as: make "the pie" bigger so that both parties' share of the pie is bigger than before the relationship; business is not a zero sum game where one party must lose for the other party to win; and building seller-buyer relationships based on loyalty can move both parties to a higher plane of business success than simply basing the transaction on lowest price vs. greatest margin.

But one message that also stood out was based on one of "The 7 Habits of Highly Effective People" by Stephen R. Covey, the concept of "think win-win".

Loosely, the "think win-win" suggests that for any relationship to be sustainable over a long time period, especially a business relationship, the relationship must benefit both parties. One party may sacrifice profit over the short-term while the other party benefits, in an attempt to build trust and loyalty, but if the partnership does not result in improved profitability long-term for both parties, one party will move away from the relationship because the partnership has become "win-lose". However, if the partnership results in benefits---financial, logistical, or otherwise---for both parties, long-term, this is considered "win-win".

A critical element of this concept is that if one party decides that there is no long-term benefit for them from the relationship, they must move away and say, "No deal." Obviously, the party on the short end of the bargain will likely make this call, but the astute manager on the winning end of this partnership should also be wise enough to know that this partnership will not last; we can only drain our partners' resources for so long. And the sooner both parties agree to end the relationship amicably, the greater will be the opportunity to (a) move on to forge new partnerships elsewhere and (b) prevent hurt feelings in order to possibly forge a partnership together in the future.

This concept actually extends to employer-employee relationships as well.

The astute manager is constantly on the lookout for excellent individuals to add to the team, and throughout the interview and hiring process, is evaluating for the individual's skills and qualifications, but is also considering how the person will fit in with the rest of the team. The more thoroughly the interview and screening process is designed and implemented, the more likely that the person will be not only qualified but also a good fit for the organization. However, no system can guarantee 100% hiring success, and eventually the organization will hire a person who just doesn't fit.

This is a business relationship too, just like any other. The employee agrees to provide a service, and the employer agrees to pay a fee for that service. And just like a win-lose business partnership, it's important for the astute manager to recognize, as early as possible, a win-lose hiring relationship.

Obviously, if the employee proves to be either unqualified or a poor fit with the organization's vision and structure---a "lose" for the organization---the relationship must be terminated. But the astute manager will also recognize when an employee's qualifications, abilities, and ambitions greatly exceed the opportunities provided by the existing position---a "win" for the organization but not necessarily a "win" for the employee. It's important for the manager to either (a) identify an advancement path for this individual within the organization or (b) recognize that this employee will not stay in the organization long-term, and start looking to identify a replacement.

For more information, contact Chris at [cdr3@ksu.edu](mailto:cdr3@ksu.edu).

### ↪ Feedlot Facts – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "The Value of Carcass Gain"

This is dangerous territory; the topic of fed cattle marketing fills volumes and greater men have failed. But there is one aspect of fed cattle marketing of which to be acutely aware this time of year: marketing endpoints.

## Feedlot Facts "The Value of Carcass Gain"

## ↪ **Feedlot Facts – “The Value of Carcass Gain” (cont.)**

If you market fed cattle based strictly on live price, the simple rule for when to pull the trigger and send the cattle to town is this: when the COST of a day's gain (cost of feed + yardage) exceeds the VALUE of that day's gain (live price × that day's gain), feeding for more days will cost more than it will return.

If you sell cattle in the beef (carcass weight basis rather than live weight basis) with no direct premium or discount for any specific carcass parameters, the equation changes slightly. Your decision is still based on value of daily gain vs. cost of daily gain, but it changes to the cost of that day's gain vs. the value of that day's CARCASS gain.

This is where it gets interesting. Although the dressing percentage of an animal may ultimately be 62-64%, the dressing percentage of each pound of live weight gained during an animal's time in the feedlot is actually much greater---the dressing percentage of the next pound of live weight added at the end of the feeding period may exceed 80%.

How is this possible? The explanation is remarkably simple: an animal walks into the feedlot with nearly 100% of the head, hair, hide, horns, hooves, and viscera with which it will leave the feedlot. In other words, non-carcass components don't increase very much during the feedlot life of the animal; nearly all of the animal's live weight gain is carcass rather than non-carcass.

Another way to look at it is, if the steer is gaining 2.5 lbs/day live weight, carcass gain during that same time period is roughly 2 lbs/day. Therefore, because of the increasing dressing percentage with increasing days on feed, rate of carcass gain does not decrease as rapidly as rate of live weight gain as animals fatten.

The reason this is important is that for the carcass weight-based or for the grid-based seller, net value of gain does not decrease as rapidly at the end of the feeding period as it does for the live seller. If you've recently switched from selling cattle on a live weight basis to a carcass weight basis, keep this in mind when determining the optimum marketing endpoint.

For more information, contact Chris at 785-532-1672 or [cdr3@ksu.edu](mailto:cdr3@ksu.edu)

↪ **Assistant Professor, Extension Specialist, Beef Veterinarian** – The Department of Animal Sciences and Industry at Kansas State University seeks applicants for an Assistant Professor, Extension Specialist, Beef Veterinarian position. This position is full-time, 12-month, tenure track, 70% Extension, 20% Research, 10% Teaching. A DVM or equivalent degree at time of hire is required. Review of applications begins September 1, 2015 and continues until the position is filled. View complete position announcement at: <http://www.asi.ksu.edu/about/job-announcements.html>.

↪ **Poultry Event Changes and Update** - The stop movement order for poultry to slow the progression of avian influenza (AI) from the Kansas Division of Health has resulted in changes to several poultry events. This has resulted in many questions about how events will be handled. I have put together a web page for AI information that is Kansas related. The website is <http://www.asi.k-state.edu/species/poultry/research-and-extension/avian-influenza/index.html>

Besides the cancellation of all shows, swaps, and auctions, the next event to be affected is the state 4H Poultry Judging Competition that is held at the KSF. The event will still be held but it will be changed to fit the stop movement requirements. Practice examples are provided on this web site for teams in preparation of the event. There is also a question and answer section that gives answers to all the questions I am getting. I will use this page to post information and links so if there are any developments this might be a helpful place to start. For more information, contact Scott Beyer, Extension Poultry Specialist (785-532-1201; [sbeyer@ksu.edu](mailto:sbeyer@ksu.edu)).

↪ The **Fresh Ground Beef Color: A Consumer Guide** is now available as an electronic publication at <http://www.bookstore.ksre.ksu.edu/pubs/MF2957.pdf>. Consumers expect fresh ground beef to be bright-red, but at times it may appear brown, mottled red and brown, or even purplish. Color variations can be confusing and may lead to the rejection of acceptable ground beef. This publication gives you answers to frequently asked questions about ground beef color. If you have any questions, contact Liz Boyle (785-532-1247; [lboyle@ksu.edu](mailto:lboyle@ksu.edu)).

↪ **Effects of Growth-Promoting Technologies on Muscle Characteristics and Meat Tenderness** -The objective was to examine the effects of growth-promoting technologies and extended aging on structural muscle characteristics and meat tenderness. Two groups of crossbred heifers (n = 33 and 32) were subjected to exogenous growth-promoting technologies. After the feedlot phase, cattle were shipped to a commercial abattoir for harvest; following a 48-hour chill, boneless strip loins were collected. Upon arrival at Kansas State University, the loin was faced, and this steak was used for analysis of muscle fiber characteristics. The loin was further fabricated into steaks for measurements of Warner-Bratzler shear force and collagen solubility and aged to one of five postmortem aging periods (2, 7, 14, 21, or 35 days) in vacuum-packaged bags at 33°F.

**Bottom Line...** The addition of growth-promoting technologies decreased tenderness, which was potentially due to increases in muscle fiber cross-sectional area stimulated by growth promotants, because these technologies had no effect on collagen solubility. Use of an extended postmortem aging program improved tenderness for all steaks, which was partly owing to increases in collagen solubility. View the complete report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information, contact John Gonzalez (785-532-3448; [johngonz@ksu.edu](mailto:johngonz@ksu.edu)) or Travis O'Quinn (785-532-3469; [travisquinn@ksu.edu](mailto:travisquinn@ksu.edu))

↪ **Hops Beta-Acid Extract Yields Feedlot Performance Similar to Rumensin** -The objective was to assess the effects of  $\beta$ -acid extracts of hops on feedlot performance in finishing cattle fed high-concentrate diets and determine a response to varied doses of  $\beta$ -acid extracts of hops. Eighty heifers (855 lb) were sorted by body weight, randomly allotted to individual pens, and fed a finishing diet that included no feed additive, Rumensin (Elanco Animal Health, Greenfield, IN), or 10, 25, or 50 ppm of hops  $\beta$ -acid extract. Cattle were weighed on day 23 and subsequently in 21-day intervals. Cattle were harvested on day 147 of the finishing trial. Ruminal fluid was collected via rumenocentesis on days 44 and 86 to analyze ruminal volatile fatty acid and ammonia concentrations.

**Bottom Line...** Hops  $\beta$ -acid extract yielded results similar to Rumensin and may be a suitable alternative for use in branded beef programs that do not permit use of ionophores. View the complete report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information, contact Jim Drouillard (785-532-1204; [jdrouill@ksu.edu](mailto:jdrouill@ksu.edu)) or Chris Reinhardt (785-532-1262; [cdr3@ksu.edu](mailto:cdr3@ksu.edu))

↪ **Effects of Pelleting and Diet Type on Growth Performance, Carcass Yield, and Iodine Value of Finishing Pigs** - A total of 288 pigs (PIC 327  $\times$  1050, initially 107.0 lb BW) were used in an 87-d trial to determine the effects of diet form and corn oil on growth performance, carcass yield, and iodine value (IV) of growing-finishing pigs. Treatments were arranged in a 2  $\times$  3 factorial with the main effects of diet form and oil source. The 2 diet forms were meal or pellet. The 3 dietary formulations were: (1) corn-soybean meal-based control, (2) control with 30% dried distillers grains with solubles (DDGS) and 19% wheat middlings, and (3) control with 3% corn oil.

No diet form  $\times$  diet formulation interactions were observed for growth performance, HCW, or carcass yield. Overall (d 0 to 87), pigs fed pelleted diets had increased ADG, ADFI, and improved F/G compared with pigs fed meal diets. Diet form did not influence HCW or carcass yield. Pigs fed diets containing DDGS and wheat middlings had decreased ADG compared with pigs fed the control or corn oil diets. Feeding the corn oil diet resulted in decreased ADFI compared with pigs fed the diet with DDGS and wheat middlings, with pigs fed the control diet intermediate. Feed efficiency followed dietary energy, with pigs fed the corn oil diet having the best F/G, pigs fed DDGS and wheat middlings diet having the worst, and pigs fed the control intermediate. Pigs fed the diet with DDGS and wheat middlings had decreased HCW and carcass yield compared with pigs fed the control or corn oil treatments.

No interaction was detected between diet form and oil source for belly fat IV. Pigs fed pelleted diets had increased belly fat IV compared with those fed meal diets, regardless of diet formulation. Belly fat IV was greatest for pigs fed DDGS and wheat middlings, lowest for pigs fed the control, and intermediate for pigs fed the corn oil diets. An interactive effect between diet form and oil source was detected for shoulder fat IV, caused by an increase in shoulder fat IV from feeding pelleted diets for the control or corn oil treatments. Thus, with the exception of the lack of increase in IV in pigs fed the pelleted DDGS and wheat middlings diet, feeding pelleted diets increased carcass fat IV.

**Bottom Line...** Furthermore, we found no evidence that the source of fat (endogenous vs. supplemental) in pelleted diets affected the IV response to pelleting. 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 J.E. Nemechek, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.M. DeRouchey, and J.C. Woodworth)



### **Determining the Optimal Sampling Method to Estimate the Mean and Standard Deviation of Pig Body Weights Within a Population-**

The accuracy and precision of pig subsampling methods can determine the swine producer's ability to sell pigs at optimal market BW and reduce economic discounts. The first objective of this experiment was to determine the time required to weigh pigs for different sampling methods used to estimate the mean and SD of a population. The second objective was to define the optimal sampling method considering the time required to weigh pigs as well as the precision and accuracy of each sampling method. A total of 68 pens of pigs (359 × 1050, PIC, Hendersonville, TN; 169.8 lb BW) in 2 commercial finishing facilities with 20 to 35 pigs per pen were used. Pens of pigs were blocked by location within barn and randomly allotted to 1 of 4 treatments with 17 pens per treatment. The 4 treatments included (1) selecting and weighing the heaviest and lightest pig per pen; and (2), (3), and (4) weighing the first 5, 10, and 15 pigs out of the pen, respectively. The time required for 2 people to complete each treatment was recorded. To determine the total barn time required to conduct a specific sample, the time required to weigh the specific number of pigs per pen was multiplied by n pens. The accuracy and precision for estimating the mean BW and SD for each sampling method was determined by using datasets A and C reported in Paulk (2014). The precision was determined by calculating a 95% confidence interval (CI) for the sample means and SD. The time taken to select and weigh the heaviest and lightest pigs in a pen (Treatment 1) did not differ from weighing 5 pigs per pen (Treatment 2). Increasing the number of pigs weighed per pen (Treatments 3 and 4) increased the amount of time to weigh a single pen. Based on these results, the number of pens for each treatment that can be weighed without influencing weighing time was determined to be 15 pens (30 pigs), 15 pens (75 pigs), 9 pens (90 pigs), and 6 pens (90 pigs) from Treatments 1, 2, 3, and 4, respectively. For dataset A, these 4 sampling methods had a similar CI range for estimating the mean BW and SD. For dataset C, Treatments 1 (30 pigs) and 2 (75 pigs) had a reduced CI range for estimating the mean BW compared with Treatments 3 (90 pigs) and 4 (90 pigs); however, Treatments 2 (75 pigs) and 3 (90 pigs) had a reduced CI range for estimating the SD compared with Treatments 1 (30 pigs) and 4 (90 pigs).

**Bottom Line...** Therefore, we conclude that swine producers should weigh 5 pigs from 15 pens to estimate the mean BW and SD within a barn. 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 C.B. Paulk, M.D. Tokach, S.S. Dritz, J.L. Nelssen, J.M. DeRouchey, and R.D. Goodband)



### **Effects of Feeding Different Dietary Net Energy Levels to Growing-Finishing Pigs When Dietary Lysine is Adequate-**

A total of 543 pigs (PIC 1050 × 327; PIC Hendersonville, TN) were used in 2 consecutive experiments with initial BW of 105 and 125 lb in Experiments 1 and 2, respectively. The objective was to validate the regression equations predicting growth rate and feed efficiency of growing-finishing pigs based on dietary NE content by comparing actual and predicted performance. Thus, the 5 treatments included diets with: (1) 30% dried distillers grains with solubles (DDGS), 20% wheat middlings, and 4 to 5% soybean hulls (low-energy); (2) 20% wheat middlings and 4 to 5% soybean hulls (low-energy); (3) a corn-soybean meal diet (medium-energy); (4) diet 2 supplemented with 3.7% choice white grease (CWG) to equalize NE level to diet 3 (medium-energy); and (5) a corn-soybean meal diet with 3.7% CWG (high-energy). In Experiments 1 and 2, increasing dietary NE increased final weight, ADG, and improved feed efficiency but decreased ADFI. Only small differences were observed between the predicted and observed values of ADG and feed efficiency, except for the low-energy diet containing the highest fiber content (30% DDGS, wheat middlings and soy hulls; diet 1). Carcass weight and carcass yield increased with increasing dietary NE. Also, backfat depth increased, loin depth decreased, and lean percentage decreased with increasing dietary NE. Jowl iodine value (IV) also decreased with increasing dietary NE. No differences in net energy caloric efficiency (NEE) on a live weight basis were observed with increasing dietary NE. Nevertheless, feeding 30% DDGS (diet 1) resulted in a poorer NEE on a carcass basis compared with feeding the other diets.

**Bottom Line...** In conclusion, the prediction equations provided a good estimate of growth rate and feed efficiency of growing-finishing pigs fed different levels of dietary NE except for the pigs fed low-energy diet containing highest fiber content (diet 1). These predictions of growth performance can be used to model the economic value of different dietary energy strategies. 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 S. Nitikanchana, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, and B.J. White)

# AS&I Faculty Spotlight



**Ken Odde (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. He serves as Vice President of the National Association for the Advancement of Animal Science and was named a Fellow of the American Society of Animal Science in 2014.



**Dave Nichols (dnichols@k-state.edu; 785-532-1239)**

## **Professor/Teaching Coordinator**

Dr. Dave Nichols was born in 1955, and raised on a commercial beef cattle, swine, and crops farm near Brookston, Indiana. He entered Purdue University in the Fall of 1973, majoring in Animal Science. Upon completion of his B.S. degree in December of 1976, he entered graduate school at Kansas State University, where he completed his M.S. in 1979, and his Ph.D. in 1981.

In October of 1981 Dave joined the KSU faculty as an extension livestock specialist. In 1983 he accepted a 80% teaching and 20% research appointment. In 1999 he became coordinator of teaching for the Department of Animal Sciences and Industry and currently holds that position with a 100% teaching appointment. He has led student study abroad tours to Costa Rica and China. In May 2015, he traveled with 15 students to Brazil on a study abroad tour.

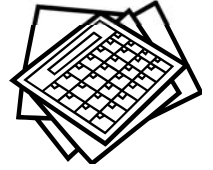
Dr. Nichols advises approximately 100 students, teaches courses in live animal and carcass evaluation, introductory animal science, and livestock sales management. He serves as advisor for the Little American Royal Showmanship Contest, and has been highly involved in 4-H and youth activities. Dr. Nichols coached the KSU Livestock Judging Team from 1986 to 1988, winning, among others, the American Royal Contest. Dr. Nichols has judged numerous cattle shows in recent years.

In addition to his university and judging responsibilities, Dr. Nichols owns and operates A and D Ranch near Manhattan. He and his wife, Anita, have two children, Drew and Amy.



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

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



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

### ***Cowherd Management***

- Given unforeseen weather and market price volatility, price byproducts, grains and other feedstuffs on a per nutrient basis.
- Do you have sufficient harvested forage to encounter a potentially severe winter feeding season? Conduct an inventory of harvested forages and determine if you have an adequate supply on hand.
- Pregnancy Check.
- Cull cows because of:
  - ◆ Open.
  - ◆ Late vs. Early calving.
  - ◆ Soundness - udder, feet/legs, eyes, teeth, disposition.
  - ◆ Productivity - Most Probable Producing Ability (from herd performance records).
  - ◆ Disposition
- Body Condition Score
  - ◆ Provide thin cows (body condition score 3's and 4's) extra feed now. Take advantage of weather, stage of pregnancy, lower nutrient requirements, and quality feedstuffs.
- If body condition scores warrant it, you may want to start feeding supplements in late October to mature cows using these guidelines:
  - Dry grass      1½ - 2 lb supplement/day of a 40% CP supplement
  - Dry grass      3 - 4 lb supplement/day of a 20% supplement
  - Dry grass + 10 lb good nonlegume hay, no supplement needed  
(heifers may need more supplement than older cows)
  - ◆ Supplement nutrients that are most deficient.
  - ◆ Compare supplements on a cost per pound of nutrient basis.
  - ◆ KSU research has reported early winter supplementation is not necessary if grazing forage supplies are adequate. Third trimester cows have had the ability to achieve their target calving weights with supplementation.
- Utilize crop residues. Grazing crop aftermath can reduce daily cow costs by 50¢ or more.
  - ◆ Strip graze or rotate fields to improve grazing efficiency.
  - ◆ Average body condition cows can be grazed at 1 to 2 acres/cow for 30 days assuming normal weather.
- Consider feeding cull cows to increase value, body weight, and utilize cheap feedstuffs. Seasonal price trends have allowed producers to take advantage of maximum profit opportunities with cull cow feeding programs. Healthy cows can gain extremely well on well balanced diets.
- Check individual identification of cows. Replace lost tags or redo brands.

## ***Calf Management***

- Wean calves:
  - ◆ Reduce stress. Provide a clean, dust-free, comfortable environment.
  - ◆ Provide balanced nutritional program to promote weight gain and health.
  - ◆ Observe feed and water intake. Healthy, problem free calves have large appetites.
  - ◆ Observe calves frequently, early detection of sickness reduces medical costs and lost performance.
  - ◆ Vaccinate calves and control internal/external parasites through veterinary consultation (ideally done prior to weaning).
  - ◆ Vaccinate all replacement heifer candidates for brucellosis if within 4-10 months of age.
  - ◆ Use implants and feed additives to improve efficient animal performance.
- Weigh all calves individually. Allows for correct sorting, herd culling, growing programs, replacement heifer selection, and marketing plans.
- Participate in Whole Herd Rewards, Performance Plus, and(or) other ranch record/performance systems.
- Finalize plans to merchandise calves or to background through yearling or finishing programs.
  - ◆ Consider feedstuff availability.
  - ◆ Limit feeding high concentrate diets may be a profitable feeding program.
- Select replacement heifers which are:
  - ◆ Born early in the calving season. This should increase the number of yearling heifers bred during the early days of the subsequent breeding season.
  - ◆ Daughters of above average producing cows. Performance traits are moderately heritable traits.
  - ◆ Of the proper frame size to compliment desired mature size and weight.
  - ◆ Structurally correct. Avoid breeding udder, feet and leg problems into the herd.
- Vaccinate replacement heifers with first round of viral vaccines.
- Plan replacement heifer nutrition program so that heifers will be at their "target weight" (65% of their mature weight) by the start of the breeding season.

## ***Forage/Pasture Management***

- Observe pasture weed problems to aid in planning control methods needed next spring.
- Monitor grazing conditions and rotate pastures if possible and(or) practical.
- Plan winter nutritional program through pasture and forage management.
- For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) type supplement.

## ***General Management***

- Avoid unnecessary stress - Handle cows and calves to reduce shrink, sustain good health, and minimize sickness.
- Forage analyze for nitrate and nutrient content. Use these to develop winter feeding programs.
- Repair, replace and improve facilities.
- Plan your marketing program, including private treaty, consignment sales, test stations, production sales, etc.

*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.*