



Newsletter from the Department of Animal Sciences and Industry
 213 Weber Hall - Kansas State University - Manhattan, KS 66506
 785-532-6131 – www.asi.ksu.edu

UPCOMING EVENTS...

☞ **Kansas State University's 2013 Beef Conference – Strategic Cow Herd Management: Surviving and Rebuilding after Persistent Drought**, will be held Aug. 6 in Frick Auditorium of K-State's College of Veterinary Medicine in Manhattan.

For the convenience of those who are not able to travel to Manhattan in person, the conference will be broadcast remotely to several sites around Kansas: Oakley, Pratt and Parsons.

Dr. Dave Lalman, Oklahoma State University will provide the keynote address entitled "Addressing Cow Herd Efficiency in a World of Mixed Message for Producers: Matching Production Levels to Environmental Conditions."

Other topics will include techniques to enhance the value of low quality roughage, confinement feeding of cows, management and feeding of early weaned calves, pasture, rangeland, forage and livestock risk protection, income tax implications following livestock liquidation, control of trichomoniasis in beef herds, impending regulations of livestock antibiotics, and capturing strategic opportunities when culling/rebuilding the cow herd. The schedule is as follows:

- 8:00 a.m. Registration
- 8:30 a.m. Welcome – *Dr. Ken Odde, Department Head, AS&I*
- 8:50 a.m. Control of Trichomoniasis in Beef Herds – *Larry Hollis, KSU*
- 9:15 a.m. Impending Regulation of Livestock Antibiotics – *Mike Apley, KSU*
- 9:45 a.m. Techniques to Enhance Value of Low Quality Roughage - *Dale Blasi and Justin Waggoner, KSU*
- 10:15 a.m. Break
- 10:30 a.m. Confinement Feeding Cows – Decisions and Strategies - *Jaymelynn Farney and Chris Reinhardt, KSU*
- 11:00 a.m. Management and Feeding of Early Weaned Calves *John Jaeger and Justin Waggoner, KSU*
- 11:30 a.m. Pasture, Rangeland, Forage and Livestock Risk Protection - *Patrick Laird and Paul Gallagher, USDA RMA*
- 12:15 p.m. Lunch
- 1:15 p.m. Income Tax Implications Following Major Livestock Liquidation - *Clay Simons, Kansas Farm Management Association*
- 2:00 p.m. Capturing Strategic Opportunities when Culling/Rebuilding the Cow Herd – *K-State Beef Extension Faculty*
- 3:00 p.m. Break
- 3:30 p.m. Addressing Cow Herd Efficiency in a World of Mixed Messages for Producers: Matching Production Levels to Environmental Conditions – *Dave Lalman, Oklahoma State University*
- 4:30 p.m. Panel Discussion (Questions and Answers)
- 5:00 p.m. Adjourn

The fee to attend is \$60 per person or \$100 for two or more from the same operation. Early registration deadline is August 2. More information, including how to register for the webcasts at remote locations or for in-person attendance in Manhattan, is available at www.asi.ksu.edu/beefconference or by phone (785-532-1280).

July 2013

News from KSU Animal Sciences

In This Issue

- Upcoming Events
- Management Minute
- Feedlot Facts
- 2013 KSU Cattlemen's Day Article Featured
- 2012 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 or call (785) 532-1267.



- ↪ **Entry Deadlines Approaching** - Entries for the Kansas State Fair 4H/FFA Show (Beef, Sheep, Swine, Meat Goats) are due by July 15. Late entry forms will be accepted until July 25 with a late fee of \$10 per head. No entries will be accepted after July 25. For more information, visit www.kansasstatefair.com. All departments are strongly encouraged to enter and submit entries online at www.kansasstatefair.com.
Entries for the Kansas Junior Livestock Show must be postmarked by August 15, 2013. Late entries will be accepted through August 31, 2013, but all late entries will be subject to an entry fee double the stated entry fee amount. For more information, visit www.kjls.org.
- ↪ **Flint Hills Beef Fest coming in August** - Make plans now to attend the Flint Hills Beef Fest which will be held August 23-25, 2013. 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. Cattle Division Events include a Grass Futurity Contest, Live Stocker Cattle Show, Feedlot Contest and Carcass Competition. Events will take place on the Lyon County Fairground in Emporia, Kansas. For more details and a complete schedule of events, please visit <http://www.beeffest.com>.
- ↪ The **Kansas Livestock Sweepstakes** has been scheduled for August 24-25, 2013. All Kansas 4-H'ers are invited to participate in this livestock learning and competition experience. 4-H'ers will test their knowledge in Livestock Judging, Meats Judging, Livestock Skillathon, and Livestock Quiz Bowl. An overall Livestock Sweepstakes winner will be awarded to the county and individual that does the best in all four contests and will receive buckles. Rules, schedule, and online registration information can be found at www.YouthLivestock.KSU.edu.
- ↪ **KSU Beef Stocker Field Day to be held September 26** - The 2013 KSU Beef Stocker Field Day will be held on Thursday, September 26 at the KSU Beef Stocker Unit in Manhattan. Registration will begin at 9:30 a.m. and the day will conclude with a good old-fashioned Prairie Oyster Fry. Watch for complete details on 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 2-4, 2013, at the Kansas State University Olathe Campus, 22201 West Innovation Drive, Olathe. Registration for the 2.5 day International HACCP Alliance accredited workshop is online at <http://HACCP.unl.edu>. The workshop fee is \$325, and meets USDA training requirements to become a HACCP trained individual. For more information, contact Liz Boyle (lboyle@ksu.edu; 785-532-1247).
- ↪ **Dedication of the new O.H. Kruse Feed Technology Innovation Center planned.** The dedication of the new O.H. Kruse Feed Technology Innovation Center and feed mill will take place at 3:00 p.m. on Friday, October 11, 2013 followed by a reception.
- ↪ **KSU Swine Day planned for November** - The 2013 KSU Swine Day will be held Thursday, November 21, at the KSU Alumni Center. Mark the date on your calendar and watch for more details.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
July 15, 2013	Entries due for the Kansas State Fair (www.kansasstatefair.com)	
August 6, 2013	KSU Beef Conference	Manhattan
August 15, 2013	Entries due for Kansas Junior Livestock Show (www.kjls.org)	
August 23-25, 2013	Flint Hills Beef Fest	Emporia, KS
August 24-25, 2013	Kansas 4-H State Livestock Sweepstakes	Manhattan
September 26, 2013	KSU Beef Stocker Field Day	Manhattan
October 2-4, 2013	Developing and Implementing HACCP in Meat, Poultry and Food Processing	Olathe
October 11, 2013	Dedication of O.H. Kruse Feed Technology Innovation Center	Manhattan
November 21, 2013	KSU Swine Day	Manhattan

WHAT'S NEW.....

Management Minute "Team Starts with Attitude"

↪ **Management Minute** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Team Starts with Attitude"*

A good team is kind of like art: hard to describe but you know it when you see it. And more critically, we know a poor team when we see it even more clearly.

Some people are naturally team players, and some simply are NOT. Sociologists might argue whether this is because of their genetic makeup or because of their social background, but that part is academic. It's up to the manager to (a) read this potential and then (b) decide whether or not the remaining virtues outweigh the lack of team attitude.

If we decide the person brings sufficient valuable tools to the team but lacks a team-focused attitude, we can go into the relationship with a plan and a desired outcome. If, however, the person's selfish attitude isn't compensated for by outstanding talent, it's time to cut bait. It's been said, "We'd rather have an empty chair than just a warm body." A single team member with a bad attitude will cause the manager more headaches and "grass fires" to put out than any single other challenge in the workplace.

The savvy---and ambitious---manager, who knowingly takes on a selfish but talented employee, needs to have intentional interventions in place to incrementally work with the employee on their attitude, help them to shed selfish habits and responses, and to slowly come to embrace and live out the team culture. Some people simply don't know they're a pariah, and they're very coachable; they may simply never have been a part of a collaborative team and have never had effective, hands-on leadership. However, if progress isn't made in these areas, be ready to end the relationship for the benefit of the organization and team productivity and morale.

In the long run, having a unified, cohesive, mutually supportive, and productive team is more important than any short-term infusion of talent or expertise, because the gains will be equally short-lived and may be detrimental to the productivity of the entire organization. If the long-term health of the team is in jeopardy, it may be time to remove the unhealthy element in question, or else not bring it to the party in the first place.

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

Feedlot Facts "Grain Processing Matters"

↪ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Grain Processing Matters"*

As the cost of grain rises, the livestock feeder is held hostage by the vagaries of the rest of the global economy. But there are a few things you can do to make sure you're getting the most out of your substantial investment.

Making sure you have an active implant with less than 100 days working in the cattle at all times is one idea. Another is ensuring adequate extent of grain processing to get thorough digestion and efficient utilization of the grain.

For decades, nutritionists have recommended that "a coarse crack" is sufficient to get acceptable levels of digestion without risking bloat and acidosis. Now that grain prices have risen to levels we once considered stratospheric, we need a new paradigm. Some research data suggests we can improve the efficiency of corn utilization by 4-5%---\$15/head in today's corn market---by fine grinding (~2,000 microns) instead of coarse cracking the grain.

The other factor which can help us change our paradigm is our nearly-ubiquitous use of wet corn milling byproducts. These products are routinely priced at a value to corn, and are often included in the finishing diet at 20-60% of the ration dry matter. This makes the diet a completely different beast than what nutritionists had to work with in the '70's, '80's, and '90's. If all of the ingredients are dry, then fine particles will sift through the diet mixture and fall to the bottom of the bunk. If these fine particles contain mostly rapidly fermentable starch from finely ground corn, there's a good risk of bloat. However, that's not the case today.

Feedlot Facts – “Grain Processing Matters” (cont.)

Although the particle size of distillers grains is very fine, their fibrous nature means that the fine particles of distillers grains do not present nearly as great of risk for causing bloat as corn fines. And the high moisture content of the byproducts improves the positional stability of the total mixture such that the fine particles remain mixed as opposed to settling to the bottom of the bunk. Those fines which do settle out will be a blend of corn fines and distillers grains, with a reduced risk of bloat.

Producers can send off a sample of processed grain for particle size analysis, but the goal is to have all particles under 3mm in size. This maximizes ruminal and total tract utilization of starch and increases efficiency of feed use. While having a uniform blend of ¼ and 1/8 kernels looks good, it's not going to help you get the most from your corn.

Producers may wish to have their extension specialist or feed supplier collect fecal samples for starch analysis. (1) Combine 5-10 freshly voided fecal samples (about a golf ball-size each) in a plastic bag from 5-10 different cattle which have all been on the finishing diet for at least 3 weeks; (2) freeze the samples immediately after collection; (3) clearly identify the sample bags with producer name and pen number; (4) include a note requesting a fecal starch analysis, your email, and your billing address; (5) send the sample to the lab overnight such that it will arrive prior to the weekend. The goal is to have fecal starch <10% on a dry matter basis; if starch is >20%, there's a fair amount of money being left on the table.

Grinding corn to hog-feed consistency flies in the face of convention. But if you are using at least 20% (dry matter basis) of a wet milling byproduct ingredient, consider grinding the grain to a finer particle size to ensure maximum utilization of your sizable investment.

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

- ↪ **Research Assistant, Food Microbiology/Food Science** - The Department of Animal Sciences and Industry is looking for a Research Assistant to administer and maintain the daily activities of the food microbiology laboratory on the KSU-Olathe campus. This is a full-time, 12-month, term position. B.S. in Animal Science, Food Science or related field is required; M.S. preferred. Review of applications will begin July 26, 2013, and continue until the position is filled. View complete position announcement and application procedures at: <http://www.asi.ksu.edu/positions>.
- ↪ **Dr. Bob Hines Kansas Swine Classic held:** The 28th Annual Dr. Bob Hines Swine Classic youth swine show was held at CiCo Park on July 12-13, 2013. There were 105 youth exhibitors from 34 counties showing 239 pigs at the event this year. A swine photo contest, extemporaneous speaking contest, and educational demonstrations were held during the event.
- ↪ **Effect of Weaning on Body Condition Recovery and Calf Performance in Previously Nutritionally Restricted Cow-Calf Pairs** - A combination of 36 first-calf heifers and mature cows, previously nutritionally restricted, were early weaned or calves remained with cows during a 77-day re-feeding period. A common ration composed of ground CRP hay (70.2%), wet distillers grain (28.3%), and a mineral package (1.5%), all dry matter basis, was delivered 3 times per day to both groups. Daily intakes of cows were measured utilizing a digital GrowSafe System (GrowSafe, Alberta, Canada). Body condition scores (1 = thin; 9 = very fat) and body weights of the all the cows were taken at day 0 and again at day 77.
The Bottom Line: Early weaning helped increase body condition in both 2-year-old and mature cows, but 2-year-old cows recovered only half as much condition in the same amount of time as mature cows when feeding both age groups together. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact Sandy Johnson (785-462-6281; sandyj@k-state.edu).
- ↪ **Effects of Corn Processing and Wet Corn Gluten Feed on Newly Received and Growing Cattle** - A study was conducted at the Kansas State University Beef Stocker Unit to evaluate effects of corn processing and inclusion of wet corn gluten feed on performance of receiving and growing cattle. Crossbred steers (n = 279) were randomly assigned to 1 of 4 treatments. Treatments were whole shelled corn (WSC) with no WCGF (WSC/0WCGF), WSC with 30% WCGF (WSC/30WCGF), dry-rolled corn (DRC) with no WCGF (DRC/0WCGF), and DRC with 30% WCGF (DRC/30WCGF). All diets contained the same amount of alfalfa and prairie hay, and diets without WCGF contained 5% molasses to condition the total mixed ration. Cattle were fed for 60 days.
The Bottom Line: Performance was similar for cattle fed whole shelled and dry-rolled corn. Wet corn gluten feed improved gain and diet digestibility but did not affect efficiency of gain. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact Dale Blasi (785-532-5247; dblasi@ksu.edu) or Larry Hollis (785-532-1246; lhollis@ksu.edu).

↵ **Effects of Diet Form and Fiber Withdrawal Before Marketing on Growth Performance of Growing- Finishing Pigs**— A total of 288 pigs (PIC 327 × 1050, initially 109.3 lb BW) were used in an 81-d trial to determine the effects of diet form and fiber (from dried distillers grains with solubles [DDGS] and wheat middlings) withdrawal before harvest on growth performance of growing-finishing pigs. Treatments were arranged in a 2 × 3 factorial with the main effects of diet form and dietary fiber feeding regimen. The 2 diet forms were meal or pellet. The 3 fiber feeding regimens were (1) low dietary fiber (corn-soybean meal-based diets) from d 0 to 81, (2) high dietary fiber (30% DDGS and 19% wheat midds) from d 0 to 64 followed by low fiber from d 64 to 81 (fiber withdrawal), and (3) high dietary fiber from d 0 to 81.

No interactions were observed for growth performance between diet form and fiber withdrawal regimens. From d 0 to 64, there were no differences in ADG between pigs fed different diet forms. Pigs fed meal diets had increased ADFI and poorer F/G compared with pigs fed pelleted diets. Pigs fed pelleted diets tended to have increased final BW and HCW compared with pigs fed meal diets, but no difference was detected in carcass yield. From d 0 to 64, fiber level did not influence ADG; however, pigs fed low-fiber diets had decreased ADFI and improved F/G compared with pigs fed high-fiber diets. From d 64 to 81, pigs fed pelleted diets had increased ADG and tended to have increased ADFI and better F/G than pigs fed meal diets. Pigs on the fiber withdrawal regimen had increased ADG compared with pigs kept on high-fiber diets; pigs previously fed the low-fiber diet were intermediate. Withdrawal of the high-fiber diet resulted in an increase in ADFI compared with pigs fed low-fiber or high-fiber diets throughout. Pigs fed low-fiber diets throughout the trial had improved F/G compared with pigs fed high-fiber diets throughout, and pigs on the withdrawal regimen were intermediate.

Overall (d 0 to 81), pigs fed pelleted diets had increased ADG and improved F/G compared with pigs fed meal, with no difference in ADFI. Fiber regimen did not influence ADG for the overall trial; however, pigs fed low fiber throughout the trial had decreased ADFI and improved F/G compared with pigs fed the withdrawal regimen or pigs fed high fiber throughout. Fiber regimen did not affect final BW or HCW, but the fiber withdrawal regimen restored carcass yield to the low-fiber pigs, both of which were greater than those fed the high-fiber regimen. For carcass fat quality, pigs fed pelleted diets had increased belly fat iodine value (IV) compared with pigs fed meal diets.

Bottom Line... Compared with pigs fed high fiber throughout the trial, pigs fed the low-fiber regimen had decreased IV, with those fed the withdrawal regimen intermediate. Compared with pigs fed low-fiber diets throughout, feeding high-fiber diets increased ADFI and resulted in poorer F/G, regardless of withdrawal. Withdrawing fiber allowed pigs to recover fully from losses in carcass yield, but only an intermediate improvement in belly fat IV was observed. Pelleting the diets improved ADG and F/G, but worsened belly fat IV, regardless of diet formulation; however, pelleting increased belly fat IV to a greater extent with the high-fiber diet containing DDGS and wheat midds than with the low fiber, corn-soy- bean meal diet. 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, and J. L. Nelssen.)

↵ **Effects of Corn Particle Size, Complete Diet Grinding, and Diet Form on Finishing Pig Growth Performance, Caloric Efficiency, Carcass Characteristics, and Economics**—A total of 855 pigs (PIC TR4 × Fast Genetics York × PIC Line 02), initially 56.54 lb BW) were used in a 111-d trial to evaluate the effects of corn particle size, complete diet grinding, and diet form (meal or pellet) on finishing pig growth performance, caloric efficiency, carcass characteristics, and economics. Pens of pigs were balanced by initial BW and randomly allotted to 1 of 5 dietary treatments with 9 replications per treatment. The same corn-soybean meal-based diets containing 30% dried distillers grains with solubles (DDGS) and 20% wheat middlings (midds) were used for all treatments. Diets were fed in four phases. Different processing techniques were used to create the 5 dietary treatments: (1) roller grinding the corn to approximately 650 μ with the diet fed in meal form; (2) hammer-mill grinding the corn to approximately 320 μ with the diet fed in meal form; (3) Treatment 2 but pelleted; (4) corn initially roller-mill ground to approximately 650 μ, then the complete mixed diet reground through a hammer mill to approximately 360 μ with the diet fed in meal form; and (5) Treatment 4 but pelleted.

Overall (d 0 to 111), reducing corn particle size from approximately 650 to 320 μ improved F/G, caloric efficiency, feed cost per lb of gain, and income over feed cost (IOFC). Grinding the complete diet decreased ADG, ADFI, and final weight when the diet was fed in meal form, but increased performance when fed in pelleted form resulting in diet form × portion ground interactions. Pelleting the diet improved ADG, F/G, caloric efficiency on an ME and NE basis, final weight, carcass weight, and IOFC.

For carcass characteristics, feeding a pelleted diet increased HCW, which led to a diet form × portion ground interaction, meaning HCW decreased when the complete diet was ground and fed in meal form but increased when the same diet was fed in pellet form. Grinding the complete diet decreased loin depth, and pelleting diets increased loin depth.

Bottom Line... Reducing corn particle size and pelleting complete diets improved performance, carcass characteristics, and economic return. Fine-grinding the entire diet was detrimental to performance, carcass characteristics, and economics when fed in meal form but improved performance and economic return when pelleted. 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. De Jong, J. M. DeRouchey, M. D. Tokach, R. D. Goodband, S. S. Dritz, J. L. Nelssen, and L. McKinney.)

AS&I Faculty Spotlight



Jim Drouillard (jdrouill@k-state.edu; 785-532-1204)
Professor/Beef Cattle Nutrition

Dr. Jim Drouillard joined the K-State faculty in 1995, and he, his wife Patti, daughter Kameron, and son Jason are now residents of Olsburg.

A two-time Gator, Jim received his Bachelor's (Animal Science) and Master's (Animal Breeding) degrees from the University of Florida in 1985 and 1986, and his Ph.D. from the University of Nebraska in 1989. Jim has responsibilities in teaching (20%) and research (80%), and is faculty coordinator for the Beef Cattle Research Center. His research has focused on feedlot cattle production, emphasizing grain processing, pre-harvest food safety, byproduct utilization, and the effects of diet on cattle health, performance, carcass quality, and meat composition.



Joe Hancock (jhancock@k-state.edu; 785-532-1230)
Professor/Monogastric Nutrition

Dr. Joe Hancock grew up on a dry-land cotton farm near Gail, Texas. After his B.S. degree in Agricultural Education, M.S. degree in Swine Production, and Ph.D. degree in Animal Nutrition, Dr. Hancock joined the faculty here at KSU. His assignment is 50% teaching and 50% research.

As for teaching responsibilities, those include lecture and lab classes in nutrition (thus far 81 classes involving 2,607 students) and advising 15 to 20 undergraduate and graduate students each semester. His research activities have centered on factors that limit fat, protein, and carbohydrate utilization in weanling pigs and broiler chicks and processing techniques to maximize nutrient utilization and minimize nutrient excretion in finishing pigs, sows, and layers. Those activities have been funded by 104 grants/gifts from 36 companies and government agencies at the local, state, and federal level.

Results from Dr. Hancock's research activities have been shared in some 400 abstracts, technical reports, symposia proceedings, journal articles, and book chapters and have yielded invited presentations in 41 countries (Japan, Korea, China, Vietnam, Malaysia, Indonesia, the Philippines, Ireland, England, Denmark, Holland, Germany, France, Spain, Portugal, Italy, Romania, Russia, Senegal, Mali, Burkina Faso, Niger, Nigeria, South Africa, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Brazil, Venezuela, Colombia, Peru, Ecuador, Cuba, the Bahamas, Jamaica, and throughout Mexico, the United States, and Canada).

In his spare time, Dr. Hancock likes to fish, reload, shoot, and hunt pretty much anything that walks, flies, or crawls. Also, he tries to get away at least once a year to do a bit of SCUBA (Cabo, Puerto Vallarta, Cozumel, Costa Rica, Fiji, Sulawesi, Cheju-do, Oahu, Kauai, California, Texas, Missouri, Iowa, Florida, Grand Cayman, Bahamas, Grand Turk, Puerto Rico, St. Croix, St. Eustatius, Saba, Dominica, Bequia, Tobago, Bonaire, Los Roques, Bocas del Toro, Corn Island, Utila, Roatan, and Belize) with his wife Melisa. Joe and Melisa live on a hill just northeast of Manhattan with a couple cats, Beano (Chihuahua), Dixie (Yorkie), a pontoon boat, and the occasional possum, raccoon, deer, wild turkey, coyote, and copperhead.

What Producers Should Be Thinking About.....

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



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

September is when forages are maturing rapidly, weaning time can be appropriate, and weather dictates several key management decisions.

Breeding Season

Out of concern for trichomoniasis, an economically devastating reproductive disease, do not introduce untested bulls to your herd. Remove bulls after 60 days with cows, 45 days with heifers (Never run bulls for more than a 90-day breeding season).

Cowherd Nutrition

- Provide ample amounts of clean, fresh drinking water.
- Consider limited-intake creep feeding if:
 - ◆ Drought conditions develop and persist.
 - ◆ Range conditions limit milk production.
 - ◆ Creep feed/grain prices are relatively low.
 - ◆ Value of gain allows for economic benefits.
- Tips for successful limited-intake creep feeding:
 - ◆ Limit duration to last 30 to 75 days before weaning.
 - ◆ Limit intake to less than 2 pounds/head/day.
 - ◆ Use an ionophore or other feed additive to maximize efficiency.
 - ◆ Protein level should be equal to or greater than 16%.
 - ◆ High salt levels may help limit intake, but can be tough on feeders.
- Prepurchase bulk rate winter supplementation needs prior to 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.
- ◆ Control face flies.
- ◆ Clip pastures with tall, coarse grasses that may irritate eyes.
- ◆ Provide ample shade.

Therapy:

- ◆ Administer a long-acting antibiotic subcutaneously when symptoms are first noticed.
- ◆ Shut out irritating sunlight by patching eyes, shade, etc.
- ◆ Control flies.
- ◆ Consult your veterinarian.

- 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 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.

Reproductive Management

- Remove bulls to consolidate calving season.
- Pregnancy check and age pregnancies 60 days after the end of the breeding season. Consider culling cows that are short-bred.

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

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 early weaning if:
 - ◆ Drought conditions develop and persist.
 - ◆ Range conditions limit milk production.
 - ◆ Cows are losing body condition.
 - ◆ Calf and cull cow prices indicate maximum profit.
 - ◆ Facilities and management is available to handle lightweight calves.
 - ✓ *First calf heifers have the most to gain.*
 - ✓ *Resist the temptation to feed the cows without weaning; feeding early-weaned calves is more efficient.*
- Look for unsound cows that need to be culled from the herd.
- Prepare to have your calf crop weighed and analyzed through your state, regional, or breed performance-testing program.
- 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, or phone 785-532-1267.*