



WEBER HALL  
ANIMAL SCIENCE & INDUSTRY



*Newsletter from the Department of Animal Sciences and Industry*  
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## WHAT'S NEW...

↪ **Management Minute** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist

### *“Summertime: Time for Training”*

Summertime in agriculture often means time for cleanup after a wet spring and/or preparation for fall harvest. In the feedlot it often means a time of reduced headcount and preparation for the heavy run of fall calves. Along with spraying weeds and painting pipe, hopefully this is a time when we prioritize training and re-training on animal handling basics.

As managers, we're proud of our long-term employees. When people stay around for more than a decade, either they don't have any other opportunities (rarely the case for good people) or they've found a home. They feel supported, challenged, and productive. They're also good at what they do and they're good team members and team leaders.

The challenge mature employees can present for managers is confidence and complacency: confidence in their abilities and complacency in their need for ongoing training. The mature employee may be the most seasoned on the team and may provide excellent leadership in certain areas, but their animal handling skills or attitude may need improvement. To even suggest the need for improvement in this area may bring on conflict. But it is even more critical given the leadership role the person may hold in the eyes of the younger employees or those newer to the team.

I strongly encourage all feedlots to constantly evaluate animal handling practices, facilities, philosophies, and attitudes. Then, determine the appropriate steps to get better. We can always get better. Real leadership will be demonstrated by those who set ego aside and take a proactive approach to improving the organization---starting with the question “How can I get better today?”

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

↪ **Assistant Professor, Meat Science** - The Department of Animal Sciences and Industry is looking for an Assistant Professor, Meat Science. This position is a full time, 12-month, tenure track position that is 0.7 research and 0.3 teaching. Ph.D. or equivalent at time of hire in Meat Science, Animal Science, Food Science or related discipline with emphasis in muscle biochemistry/meat chemistry is required. Experience and knowledge in the meat/food industry is preferred. View the complete position announcement at: <http://www.asi.ksu.edu/positions>

↪ **Assistant Professor, Ruminant Nutrition and Management** - The Department of Animal Sciences and Industry is looking for an Assistant Professor, Ruminant Nutrition and Management. This position is a full time, 12-month, tenure track position that is 0.8 teaching and 0.2 research. Ph.D. or equivalent at time of hire in Animal Science or related discipline with experience in ruminant nutrition or management is required. Experience in both undergraduate and graduate teaching and advising is preferred. View the complete position announcement at: <http://www.asi.ksu.edu/positions>

↪ **Extension Assistant, Youth Livestock Coordinator** - The Department of Animal Sciences and Industry is looking for an Extension Assistant, Youth Livestock Coordinator. This position is a full time, non-tenure track, term position. B.S. in Animal Science or closely related discipline required. M.S. preferred. View complete position announcement at: <http://www.asi.ksu.edu/positions>

↳ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist

***“Heat Stress Abatement: Prevention IS the Cure”***

When we consider true heat stress and the potential for damaging impacts, we must consider the “Effective Ambient Temperature” which is made up of actual dry-bulb temperature and humidity. But we must also factor in average wind speed (or lack thereof). 95° in Garden City is by no means the same as 95° in Chanute. The difference? Humidity and wind.

Heat-stressed cattle will seek out higher elevations to catch a breeze in order to unload heat. Proper design of mounds within pens can help. Cattle can tolerate a fair bit of heat accumulation during the day, provided they can unload that heat during the evening and nighttime hours. But if the effective ambient temperature (“heat index”) doesn’t fall below about 80° at any point during the night, the cattle will go into the next morning carrying heat from the previous afternoon. And if the subsequent day has similar conditions, the heat load building in the cattle will increase to critical levels.

Black-hided cattle are at much greater risk of devastating heat stress due to the amount of solar radiation absorbed by their dark hide. White or light colored cattle rarely suffer as greatly as black cattle during extreme heat situations. Shades will reduce radiant heat accumulation, but it is important that the shade design not stifle air movement.

The most important factor under your control in preparing for heat stress conditions is sufficient water space and capacity. During the summer months water intake not only increases, but the majority of that increased demand is focused around the mid-afternoon hours. In anticipation of extreme heat events, it is important to have large water tanks available and filled. This will give more cattle a place to drink as well as relieving some of the strain on water flow capacity.

Sprinkling can also alleviate heat during the most extreme conditions. A critical element in maximizing the benefits of sprinkling is making sure the spray consists of large, heavy water droplets. A fine mist will evaporate making air more humid, but large droplets penetrate the hair coat to the surface of the skin maximizing the evaporative cooling benefit.

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

↳ **Livestock Nominations** - Did you know you can review your county or district's state nominated livestock at [www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu)? Click on "Nominated Livestock" to access information about what livestock have been nominated in your area. Please contact Dr. Brian Faris with any corrections or concerns at [brfaris@ksu.edu](mailto:brfaris@ksu.edu).

↳ **Heat Stress in Cattle** - Cattle lack the ability to sweat, so it is critical that steps be taken to reduce heat stress before conditions become dangerous. High daytime temperature by itself rarely causes problems – it is the combination of humidity with heat that creates the maximum heat load on cattle. These primary factors are compounded by secondary environmental factors, including multi-day duration of high temperatures, lack of night time cooling, lack of shade, lack of cloud cover, lack of wind, lack of air movement within pens, or grazing endophyte-infested fescue pastures. Combined with animal-related factors such as dark hides, heavy body weights, or advanced pregnancy, the situation can rapidly become deadly.

Producers should watch for signs of heat-related distress during hot humid weather, including off feed, standing with their head over the water source, panting, excessive salivation, or open-mouth breathing. Postponing any gathering or handling procedures until after the critical heat period passes, or working cattle so that all handling is completed by mid-morning, are critical management strategies. Ready access to abundant cold water is essential. Access to shade and the ability to move away from structures that reduce air flow are also tools to consider. Sprinklers that provide enough cold water can also be used, but will only add to the humidity side of the heat stress problem if they do not provide enough large drops of water to wet the cattle’s skin thoroughly.

Panting scores probably give the best visual method to estimate the severity of heat stress on cattle: 80-120 breaths/minute = moderate; 120-160 = danger; and over 160 = emergency. If signs of moderate heat stress are seen, producers may have a very short time to provide a mechanism for cooling the cattle before the situation becomes life threatening. For more information, contact Larry Hollis, D.V.M. (785-532-1246; [lhollis@ksu.edu](mailto:lhollis@ksu.edu)) or Joel DeRouchey (785-532-2280; [jderouch@ksu.edu](mailto:jderouch@ksu.edu)).

↪ **Land Requirements for Freestall Dairy Facilities** - Existing blueprints were used to estimate land requirements for new dairy facilities. The average land requirement for constructing a new dairy complex with freestall housing and a new parlor is 915 ft<sup>2</sup> per lactating cow. Approximately 52% of the overall land space is used for dairy operations including a milk center, housing, transfer lanes, vehicle roads, a feed center, and a manure processing center. The remaining 48% is green space, areas between buildings or along driveways, and separation distance from main roads and neighboring property. View the complete research report at [www.asi.ksu.edu/dairy](http://www.asi.ksu.edu/dairy) under the *Dairy Publications and Presentations* link. (This study conducted by J.P. Harner and J.F. Smith.)

↪ **Feed-Based Metaphylaxis Programs Do Not Affect Health or Performance of High-Risk Calves Mass Medicated with Draxxin on Arrival** - High-risk stocker calves were delivered to the Kansas State University Beef Stocker Unit in May 2008 (n = 313, initial body weight = 451 lb). All calves received Draxxin upon arrival. Treatments consisted of no pellets, pellets containing Aureomycin, or pellets containing Aureomycin followed by AS-700.

There were no significant differences among treatments in the percentage of steers treated once, twice, or one or more times for bovine respiratory disease (P>0.30). There were no significant differences in daily gain (P=0.66), daily dry matter intake (P=0.68), or feed efficiency (P=0.50) among the three treatments.

**Bottom Line...**This experiment showed no benefit of feeding Aureomycin or a combination of Aureomycin and AS-700 when high-risk calves were mass medicated with Draxxin on arrival. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information, contact Dale Blasi (785-532-5427; [dblasi@ksu.edu](mailto:dblasi@ksu.edu)) or Larry Hollis (785-532-1246; [lhollis@ksu.edu](mailto:lhollis@ksu.edu)).

↪ **Round Bale Alfalfa Processing Method Affects Heifer Growth but Does Not Influence Wastage or Eating Preference** - In the conventional baling method, alfalfa was fed through the header of a round baler and carried by packer fingers into a baling chamber. In the precut method, alfalfa was fed through the header of a round baler equipped with serrated knives that cut the alfalfa stems into 3- to 8-in. sections. In experiment 1, heifers were fed either precut or conventional alfalfa hay free choice to determine performance in a 27-d study. In experiment 2, wastage was measured from precut and conventional alfalfa fed in ring feeders. In experiment 3, heifers were given a choice of eating precut or conventional alfalfa bales to determine preference.

In experiment 1, average daily gain was greater for heifers consuming precut alfalfa, but calculated dry matter intake was not different between precut and conventional treatments. In experiment 2, there was no difference in hay wastage between precut and conventional alfalfa fed in ring feeders. In experiment 3, there was no difference in dry matter intake between precut and conventional round alfalfa bales.

**Bottom Line...**Feeding precut alfalfa bales increased heifer gains but did not affect forage wastage in ring feeders or eating preference compared with conventional alfalfa bales. This new baling technology has the potential to positively affect producers who use round bale feeding methods. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information, contact Joel DeRouchey (785-532-2280; [jderouch@ksu.edu](mailto:jderouch@ksu.edu)) or Justin Waggoner (620-275-9164; [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu)).

↪ **Long-Term CIDR Program for Synchronization of Estrus in Beef Heifers Produces Acceptable AI Pregnancy Rates** – Yearling Angus and Angus cross heifers (n = 143) were used to compare long-term and short-term CIDR protocols for synchronization of estrus. Heifers assigned to the CIDR-Select protocol received an EAZI-BREED CIDR (1.38 g) insert for 14 days, Fertagyl (gonadotropin-releasing hormone) 9 days after CIDR removal, and Prostamate (prostaglandin F2 $\alpha$ ) 7 days later. Heifers assigned to the 5-day CO-Synch + CIDR protocol received Fertagyl at the time of CIDR insertion and Prostamate 5 days later, when the CIDR was removed. Heifers observed in estrus before 60 hours after Prostamate injection were inseminated using the AM/PM rule. At 72 hours after Prostamate injection, clean-up timed AI with Fertagyl given at the time of insemination was performed on all heifers not previously observed in estrus.

Interval to estrus (60.4 hours) and the proportion of heifers displaying estrus by 60 hours after Prostamate injection (34%) did not differ with treatment. Conception rate after observed estrus was higher for CIDR-Select than for 5-day CO-Synch + CIDR, as was pregnancy rate to clean-up timed AI and overall AI pregnancy rate. However, final pregnancy rate was 82% and 90% for CIDR-Select and 5-day CO-Synch + CIDR, respectively, and did not differ between estrous synchronization treatments.

**Bottom Line...**The CIDR-Select protocol requires five animal handlings but results in acceptable AI pregnancy rates. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information, contact Sandy Johnson (785-462-6281; [sandyj@ksu.edu](mailto:sandyj@ksu.edu)).



**Effects of Increasing Feeding Level During Late Gestation on Sow and Litter Performance** - A total of 108 gilts and sows (PIC 1050) and their litters were used over 2 gestation and lactation periods to determine the effect of increasing late gestation feeding level on sow and litter performance. Treatments were structured as a 2 × 2 factorial design with main effects of feeding level (0 or 2 lb of extra feed from d 90 to farrowing) and parity group (gilts or sows). The trial was conducted for 2 successive parities, with gilts and sows remaining on the same treatment for both parities.

For the first gestation and lactation period, gilts had increased backfat thickness on d 35, 90, and 112 of gestation and at farrowing compared with sows but had increased lactation backfat loss. Increasing late gestation feed increased weight gain from d 90 to 112 in both gilts and sows. There were late gestation feeding level × parity interactions observed for ADFI and total feed intake for the overall lactation period. This was due to gilts having decreased lactation ADFI when fed extra feed in late gestation, but when sows were fed extra feed, lactation ADFI increased. Increasing feeding level in late gestation also increased total feed cost.

A feeding level × parity interaction was observed for average weight of total born and live born pigs. Increasing feeding level in late gestation increased piglet birth weight in gilts but decreased piglet weight in sows. Gilts had increased number and total weight of the total born, live born, and number after fostering compared with older parity sows. Gilts weaned larger litters and had increased total litter weaning weight compared with older parity sows. At weaning, sows had a decreased weaning to breeding interval compared with gilts, and a late gestation feeding level × parity interaction was observed for conception rate. Gilts that received increased late gestation feed had a greater conception rate than those maintained on the same level, whereas a decrease in conception rate was observed when sows received increased late gestation feed.

During the subsequent lactation period, a feeding level × parity interaction was detected for lactation backfat loss. This interaction was reflective of an increase in backfat loss in parity 2 sows as the late gestation feeding level was increased and a decrease in backfat loss in parity 3 and older sows with increasing late gestation feeding level. A feeding level × parity interaction was detected for lactation weight loss; parity 2 sows lost a greater amount of weight when late gestation feeding level was increased, whereas similar weight losses were observed between treatments in parity 3 and older sows. Total born and live born numbers and total litter weight were greater in parity 2 sows than in parity 3 and older sows. A late gestation feeding level × parity interaction was observed for average weight of both total born and live born pigs because of an increase in piglet birth weight as parity 2 sows were supplemented with 2 lb of additional feed in late gestation with a slight numeric decrease in parity 3 and older sows. Additional feed in late gestation increased average piglet weaning weight, with a large improvement observed in parity 2 sows. Total number weaned and total weight at weaning were increased in parity 2 sows compared with parity 3 and older sows.

**Bottom Line....**This trial indicates that adding extra feed to late gestation diets increased feed cost with no benefit in sow performance. In gilts, conception rate and litter weaning weight were increased during the second parity, but no other benefits were found. 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 N.W. Shelton, J.M. DeRouchey, C.R. Neill, M.D. Tokach, S.S. Dritz, R.D. Goodband, and J.L. Nelssen.)



**Effects of Mycotoxin Binders and a Liquid Immunity Enhancer on the Growth Performance of Wean-to-Finish Pigs** – A total of 1,120 pigs (PIC 337 × C22, initial BW = 16.0 lb) were used in a study to evaluate the effects of 2 commercial mycotoxin binders and a liquid immunity enhancer product on growth performance of wean-to-finish pigs. Pigs were randomly assigned to 1 of 4 treatments balanced by initial average BW within gender with 10 replicate pens per treatment. Treatments were: (1) control standard phase-fed diets based on corn and soybean meal with DDGS (20 to 35%) fed for 132 d, (2) a control diet with mycotoxin binders Biomannan fed from d 0 to 55 and T-BIND fed from d 0 to 132, (3) a control diet with Biomannan and T-BIND fed from d 0 to 132, and (4) Treatment 3 with a liquid immunity enhancer product administered through the water lines of pens continuously for 7 d every 3 wk. Both mycotoxin binders and the liquid immunity enhancer product were provided by Biotech Development Company, Inc. (Dexter, MO). The mycotoxin binder products were added in the diets at the expense of corn. Pigs from each pen were weighed as a group and feed disappearance was determined every 2 wk to determine ADG, ADFI, and F/G. Results of laboratory analysis showed that all mycotoxins tested in diet samples were below the practical quantitation limit. Overall, there were no treatment × sex interactions. As expected, gender differences were noted as barrows had greater ADG and ADFI but poorer F/G than gilts. The addition of mycotoxin binders and liquid immunity enhancer product did not affect growth performance as all treatment groups had similar performance during the nursery and growing-finishing stages.

**Bottom Line....**Under the conditions of the present study, the products tested had no effect on growth performance of wean-to-finish pigs. 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.Y. Jacela, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J.L. Nelssen, and K.J. Prusa.)

# UPCOMING EVENTS...

- ↳ **Registration for the 4-H Livestock Sweepstakes is now open.** The Livestock Sweepstakes will be held August 21-22, 2010. Registration is available on the 4-H website to be accessed by agents prior to **August 1**. For a complete schedule and other information visit [www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu). Please contact Kayla Lee at (785) 532-1264 or [leek@ksu.edu](mailto:leek@ksu.edu) with your questions.
- ↳ The **2010 Applied Reproductive Strategies in Beef Cattle Symposium** will be held August 5-6, 2010, in Nashville, Tennessee. This symposium will inform producers on cutting edge reproductive strategies. The speakers will provide the knowledge needed to improve herd productivity and decrease input costs by shortening the calving and breeding season. The symposium will also help producers understand how to improve overall reproductive management through enhancement of both male and female reproduction, as well as innovations in protocols such as estrous synchronization. Program details and registration are available at <http://westcentral.unl.edu/beefrepro/>. For more information, contact Sandy Johnson ([sandyj@ksu.edu](mailto:sandyj@ksu.edu); 785-462-6281)
- ↳ **2010 K-State Beef Conference** – *Value Optimization* is the theme for the upcoming 2010 K-State Beef Conference scheduled for Thursday, August 12, 2010. The conference will be held at Frick Auditorium in Mosier Hall of the KSU Veterinary Medicine Complex. Alternate live remote viewing sites will also be held at Pratt Community College, Butler Community College and the Wakeeney Public Library. The schedule for the day includes:
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- 8:00 a.m. Registration  
9:00 a.m. Welcome – *Dr. Ken Odde, K-State Department of Animal Sciences and Industry*  
9:15 a.m. Challenges facing the cow/calf industry – *Sam Hands, Triangle H Cattle Co.*  
9:45 a.m. Characterizing change in the beef industry –  
*Justin Waggoner, K-State SW Area Beef Systems Specialist*  
10:15 a.m. What are buyers looking for? –  
Moderator: *Larry Hollis, K-State Department of Animal Sciences and Industry*
- Order buyer / Sale barn – *Mark Harmon, Joplin Regional Stockyards*
  - Feedyard – *Tom Brink, Five Rivers Cattle Feeding*
  - Video Auction – *Paul Branch, Superior Livestock*
  - Panel Discussion – Speakers listed above
- Noon Lunch  
1:30 p.m. Backgrounding Systems –  
Moderator: *Dale Blasi, K-State Department of Animal Sciences and Industry*
- Drylot strategies - *Gene Holthaus, Holthaus Farms*
  - Limit feeding on grass traps – *Rich Porter, Porter Farms*
  - Staging cattle for the feedlot – *Kenny Knight, Knight Feedlot*
  - Panel Discussion – Speakers listed above
- 3:00 p.m. Break  
3:30 p.m. Pasture Lease Rates – *Kevin Dhuyvetter, K-State Department of Agricultural Economics*  
4:00 p.m. Wet Distillers Storage: no bags, no forage required –  
*Justin Waggoner, K-State SW Area Beef Systems Specialist*  
4:30 p.m. What Have We Learned Today? – *Greg Henderson, Drovers Magazine*
- Registration with payment of \$60 per person or \$100 for 2 from the same family, ranch, or organization is due by Friday, July 30. Noon meal and afternoon refreshments are provided.  
For more details and registration, visit [www.KSUbeef.org](http://www.KSUbeef.org) and follow the K-State Beef Conference link. For more information, contact Larry Hollis ([lhollis@ksu.edu](mailto:lhollis@ksu.edu); 785-532-1246).
- ↳ Make plans now to attend the **Flint Hills Beef Fest** which will be held August 20-22, 2010. Cattle Division Events include a Grass Futurity Contest, Stocker Cattle Show, Best of Grass and Show, Feedlot Contest and Carcass Show. Events will take place on the Lyon County Fairground in Emporia, Kansas. Other Beef Fest Activities include Arena Events such as Ranch Rodeo, Team Roping, Ranch Horse Competition and more. For more details and a complete schedule of events, please visit <http://www.beefest.com>.

↪ **KLA/K-STATE Ranch Management Field Days set for August** - Two KLA/K-State Field Days have been scheduled. The first event will be held on August 19<sup>th</sup> at the Meldrum Ranch in Cowley County. The Silkville Ranch in Franklin County will host the second field day on August 25<sup>th</sup>.

The Meldrum Ranch, located near Dexter, is owned and operated by the J.J. Gilliland family. The family grazes yearlings on a custom basis and runs a commercial cow-calf herd. Bichelmeyer Land and Cattle owns the Silkville Ranch, which is a commercial cow-calf operation. The ranch is near Williamsburg. Both field days will begin in the late afternoon and include educational breakout sessions. A complimentary evening meal will conclude each event.

A third field day will be scheduled in western Kansas this fall. For complete details, visit [www.KLA.org](http://www.KLA.org).

↪ **4-H Livestock Sweepstakes** to be held on August 21-22, 2010! This all-around event will feature contests in Livestock Judging, Meats Judging, Livestock Skillathon, and Livestock Quiz Bowl. Belt Buckles will be awarded to the county that does the best in all four contests. A county or district may choose to use the same four 4-Hers for all contests or use any combination of students for each contest. Teams may also come for only a portion of the contests. The Livestock Judging Contest will be held on Saturday with rounds 1-3 of the Quiz Bowl. On Sunday, participants will compete in the Livestock Skillathon and Meats Judging Contest. Round 4 of the quiz bowl will be held just prior to the award ceremony for all events. Each participating county will be required to provide a minimum of one volunteer for the event. Please look for a sign-up sheet, complete rules, and registration material coming soon. Information and past winners can be found at [www.YouthLivestock.KSU.edu](http://www.YouthLivestock.KSU.edu)

*Please Note:* The event will be held during K-State Move-in Weekend. Please reserve your room as soon as possible. No activities will take place at the hotel. For your convenience two sets of room blocks have been made for August 20-22:

Clarion Hotel - \$90 – “KSU Department of Animal Science and Industry” Block – (785) 539-5311

Quality Inn - \$65 – “KSU Department of Animal Science and Industry” Block – (785) 770-8000

For questions, contact Brian Faris ([brfaris@ksu.edu](mailto:brfaris@ksu.edu); 785-532-1255) or Kayla Lee ([leek@ksu.edu](mailto:leek@ksu.edu); 785-532-1264).

↪ The **2010 KSU Beef Stocker Field Day** will be held on Thursday, September 30 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 complete with Dutch Oven Cobbler.

Watch for complete details on [www.KSUbeef.org](http://www.KSUbeef.org). For more information, contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu); 785-532-5427).

↪ The **2010 KSU Swine Day** will be held Thursday, November 18, at the KSU Alumni Center. Mark the date on your calendar and watch for more details.

<b>CALENDAR OF UPCOMING EVENTS</b>		
<b>Date</b>	<b>Event</b>	<b>Location</b>
August 1, 2010	Registration deadline to 4-H Livestock Sweepstakes	Manhattan
August 5-6, 2010	Applied Reproductive Strategies in Beef Cattle Symposium	Nashville, TN
August 12, 2010	K-State Beef Conference	Manhattan
August 19, 2010	KLA/K-State Ranch Management Field Day	Dexter, KS
August 20-22, 2010	Flint Hills Beef Fest	Emporia, KS
August 21-22, 2010	4-H Livestock Sweepstakes	Manhattan
August 25, 2010	KLA/K-State Ranch Management Field Day	Williamsburg, KS
September 30, 2010	KSU Beef Stocker Field Day	Manhattan
November 18, 2010	KSU Swine Day	Manhattan

# AS&I FACULTY SPOTLIGHT



**Barry Bradford ([bbradfor@k-state.edu](mailto:bbradfor@k-state.edu); 785-532-7974)**  
**Assistant Professor/Dairy Nutrition**

Barry Bradford was raised on a cow/calf operation in southwest Iowa and was heavily involved in the operation from a young age. He received his bachelor's degree at Iowa State University, then went on to obtain his doctorate in animal nutrition at Michigan State University, where his research focused on metabolic regulation of feed intake in dairy cattle. In 2006, Bradford began his current position at Kansas State University with a 60% research, 40% teaching appointment.

Bradford oversees an active research program focused on uses of alternative feedstuffs in dairy nutrition, transition cow health, and physiological regulation of carbohydrate and lipid metabolism. He also teaches over 150 students per year as an instructor in Fundamentals of Nutrition (ASI 318), Physiology of Lactation (ASI 601), and Dairy Cattle Nutrition (ASI 681).

Barry lives in Manhattan with his wife, Sarah, and their children, Hannah and Kiernan. The Bradfords love spending time outdoors, reading, and traveling whenever possible.



**Larry Hollis ([lhollis@k-state.edu](mailto:lhollis@k-state.edu); 785-532-1246)**  
**Professor/Beef Production Medicine**

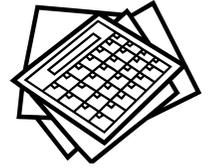
A graduate of Texas A & M University's College of Veterinary Medicine, Dr. Hollis spent 4 years in private practice first as an employee and later as a clinic owner in the Texas Panhandle where he was heavily involved in cow/calf and stocker production medicine and feedlot consultation. He then joined 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 lives in Manhattan with his wife, Shirley. They enjoy being grandparents to 7.5 grandkids, travelling to Texas to see those grandkids, and shopping for antiques.

# 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](mailto:lschrein@ksu.edu), or phone 785-532-1267.*