



WEBER HALL
ANIMAL SCIENCE & INDUSTRY

Newsletter from the Department of Animal Sciences and Industry
218 Weber Hall - Kansas State University - Manhattan, KS 66506
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February, 2014

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 or call (785) 532-1267.

UPCOMING EVENTS...

➤ **KSU Cattlemen's Day slated for Friday, March 7, 2014.** The 101st annual KSU Cattlemen's Day will be held on March 7 in Weber Hall on the KSU Campus. The schedule includes:

8:00 a.m. Commercial Trade Show (Weber Arena)

10:00 a.m. Morning Presentations:

Welcome – *Dr. Ken Odde, Department Head, AS&I*

Cattle Industry Outlook – *Glynn Tonsor and Ted Schroeder, KSU Ag Economists*

The Future of Beef Export Demand – *Paul Clayton, U.S. Meat Export Federation*

12:00 noon Lunch - Commercial Trade Show

Afternoon Break-out Sessions:

Sunflower Supreme: Riding the Expansion Wave –

Dr. Jaymelynn Farney, KSU Beef Systems Specialist

Avoiding Catastrophic Disease –

Dr. Bill Brown, Kansas Commissioner of Animal Health

Methods for Heat Stress Abatement –

Dr. Lindsey Hulbert, KSU Animal Well-Being Specialist

Salmonella in Beef Lymph Nodes –

Dr. Sarah Gregg, Assistant Professor of Food Science

Control and Management of Genetic Defects in

Commercial Beef Herds – *Dr. Bob Weaber, KSU Cow-Calf Specialist*

Synchronization Programs for Beef Cow-Calf Operations –

Dr. Sandy Johnson, KSU Beef Systems Specialist

O.H. Kruse Feed Technology Innovation Tour

The day will conclude with a Celebration Social immediately following the conclusion of the Legacy Sale at the Stout Center. The complete program and registration information are available at www.ksubeef.org. For more information, contact Jim Drouillard (jdrouill@ksu.edu; 785-532-1204) or Dale Blasi (dblasi@ksu.edu; 785-532-5427).

➤ **KSU Legacy Bull and Heifer Sale offers proven genetics balanced in many traits.** The KSU Legacy Bull and Heifer Sale will be held on March 7, 2014, at the Stanley Stout Center. The sale will begin at 3:30 p.m. The sale will include 70+ Angus, Hereford, SimAngus and Simmental bulls; 5 show heifer prospects; 20 bred females; and 6 registered AQHA horses. A complete listing can be found at www.asi.ksu.edu/bullsale. For more information or a sale catalog, contact Tyler Leonhard (785-565-1881).

↳ The **2014 KSU Sheep Producer Day** will be held on Saturday, March 8, 2014 at the KSU Sheep and Meat Goat Unit, Manhattan. A complete schedule and registration information will be coming soon. Featured speaker for the event will be Dr. Chris Schauer, Director of NDSU Hettinger Research Extension Center. Dr. Schauer will be presenting "Different ways Distillers Grains can be used in Sheep Rations." For more information, contact Brian Faris (brfaris@ksu.edu; 785-532-1255).

↳ **Kansas Junior Sheep Producer Day planned for March.** Kansas Junior Sheep Producer Day will be held on Saturday, March 29, 2014 at Kansas State University's Weber Hall in Manhattan, KS. Presentations and demonstrations by a featured speaker(s), as well as K-State faculty will cover topics such as selection, facilities and general care, health and vaccinations, nutrition, and showmanship. This interactive workshop is designed for all ages and skill levels. All participants will receive a T-shirt, complimentary lunch, and educational materials. The program has not yet been finalized. The tentative schedule for the day includes:

8:45 a.m.	Registration
9:30 a.m.	Welcome and Opening Remarks
9:45 a.m.	Morning Program Begins
12:00 noon	Lunch
1:00 p.m.	Afternoon Program Begins
4:00 p.m.	Final Questions and Wrap-up

Registration is \$15/person if received on or before March 7 and is \$20/person after March 7 and at the door. ALL individuals attending (including adults) must register. Please visit the program website, www.YouthLivestock.KSU.edu for more information and registration. For more information, contact Kristine Clowers (clowers@ksu.edu) or Brian Faris (brfaris@ksu.edu; 785-532-1255).

↳ **Dates set for Livestock Fair Management Clinics.** Every other year, K-State Research and Extension and the Department of Animal Sciences and Industry hosts a Livestock Fair Management Clinic for county fair board members, Extension Agents, and other adult volunteers involved in local livestock fair management and leadership. This professional development opportunity consists of an activity filled day to increase awareness and how different county fairs operate and provide a forum for open communication for individuals with local livestock fairs across Kansas.

There will be two different locations on two different days with the same general agenda. Tuesday, April 1, will be at the Shawnee County Farm Bureau Office: 3801 SW Wanamaker Road, Topeka, KS 66610. Wednesday, April 2 will be at the Great Bend Front Door: 1615 10th Street, Great Bend, KS 67530. Lunch and refreshments will be provided. The agenda includes:

8:45 – 9:15 a.m.	Registration
9:15 – 9:30 a.m.	Welcome
9:30 – 10:15 a.m.	Balancing the Fair Board and Extension Agent Relationship <i>Jim Mengarelli, Wildcat District, and Bronc Barrows, Golden Prairie District</i>
10:15 – 10:30 a.m.	Break
10:30 – 11:30 a.m.	Official Policies of the Extension Role at County Fairs <i>Pam Van Horn, State 4-H Specialist; Dale Fjell and Chris Onsted, Area Directors</i>
11:30 – 12:00 noon	Identification of 4-H Animals – Differences between County and State Shows
12:00 – 12:45 p.m.	Lunch (provided)
12:45 – 1:30 p.m.	Timing of Livestock Shows during the Fair <ul style="list-style-type: none">- Balancing Heat vs. Crowd Attendance- How Long Animals are at the Fair
1:30 – 2:15 p.m.	Premium Sale Structure and Marketing Options for Animals
2:15 – 2:45 p.m.	On-Your-Mind Open Topic Discussion
2:45 – 3:00 p.m.	Wrap-up and Adjourn

Registration is \$15/person and is due by March 14. Checks can be made payable to "KSU-ASI" and mailed to "Livestock Fair Management Clinic, Attn: Lois Schreiner, 218 Weber Hall, KSU, Manhattan, KS 66506." For a registration form and a detailed agenda, please www.YouthLivestock.KSU.edu. The form is located in a link on the calendar at the top of the page. If you have any questions please contact Kristine Clowers via email (clowers@ksu.edu); Joel DeRouchey (785-532-2280; jderouch@ksu.edu); or Brian Faris (785-532-1255; brfaris@ksu.edu).

- ↳ Plan to attend the **37th Midwest Processed/Cured Meat Workshop** on Friday, April 11, 2014 in Weber Hall at KSU. At the Meat Processing Workshop, learn techniques for improving product quality. Watch for more details coming soon. Contact Liz Boyle at lboyle@ksu.edu for more information.
- ↳ **Save the date for the 2014 KSU Sheep and Goat Conference.** The date for the KSU Sheep and Goat Conference will be May 2-4, 2014 at the KSU Sheep and Meat Goat Unit, Manhattan, KS. Watch for more details. For more information, contact Brian Faris (brfaris@ksu.edu; 785-532-1255).
- ↳ The **KSU Youth Horse Judging Camp – Beginners Section** will be held June 5, 2014 and the **KSU Youth Horse Judging Camp – Advanced Section** will be held June 3-4, 2014. Both camps will be held in Weber Arena on the KSU Campus. Registration for both camps must be paid by May 10, 2014. Camp will be limited to the first 30 participants. For more information, camp agenda and registration forms, visit the website www.asi.ksu.edu/p.aspx?tabid=1141 or www.YouthLivestock.KSU.edu. You can also contact Teresa Douthit, (785-532-1268, douthit@ksu.edu) or Tasha Dove at (tashakd@ksu.edu).
- ↳ **K-State Animal Sciences Leadership Academy Planned for June 11-14, 2014.** Kansas State University will host the sixth Annual K-State Animal Sciences Leadership Academy June 11-14 for young livestock industry leaders. This four-day event will focus on increasing young leaders' knowledge of Kansas' diverse livestock industry as well as building participant's leadership skills. Participants will be led by the Youth Livestock Program Coordinator, as well as three K-State students and will stay in K-State housing for the duration of the event.
 Twenty high school students will be selected to participate based upon educational, community, and agricultural involvement; as well as through an extensive essay application. Applications must be submitted via e-mail to clowers@ksu.edu by 11:59 pm on Saturday, March 15, 2014. No late applications will be accepted. More information, including application form, is available at www.YouthLivestock.KSU.edu. For more information, contact Kristine Clowers (clowers@ksu.edu).
- ↳ **Suggested Guidelines for Tagging 4-H Pigs to Limit Disease Risk now available** - An updated "Suggested guidelines for tagging 4-H pigs to limit disease risk" has been posted to www.YouthLivestock.KSU.edu. With the current swine producer concerns with porcine epidemic diarrhea virus (PEDV) we recommend that counties review their procedures for swine tagging. Contact Dr. Larry Hollis, DVM, Extension Veterinarian (785-532-1246; lhollis@ksu.edu), Dr. Steve Dritz, DVM, Swine Specialist (785-532-4202; Dritz@vet.k-state.edu), Dr. Mike Tokach, Extension Swine Specialist (785-532-2032; mtokach@ksu.edu) or Dr. Joel DeRouchey, Extension Livestock Specialist (785-532-2280; jderouch@ksu.edu) for more information.
 Additional information about PEDV can be found at the National Pork Board website – www.pork.org/pedv. Factsheets specifically directed towards exhibitors and organizers of yourh swine expositions are available.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
March 7, 2014	KSU Cattlemen's Day	Manhattan
March 7, 2014	KSU Legacy Bull and Heifer Sale	Manhattan
March 8, 2014	KSU Sheep Producer Day	Manhattan
March 15, 2014	Application deadline for AS&I Leadership Academy	
March 29, 2014	Kansas Junior Sheep Producer Day	Manhattan
April 1, 2014	Livestock Fair Management Clinic	Topeka, KS
April 2, 2014	Livestock Fair Management Clinic	Great Bend, KS
April 11, 2014	37 th Midwest Meat Processing Workshop	Manhattan
May 2-4, 2014	KSU Sheep and Goat Conference	Manhattan
June 3-4, 2014	KSU Youth Horse Judging Camp – Advanced Section	Manhattan
June 3-5, 2014	Developing and Implementing HACCP in Meat, Poultry and Food Processing	Manhattan
June 5, 2014	KSU Youth Horse Judging Camp – Beginners Section	Manhattan
June 11-14, 2014	K-State Animal Sciences Leadership Academy	Manhattan

WHAT'S NEW.....

Management Minute "Giving Forward"

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

Recently, it was announced that Hillshire Brands and Tyson have recently devoted resources to helping the hungry. Hillshire Brands has made a multi-year commitment to two Illinois food banks, and Tyson Foods is helping a military veterans group provide food and logistic support in conjunction with disaster relief efforts. The 350 Cargill Cares Councils provide nutrition and health programs, as well as other services, to local and international communities, all through local Cargill employee volunteers.

Corporations don't have ethics, people do. Technically, a corporation is simply a piece of paper (a piece of digital paper, probably) in a law office, officially documenting the financial accounting and liability structure of a business or other entity. But also, that corporation is made up of human beings, each with some degree of integrity, morality, and compassion.

There are certainly financial benefits to the corporation---the legal entity---in the form of reduced tax obligations, particularly following an especially profitable fiscal year, to giving to a worthy (and officially recognized by the federal government) cause. But there are also emotional benefits to the human beings involved in the corporation as well. In fact, the intangible energizing and unifying effects of a corporate charity effort are profound.

Whether your organization operates in rural America or near a large urban area, there are people near you who are in need. There are likely people within your team who have (a) the passion and (b) the natural gifting to organize and promote a charity effort throughout your organization. There are possibly also people on your team who personally know others who are in need and will eagerly (a) connect your organization to a worthy charity and (b) make a personal statement to others on the team as to the very real human benefits of your team's outreach effort.

Outreach and giving make your organization a good local citizen. Your employees live and interact in the local community. By providing them with a meaningful and locally beneficial focal point for their own charitable aspirations, you will touch something deep within your team members which resides outside the boundaries of salary and your profit sharing plan.

If recent volatility in agricultural markets has caused your organization financial pain, then please disregard this message. But if the recently rising tide has floated your corporate boat, then please consider how your outfit can make a difference in the local community, as well as within your own corporate family.

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

Feedlot Facts "Mud – Save Yourself Some Trouble"

↪ **Feedlot Facts** – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Mud – Save Yourself Some Trouble"

As cattle people we grudgingly accept the various natural elements as part of the cost of doing business. Rain, snow, ice, and extreme temperatures are part of life in Kansas for ranchers and cattle feeders. And each of these factors that moves animals outside of their comfort zone, called the "thermal neutral zone", steals a measure of performance. With respect to mud, however, we know that the cost of fighting mud in terms of lost performance is high, and we need to prevent these losses if we can.

Researchers have estimated that although pastern-level mud has little effect on performance, hock-deep mud is costly. Daily gain is reduced by 1/3 to 1/2 when cattle are fighting mud. Mud is the "gift" that just keeps giving, and hurts performance in several ways:

1. The energy required to reach the bunk or water trough increases dramatically when slogging through mud, so a large part of their daily energy intake is lost to this expenditure;
2. The stress of fighting mud will actually discourage cattle from making the trek to the bunk, thus reducing their intake;
3. Cattle have a hard time finding a comfortable place to lay down and rest, causing an increase in energy wasted just standing around instead of resting;
4. Wet hide from laying down in the mud will cause cold stress to increase because they don't have a good, dry, insulating hair coat.



Feedlot Facts – “Mud – Save Yourself Some Trouble” (cont.)

When we consider that under stress-free conditions, only about half of animals' normal daily energy intake goes toward gain, all these increases in energy expenditures dramatically cut into what is left over for gain.

Preparing for mud won't eliminate these costs, but we can reduce them. Here are some suggestions:

1. **GET THE SNOW OUT!** Feeders can save themselves and their cattle a tremendous amount of stress and lost performance by removing snow from feeding pens BEFORE it melts and becomes water--- and MUD! A rule of thumb is that an inch of snowfall contains about 1/10 inch of rain moisture equivalent. But because the snow will melt slowly, the resulting moisture is allowed to permeate the pen surface and little will run off, creating extremely soft pen conditions. So think of 10 inches of snow like a 3-day drizzle dumping an inch of total moisture. A slow drizzle is better for crops and pastures because the ground can soak up the moisture; and it's harder on pens for the same reason.
2. Build and repair mounds within the pen. Cattle should have about 25 ft² of mound space per animal in the pen. Mounds should have a slope of about 1:5 on the sides to facilitate moisture to flow away from the cattle and the 'valleys' between mounds should slope about 3-4% away from the bunk. The end of the mound nearest the bunk should connect to the concrete pad so cattle don't have to slog through deep mud to get to the bunk.
3. Increase pen space per animal. Whereas 125 ft² of pen space is sufficient during dry summer conditions, 350 ft² may be not nearly sufficient during wet conditions. Adapt as conditions dictate.
4. Smooth pen surfaces whenever the weather allows. The longer muddy conditions persist, the worse the pen conditions become and cattle will have an even greater difficulty moving throughout the pen.

Living and raising cattle in Kansas has many rewards. By preparing pens ahead of time for the wet times of the year we can improve animal comfort and performance in order to reap the rewards.

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



Tools help beef producers implement AI and estrus synchronization programs -

Whether you are a long-time user of artificial insemination (AI), or if the strong cattle market and surging bull sale prices have you considering bulls in a semen tank, there are some useful tools you should know about. The AI Cowculator is available for hand held devices to compare the cost of AI to natural service. If you AI but have limited time and labor you will want to synchronize estrus and the Estrus Synchronization Planner is the tool to help select and correctly implement a synchronization protocol. A version of planner has recently been released for use on handheld devices.

The AI Cowculator is based on data from a study of 10 herds that compared fixed-time AI to natural service. The net advantage in the study for use of timed AI was \$49 per exposed cow. To use this decision tool, the user inputs their own values pertaining to items such as bull maintenance cost, bull purchase price, useful life, AI cost and percent calf crop to assess the economics in their own herd.

To make AI work within time and labor constraints, many producers have found today's protocols for synchronization of estrus work very well to reduce or eliminate the need for heat detection. If you don't AI yourself, you can schedule an AI technician to be there at the appointed time to do all the breeding. Correctly implementing the synchronization treatment is a critical detail in a successful AI program. An excellent tool is available to help do that known as the Estrus Synchronization Planner.

The Estrus Synchronization Planner is an Excel based tool that can help producers evaluate options, compare costs and schedule synchronization protocols. A favorite feature is the calendar portion which shows what treatment should be given on each day. The 2014 version has recently been released and is available for free download at http://www.iowabeefcenter.org/estrus_synch.html or find a link at www.KSUBeef.org. The updated version contains a newly added fixed-timed AI protocol for heifers and some other user suggested improvements. Users can now indicate what brand name of product they will use and the brand name will show up on the printed calendar. This is intended to help the all too common problem of getting the two basic types of products confused and giving the wrong product on the wrong day. In a recent survey, users of the Planner agreed or strongly agreed that the planner was easy to use (79%), made scheduling easier (77%), reduced errors (68%), improved communication (71%), helped achieve timely planning and preparation (73%), and directed them to a more appropriate protocol (57%).

When you need to look at scheduling a synchronization protocol and you are not at your desk, a version is also available for use on mobile devices. To use this application go to www.estrussynch.com. The shortened version will e-mail the schedule to the appropriate people once the protocol is selected and breeding dates entered.

Market opportunities, costs and risk reduction are some of factors that make this an excellent time to benefit from the highly effective protocols that are available to synchronize estrus and facilitate the use of fixed-timed AI. Technology can't overcome poor cow body condition so good management and attention to detail is still needed. Make sure to take advantage of the tools that can help your AI program. For more information, contact Sandy Johnson, sandyj@ksu.edu, 785-462-6281.

↪ **Effects of Fine-Grinding Corn or Dried Distillers Grains with Solubles and Diet Form on Growth Performance and Caloric Efficiency of 25- to 50-lb Nursery Pigs** - A total of 687 pigs (PIC 1050 barrows; initially 25.5 lb BW and 37 d of age) were used in a 21-d study to determine the effects of fine-grinding corn or dried distillers grains with solubles (DDGS) and diet form on nursery pig performance and caloric efficiency. Pens of pigs were balanced by initial BW and randomly allotted to 1 of 10 dietary treatments with 14 replications per treatment. There were 5 pigs per pen in two groups of nursery pigs. The 10 experimental diets included 4 corn-soybean meal-based diets consisting of: (1) corn ground to ~638 μ , in meal form; (2) treatment 1 in pellet form; (3) corn ground to ~325 μ , in meal form, and (4) treatment 3 in pellet form. The remaining 6 diets contained 30% DDGS. Diets 5 through 10 consisted of: (5) corn and DDGS ground to ~638 and 580 μ , in meal form; (6) diet 5 in pellet form; (7) corn and DDGS ground to ~638 and 391 μ , in meal form; (8) diet 7 in pellet form; (9) corn and DDGS ground to ~325 and 391 μ , in meal form; and (10) diet 9 in pellet form.

Overall (d 0 to 21), a corn particle size (regardless of DDGS addition) \times diet form interaction was observed as a result of increased ADFI when corn was finely ground and fed in pellet form but decreased intake when corn was finely ground and fed in meal form. Pelleting diets decreased ADG, ADFI, and final BW but improved F/G and caloric efficiency on both an ME and NE basis. Fine-grinding corn decreased ADG as a result of numerically decreased ADFI. Feeding 30% DDGS also decreased ADG, ADFI, and NE caloric efficiency and tended to decrease final BW.

Bottom Line... Pelleting diets and fine-grinding ingredients reduced ADG as a result of decreased ADFI, but pelleting improved feed efficiency. Feeding 30% DDGS was detrimental to nursery pig growth performance. 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, and S.S. Dritz)

↪ **Influence of a Superdose of Phytase (Optiphos) on Finishing Pig Performance and Carcass Characteristics** - A total of 1,188 finishing pigs (PIC 337 \times 1050, initially 80.1 lb) were used in a 92-d experiment to determine the influence of providing phytase above that needed to meet the P requirement for growth performance and carcass characteristics. There were 27 pigs per pen and 11 pens per treatment. Each pen contained a similar number of barrows and gilts. Pens were randomly assigned to treatment based on initial BW. Basal diets contained corn, soybean meal, dried distillers grains with solubles (DDGS), and bakery meal and were formulated to meet or exceed the nutrient requirements of the pigs in each of the four phases. The four dietary treatments were formed by adding increasing levels of phytase (Optiphos 2000, Enzyvia LLC) at 0.25 (control), 0.5, 1.0 and 2.0 lb/ton. Diets were formulated such that the addition of the first 0.25 lb/ton of phytase was needed to meet the P requirement of the pigs, with further additions exceeding the P requirement. Pigs were weighed and feed disappearance was determined approximately every 14 d to determine ADG, ADFI, and F/G. On d 92, pigs were tattooed by pen number and harvested to collect carcass data.

Overall (d 0 to 92), increasing dietary phytase did not influence ADG but reduced ADFI, resulting in an improvement in F/G. The cubic response occurred because F/G improved as phytase inclusion increased from 0.25 to 0.5 lb/ton, with no further improvement when phytase was increased to 1.0 or 2.0 lb/ton. Phytase addition to the diet did not influence carcass measurements.

Bottom Line... These results suggest that providing phytase at levels above that needed to meet the pig's requirement for P has the potential to improve feed efficiency. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by R.D. Goodband, K.B. Langbein, M.D. Tokach, S.S. Dritz, and J.M. DeRouchey)

↪ The Department of Animal Sciences and Industry, Kansas State University seeks applicants for an **Extension Assistant, Youth Livestock Coordinator**. This is a full-time, 12-month, term position. A Bachelor of Science degree in Animal Science or a related discipline is required by date of hire. View complete position announcement at: www.asi.ksu.edu/about/job-announcements.html. Review of applications begins March 12, 2014 and continues until a suitable candidate is identified.

AS&I Faculty Spotlight



Kelly Getty (kgetty@k-state.edu; 785-532-2203)
Associate Professor/Food Safety and Quality

Kelly J.K. Getty, Ph.D., originally from Emporia, KS, received her B.S. (1988) and Ph.D. (1999) in Food Science from Kansas State University and M.S. (1992) from Pennsylvania State University in Food Science.

Dr. Getty started at Kansas State University with the Food Science Institute in 2001. Dr. Getty's appointment within Animal Sciences and Industry is split between 80% teaching and 20% research.

Dr. Getty teaches Fundamentals of Food Processing (on-campus and distance) and Meat Industry Technology (distance). She team-teaches R&D of Food Products (on-campus and distance) and Food Science Freshman Orientation. She advises undergraduate and M.S. distance Food Science students. Getty is also the Food Science Club advisor.

Her research efforts involve control of pathogens in produce and processed meat products. Collaborators include: Drs. Elizabeth Boyle, Curtis L. Kastner, and Kevin Roberts.

Prior to Kansas State University, Getty was an assistant professor at Clemson University where she taught meat science courses and conducted meat and food safety research. Getty also worked at Pizza Hut, Inc. and the American Meat Institute.

Dr. Getty and her husband, Chris reside in Abilene with their two children.



Jim Nelssen (jnelssen@k-state.edu; 785-532-1251)
Professor/Extension Swine Specialist

Dr. Jim Nelssen is an extension specialist and swine nutritionist at Kansas State University. Jim currently serves as team leader of the Swine Extension Program. He is the swine nutrition faculty coordinator and is responsible for coordination of Kansas State off-site nurseries.

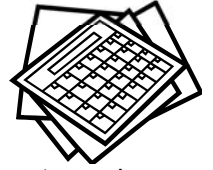
Dr. Nelssen grew up in Smith Center, Kansas, where he was active in 4-H and FFA. Jim received his B.S. in Animal Science (1978) and his M.S. in swine reproductive physiology (1980) from Kansas State University. He received his Ph.D. in Swine Nutrition from the University of Nebraska in 1983. Later that year Jim started his career at Kansas State University as an Assistant Professor and Extension Swine Specialist. He was promoted to associate professor in 1989 and a full professor in 1995.

Jim's focus is transferring information to swine producers and conducting practical nutrition research. Jim has presented invited seminars at over 190 animal and veterinary science meetings around the world in addition to numerous presentations to local producer groups. Jim has authored or co-authored 123 refereed journal papers, 320 abstracts, 492 extension publications, and 4 book chapters. In 2005, Jim was named one of the 50 people that have made the greatest impact on the swine industry in the last 50 years by the National Hog Farmer Magazine.

Jim has three children.

What Producers Should Be Thinking About.....

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



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

Many producers should consider calving in this month. Stress is minimized and forage/grass management may be optimized.

- Keep calving areas as clean and dry as possible. Give each calf a dry, comfortable and clean environment.
- Supplement and feed cows to maintain or improve body condition prior to the breeding season (cows should be in moderate body condition by the start of the breeding season to maximize fertility).
- For thin, young cows, consider feeding fat to improve rebreeding rates. Research indicates that when feeding about 0.4 lb. per head per day of a plant source (soybean, sunflower, safflower oils), fat can increase first-service conception and pregnancy rates (0% to 15%). Feeding fat can be effective both before and after calving. Consult your nutritionist.
- Mineral supplementation should include greater levels of magnesium (intake should be between 15 to 30 grams (g) per head per day, or at least 11% of the mineral mix) for grass tetany prevention.
- Plan your breeding season, both AI and natural service. Make sure all supplies and semen are on hand prior to the breeding season. For natural-service programs assign yearling bulls to 10-15 cows, 2- and 3-year-old bulls to 20-25 cows, and older bulls to 25-40 cows. Breeding for 65 days should be long enough; less than 90 days is a key sign of good management. Some suggest the service capacity of a yearling bull (less than 24 months) is equal to his age in months at turn out.
- Bulls should be in good body condition prior to the breeding season. Thin bulls can run out of stamina. Now is the time to make sure bulls are physically capable of performing for the upcoming summer breeding season.
- Breeding soundness examinations are recommended for all bulls!
- Consider using estrus synchronization and AI. Several synchronization systems to overcome anestrus are available. Selection depends on labor, facility and implementation costs.
- Consider breeding heifers three weeks prior to the mature cow herd to give them a greater chance to rebreed.
- Maintain top management concerning calf scours (sanitary conditions, early detection, electrolyte/dehydration therapy).
- Vaccinate calves as per veterinarian consultation. Castrate males that are not candidates for breeding stock prior to pasture turnout. Implant calves that will be sold at weaning.
- Wait for fly control until critical numbers are reached (100 to 200 horn flies per animal).
- Deworm cows and bulls if needed. Expect performance response to be variable dependent on location, weather, grazing system, history, infestation level and management.
- Use prescribed burning techniques to eradicate Eastern Red Cedar trees and improve forage quality.
- Good fences make good neighbors. Summer pastures should have had fences checked, repaired or replaced by now.
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand; downtime can make a large difference in hay quality.

*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.*