



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

June, 2015

News from KSU Animal Sciences

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- What Producers Should Be Thinking About...

We Need Your Help!

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

➤ **2015 Dr. Bob Hines' Kansas Swine Classic planned for July.** The 2015 Dr. Bob Hines Swine Classic is scheduled for July 10-11, 2015, at CiCo Park in Manhattan. This two-day event includes educational workshops, showmanship contest, and a prospect and market hog show. It is open to all Kansas youths ages 7 through 18 as of January 1, 2015. **All purebred pigs (both prospect and market) must have registration papers provided when making entries or at time of check-in to qualify for the purebred classes.** This year's Classic will feature an Extemporaneous Speaking Contest and Swine Photography Contest along with an educational program which includes information on "Keeping your Show Gilt for Breeding?" "

For the Speaking Contest, participants will register on-site for the contest. The contestant will draw three livestock and ag-related topics out of a pool of topics. They will then select which topic they wish to speak about from the three options and will be given 30 minutes to prepare a speech. Contestants will then give their 3-7 minute speech in front of a judge and spectators who wish to listen. Guidelines and criteria for the speech will be given to the contestants at check-in.

For the Swine Photography Contest, youth may submit up to 2 swine photos. Photos should be 8x10 size and should not be framed or matted. Photos will be placed in plastic sleeves and displayed throughout the weekend. Outlined below is a schedule of this year's program.

Friday, July 10

- 8:00 a.m. Barn open for arrival
- 12:00 p.m. All hogs in place
- 1:00 p.m. Swine photo check-in by the show ring
- 1:15 p.m. Extemporaneous Speaking Contest
Check-in by the show ring
- 2:00 p.m. Keeping Your Show Gilt for Breeding?
- 3:30 p.m. Ice cream party by the show ring
- 5:30 p.m. Showmanship Contests

Saturday, July 11

- 8:30 a.m. Prospect Hog Show followed by Market Hog Show

Entries close on July 1, 2015 (must be postmarked by June 29, 2015). More information and registration is available at www.KSUswine.org. For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu) or Jim Nelssen (785-532-1251; inelssen@ksu.edu).



- Watch for more details coming soon on the **2015 K-State Beef Conference**. The conference will be held in four locations throughout the state. Dates for the conference are August 11 and 13. State extension educators and collaborating district and county based extension experts will provide a fast paced program to provide information to enhance the cow-calf producers' bottom lines. The featured speakers include Mr. Rich Porter, Reading, Kansas, on building strong employee and business relationships, and extension specialists Dr. Justin Waggoner speaking on low stress animal handling and Dr. Chris Reinhardt on year-around mineral supplementation strategies. Other participants in the town hall question and answer session may include state extension specialists Drs. Jaymelynn Farney, Dale Blasi, Sandy Johnson and Bob Weaber. More details will be coming soon to www.KSUbeef.org. For more information, contact Bob Weaber (bweaber@ksu.edu; 785-532-1460).
- 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
- 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. Rules and past winners can be found at www.YouthLivestock.KSU.edu. Registration forms will need to be postmarked by August 1. Complete information for 2015 will be available soon on the Youth Livestock Web page. For more information, contact Lexie Hayes (adhayes@ksu.edu; 785-532-1264).
- The **2015 KSU Beef Stocker Field Day** will be held on Thursday, September 24, 2015 at the KSU Stocker Unit, Manhattan, KS. Registration will begin at 9:30 a.m. and the day will conclude with a good old fashioned Prairie Oyster Fry in the evening. Watch for more details coming soon to www.KSUbeef.org. For more information, contact Dale Blasi (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 (lboyle@ksu.edu; 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 p.m. 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 recipient will be presented to Dr. Miles McKee, AS&I Professor Emeritus. 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

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
July 10-11, 2015	Dr. Bob Hines Kansas Swine Classic	Manhattan
August 11, 2015	K-State Beef Conference	TBD
August 13, 2015	K-State Beef Conference	TBD
August 21-23, 2015	Flint Hills Beef Fest	Emporia
August 22-23, 2015	Kansas Livestock Sweepstakes	Manhattan
September 24, 2015	KSU Beef Stocker Field Day	Manhattan
October 7-9, 2015	HACCP Workshop	Olathe
October 9, 2015	AS&I Family and Friends Reunion	Manhattan

WHAT'S NEW.....

Management Minute "Choices"

↳ Management Minute – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Choices"

All employees have choices available to them. Poor employees have the choice of either showing up for work or not showing up and being fired. But good employees---especially the exceptional ones---have other, good choices available to them. What are you doing to make your workplace the workplace of choice for the best available workers in your field and in your area?

We're not just talking about competitive compensation at this point---although that certainly is a consideration. I guess competitive compensation is "table stakes". You're not very likely to attract the best and the brightest without being in the ball park with respect to salary, insurance, paid leave, retirement, etc.

Once you know you're "in the mix" with regard to compensation, it's time to start evaluating the work environment and some "non-monetary" forms of compensation, things we refer to as "job satisfaction".

In a tight job market, in which there are fewer qualified applicants than there are jobs for them, the astute applicant knows they've got choices, and they want to go to where their future opportunity looks brightest.

On one end of the spectrum, you may have the 40-something or 50-something, experienced team leader who is looking for long-term security and stability moving towards retirement. And on the other end, you may have a millennial fresh out of school, looking for upward mobility. One is looking for stability, while the other is looking for intentional, positive, *instability*.

The small work-place may not be able to accommodate both, but there are other factors to consider. For example, there may be no opening for a young candidate looking to quickly become a line manager or supervisor. But wouldn't you like to have quality people on your team? It's been said, "I'd rather have the right person for a short while than the wrong person forever." And I would add, I'd rather have the right person for a short while than not at all. If the person truly is the "right" person, they will make our organization better for their presence. We often cite workplace turnover as costly, but how much more costly to have either an empty chair or, worse, an empty suit filling the chair. Poor, lazy, uncreative, clock-punchers and clock-watchers will steal your team blind in invisible ways that you'll never see, but that are real none the less.

If we can get the "right" person, for a little while, how much better will we be when that person outgrows the position and moves on? We'll be a better organization that individual position will be more organized and productive, and we'll be better suited to know how to find the next individual to fill it.

But you will not attract that "right" individual, if you don't constantly seek to get better in your compensation, workplace practices, workplace environment, and opportunities for employees to succeed. To attract the truly exceptional people, you have to work as hard at being the workplace of choice for prospective and current employees as you work to be the business provider of choice for your current and prospective customers.

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

↳ Feedlot Facts – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Market Weight"

The world wants your product. And they want more of it. And they're paying more for it than ever before. So your market signal is to produce more of it for them. But how?

The shortage of beef relative to domestic and international demand has created a sort of vacuum for beef, which has led to greater demand for feeder cattle, resulting in increased price for replacement heifers and for herd bulls. But it's commonly believed in the feedlot world that the cheapest feeder animal you can purchase is the one already standing in the feedlot---in the form of a 1,200 or 1,300 lb fed animal.

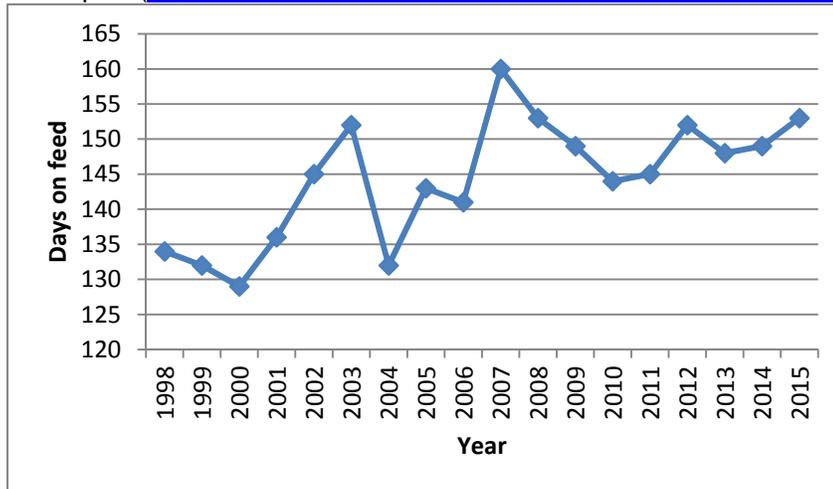
Feedlot Facts "Market Weight"

↪ Feedlot Facts – “Market Weight” (cont.)

Carcass weights for 2015 are running 10-20 lbs greater than in 2014, and 2014 ran 10-20 lbs greater vs. the previous 5-year average. Feedlots are, and have been for quite some time, feeding animals to heavier end weights.

The substantial increase in final live weight of feedlot animals can be attributed to a number of factors such as genetics and technology, but much of the increase over the past decade has come from simply feeding cattle longer. Based on K-State Research and Extension data, cattle are fed for 2-3 weeks longer than they were 15 years ago (figure 1).

Figure 1. Days on feed for steers fed in Kansas feedlots marketed in December from the Focus on Feedlots report (<http://www.asi.k-state.edu/about/newsletters/focus-on-feedlots/monthly-reports.html>).



If cattle are gaining 3.00 lbs or more late in the feeding period, and assuming 80% of late-term live weight gain is carcass gain: **21 days × 3.00 lbs × 80% = 50 lbs Hot Carcass Weight**

USDA data indicate carcass weights have increased approximately 68 lbs over this same time frame, indicating that the combination of additional days on feed, genetics, and technology changes have all probably played a role.

Although increases in mature cow size have slowed in recent years, carcass weights of the offspring of those cows has continued to climb. Although we cannot, for a variety of reasons, increase the mature size of cattle through genetics, we have certainly found very effective means to continue to produce more beef in spite of limited feeder cattle supplies.

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

↪ **eBEEF.org** - A new website dedicated to beef cattle genetics has been launched at the 2015 Beef Improvement Federation Conference. eBEEF.org is part of the national eXtension program with the goal of being a one-stop site for beef cattle genetics and genomics information. Beef cattle specialists from six land grant institutions have joined forces to provide educational materials that are pertinent to today's beef cattle producers, without searching multiple sites or filtering through countless hits on a search. The site contains factsheets, short frequently asked question (FAQ) video clips, relevant conference recordings and webinars, a blog and links to other useful beef sites.

One of the developers of the new site, Dr. Darrh Bullock at the University of Kentucky said “Often beef producers get frustrated when they search for information online and get information overload. We wanted to develop a user friendly site that provides information in a concise, understandable way without having to sort through enormous amounts of information. “The team plans to achieve this goal by including only selected, peer-reviewed publications on the website. Additionally, a list of FAQs will be available and easily accessed in short videos. Archived recordings of webinars and conference presentations can be accessed through the video library. The “Ask the Expert” section of the site can be utilized to find custom answers to specific problems and covers all aspects of beef cattle production.

For more information or to make suggestions please contact any of the eBEEF.org team members. The other team members are Dr. Jared Decker, University of Missouri; Dr. Megan Rolf, Oklahoma State University; Dr. Matt Spangler, University of Nebraska; and Dr. Bob Weaber, Kansas State University.
(Bob Weaber at 785-532-1460; bweaber@ksu.edu.)

↪ **Effects of Diet Bulk Density on Mixing Uniformity-** The objective of this study was to determine how the time required to create a uniformly mixed batch of feed is influenced by diets that differ in bulk density. Three 60-lb batches of a corn-soybean meal-based diet (high bulk density) or a high-fiber diet (low bulk density) containing 30% dried distiller's grains with solubles (DDGS), and 19% wheat midds were prepared. The ingredients for each batch were placed in a 60-lb capacity experimental double-ribbon mixer with all batches containing 0.35% table salt. Ten samples were obtained from different parts of the mixer for each batch of feed after 60, 120, and 240 sec of mixing time. Ten additional samples were taken as the feed was discharged from the bottom of the mixer after 240 sec. The three batches of each diet type were mixed and sampled using the same procedures and were considered separate observations, making 3 replications for each mixing time within diet type. The CV among 10 samples collected at each mix time was used to determine mixer efficiency by measuring CI concentration (Quantabs, Environmental Test Systems, Elkhart, IN). After 60 sec of mixing, the corn-soybean meal-based diet achieved a CV of less than 10%; however, the high-fiber diet required 240 sec to achieve a CV of less than 10%.

Bottom Line... In conclusion, using this experimental ribbon mixer, diet bulk density affected the time required to mix a batch of feed thoroughly, which suggests that feed manufacturers should reevaluate mixing times when using low-bulk-density ingredients such as DDGS and wheat midds. Further research is needed to verify these results in large-scale commercial mixers. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by L.L. Thomas, C.R. Stark, C.H. Farenholtz, K.F. Coble, S. Hayashi, M. Saensukjaroenphon, J.C. Woodworth, and R.D. Goodband)

↪ **Influence of Dietary Fat Source and Feeding Duration on Pig Growth Performance, Carcass Composition, and Fat Quality-** A total of 160 finishing pigs (PIC 327 × 1050; initially 100.5 lb) were used in an 84-d experiment to evaluate the effects of dietary fat source and feeding duration on growth performance, carcass characteristics, and fat quality. Dietary treatments included a corn-soybean meal control diet with no added fat or a 3 × 3 factorial with main effects of fat source (4% tallow, 4% soybean oil, or a blend of 2% tallow and 2% soybean oil) and feeding duration (d 0 to 42, 42 to 84, or 0 to 84). One pig was identified in each pen on d 0, and biopsy samples of the back, belly, and jowl fat were collected on d 0, 41, and 81. At the conclusion of the study, all pigs were harvested, carcass characteristics were measured, and back, belly, and jowl fat samples were collected. Overall (d 0 to 84), there were no differences between fat sources for growth and carcass characteristics; however, pigs fed diets with added fat from d 0 to 84 had improved F/G compared with pigs fed a control diet without added fat. Pigs fed added fat throughout the entire study also had improved ADG and F/G and heavier d-84 BW compared with pigs fed additional fat for only period 1 or 2. Adding fat for the entire study increased backfat and tended to reduce fat-free lean index compared with pigs fed the control diet without added fat. Added fat also increased iodine value (IV) compared with pigs fed the control diet. Increasing the feeding duration of soybean oil or a blend of soybean oil and tallow decreased monounsaturated and increased polyunsaturated fatty acids relative to feeding tallow (duration × fat source interaction), with the greatest changes in C18:1 and C18:2, respectively.

Bottom Line... In conclusion, feeding added fat improved ADG and F/G; however, feeding soybean oil for increasing duration, either alone or in a blend with tallow, negatively affected the fatty acid composition and IV of finishing pigs. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by E.W. Stephenson, M.A. Vaughn, D.D. Burnett, C.B. Paulk, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, R.D. Goodband, J.C. Woodworth, and J.M. Gonzalez)

↪ **Evaluation of the Productivity of a Single Subcutaneous Injection of LongRange in Stocker Calves Compared With a Positive (Dectomax) and a Negative (Saline) Control-** The objective was to compare efficacy of LongRange (Merial, Duluth, GA) and Dectomax (Zoetis; Florham Park, NJ) injectables and saline (a negative control) for control of parasites in stocker cattle. Stocker cattle are commonly affected by subclinical parasitism. Single-dose anthelmintics have been shown to reduce internal worm load for approximately 30 days. LongRange is the first single-dose extended-release anthelmintic, providing parasite control for a minimum of 100 days. Crossbred heifers (n = 288; 254.47 lb ± 29.40) were completely randomized by initial weight across 15 pastures. Pastures were randomly assigned to either: (1) LongRange administered at 1 mL/50kg; (2) Dectomax administered at 1 mL/50 kg with Cyonara Plus insecticide given at 10 mL/272.16kg; or (3) saline administered at 1mL/45.4 kg, with five pastures per treatment. Individual heifers were weighed, and fecal samples were taken from five randomly selected heifers per pasture. Body weights and fecal samples were taken on days 0, 47, and 96. Fly counts began on day 50 and continued on a weekly basis until end of trial. Three heifers were randomly selected per pasture, and pictures were taken of each heifer using a digital camera with a telephoto zoom lens. Pictures were uploaded to a computer program where flies were highlighted and counted by hand. Weight gains were similar between treatments throughout the 96-day study. Fecal egg counts were similar among treatments on days 0 and 47; however, on final collection, Dectomax had lower egg counts compared with the control group, and cattle from the LongRange treatment were intermediate and not different from other treatments.

Bottom Line... LongRange can be used for season-long protection against internal and external parasites in grazing heifers. View the complete report at www.asi.ksu.edu/cattlemensday. For more information, contact Andrea Sexten (785-532-1450; aksexten@ksu.edu) or Dale Blasi (785-532-5427; dblasi@ksu.edu).

AS&I Faculty Spotlight



Lexie Hayes (adhayes@k-state.edu; 785-532-1264)

Youth Livestock Coordinator

Lexie Hayes began June 7, 2015 as the Youth Livestock Coordinator for the Animal Sciences and Industry Department. She is a Kansas native who received her BS from Kansas State University and MS from Texas A&M University. She has worked for the Oklahoma Cooperative Extension Service and served as the 4-H Youth Development Extension Educator in Comanche County, Lawton, Oklahoma since 2009. Her primary responsibilities included assessing the needs of the youth in her community, developing educational programs to address those needs, and evaluating those programs. Lexie has won several awards for her educational programs. She has also assisted with a variety of livestock shows, from the county fair to nationally renowned events, like the Tulsa State Fair Jr. Market Steer Show. She has been actively involved on the Oklahoma 4-H Horse Council and the SW District 4-H Horse Council. While growing up, Lexie showed several different livestock species as an active 4-H'er. She also was an active FFA member.



Bob Weaber (bweaber@k-state.edu; 785-532-1460)

Associate Professor/Extension Specialist, Beef Breeding & Genetics

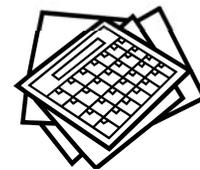
Bob Weaber's nationally recognized extension programming has resulted in more than 145 publications and more than \$13 million from 42 awards of grants and gifts for research and extension programming. Weaber's extension program leadership has been recognized with MU Provost's Innovative Extension Programming by New Faculty, the MU CAFNR J.W. Burch State Extension Specialist Award, and the Beef Improvement Federation's Continuing Service Award. Bob Weaber also serves as the faculty coordinator for the KSU Purebred Teaching Unit.

Weaber grew up on a cow-calf operation in southern Colorado and went on to earn a BS in animal science followed by a Master of Agriculture degree in the Beef Industry Leadership Program at Colorado State University. He completed his doctoral studies in the Animal Breeding and Genetics Group at Cornell University. While there, he served as the Interim Director of Performance Programs for the American Simmental Association for three and a half years. Previously, Weaber was Director of Education and Research at the American Gelbvieh Association.

Bob, his wife, Tami, and their children, Maddie, Cooper and Wyatt, reside near Wamego, KS.

What Producers Should Be Thinking About.....

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



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

August is when forages are maturing, weaning time is approaching, and weather dictates several key management decisions.

Breeding Season

- Given high feed price inputs, ruthlessly cull all unsound cows from the herd. Cull cows that do not conceive after three services by a fertile bull.
- Limit the breeding season. Remove bulls after 60 days with cows, 45 days with heifers.

These methods contribute to a more uniform calf crop, makes winter feed management easier, and increases the success rate of next year's breeding season.

Cowherd Nutrition

- Provide ample amounts of clean, fresh drinking water.
- Conduct an inventory of forage needs for the winter feeding period
- Plan ahead and price availability of byproducts, such as wheat-middlings, dried distillers grains, etc. prior to typical seasonal price increases.

Herd Health

- If pinkeye is likely to be a problem, consider the following preventive and therapeutic measures.

Preventive:

- ◆ Make sure the herd is receiving adequate vitamins and trace mineral in their diet.
- ◆ Consider using a medicated trace mineral package.
- ◆ Consider vaccination for pinkeye and IBR (consult your local veterinarian).
- ◆ Control face flies.
- ◆ Clip pastures with tall, coarse grasses that may irritate eyes.

Therapy:

- ◆ Administer an intramuscular injection of long-acting oxytetracycline when symptoms are first noticed.
 - ◆ Shut out irritating sunlight by patching eyes, shade, etc.
 - ◆ Control flies.
 - ◆ Consult your veterinarian.
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- Consider revaccinating for the respiratory diseases any animals that will be taken to livestock shows.
 - Vaccinate suckling calves for IBR, BVD, PI3, BRSV, and possibly pasteurella at least 3 weeks prior to weaning.
 - Revaccinate all calves for blackleg.
 - Vaccinate replacement heifers for brucellosis (4 to 10 months of age).
 - Monitor and treat footrot.

Forage/Pasture Management

- ☑ Enhance grazing distribution with mineral mixture placement away from water sources.
- ☑ Observe pasture weed problems to aid in planning control methods needed next spring.
- ☑ Monitor grazing conditions and rotate pastures if possible and(or) practical.
- ☑ If pastures will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding before pastures are gone to extend grazing.
- ☑ Harvest and store forages properly. Minimize waste by reducing spoilage.
- ☑ Sample harvested forages and have them analyzed for nitrate and nutrient composition.
- ☑ Plan for sufficient standing pasture for winter grazing needs.
- ☑ For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) type supplement.

General Management

- ☑ Avoid unnecessary heat stress - Don't handle and/or truck cattle during the heat of the day.
- ☑ Repair, replace and improve facilities needed for fall processing.
- ☑ Order supplies, vaccines, tags, and other products needed at weaning time.
- ☑ Consider earlier than normal weaning, but have a marketing plan in place.