



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

UPCOMING EVENTS...

January 2013

News from KSU Animal Sciences

In This Issue

- Upcoming Events
- Management Minute
- Feedlot Facts
- 2012 KSU Cattlemen's Day Article Featured
- 2012 KSU Swine Day Articles Featured
- Faculty Spotlight
- What Producers Should Be Thinking About...

We Need Your Help!

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



➤ **Sign-up now for EPD/Genetics School in Clay Center** - As the spring bull-buying season approaches, make sure you are ready to make the best genetic decisions for your operation. The age of technology has brought us more information than ever on the potential performance of young bulls, but at the same time has made selection of the best bull confusing. With EPD's (Expected Progeny Differences) on so many characteristics, how do you know what is most important for your operation? Are EPD's for all bulls comparable? What are selection indexes and genomically-enhanced EPD's? Investing in a young bull is expensive, how do you know that you are making a good decision?

On January 23rd, 2013, there will be an EPD and Genetics School held in Clay Center, KS to answer these questions and give cattle producers new information on how to evaluate the genetics of their herd relative to their operational goals. Dr. Bob Weaber, K-State's Cow/Calf Specialist and Robin Slattery, RVED-Livestock Agent, will be presenting. The program will be held at the 4-H Building in the Clay Center Fairgrounds, with registration at 4:45 pm and school from 5:00 p.m.-8:30 p.m. Dinner will be provided for the first 25 registrants, sponsored by Genex Cooperative. Additional registrations are welcome but will have to pay a small amount. Please register by January 18th by calling 785-325-2121 or visit www.rivervalley.ksu.edu for more information.

☞ **29th 4-State Beef Conference slated for January 29, 2013 to address relevant issues affecting beef operations.** The 4-State Beef Conference is designed to give beef cattle interests in Iowa, Kansas, Missouri, and Nebraska a regular update on current cow-calf and stocker topics. The conference provides a forum of specialists from four of the USA's leading beef cattle land grant universities as well as other industry experts. The 28th annual conference will address relevant issues affecting beef operations. The annual 4-State Beef Conference will be held on January 29, 2013 from 5:00 - 8:30 p.m.

New for this year is the full conference program will be held concurrently at two locations in Kansas, one at the Community Building in Seneca and also at the Senior Center in Wamego. The program will feature 4 separate sessions and a supper meal. The topics of this year's program include: 1) Genetic Improvement of Beef Cattle Feed Efficiency by K-State; 2) Engaging Consumers in a Beef Conversation by Daren Williams, Executive Director of Communications, National Cattlemen's Beef Association; 3) Beef Industry Update and Outlook by CattleFax, and 4) Trichomoniasis by a local veterinarian.

The program cost is \$20 which includes a full supper meal and informational proceedings. To register for the Seneca location, please contact Jodi Holthaus (785-364-4125 or jholthau@ksu.edu) or for Wamego, please contact either Austin Sexten (785-457-3319 or ajsexten@k-state.edu) or Karaline Mayer (785-765-3821 or kamayer@ksu.edu). Registration deadline is January 25th. For more information, please visit www.ksubeef.org under upcoming events.

☞ **K-State Extension will host the annual SW KS Sheep Producer Meeting on Wednesday, January 30, 2013**, at the Hodgeman County Fairgrounds in Jetmore, KS at 6:00 pm. This meeting is open to everyone. Artificial insemination, use of CIDRs, and automated equipment needs will be discussed by presenters at the meeting. If you have any questions or would like to participate as an attendee, please contact Barrett Smith, Kiowa County Extension Agriculture Agent, at 620-723-2156 or basmith@ksu.edu or DeWayne Craghead, Hodgeman County Extension Agriculture Agent, at 620-357-8323 or dcraghea@ksu.edu.

☞ **K-State Extension will host a Lambing & Kidding Workshop on Thursday, January 31, 2013**, led by Jody Holthaus, at the Jefferson County Fairgrounds in Valley Falls, KS at 7:00 pm. This meeting is open to everyone. If you have any questions or would like to participate, please contact Jody Holthaus, Meadowlark District Livestock/Natural Resources Agent, at 785-364-4125 or jholthau@ksu.edu.

☞ **Latest dairy research issues addressed at KSU Dairy Days** which will be held on January 31 and February 1, 2013. These meeting will be held in conjunction with the Kansas Dairy Commission and, in Reno County, the Reno County DHIA Annual Meeting. The schedule for each day is as follows:

January 31, 2013 9:45 AM, **Whiteside Amish Community Building**, Whiteside, KS
Please pre-register by calling: Reno County Extension Office, 620-662-2371 or cbarilla@ksu.edu
Whiteside Site Agenda

9:00 AM Trade Show Set-up
9:45 AM Reno County DHIA Meeting
10:00 AM Registration and Trade Show
10:30 AM Dr. Jeff Stevenson, PhD – “Heat Detection Options”
11:00 AM Dr. Luis Mendonca, DVM, MS – “Latest Research in Reproductive Programs”
11:30 AM Dr. Jayendra Amamcharla, PhD – “Avoiding Oxidized Flavor in Raw Milk”
12:00 PM Lunch (sponsored by KDC)
12:30 PM KDC/KDA Update
12:45 PM Dr. Barry Bradford, PhD – “Accelerating Heifers Into Lactation”
1:15 PM Dr. Mike Brouk, PhD – “Looking Beyond Feed Prices to Control Feed Cost”
1:45 PM Dr. Gregg Hanzlicek, DVM, PhD and Dr. Brian Lubbers, DVM, PhD
“Udder Dissection – Impact of Mastitis on Udder Tissue”
2:15 PM Dr. Jeff Stevenson, PhD - “KSU Dairy Teaching and Research Unit Update”
2:25 PM Door Prizes
2:40 PM Adjourn

February 1, 2013 10:00 AM, **Seneca Community Center**, Seneca, KS
Please pre-register by calling; Meadowlark Extension District Office at 785-336-2184 or 785-364-4125 or email: jholthau@ksu.edu

Seneca Site Agenda

9:30 AM Trade Show Set-up
10:00 AM Registration and Trade Show
10:30 AM Dr. Barry Bradford, PhD – “Accelerating Heifers Into Lactation”
11:00 AM Dr. Mike Brouk, PhD – “Looking Beyond Feed Prices to Control Feed Cost”
11:30 AM Dr. Jayendra Amamcharla, PhD – “Avoiding Oxidized Flavor in Raw Milk”
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2:15 PM Dr. Jeff Stevenson, PhD - “KSU Dairy Teaching and Research Unit Update”
2:25 PM Door Prizes
2:40 PM Adjourn

For more information, contact Mike Brouk (mbrouk@ksu.edu; 785-532-1207).

☞ **Trent Loos highlights a tremendous group of speakers at the 2013 KSU Swine Profitability Conference**

which will be held on February 5, 2013, in Forum Hall of the K-State Student Union. The schedule includes:

- 9:15 a.m. Coffee and Donuts
- 9:30 a.m. *Special Lecture: Jack and Pat Anderson Lecture in Swine Health Management: Five Key Changes to Modern Management Practices Necessary to Improve Profitability - Dr. Jeff DeMint, Bern-Sabetha Vet Clinic*
- 10:30 a.m. Keeping a Swine Business Going for the Long Haul: What our Family has Done to Insure Success – *Roy Henry, Longford, KS*
- 11:15 a.m. Future Plans to Deal with Production Expectations of the Retail Pork Sector – *Chris Novak, National Pork Board*
- 12:00 noon Lunch
- 1:15 p.m. The Changing Landscape of the US Swine Industry – *Dr. Ron Plain, University of Missouri*
- 2:00 p.m. What We Need to Know About Animal Activist Groups: Past, Present and Future – *Trent Loos, Loos Tales*
- 3:00 p.m. Adjourn

Registration fee of \$30 per participant is due by January 25, 2013. Brochures and registration information available at www.KSUswine.org. For more information, contact Jim Nelssen (785-532-1251; jnelssen@ksu.edu).

☞ **Youth learn about raising and showing pigs at the Kansas Junior Swine Producer Day**

which will be held Saturday, February 16, in Weber Arena. This highly interactive, hands-on educational event will be a fun filled day of activities in which youth, parents, swine project leaders and adults can increase their knowledge and experience of swine production and management practices. Presentations and demonstrations will be given by K-State graduate students and faculty, as well as featured speaker, Kyle Baade. Mr. Baade is a 2009 graduate from SDSU where he received his Bachelor in Animal Science degree. He is currently the herdsman for Penner Genetics in Plymouth, Nebraska, specializing in purebred breeding stock and high quality club pigs. All participants, registered by February 1, will receive a K-State Show Pig Guide, Skillathon practice, T-shirt, and lunch. The schedule is as follows:

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|-------|--|-------|---|
| 9:00 | Registration | 12:00 | Lunch |
| 9:15 | Welcome and Opening Remarks | 12:30 | Youth PQA+ Certification Session (optional to attend, will last until 1:45) |
| 9:30 | Selecting Your Youth Project | | |
| 10:00 | Skillathon (non-competitive) | 1:00 | Pig Care: From Purchase to Show Day |
| 11:15 | Nutrition of Your Show Pig | 1:45 | Hands-On Showmanship |
| 11:45 | Educational Materials for Your Swine Project and Livestock Nominations | 2:15 | Final Questions and Wrap-up |

The registration fee is \$10/person by February 1 or \$15 per person after February 1. Visit www.asi.ksu.edu/youthprograms for registration. For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu) or Kristine Clowers (785-532-1264; clowers@ksu.edu).

☞ **Animal Sciences and Industry Department celebrates 100th anniversary of KSU Cattlemen's Day** - The 100th annual **KSU Cattlemen's Day** (previously known as Livestock Feeders Day) will be held on Friday, March 1, 2013. The complete program and registration information will be coming soon to www.asi.ksu.edu/cattlemensday.

The morning program will include the inaugural presentation of the Henry Gardiner lecture series presented by Steve Hunt, Advisor to U.S. Premium Beef, on "*Designing Meat and Meals*". The morning program will also include a presentation by Dr. Ron Hanson, University of Nebraska-Lincoln on "*Keeping Your Farm in the Family for the Next Generation-Is There a Plan*" as well as a "*Cattle Outlook*" by Drs. Ted Schroeder and Glynn Tonsor, Kansas State University. Each presentation will be followed by an open question/answer session. The day will also include "*A Look Back at the History of the Animal Sciences and Industry Department*" by Dr. Miles McKee.

The afternoon program will include breakout sessions on "Ammoniation: Stretching Your Forage Supply"; "Beef Selection Systems to Meet Market Trends"; "Heifer Development in a High Cost Environment" and more sessions of interest to those in the beef cattle industry.

The day will conclude with a Celebration Social immediately following the conclusion of the Legacy Sale at the Stout Center.

For more information, contact Jim Drouillard (jdrouill@ksu.edu; 785-532-1204) or Dale Blasi (dblasi@ksu.edu; 785-532-5427).

- ☞ **Ribbon Cutting Ceremony Planned for new Stanley Stout Center** – You are cordially invited to the ribbon-cutting ceremony for the Stanley Stout Center to be held on Friday, March 1, from 3:00 – 4:00 p.m. The Center is located at 2200 Denison Avenue. The Legacy Bull Sale will be held immediately following the ribbon-cutting ceremony. A celebration social will be held after the sale.
- ☞ **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 1, 2013, at the conclusion of the Ribbon Cutting Ceremony for the Stanley Stout Center. The sale will begin at 4:00 p.m. in the Center. The sale will include 80 bulls; 30 registered females; 6 elite show heifer prospects; and 6 AQHA ranch and performance horses. For more information or a sale catalog, contact Ryan Breiner (rbreiner@ksu.edu; 785-532-6127).
- ☞ **Dr. Dan Morrical, Iowa State University, will be featured speaker at K-State Sheep Day.** Kansas State University will host K-State Sheep Day on Saturday, March 2, 2013 at the K-State Sheep & Meat Goat Center. This meeting is open to everyone. You will not want to miss this opportunity to hear Dr. Dan Morrical, from Iowa State, give several talks that may offer ways to improve your sheep operation. The schedule is still being finalized and will be posted soon. Registration information will also be included. If you have any questions or would like to participate as an attendee or sponsor, please contact Dr. Brian Faris, K-State Extension Sheep & Meat Goat Specialist, at 785-532-1255 or brfaris@ksu.edu.
- ☞ **Mark Saturday, March 23, 2013 on your calendar for the Kansas Junior Meat Goat Producer Day.** Watch for more details. For more information, contact Brian Faris (brfaris@ksu.edu; 785-532-1255) or Kristine Clowers (clowers@ksu.edu; 785-532-1264).
- ☞ **K-State Animal Sciences Leadership Academy Planned for June 5-8** - Kansas State University will host the Fifth Annual K-State Animal Sciences Leadership Academy June 5-8 for young livestock industry leaders in Kansas. The program, hosted by the Department of Animal Sciences and Industry, focuses on increasing participants' knowledge of the Kansas livestock industry, as well as enhancing leadership skills.

Twenty high school students will be selected to participate, based on educational, community and agricultural involvement. Students will stay in campus housing and receive training in Weber Hall as well as tour the university's animal science facilities and Kansas livestock businesses. Students must apply by Friday, March 15. Candidates have to be enrolled in high school and able to participate in the entire academy. The academy is sponsored by the Livestock and Meat Industry Council.

More information, including registration forms, is available on the "Youth Programs" page of the Department of Animal Sciences and Industry website: <http://www.asi.ksu.edu/p.aspx?tabid=58> (Scroll to 2013 K-State Animal Sciences Leadership Academy). For more information, contact Kristine Clowers (clowers@ksu.edu; 785-532-1264).

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
January 23, 2013	EPD/Genetics School	Clay Center
January 29, 2013	4-State Beef Conference	Wamego/Seneca
January 30, 2013	KS Sheep Producer Meeting	Jetmore
January 31, 2013	Lambing and Kidding Workshop	Valley Falls
January 31, 2013	KSU Dairy Days	Whiteside
February 1, 2013	KSU Dairy Days	Seneca
February 5, 2013	KSU Swine Profitability Conference	Manhattan
February 16, 2013	Kansas Junior Swine Producer Day	Manhattan
March 1, 2013	KSU Cattlemen's Day – 100 th Anniversary	Manhattan
March 1, 2013	Stanley Stout Center Ribbon Cutting Ceremony	Manhattan
March 1, 2013	Legacy Bull and Heifer Sale	Manhattan
March 2, 2013	KSU Sheep Day	Manhattan
March 23, 2013	Kansas Junior Meat Goat Producer Day	Manhattan
April 5, 2013	Midwest Processed Meats Workshop	Manhattan
June 5-8, 2013	K-State Animal Sciences Leadership Academy	Manhattan
June 11-13, 2013	Developing and Implementing HACCP in Meat, Poultry and Food Processing	Manhattan
October 2-4, 2013	Developing and Implementing HACCP in Meat, Poultry and Food Processing	Olathe

WHAT'S NEW.....

Management Minute "Change is Normal"

↪ Management Minute – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Change is Normal"

In Dr. Henry Cloud's book Necessary Endings, he discusses "pruning" of activities in our professional or personal life which may be using up precious resources that may better be implemented on higher impact activities---those very activities that we'd really like to be "about".

One factor that keeps some managers from initiating the pruning process and holding on to unproductive activities is simple, good ol' fashioned resistance to change. More than just uncomfortable, much of this resistance comes from a deeply held, even subconscious, mindset that change is bad, change is dangerous, change is risky, etc.

Although change always brings with it an element of uncertainty, the simple fact is that change is inevitable. In other words, change is **NORMAL!** To deny this is to deny the very realities of life on earth. Sooner or later all businesses, industries, families, and organizations will undergo change. How can we doubt this? One adage from sales highlighting the need for constant new customer recruitment is this: "clients eventually all die, retire, or move away." But these outcomes are true of our colleagues, friends, and family members as well. Change is as normal and inevitable as anything we choose to hold true.

Unfortunately, that doesn't alter some managers' emotional response to change: change is still uncomfortable. It's been said (by me anyway) that "Everybody likes change---when they are the one driving the change!" Consider buying a new pickup. We lo-o-o-o-o-ve that kind of change. But when change is thrust upon us we all feel controlled and out of control, like walking on jello.

But that doesn't erase the aforementioned truism: ***change is normal and inevitable***. So the effective manager has really only one decision: get out of management, or become proactive, embracing and managing through change whenever necessary, and initiating change whenever possible.

Procrastination in the face of change doesn't improve the final outcome, it only limits the number of pathways available in negotiating the rocky slope ahead. By constantly searching trends in order to anticipate oncoming change, and pro-actively initiating adjustments of internal operations to accommodate the changing internal and external environments, the effective manager can minimize the ultimate impact of change on the organization.

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

↪ Feedlot Facts – Chris Reinhardt, Ph.D., Extension Feedlot Specialist "Body Condition Scoring Beef Cows"

In spite of the high cost of feed, ranchers need to be vigilant to the condition in which our cows go into calving. If cows are thin at calving time, there will be reductions in quality and quantity of colostrum, calf vigor, and subsequent fertility during next summer's breeding season.

Cows which calve thin will delay their return to estrus and breed back late. If these cows do not maintain a 365-day calving cycle, after 1-2 late breedings they could effectively "cull themselves" due to being open at preg check time. Young cows are especially susceptible to this possibility because they are gestating a calf, nursing a calf, and still growing frame and muscle themselves. Unfortunately, young cows are the future of your herd and possibly your most progressive genetics. Hopefully these cows aren't culled simply for lack of nutrients.

Body condition score (BCS) on a beef cow is the closest thing we have to a dip stick for determining, at a glance, her nutritional status. But scoring cows properly and really benefitting from this tool requires a bit more effort and observation than simply looking at the herd as a whole and thinking, "They look a little thin". We need to look at each cow individually and make a record. Depending on your calving date, there may still be time to adjust nutrient supply to get the cows into the target BCS by calving time.

Feedlot Facts "Body Condition Scoring Beef Cows"

Feedlot Facts – “Body Condition Scoring Beef Cows” (cont.)

To properly evaluate an individual cow, you should look at her topline, brisket, ribs, flank, round, and tail head. The “ideal” or “target” BCS for cows at the time of calving is the BCS = 5. This cow will show the last 1-2 ribs first thing in the morning before feeding, have good fullness of muscle in the round with definite muscle definition, the spine will be apparent but individual vertebrae will not be discernable, and there are no obvious fat depots behind the shoulder or around the tailhead. We would say this cow has a good “bloom”, but isn’t fleshy. A borderline thin cow (BCS = 4) will clearly show 3-4 ribs first thing in the morning, will have no fat depots in the brisket or tailhead, and you can see the individual vertebrae along the topline. The cow still shows some muscle through the round, and you could say she looks “healthy but thin”. In a borderline fleshy cow (BCS = 6) the ribs and vertebrae will not be obvious, as they are covered by fat. The muscling down through the round will be plump and full, but muscle definition is still apparent, and there will be small but noticeable fat deposits behind the shoulder, in the flank, brisket, and around the tailhead.

A change in BCS (from BCS 4 to 5, for example) requires addition of from 75 to 100 lbs live body weight, depending on the mature size or frame size of the cows. If you’re 2 months from the start of calving and need to add 1 BCS, you’ll need to feed the cows for maintenance, last 1/3 of gestation, and an additional 1.0 to 1.5 lb/day gain. This means increasing the amount of good quality hay as well as the amount of supplement. Thin cows (BCS 4 or below) can be separated off and fed a higher plane of nutrition. The argument can be made that this creates “welfare cows”. However, good record-keeping will indicate whether these cows are perennial “hard-keepers” or if they are simply too young or too old to compete with the mature cows. If they’re too young, another year of maturity should cure this; if they’re too old, you may consider culling them after weaning time. The key here is that good record keeping allows YOU to cull intentionally based on productivity, as opposed to the cow “culling herself” due to nutritional infertility because of lack of observation and management.

Body condition scoring the herd is a simple process, and can be done on a large paper tablet. Make columns for BCS 3, 4, 5, and 6 and as you pass through the herd first thing in the morning, make a tick mark for each cow in each of the columns. Count up how many cows you’ve got in the critical scores of 3 and 4. 4’s can be easily fed into the 5 range, but 3’s could potentially not cycle in time to stay in the herd. If 3’s can be fed up into the 4-range, they’ll at least have a chance to breed, albeit late during the normal breeding season.

Take a little time to truly, critically evaluate the nutrient status of your cow herd this winter, and use this simple, but powerful tool to manage the fertility and health of your herd going into next spring, and give yourself full control over the genetics of your herd for years to come.

For more information, contact Chris Reinhardt at cdr3@ksu.edu.

↪ **Direct-Fed Microbials for Receiving Cattle II: Effects of ProTernative Stress Formula Fed in a Dry Suspension on Growth, Feed Intake, and Health of Receiving Beef Heifers** – Crossbred heifers (n=287; initial body weight=497 lb) were purchased from sale-barn facilities in Tennessee and transported to the Kansas State University Beef Stocker Unit. Calves were fed twice daily a total mixed ration consisting of native bluestem prairie hay, alfalfa hay, dry rolled corn, wet corn gluten feed, and a commercial premix pellet. During the morning feeding, calves were treated once daily with either ProTernative SF (0.032 lb/animal daily; Lallemand Animal Nutrition, Milwaukee, WI) delivered in 0.25 lb of dried distillers grains or 0.25 lb/animal daily dried distillers grains alone by means of a top dress. Animals were observed twice daily for signs of disease or lameness.

Bottom Line...Daily direct-fed microbial supplementation delivered in a dry suspension did not influence health, dry matter intake, or average daily gain in our study. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, Dale Blasi (785-532-5427; dblasi@ksu.edu).

↪ **Beef Feedlot Heifers Can Serve as Viable Sources of Oocytes for *in vitro* Embryo Production** – Beef feedlot heifers (n=172) managed for 120 days pre-harvest were either fed MGA and implanted with growth promotants (Revalor IH, Merck Animal Health, Summit, NJ) or served as untreated controls. Heifer ovaries were obtained within 30 minutes of harvest, oocytes were collected, and *in vitro* fertilization was performed 24 hours later. Number of oocytes harvested, oocyte fertilization rate, early embryonic development, and number of freezable embryos produced were compared.

Controls and MGA-Implant treatments resulted in a similar number of total embryos per ovary. Freezable embryos per ovary were similar for both treatments.

Bottom Line...Feeding beef feedlot heifers MGA and implanting with growth promotants is not detrimental to production of embryos through *in vitro* fertilization. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information contact, Karol Fike (785-532-1104; karol@ksu.edu) or Larry Hollis (785-532-1246; lhollis@ksu.edu).

↪ **The Interactive Effects of Easzyme and Phytase in Diets Containing High-Fiber Co-Products on Growth Performance of Nursery Pigs** - Two experiments were conducted to determine the effects of a dietary non-starch polysaccharide enzyme (Easzyme, Archer Daniels Midland Co., Decatur, IL) or phytase (Phyzyme, Danisco Animal Nutrition, St. Louis, MO) addition in corn-soybean meal or high-fiber diets on nursery pig growth performance. In Exp. 1, 192 nursery pigs (PIC 327 × 1050, initially 21.8 lb) were allotted to 1 of 4 dietary treatments arranged in a 2 × 2 factorial. Main effects were diet type (corn-soybean meal or corn-soybean meal plus 30% wheat middlings) with or without added dietary enzyme (Easzyme Mixer 1, 1 lb/ton). Each experiment involved 6 pigs per pen and 8 replications per treatment. All diets contained 340.5 phytase units (FTU)/lb. From d 0 to 21, pigs fed corn-soybean meal diets had greater ADG than those fed diets containing 30% wheat midds. Added Easzyme had no effect on ADG. ADFI and F/G exhibited a diet type × Easzyme interaction. In corn-soybean meal diets, Easzyme had no effect on ADFI or F/G, whereas in diets containing 30% wheat midds, Easzyme increased ADFI and worsened F/G.

In Exp. 2, 350 nursery pigs (PIC 1050, initially 25.5 lb) were allotted to 1 of 7 dietary treatments arranged in a 2 × 3 factorial plus control. Pigs were fed either a corn-soybean meal-based diet with no Easzyme or phytase (Phyzyme) or 1 of 6 diets containing 10% wheat midds, 10% hominy, and 10% corn germ meal with or without Easzyme and 0, 500, or 1,200 FTU/kg phytase. In this experiment, available P was formulated to the pig's requirement before adding phytase to determine if it affected the digestibility of other nutrients that might enhance growth performance. In the experiment with 5 pigs per pen and 10 replications per treatment, from d 0 to 21, pigs fed the control corn-soybean meal-based diet had greater ADG, ADFI, and better F/G than pigs fed co-product-based diets. Added Easzyme had no effect on ADG and ADFI, but worsened F/G. Increasing phytase had no effect on ADG, ADFI, or F/G.

Bottom Line...These results suggest that adding high-fiber co-products to diets decreased ADG and worsened F/G compared with corn-soybean meal diets. Added Easzyme or high concentrations of phytase in diets adequate in P had no positive effects on 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 A. B. Graham, J. M. DeRouchey, M. D. Tokach, R. D. Goodband, S. S. Dritz, S. Nitikanchana, J. A. De Jong, and J. L. Nelssen.)

↪ **The Effects of Soybean Hulls in Corn-Soybean Meal and Corn-Soybean Meal-Dried Distillers Grains with Solubles Diets on Nursery Pig Performance** – In Exp. 1, a total of 600 pigs (PIC C-29 × 359, initially 14.7 lb) were used in a 42-d growth study. Diets contained increasing amounts of soybean hulls (0, 3, 6, 9, or 12%) in either corn-soybean meal or corn-soybean meal-DDGS-based diets (15 and 30% DDGS for Phases 1 and 2, respectively). Pigs were blocked by initial pen weight, gender, and room location, with 10 pigs per pen and 6 replications per treatment. Overall (d 0 to 42), soybean hulls × DDGS interactions were observed for F/G and caloric efficiency on an ME and NE basis. Increasing soybean hulls worsened F/G quadratically when added to diets without DDGS but linearly when added to diets with DDGS. Caloric efficiencies improved on an ME and NE basis with increasing soybean hulls in diets without DDGS but did not influence caloric efficiency when added to diets containing DDGS. Adding DDGS to the diet decreased ADG and ADFI but tended to improve F/G. Adding soybean hulls to diets containing DDGS further reduced ADG and tended to reduce ADFI, whereas adding soybean hulls to diets without DDGS had no effect on ADG or ADFI.

In Exp. 2, 304 pigs (PIC, 337 × 1050, initially 25.7 lb) were used in a 21-d study. The 8 diets were arranged in a 2 × 4 factorial with increasing soybean hulls (0, 5, 10, or 15%) in either corn-soybean meal or corn-soybean meal-DDGS-based diets (20% DDGS). Pigs were randomly allotted to 1 of 8 dietary treatments with 9 replications per treatment. Overall (d 0 to 21), no soybean hull × DDGS interactions were observed. Increasing soybean hulls tended to worsen F/G but improved caloric efficiency on an ME and NE basis. In contrast to the first experiment, the greatest negative effect on F/G came from adding soybean hulls to diets without DDGS. Adding DDGS to the diets had no effect on growth performance.

Bottom Line...Feeding up to 15% soybean hulls in diets for nursery pigs does not affect growth rate or feed intake, but worsens F/G and improves caloric efficiency. The improvement in caloric efficiency indicates that published energy values underestimate the energy content of soybean hulls. The influence of DDGS in the diet on the response to soybean hulls varied between trials, indicating that further research is needed to understand potential interactions between high-fiber ingredients such as soybean hulls and DDGS on growth performance and caloric efficiency of nursery pigs. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by D. L. Goehring, M. D. Tokach, J. M. DeRouchey, J. L. Nelssen, R. D. Goodband, S. S. Dritz, and B. W. James.)

AS&I Faculty Spotlight



John Gonzalez (johngonz@ksu.edu; 785-532-3448)
Assistant Professor/Meats

Dr. John Michael Gonzalez grew up in the vast urban setting of San Antonio, TX. He was first introduced to agriculture during his high school years when he visited numerous classmates' ranches located throughout the state of Texas. This led Dr. Gonzalez to pursue and earn his B.S. degree in Agricultural Economics and Poultry Science from Texas A&M University. He then moved on to obtain his M.S. degree in Animal Science from Sul Ross State University. In 2008, Dr. Gonzalez achieved his Ph.D. in Animal Sciences from the University of Florida. After earning his degree, Dr. Gonzalez spent a 9-month tenure serving as the Technical Services Manager of XL Four Star Beef, Inc. of Omaha, Nebraska. Following this experience, he returned to the University of Florida as a Postdoctoral Associate.

Dr. Gonzalez joined the Kansas State University staff in June of this year with a 30% teaching and 70% research appointment. Under his teaching appointment, Dr. Gonzalez will assist in the instruction of the Advanced Meat Science course and re-establish the yearly offering of the department's Growth and Development course. Dr. Gonzalez's research interests span the spectrum of the Meat Science discipline. His interests primarily center around exploring the effects of management strategies, feeding regimens, and growth technologies on meat color and quality characteristics of red meat species. Dr. Gonzalez aims to contribute to the Meat Science group by explaining global changes in meat quality or color by exploring muscle biology mechanisms with basic science techniques.

Dr. Gonzalez resides in Manhattan with his wife, Sara, and two dogs, Bexar and Astro. In his free time, Dr. Gonzalez spends a good portion of his time following the United States space program. He and his wife can be found around town working their golf game, riding the linear trail, or playing basketball. Dr. Gonzalez and his family are excited to establish roots in Kansas and work with the producers of the state.



David Grieger (dgrieger@k-state.edu; 785-532-1229)
Associate Professor/Beef Cattle Reproduction

Dr. Grieger is from a small town in Indiana. His major teaching and research interests are applied and basic reproductive physiology with an emphasis in cattle.

Dr. G. teaches courses that include topics on estrous synchronization, ultrasonography, pregnancy diagnosis, and calving. He also teaches a course on applications of biotechnology to animal agriculture as well as co-teaches Animal Reproduction with Dr. Davis. He has led 2 international study tours, 1 to Costa Rica and 1 to South Africa. In addition to his teaching responsibilities he also advises undergraduate students.

His applied research interests focus on estrous synchronization and timed artificial insemination protocols for beef heifers. Dr.G.'s basic research focuses on genes important to reproductive function in livestock. Recently, his lab has worked on developing bovine stem cells for biotechnical applications. He has a 60%

Teaching and 40% Research appointment in the department.

What Producers Should Be Thinking About.....

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



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

- Manage calving pens and pastures to minimize human, cow and calf stress. Stay organized.
- An observation schedule should be implemented for calving first-calf heifers and cows. First-calf heifers should be checked every 2 to 3 hours.
- Sanitation is key to reducing and/or eliminating calf scours. An excellent calving pasture management plan by Dr. David Smith from the University of Nebraska - Lincoln, can be found at <http://beef.unl.edu/beefreports/symp-2003-19-XVIII.pdf>.
- Make sure every calf consumes adequate colostrum during the first 4-12 hours after birth.
- Keep accurate calving records, including cow identification (ID), calf ID, birth date, calving difficulty score and birth weight. Other traits to consider recording are teat and udder scores, calf vigor score, and other pertinent information. This information along with Angus sire information is vital for enrolling cattle into the AngusSourceSM program.
- Calving books are essential sources of information; make sure you have a backup copy.
- Body condition score (BCS) cows. Thin and young cows will need extra energy to maintain yearly calving interval.
- If cow diets are going to be shifted from low- (poor quality forage or dormant grass) to high-quality forage (lush green grass) programs, begin a grass tetany prevention program at least 3 weeks prior to the forage switch.
- Given the high price of mineral supplements, conduct a needs assessment of your cowherd. Moreover, closely monitor daily intake to insure that it is consistent with label directions.
- When making genetic selections, use the most recent National Cattle Evaluation (NCE) and herd records judiciously.
- If new bulls are purchased, now is the time to start preparing them for their first breeding season. Bulls need to be properly vaccinated and conditioned to be athletic. Moderate body condition with abundant exercise is ideal.
- After calving and before breeding, vaccinate cows as recommended by your veterinarian.
- Plan to attend beef production meetings.

*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.*