



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](http://www.asi.ksu.edu)

August 2012

## News from KSU Animal Sciences

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### We Need Your Help!

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

# UPCOMING EVENTS...

- ✦ **Entries for the Kansas Junior Livestock Show** must be postmarked by August 15, 2012. Late entries will be accepted through September 1, 2012, but all late entries will be subject to an entry fee double the stated entry fee amount. For more information, visit [www.kjls.org](http://www.kjls.org).
- ✦ **The Kansas All Breeds Junior Dairy Show** will be held August 16-18, 2012 in Salina. For more details, contact Mike Brouk ([mbrouk@ksu.edu](mailto:mbrouk@ksu.edu); 785-532-1207).
- ✦ Make plans now to attend the **Flint Hills Beef Fest** which will be held August 17-19, 2012. Events will take place on the Lyon County Fairground in Emporia, Kansas. The Flint Hills Beef Fest is an annual celebration of the grass cattle industry for which the Flint Hills region in Kansas is known. For more details and a complete schedule of events, please visit <http://www.beeffest.com>.
- ✦ The **Kansas Livestock Sweepstakes** has been scheduled for August 25-26, 2012. This all-around event will feature contests in Livestock Judging, Meats Judging, Livestock Skillathon, and Livestock Quiz Bowl. Rules and past winners can be found at [www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu). Schedule for the sweepstakes include:
  - Saturday, August 25**
    - 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
    - 8:45 a.m. Livestock Judging Contest Begins - Meet in Weber 123
    - 11:45 a.m. Lunch for non-livestock judging participants (time approximate, must pre-order) - Weber Hall
    - Afternoon Please note Livestock Judging Contest will end in Weber Hall Ice Cream Social & Quiz Bowl Teams Posted after Livestock Judging Contest - Weber Hall West Lobby
    - Break for dinner on your own and hotel check-in
    - 6:30 p.m. Quiz Bowl Team Orientation
    - 7:00 p.m. Quiz Bowl Competitions - Meet in Weber 123
    - Competition Rooms – Weber 111 & 146
  - Sunday, August 26**
    - 6:30 a.m. Meats Judging Contest Registration (Coaches only) – Weber 111
    - 7:00 a.m. Meats Judging Contest Begins – Weber 111
    - 11:00 a.m. Skillathon Check-in Opens (Coaches only) – Weber West Lobby
    - 11:45 a.m. Lunch for participants (time approximate, must pre-order online)
    - 12:00 p.m. Skillathon Begins for all Counties/Districts – Weber 123
    - 4:00 p.m. Quiz Bowl Finals & Awards Presentation – Weber 123
    - Time TBD: We will proceed with the closing as quickly as possible following the Meats Judging contest and Skillathon tabulation.

All entries must be postmarked by August 1, 2012. Registration forms and complete information can be found at [www.YouthLivestockKSU.edu](http://www.YouthLivestockKSU.edu). For more information, contact Kristine Clowers (785-532-1264; [clowers@ksu.edu](mailto:clowers@ksu.edu)).



# UPCOMING EVENTS...

- ☞ Kansas State University will host **Building Better Heifers – Selecting, Growing and Breeding Heifers Using Today’s Science field days** on August 28 in Eureka, KS, and August 29 in Phillipsburg, KS. The Aug. 28 field day will be hosted by the Perrier Family, Dalebanks Angus at 820 River Road, Eureka. The Aug. 29 event will be hosted by the Stuart Jarvis family at Bar Arrow Cattle Company at 26 E. Limestone Road, Phillipsburg. The field day at both locations begins with registration at 4:00 p.m. and the program starting at 4:30 p.m. Presentations and speakers include:
- Heifer Development Systems – *Rick Funston, University of Nebraska-Lincoln*
  - Heifer Selection Tools – *Bob Weaber, KSU*
  - Post-breeding Nutrition and Early Pregnancies – *Scott Lake, University of Wyoming*
  - Healthy Heifers to Healthy Cows – *Dale Grotelueschen, Pfizer Animal Health*
  - Early Pregnancy Diagnosis – *Sandy Johnson, KSU*
  - Proper Collection of DNA samples – *Kara Wilson, CAB and Tonya Amen, American Angus*
- The field days are sponsored by K-State Research and Extension, Pfizer Animal Health and Certified Angus Beef. An evening meal is included in the event. For meal planning purposes, organizers request that all participants RSVP before August 13 by contacting Anna Curry ([akcurry@ksu.edu](mailto:akcurry@ksu.edu); 620-583-7455), Rachael Boyle ([rboyle@ksu.edu](mailto:rboyle@ksu.edu); 785-425-6851) or Sandy Johnson ([sandyj@ksu.edu](mailto:sandyj@ksu.edu); 785-462-6281).
- ☞ The **2012 KSU Beef Stocker Field Day** will be held on Thursday, September 27 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. Cattle and Corn Market Outlook – *Dr. Glynn Tonsor, KSU*
  - 11:15 a.m. Producer Panel: Managing Around Fewer Cattle – *Moderator, Wes Ishmael, BEEF Margaret Ann Smith, Southflex Cattle Co.; Fred Berns, Peabody, KS; Jeff George, Finney County Feedyard; and Ken Woods, Frontier Farm Credit*
  - 12:00 noon BBQ Lunch with Cattle Handling Facilities demonstrations
  - 1:30 p.m. Bayer R&D Update for Stocker Cattle – *Dr. Jason Nickell*
  - 2:15 p.m. Antibiotic Classes and Uses for Stocker Operations – *Dr. Jim Sears*
  - 2:30 p.m. Byproduct Utilization and Growing Cattle – *Dr. Terry Klopfenstein, University of Nebraska*
  - 3:15 – 5:00 p.m. **Breakout Sessions**
    - Pasture Weed Control – *Dr. Walt Fick, KSU Range Management*
    - Purchasing Commodity Feeds – *Rodney Derstein, Tallgrass Commodities*
    - Why is he dead? What a necropsy can tell us – *Larry Hollis, KSU Beef Veterinarian*
- The day will conclude with a good old-fashioned Prairie Oyster Fry and dutch oven desserts. 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 3-5, 2012, 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](mailto:lboyle@ksu.edu); 785-532-1247).
- ☞ The **2012 KSU Swine Day** will be held Thursday, November 15, at the KSU Alumni Center. Mark the date on your calendar and watch for more details.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
August 15, 2012	Entries due for Kansas Junior Livestock Show ( <a href="http://www.kjls.org">www.kjls.org</a> )	
August 16-18, 2012	Kansas All Breeds Junior Dairy Show	Salina, KS
August 17-19, 2012	Flint Hills Beef Fest	Emporia, KS
August 25-26, 2012	Kansas Livestock Sweepstakes	Manhattan
August 28, 2012	Building Better Heifers Field Day	Eureka, KS
August 29, 2012	Building Better Heifers Field Day	Phillipsburg, KS
September 27, 2012	KSU Beef Stocker Field Day	Manhattan
October 3-5, 2012	Developing and Implementing Your Company’s HACCP Plan	Olathe, KS
November 15, 2012	KSU Swine Day	Manhattan

# WHAT'S NEW . . . .

## Management Minute "Paradigm Shift"

### ↪ **Management Minute** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Paradigm Shift"*

We are all prisoners of our experience. Ag producers under 40 years old have never experienced a drought like the drought of 2011-2012. They may have only been teenagers during the drought of 1988 and can only remember what their elders may have talked about during the drought.

The drought of 2012 has certainly brought challenges to agriculture---challenges many producers have not faced before. But what becomes apparent is how different people respond during adversity. While some are held captive by "what we've always done", others naturally and energetically seek out new ways to do things. Some avoid change until change is unavoidable, while others change as quickly as they are able to align the needed pieces. Sometimes, those slow to change are reluctant because they've been tremendously successful under the "old" paradigm, while others who are more "hungry" are willing to embrace the new adversity as a potential unconventional avenue to their own success.

Other times, it's as simple as comfort with the existing way of doing things. But modern agriculture is capital intensive and markets are highly volatile. Comfort and change seem incompatible; change is inevitable and imminent, lurking just around the next corner. Comfort and complacency lead to a slothful loss of agility and nimbleness.

The beef industry is currently re-learning old lessons about ammoniation of wheat straw and corn stalks to improve their feeding value and to get the most value out of the crop. Early weaning of beef calves has taught us that young calves can be tremendously efficient at converting a high-quality diet to lean gain. Depending on the spring pricing opportunity for yearlings and available home-raised feed supplies, there may be an opportunity to add value to efficient, early-weaned calves, even with the current high feed costs.

If forage is in extremely short supply, survival may trump advancement; estimates suggest that beef producers with calves to sell in the next few years have an opportunity to capture record prices. In an attempt to keep the herd intact, some producers may cull replacement heifers simply out of the necessity to maximize immediate return on every feed dollar, retaining only the most productive mature females until the forage base and costs allow for a return to "business as usual". While conventional wisdom says, "Replacement heifers represent our most progressive genetics!", one could ask, "What good is genetic progress if I'm broke?"

"What we've always done" is not bad, wrong, or inappropriate. But the drought of 2011-2012 has taught us that we need to constantly re-evaluate what we do to make sure what we're doing is right and best given the dynamics of production and the market place.

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

## Feedlot Facts "Ammoniation of Forages Improves Feeding Value"

### ↪ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist *"Ammoniation of Forages Improves Feeding Value"*

In a market such as the Summer of 2012, everything has value. Ingredients we never would have considered as suitable for feeding a few years ago are now in high demand. But while we want to give every opportunity due consideration, we've got to be sure to know what the true nutritional value of a feedstuff is, as well as any potential for toxicity.

Wheat straw has traditionally been fed to beef cows and can provide energy to gestating cows if supplemented with protein; however, ammoniation of the straw can effectively improve its feed value. Lignin (the "glue" that holds the cells together and gives strength to the stalk) normally prevents ruminal microbes from breaking down much of the cellulose in mature forages. Ammoniation breaks down the bonds between lignin and the cellulose and hemicellulose, allowing access for rumen microbes, and releasing energy for the cow to use.

Ammoniation not only adds nitrogen and increases the crude protein content of the forage, but also improves digestibility and consumption of the forage as well. Simply, ammoniated wheat straw has protein and digestibility values similar to moderate quality prairie hay.

### **Feedlot Facts – “Ammoniation of Forages Improves Feeding Value” (cont.)**

The ammoniation process is relatively simple and inexpensive. Stack the straw bales in either a 3-2 or 3-2-1 pyramid. Leave several inches between bales to allow ammonia to flow freely between bales. Cover the stack with a single sheet of 6 mil plastic and completely seal the plastic around the base of the stack with soil. Any holes in the plastic should be sealed with tape.

Insert a hose from the anhydrous ammonia nurse tank under the plastic at the base of the stack at the midway point of the stack and seal the plastic around the hose. A manifold can be used to disperse the ammonia more evenly throughout the bale stack.

Most sources recommend applying anhydrous ammonia at the rate of 3% of the bales' dry weight; however, some evidence suggests that 1.5% may be nearly as efficacious but for a reduced cost. Studies are currently underway at K-State to evaluate these 2 levels of addition. At a 3% addition rate, 60 lbs of anhydrous ammonia will be added for each ton of hay. For simplicity, a nurse tank can be used containing the exact amount of anhydrous ammonia for the amount of hay in the stack, and the tank can be allowed to empty completely. Apply the ammonia slowly to prevent rapid expansion and breaking of the plastic.

**WARNING:** Anhydrous ammonia is very toxic to the skin, eyes, and respiratory tract. Therefore, only conduct ammoniation in an open, well-ventilated area, always work upwind from the ammonia source, and always wear goggles and rubber gloves when exposed to the anhydrous ammonia. Have abundant clean water available in the event of exposure of the eyes or skin to the anhydrous ammonia.

The time required for the chemical breakdown to occur depends on ambient temperature: allow 1-2 weeks to cure if daily temperatures are in the 80's or 90's; increase this time to 4-6 weeks if ammoniating during the winter. Prior to feeding, remove the plastic and allow the bales to aerate for several days to allow excess ammonia to escape.

Corn stalks can also be successfully ammoniated and forage quality effectively improved in a similar manner. The value of wheat straw and corn stalks can be dramatically improved by ammoniation. The cost of ammoniation is presently \$30-40 per ton of forage, which makes the ammoniated crop residue more cost-effective than prairie hay which might need to be hauled from a distance. In the present market, all forage has some value; however, it's imperative to test all forages to determine what that value is.

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

### **Effects of Prepartum and Postpartum Bolus Injections of Trace Minerals on Performance of Beef Cows and Calves Grazing Native Range**

Mature beef cows were stratified by body condition, age, parity, and predicted calving date and assigned randomly to 1 of 2 treatments: (1) trace mineral injection containing 15 mg/mL Cu, 5 mg/mL Se, 10 mg/mL Mn, and 60 mg/mL Zn or (2) injection of physiological saline (saline). Injections were administered to cows 105 days before the first projected calving date and again 30 days before fixed-time artificial insemination. Calves received the same treatment as their dams and were injected at birth and again at 71 +/- 21 days of age. Cows grazed native pastures for the duration of the study; trace mineral supplements and white salt were available to all cattle free choice before and during the study. Change in body weight and body condition score from initiation of the study to calving and from artificial insemination to weaning did not differ between trace mineral and saline cows. Conversely, trace mineral cows had greater body condition score increase than saline cows between calving and artificial insemination. Calf body weight at birth, average daily gain, and age-adjusted weaning body weight did not differ between treatments. Proportion of cows with estrus cycles 17 and 8 days before ovulation synchronization was similar between treatments. Conception to artificial insemination was greater for cows receiving trace mineral (60.2%) than for cows receiving saline (51.2%); however, overall pregnancy did not differ between treatments and averaged 92%.

**Bottom Line...** Under the conditions of our study, pre- and postpartum trace mineral injections improved conception to fixed-time artificial insemination. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information contact, Bob Weaber (785-532-1460; [bweaber@ksu.edu](mailto:bweaber@ksu.edu)) or KC Olson (785-532-1254; [kcolson@ksu.edu](mailto:kcolson@ksu.edu)).

**Zilmax Alters Blood Metabolites in Finishing Cattle** – Crossbred steers (n=18) were fed finishing diets with and without Zilmax (Merck Animal Health; Summit, NJ) for 23 days followed by a 3-day withdrawal before harvest. Steers were sorted by initial weight and randomly assigned to the two treatments. Steers were housed in individual pens containing concrete floors with feed bunks and half of the pens covered. Cattle were weighed at 7-day intervals and then again on the day of harvest. On day 0, 7, 14, and 21, blood samples were taken. A small amount of whole blood was used to analyze glucose and lactate. The rest of the blood was centrifuged and plasma was collected for analysis on glucose, lactate, plasma urea nitrogen, and non-esterified fatty acids. Carcass data were collected at harvest.

**Bottom Line...** Adding Zilmax to the diets of finishing cattle 23 days prior to slaughter has a direct impact on blood metabolites, especially plasma urea nitrogen. View the complete research 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 Larry Hollis (785-532-1246; [lhollis@ksu.edu](mailto:lhollis@ksu.edu)).

↳ **Effects of Feeding Copper and Feed-Grade Antimicrobials on the Growth Performance of Weanling Pigs** - A total of 240 weanling pigs (34 d of age with an average body weight of 17.1 lb) were used in a 35-d growth trial to compare the growth performance effects of copper (Cu) and feed-grade antimicrobials. The 6 dietary treatments were arranged in a 2 × 3 factorial with 2 added Cu levels (basal level of 16.5 ppm or basal + 125 ppm from copper sulfate) and 3 antimicrobial treatments including a control, chlortetracycline (CTC; Alpharma, Fort Lee, NJ) at 500 g/ton (10 mg/kg BW), and tylosin (Tylan; Elanco Animal Health, Greenfield, IN) at 100 g/ton. Each treatment had 8 pens with 5 pigs per pen. Treatments were allotted to pen in a randomized complete block design, with location within the barn serving as the blocking factor. Following the brief acclimatization period prior to starting the experiment (13 d), pigs were fed dietary treatments for 21 d followed by another 14 d on the control diet to examine any carryover effects. No significant copper × antimicrobial interactions were observed for any pig performance response. From d 0 to 21, pharmacological Cu tended to increase both ADG and ADFI compared with pigs provided basal levels of Cu. Dietary CTC inclusion increased ADG and tended to improve ADFI and F/G over pigs not fed diets with CTC. Dietary Tylan did not alter ADG, ADFI, or F/G compared with pigs provided the control diets. From d 21 to 35, pigs that previously had received pharmacological Cu tended to have lower ADG compared with those never receiving pharmacological Cu. Also, pigs previously receiving Tylan had lower ADG than those never receiving Tylan.

**Bottom Line...** For the overall trial (d 0 to 35), adding Cu for the first 21 d had no impact on ADG, ADFI, or F/G. Similarly, Tylan did not influence pig performance. The benefits of CTC during the first 21 d led to a tendency for increased ADG and ADFI compared with those not receiving CTC. Overall, pharmacological Cu and antimicrobials may offer performance advantages when incorporated in nursery pig diets; however, that advantage will not increase and may be lost after Cu and/or antimicrobials are removed from diet. 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 R.G. Amachawadi, N.W. Shelton, M.D. Tokach, H.M. Scott, S.S. Dritz, R.D. Goodband, J.M. DeRouchey, J.L. Nelssen, and T.G. Nagaraja.)

↳ **The Effects of Diet Form and Feeder Design on the Growth Performance of Finishing Pigs** - A total of 1,146 growing pigs (PIC 1050 × 337, initially 85.8 lb) were used in a 104-d study to evaluate the effects of diet form (meal vs. pellet) and feeder design (conventional dry vs. wet-dry) on finisher pig performance. The treatments were arranged in a 2 × 2 factorial with 11 replications per treatment and 25 to 27 pigs per pen. Half of the pens were equipped with a 5-hole conventional dry feeder and the other half had a double-sided wet-dry feeder. All pigs were fed a corn-soybean meal-based diet containing 20% dried distillers grains with solubles (DDGS) during the first 4 dietary phases and 10% DDGS in phase 5. The only difference in diet among treatments was diet form (meal vs. pellet). Pen weights and feed disappearance were measured on d 0, 14, 28, 42, 56, 70, 86, and 104. Pictures of feeder pans were taken once during each phase and evaluated by a panel of 4 individuals for percentage pan coverage. From d 0 to 28, no diet form × feeder design interaction was observed for ADG or F/G. Pigs fed pelleted diets had poorer F/G compared with those fed meal diets, which appeared to be due to poor pellet quality (39.6% fines). From d 42 to 86, pellet quality improved (4.4% fines), and a diet form × feeder interaction was observed for ADG, whereas pigs presented meal diets in a dry feeder had decreased ADG compared with pigs presented pelleted diets in dry feeders or pigs presented feed via wet-dry feeders regardless of diet form. Pigs presented pelleted diets had improved F/G compared with those fed meal diets. Pigs fed via wet-dry feeders had increased ADFI and poorer F/G compared with pigs with dry feeders.

**Bottom Line...** Overall, pigs fed with wet-dry feeders had increased ADG and ADFI, and poorer F/G compared with those with dry feeders, whereas pigs presented pelleted diets had a tendency for improved F/G compared with those presented meal diets. In conclusion, regardless of diet form, pigs fed from wet-dry feeders had increased ADG and ADFI compared with pigs fed via dry feeders. Additionally, pellet quality appeared to influence responses because pigs provided higher-quality pellets via dry feeders had increased growth performance compared with pigs fed meal diets. Conversely, if pellet quality was poor, feed efficiency benefits associated with pelleting were lost. 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 A. J. Myers, J. R. Bergstrom, M. D. Tokach, S. S. Dritz, R. D. Goodband, J. M. DeRouchey, and J. L. Nelssen.)

# AS&I Faculty Spotlight



**Joel DeRouchey (jderouch@k-state.edu; 785-532-2280)  
Professor/Extension Specialist**

Dr. Joel DeRouchey was born in 1975 and grew up on a diversified purebred swine, cattle and sheep operation in Pukwana, SD. He graduated with his B.S Animal Science from South Dakota State University in 1997. He then obtained his M.S. (1999) and Ph.D. (2001) in Swine Nutrition at Kansas State University, and was hired as the Northeast Livestock Extension Specialist for Kansas State University as an Assistant Professor with an 80% Extension and 20% Research appointment. In 2004, Joel made a transition into the Department of Animal Sciences and Industry as an Environmental Management and Livestock Nutrition Specialist with a 40% Extension, 40% Research, and 20% Teaching appointment.

A brief listing of Joel's Extension and Research interests involve:

- 1) Develop and help implement on farm technologies to improve animal production and environmental quality.
- 2) Conducting applied swine nutrition research to increase the profitability of swine producers.
- 3) Provide environmental information to livestock producers for regulatory and manure management compliance.
- 4) Coordinate youth swine activities to increase swine industry knowledge, husbandry and awareness of careers in swine production.

Joel currently teaches ASI 320 (Spring) Principles of Feeding. In addition Dr. DeRouchey is the faculty coordinator for ASI 890 and ASI 990 Graduate Student Seminar, and is a frequent guest lecturer in ASI 535 Swine Science.

Joel and his wife, Julene, have three young children, James, Jenna and Jacob. They are diehard tailgaters and K-State football fans, and currently live on a small farm near St. Mary's, KS



**Larry Hollis (lhollis@k-state.edu; 785-532-1246)  
Professor/Extension Beef Veterinarian**

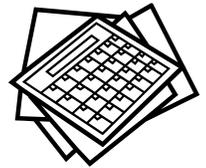
A graduate of Texas A & M University's College of Veterinary Medicine, Dr. Hollis spent 4 years in private practice first as an employee and later as a clinic owner in the Texas Panhandle where he was heavily involved in cow/calf and stocker production medicine and feedlot consultation. He then joined the staff of the Texas Veterinary Medical Diagnostic Laboratory - Amarillo, where he served as Case Coordinator and later Head of Diagnostic Services. He taught stocker and feedlot production medicine for Texas A & M University, the University of Tennessee, and the University of Nebraska. He received a Master of Agriculture degree in Beef Management and Nutrition from West Texas A & M University. He worked as a Technical Service Veterinarian for Syntex Animal Health and Pfizer Animal Health, working exclusively with beef cattle.

Since 2002 he has served as the Extension Beef Veterinarian at Kansas State University. In addition to his extension responsibilities he also teaches ASI 540, *Principles of Animal Disease Control* and 1/2 of ASI 515, *Beef Science*. He currently holds a 10% teaching, 20% research, and 70% extension appointment in the department.

Larry and his wife, Shirley, are the proud parents of 3 married children and even prouder grandparents of 10 grandchildren.

# 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.*