



# News from KSU Animal Sciences

## October, 2006

### WHAT'S NEW >>>>>>

- ✦ **Fall Manure Application** - Many livestock producers will be applying manure to harvested fields in the upcoming months. With commercial fertilizer costs dramatically higher than only a few years ago, producers need to accurately apply manure to obtain the yield benefits for next year's crop as well as capturing economic savings. Calibration of equipment must be completed for accurate application, as well as knowing the soil nutrient levels to avoid over application, particularly for phosphorus. The utilization of manure as an on-farm resource has numerous benefits, but must be done accurately to ensure economic and environmental sustainability. (Joel DeRouchey, [jderouch@ksu.edu](mailto:jderouch@ksu.edu); 785-532-2280)
  
- ✦ **Pork Information Gateway** - Kansas State University, along with the U.S. Pork Center of Excellence (USPCE), is proud to announce the creation of the Pork Information Gateway (PIG). PIG is a virtual library where pork producers can find information in 16 categories related to swine and pork production. The library includes peer-reviewed information from leading swine researchers in 200 fact sheets. The library also includes a question and answer section. Producers can log on and search for answers to their pork related questions. If they are unable to find what they are looking for, producers can also submit a question to be answered by the USPCE. Log onto <http://ksu.porkgateway.com> and register for a free account.
  
- ✦ **Don't forget about Vitamin A** - Unless your area has had good late-season forage growth, cows in the area are probably already deficient or nearing deficiency in vitamin A this year. As cows are being preg checked, they should be given an injection of vitamin A. If grazing conditions are such that area cattle have had 30 days of grazing new green forage growth, the injection is probably not needed. If in doubt, the injection will provide very cheap insurance.  
If pastures are already brown, the cows will definitely need vitamin A supplementation throughout the winter, or a vitamin A injection 60 days prior to calving. Vitamin A is vital for proper fetal development and colostrum production. Calves that are born with low vitamin A levels are more susceptible to diarrhea and pneumonia problems. Cows that are low in vitamin A at the time of calving are more likely to have a retained placenta and are more susceptible to uterine infection. Larry C. Hollis, D.V.M. (785-532-1246; [lhollis@ksu.edu](mailto:lhollis@ksu.edu))
  
- ✦ **IRM Redbooks for Sale** – For nearly twenty years, cattlemen have used the IRM Redbook to keep better records and track the profitability of their cow-calf operations. Some of the 2007 book highlights are calving records, Quality Assurance summary sheet, calf health records and more. The 2007 IRM Redbooks are in and will be sold on a first come first serve basis. The price of the redbooks this year will be: Orders of less than 10 = \$4.25/book; Orders of 10 or more = \$4.00/book. To order your supply of redbooks, please contact Lois ([lschrein@ksu.edu](mailto:lschrein@ksu.edu); 785-532-1267).
  
- ✦ **2006 KSU Stocker Field Day Proceedings** – Topics for this year's Stocker Field Day included "Forces Shaping Change in the U.S. Beef Stocker," and "Impact of Added Value Programs on Beef Stocker Producers" and more. A copy of the proceedings is linked to this newsletter and is also available at [www.beefstockerusa.org](http://www.beefstockerusa.org). If you would like a printed version, please contact Lois (785-532-1267; [lschrein@ksu.edu](mailto:lschrein@ksu.edu)).



**High Concentrate, Winter Feeding Program for Beef Cows** - The short hay supply for the 2006-2007 winter has some cow/calf producers considering drylot feeding their cowherds. Much research has been completed on feeding both gestating and lactating cows high grain diets. Therefore, guidelines have been developed to assure success in animal performance, feed cost savings, and herd management.

Decreasing the forage component of a cow's diet makes bunk and feeding management more detailed. Cows can now experience rumen acidosis, bloat, and founder. Limiting the hay or forage portion of the diet can not be taken to the extreme of a feedlot diet. Cows should receive from .5 to .75% of their body weight in forage daily. That means most cows will need between 5 to 7.5 pounds of dry hay, or 30 to 45 pounds of silage daily.

First, cows have large appetites and are accustomed to filling them. With a high concentrate diet, cows will become obese unless their appetites are curbed and their diets limit fed. Hunger will cause cows to seek holes and weak spots in fences. Cows will be able to consume their daily feed intakes in less than an hour. That means cows will have nearly 23 hours per day to do something else. Also, it means that boss cows will try to take advantage of social behavior to over eating. Having sufficient bunk space (2.5 to 3 feet/animal) and feed techniques (proper diet mixing and bunk delivery) will allow all cows to have access to feed to meet their nutritional requirements. Feed cows at the same time daily. Eating can become a habit, and even though cows do not carry watches they will become restless as they wait on their meals.

Take a week to ten days to adapt cows to the high concentrate diets. The rumen microflora need to adjust to the new diet, much like the cow herself. Starch digesters will take dominance in rumen fermentation. Rumen acid production will increase and pH will decrease. One problem avoided by slowly adapting the cows to starchy diets is laminitis – founder. Just as cows turned out on corn stalks with heavy ear drops, cows can founder on shelled corn-based diets.

Corn does not have to be processed when feeding cows. Feeding whole corn will decrease the starch digestion in rumen and shift more of it to the small intestine when compared to cracked, rolled or steam-flaked corn. Whole corn will actually help with rumen health as it adds some “scratch factor” to the diet. Hence, it acts in a small way like forage. Normally, cows will need about 12 pounds of corn daily to meet her energy needs.

Diets need to be balanced for cow nutrient requirements and least cost. Producers using a high concentrate diet are usually breaking tradition and therefore are driven to that management decision by economics. Examples of high concentrate rations are listed later in this article. They are not the only diets available, the main concern is balancing the diets for protein, energy, vitamins, minerals, and roughage levels. Grain by-products can be incorporated into the rations, price will be a major determinant in their inclusion rates. Feeders also need to be aware of nutrient ratios. Calcium and phosphorus, rumen digestible protein and rumen “by pass” protein, acid load versus energy density, and finally roughage type and roughage levels are several of the ratios that need to be analyzed.

Producers will need to monitor their feeding programs. Adjustments will be needed to correct for weather condition, transitioning through stages of production, and pen conditions. Cold stress will increase energy demands. Going from mid-gestation to late-gestation to lactation will necessitate the need to increase nutrient density or feed amount delivered or both. Increasing mud conditions will affect both maintenance energy requirements and feed intake. Pens will need to be groomed to provide cows with comfortable and sanitary living conditions. Sanitation could become the crucial issue for herd health.

Feeding an ionophore will improve feed efficiency. Some producers are reluctant to feed cows ionophores, but research has repeatedly shown that their addition will be economically beneficial. Rumensin® is the only ionophore cleared to feed cows. It should improve feed efficiency by 8 to 10%, so it will be quite cost effective. Trace minerals also should be added to the ration as well as vitamin A. Do not forget to fortify the diet with vitamin A. These nutrients will not be expensive as ration additions and they can have long reaching benefits.

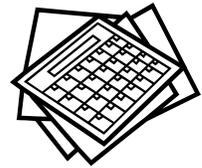
In summary, cows can be successfully wintered in drylots on limit-fed, high concentrate diets. Management will have to be increased to avoid problems and to accomplish desired body condition scores and weights. For more information or diet examples, contact Twig Marston (twig@ksu.edu; 785-532-5428).

## UPCOMING EVENTS >>>>>>>>>>

- ↙ The Search Committee for the **Head of the Animal Sciences and Industries department** is pleased to announce the interview schedules for two candidates who will interview for the position. Interview dates will be **October 19-20 for Dr. Ken Odde** and **October 23-24 for Dr. Ronnie Green**. Details of the interview schedules and the candidate resumes are available on the K- State Research and Extension website at <http://www.oznet.ksu.edu/seminars/ASIDeptHead.htm>  
 Each candidate will present a seminar with time for questions and answers directly following the seminar. The Search Committee cordially invites you to the seminars and seeks your input. Each seminar can also be viewed through Video Streaming for off campus individuals and those unable to attend in person through the website above. Thank you in advance for your participation in this important process. (Mike Tokach, Search Committee Chair, 785-532-2032; [mtokach@ksu.edu](mailto:mtokach@ksu.edu))
  
- ↙ The **2006 KSU Swine Day** will be held at the Alumni Center on the KSU campus on Thursday, November 16<sup>th</sup>. Speakers for Swine Day will include Dr. Lisa Tokach and Dr. Steve Henry, veterinarians from the Abilene Animal Hospital. Topics will include: *“Porcine Circovirus Associated Disease (PMWS): What Is It and Why Is It So Devastating?”* and *“How to Deal with PCV If You Have It and How To Avoid It If You Don’t.”* The day will conclude with the Pork Tail-Gate Party which will be celebrating the 50<sup>th</sup> anniversary of the Kansas Pork Association. Pre-registration is \$15 per participant by November 10 or \$25 at the door. For a copy of the day’s program, visit our website at [www.asi.k-state.edu/swine](http://www.asi.k-state.edu/swine). For more information, contact Jim Nelssen at 785-532-1251; [jnelssen@ksu.edu](mailto:jnelssen@ksu.edu).
  
- ↙ The **BEEF Quality Summit** will be held November 14-15, 2006 in Oklahoma City, OK. This workshop is for cow/calf operators, feedlot operators, and anyone who needs to know about beef marketing channels. This is your roadmap to success in the beef value chain. For more information, visit [www.beefconference.com](http://www.beefconference.com).
  
- ↙ Dates for the **2006 KSU Dairy Days** have been scheduled as follows: December 13 in Reno County; December 14 in Nemaha County and December 15 in Franklin County. For more information, contact John Smith (785-532-1203; [jfsmith@ksu.edu](mailto:jfsmith@ksu.edu)).
  
- ↙ Plans are underway for the **KSU Swine Profitability Conference** to be held February 6, 2007, at the KSU Student Union. Watch for more details.
  
- ↙ Mark your calendar for February 15, 2007, for the upcoming **KOMA Beef Conference** to be held at the Fort Scott Sale Barn, Fort Scott, Kansas. More details will be coming soon.

<b>CALENDAR OF UPCOMING EVENTS</b>		
<b>Date</b>	<b>Event</b>	<b>Location</b>
October 19-20, 2006	ASI Dept. Head Interviews – Ken Odde	Manhattan
October 23-24, 2006	ASI Dept Head Interviews – Ronnie Green	Manhattan
November 14-15, 2006	BEEF Quality Summit	Oklahoma City, OK
November 16, 2006	KSU Swine Day	Manhattan
December 13, 2006	KSU Dairy Days	Reno County
December 14, 2006	KSU Dairy Days	Nemaha County
December 15, 2006	KSU Dairy Days	Franklin County
February 6, 2007	KSU Swine Profitability Conference	Manhattan
February 15	KOMA Beef Conference	Fort Scott, KS

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



### **BEEF** -- Cowherd Tips by *Twig Marston, K-State Beef Extension Specialist, Cow/Calf*

#### **Cow herd management for spring-calving cows**

- ☑ In late fall and early winter, start feeding supplement to mature cows using these guidelines:
  - Dry grass — 1-2 pounds (lb.) per day of a 40% crude protein (CP) supplement
  - Dry grass — 3-4 lb. per day of a 20% CP supplement
  - Dry grass — 10 lb. good nonlegume hay, no supplement needed
- ☑ Compare supplements based on cost per pound of nutrient.
- ☑ Utilize crop residues.
- ☑ Strip-graze or rotate cattle to improve grazing efficiency.
- ☑ Cows in average body condition can be grazed at 1-2 acres per cow for 30 days, assuming normal weather. Available forage is directly related to grain production levels.
- ☑ Limiting nutrients are usually rumen degradable protein, trace minerals and vitamin A.
- ☑ Control lice.

#### **General management**

- ☑ Document your cost of production by participating in Standardized Performance Analysis (SPA) programs.
- ☑ Review management decisions; lower your costs per unit of production.
- ☑ Check your financial management plan and make appropriate adjustments before the end of the year.

### **SWINE**

- ☑ Make fall ventilation management updates. Make sure inlet and fans are clean and running properly.
- ☑ Fall is the big time of the year for swine waste application. Remember applicators permits as well as incorporating or knifing in swine waste to minimize odor.

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.