Newsletter from the Department of Animal Sciences and Industry
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April, 2015

News from KSU Animal Sciences

In This Issue

We Need Your Help!

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

K-STATE Research and Extension

UPCOMING EVENTS…

- The **K-State Agricultural Research Center Roundup in Hays** will be held on Thursday, April 16, 2015 in the auditorium at the Ag Research Center. This year's program will highlight the results of 7 different research projects that were conducted at the KSU Agricultural Research Center – Hays. The research reports include topics ranging from controlling honey locust trees, to winter supplementation, early weaning and weaning strategies and confined / limit feeding of cows. Registration begins at 9:00 a.m. with the program beginning at 10:00 a.m. For a complete schedule, visit www.wkarc.org. For more information, contact John Jaeger (jrjaeger@ksu.edu; 785-625-3425).

- **Kansas State University will be hosting a series of Barbecue 101 workshops this May and June**. Barbecue 101 is a one day workshop focusing on teaching the basics of grilling and smoking to consumers of all ages and experience levels. The topic areas will provide a unique perspective on the science of barbecuing as well as give insight to selecting meat, wood, rubs, spices and sauces to use at your next barbecue. Dates and locations for the workshops include:

  May 2 – K-State Olathe Campus, Olathe, KS
  May 9 – KSU Stanley Stout Center, Manhattan, KS
  May 30 – Ag Research Center, Hays, KS
  June 6 – Brown Center, Cowley College, Arkansas City, KS

  The schedule includes:

  8:00 Welcome
  8:15 Meat Cutting Basics
  9:15 All About Rubs & Spices
  9:45 Break
  10:00 BBQ Food Safety
  10:30 Science of Smoking
  11:30 Lunch
  12:30-3:00 Afternoon Station Rotations
  Selecting the Right Smoker for You
  BBQ Regionality: A Difference in Sauce
  Meat Cuts to Stretch the BBQ Dollar
  Taste the Difference: It's All in the Wood
  Meat Preparation & Selection
  3:30 Competition BBQ Expert Roundtable
  4:00 Closing & Evaluations

  Registration is $50 for an individual or $80 for a couple. Registration closes one week prior to each scheduled event. Registration fee includes lunch, apron and Barbecue 101 Course Book containing cooking guides, recipes and barbecue tips and tricks. Space is limited at each location. For a registration form and more information, visit www.asi.k-state.edu/barbecue101workshop.html. For more information, contact Travis O'Quinn (travisoquinn@ksu.edu; 785-532-3469).

- **Top Hand Awards to be given at K-State Cattle Feeders College on May 14**. The 2015 K-State Cattle Feeders College will be held on May 14 at the Scott County Indoor Arena and Activities Center, 610 E Fairground Road, Scott City, KS. Top Hands will be recognized in the cattle division. A representative of the nominating feedyard and the award recipient must be present to accept awards. Nominations are due by May 8, 2015 to Justin Waggoner at jwaggon@ksu.edu.

  Registration for the K-State Cattle Feeders College will begin at 3:30 p.m. This college will offer an in depth, horsemanship and cattle handling seminar conducted by professional horseman, Joe Wolter. Dinner will be provided. There is no cost to attend, but registration is required by May 8, 2015. To register, please contact Justin Waggoner (620-275-9164; jwaggon@ksu.edu) or John Beckman (620-872-2930; jbeckman@ksu.edu). For more information, go to www.southwest.ksu.edu.

- The **KSU Youth Horse Judging Camp – Beginners Section** will be held June 2, 2015 and the **KSU Youth Horse Judging Camp – Advanced Section** will be held June 3-4, 2015. Both camps will be held in Weber Arena on the KSU Campus. Registration for both camps must be paid by May 10, 2015. For more information, camp agenda and registration forms, visit the website www.asi.ksu.edu/p.aspx?tabid=1141. You can also contact James Lattimer (785-532-2840; jlattimer@ksu.edu) or Tasha Dove at (tashakd@ksu.edu).

- **Developing and Implementing Your Company's HACCP Plan** for meat, poultry, and food processors will be held June 2-4, 2015, in Weber Hall, Kansas State University, Manhattan and October 7-9, 2015 in Olathe, KS. Information and registration for the 2.5 day International HACCP Alliance accredited workshop is online at http:/haccp.unl.edu. The workshop fee is $400 per person, and participants will be presented with a certificate with an International HACCP Alliance seal upon completion of the course. For more information, contact Dr. Liz Boyle (lboyle@ksu.edu; 785-532-1247).

- **K-State Livestock Judging Camps** - A three day, intense judging camp designed for 4-H and FFA members ages 14-18 who are seriously interested in enhancing their livestock judging and oral communication skills. Prior livestock judging experience is necessary for this camp. Workouts will be conducted similar to those at a collegiate level. Chris Mullinix, coach of over 30 national championship teams and KSU livestock judging coach, will conduct the training for each camp. The camp will focus primarily on the proper format, terminology, and presentation of oral reasons. Camp participants will also be exposed to livestock evaluation skills and incorporating performance records in the decision making process. The registration deadline is May 18. The following dates are set for the 2015 camps: June 8-10; June 12-14; and June 16-18. Please read the camp information at http://www.asi.k-state.edu/students-and-programs/JudgingCamp15_Information.pdf. For more information, contact Kristi Hageman (785-532-2996; klsmith@ksu.edu).

- **K-State Animal Sciences Leadership Academy Planned for June.** Kansas State University will host the 7th Annual K-State Animal Sciences Leadership Academy for young livestock industry leaders in Kansas. This year two sessions will be offered: June 10-13 or June 17-20, 2015. This intensive four day educational experience will focus on increasing the participant's knowledge of a dynamic and sustainable livestock industry and its importance to a global food system. The Livestock and Meat Industry Council generously provides all other sponsorships. Please contact Sharon Breiner with questions at sharonjbreiner@gmail.com.

- **The 2015 Beef Improvement Federation (BIF) Research Symposium and Convention is set for June 9-12, 2015, in Biloxi, Mississippi. -** For nearly 50 years the Beef Improvement Federation has hosted their annual research symposium and convention. The convention serves to facilitate discussion and provide education on current issues facing the beef industry. For the latest information about the 2015 BIF Symposium and Convention along with registration and hotel information, visit wwwbeefimprovement.org

- The **KSU Poultry and Gamebird Research Farm** conducts an annual pullet sale where poultry enthusiasts may purchase egg-type poultry. The sale is normally held each spring, however, **in 2015 the sale has been moved to the Fall on October 3, 2015**. In order to complete facility updating and remodeling projects, it was decided to push the sale back to the fall. The avian influenza quarantines in the SE part of Kansas also made it difficult to obtain chicks.

  There will be two types of birds in the fall sale - a white egg layer and a brown egg layer. These are highly productive hybrid birds that will be ready to lay and will be fully vaccinated. Students who enroll in poultry science courses this fall will be working on our pullet sale as a class project.

  We will begin accepting orders on June 5th via this web site: http://www.asi.k-state.edu/species/poultry/. Prices will be subject to feed prices at the time, but are anticipated to be white egg layers for $7 and the browns for $8. For more information, contact CJ Delfelder; 785-539-5041; cdelf@ksu.edu

- Join us for the **AS&I Family and Friends Reunion to be held on Friday, October 9, 2015**, from 6:00 – 9:30 p.m. at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, Kansas. This inaugural event will celebrate the K-State Animal Sciences & Industry family and thank our industry friends for decades of contributions to animal agriculture. The first Don L. Good Impact Award recipient will be announced at this event. Other activities include great food, live music, a commemorative limited edition take-home poster created by noted artist and K-State AS&I alum, Dino Cornay, Junior Wildcat Barn Yard and more surprises!!

  We will also be hosting a Tailgate/Watch Party for the football game (KSU vs. TCU) on Saturday, October 10, 2015. Time will be 2 hours before the scheduled game time which is to be determined.

  Come join us for the fun! For more information and a registration form, visit www.asi.ksu.edu/familyandfriendsreunion.html

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
April 16, 2015	Hays Round-up	Hays
May 2, 2015	Barbecue 101 Workshop	Olathe
May 9, 2015	Barbecue 101 Workshop	Manhattan
May 14, 2015	K-State Cattle Feeders College	Scott City, KS
May 30, 2015	Barbecue 101 Workshop	Hays
June 2, 2015	KSU Youth Horse Judging Camp – Beginners Section	Manhattan
June 2-4, 2015	Developing and Implementing Your Company's HACCP Plan	Manhattan
June 3-4, 2015	KSU Youth Horse Judging Camp – Advanced Section	Manhattan
June 6, 2015	Barbecue 101 Workshop	Winfield
June 8-10, 2015	KSU Livestock Judging Camp	Manhattan
June 9-12, 2015	Beef Improvement Federation Research Symposium	Biloxi, MS
June 10-13, 2015	Animal Sciences Leadership Academy	Manhattan
June 12-14, 2015	KSU Livestock Judging Camp	Manhattan
June 16-18, 2015	KSU Livestock Judging Camp	Manhattan
June 17-20, 2015	Animal Sciences Leadership Academy	Manhattan
October 3, 2015	Annual Pullet Sale	Manhattan
October 9, 2015	AS&I Family and Friends Reunion	Manhattan

WHAT'S NEW . . . .

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

"Diamonds vs Coal"

How do you recruit new employees?

If you're simply placing an announcement in the want ads, you're most likely only advertising to those who are already out of work. How can you instead make your opening known to people who are not only already gainfully employed somewhere else, but who are highly-valued and respected within their current organization?

If you wait for good people to come looking, you're probably never going to find them.

When you ask yourself, "What kind of employee am I seeking?" and "What kind of employee is the rest of the team seeking?" and "What kind of person would fit in with the existing team?" The answer should be obvious, yet isn't: "A person who my current team already knows, respects, and enjoys being around." Your good people know who the other good people are, and they would like to have them on the team.

That said, why not incentivize your current employees to find you the next rising star---a diamond in the rough? The incentive should be significant; a $20 gift certificate won't push your employees to push their connections to change. Also, there is substantial real economic value in hiring a truly exceptional employee, who will likely be immediately accepted and respected by the rest of the team, will be productive and content in the new work environment, and will therefore likely stay a long time. Why not offer some of that very real value back to your own good employees to find and attract more good employees.

To avoid abuse of the system, there should be a probationary period attached to the new hire, before which none of the incentive is paid, but after which the entire incentive is paid to the existing employee.

The old axiom holds true: good, productive, hard-working people want to work with other good, hard-working people, and they don't want to work around slackers. This incentive system will give them the impetus to start bragging about your work place in order to attract people they know and respect who will come in and elevate the team.

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

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

"Deworming Feeder Cattle"

The value of deworming pasture and feedlot cattle has been clearly demonstrated to the livestock community; the research is definitive and media surveys indicate that ranchers and cattle feeders have gotten the message loud and clear.

But if you dig very deep into the science of deworming, into specific parasites, life cycles, and mode of action of different dewormers it is very easy to become overwhelmed with the seeming complexity of the situation and potential solutions. The good news is you don't have to dig very deep to understand the issue.

Parasites live most of their life inside the animal, but require green grass, moisture, and relatively warm temperatures to start the life cycle over. Eggs are laid by mature females living inside the animal and excreted in feces; warm temperatures stimulate the eggs to hatch and release larvae; larvae reside in dew drops on blades of grass and are consumed by the animal; the larvae then mature inside the host. In short, if there are eggs in the feces, the cattle have mature worms inside their digestive tract.

If you receive cattle which have been grazing green grass, they are likely carrying some level of internal parasites. If you receive cattle which have been in drylot and were ***effectively*** dewormed upon arrival in that drylot they should have little to no parasite burden leaving the drylot; there's no chance for them to have become re-infected. There is a simple test that your veterinarian can conduct, using a small amount of fresh manure, to determine the level of internal parasites and the effectiveness of your deworming program.

Parasites make it difficult for cattle to respond to vaccination and to fight off viral infection because the 2 different types of immune battles are competing for immune resources. If you are having unexpected health problems several weeks or months into the feeding program, you may wish to have the cattle examined for internal parasites.

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

- The Department of Animal Sciences and Industry, Kansas State University seeks applicants for a **Fellow Post Doc in Dairy Foods Processing**. This is a full-time, 12-month, term position. A Bachelor of Science degree in Food Science, Food Engineering, Biosystems Engineering or closely related field is required by date of hire. View complete position announcement at: www.asi.ksu.edu/about/job-announcements.html. For additional information, contact Dr. Jayendra Amamcharla, Search Committee Chair: jayendra@ksu.edu. Review of applications begins April 17, 2015 and continues until the position is filled.

- **Assistant Professor, Animal Breeding and Genetics** – The Department of Animal Sciences and Industry at Kansas State University seeks applicants for an Assistant Professor, Animal Breeding and Genetics position. This position is full-time, 12-month, tenure track, 60% Research, 40% Teaching. A Ph.D. or equivalent in animal breeding and genetics or closely related field by date of hire is required. Review of applications begins May 15, 2015 and continues until the position is filled. View complete position announcement at: http://www.asi.ksu.edu/about/job-announcements.html.

- The Department of Animal Sciences and Industry, Kansas State University seeks applicants for a **Teaching Associate-Food Science.** Full-time, 12-month, term position; B.S. in Food Science or related field required. View complete position announcement at: www.asi.ksu.edu/about/job-announcements.html. KSU is EOE of individuals with disabilities and protected veterans and actively seeks diversity among its employees. Background check required. For Additional information please contact Dr. J.Scott Smith, Search Committee Chair: jsschem@ksu.edu. Review of applications begins on 5/1/2015 and continues until the position is filled.

- **Calcium Hydroxide-Treated Corn Stover (Second Crop): An Energy Source in Growing and Receiving Diets –** The objective was to evaluate effects on performance of calcium hydroxide-treated corn stover (Second Crop; ADM Corp., Decatur, IL) substituted for traditional roughage sources, such as prairie hay and alfalfa, in growing and receiving cattle diets. Two hundred forty-five (245) steers were divided into three treatment groups and fed their respective diets for 112 days, with a 7-day rumen equalization period following the 112th day. Diets contained 0, 20, or 40% calcium hydroxide-treated corn stover (control, 20%CaOH, and 40%CaOH, respectively). Cattle were evaluated for health problems and fed their test diets morning and evening. Cattle were revaccinated and weighed on day 28, and final weights were measured on day 119 following a 7-day period of feeding a common diet to equalize rumen fill. Performance of the control and 20%CaOH groups did not differ, but cattle fed 40% of the treated stover had poorer average daily gain than cattle in the control group and were less efficient during the first 28 days of the feeding period.

  Bottom Line… Feeding calcium hydroxide-treated corn stover at 20% of the diet dry matter in a growing and receiving diet yields performance similar to that of a more traditional diet, whereas 40% inclusion of treated corn stover negatively affects performance. View the complete report at www.asi.ksu.edu/cattlemensday. For more information, contact Dale Blasi (785-532-5427; dblasi@ksu.edu).

- **Can an Injectable Trace Mineral Product Improve Reproductive Parameters in Developing Yearling Beef Bulls?-** The objective was to determine if using an injectable trace mineral product in developing beef bulls, in addition to dietary mineral supplementation, improves semen quality and ability to pass a yearling breeding soundness examination. Nine-month-old bulls (n = 90) were injected subcutaneously with 1 mL/100 lb body weight of an injectable trace mineral product (Multimin 90; Multimin USA, Fort Collins, CO) containing zinc, copper, selenium, and manganese (trace mineral), or a saline placebo (control). Blood was collected at 0, 8, and 24 hours after injection. Semen was collected and breeding soundness examinations were performed on days 42 and day 91 after injection. Blood and semen were evaluated for trace mineral concentrations, and semen was evaluated for sperm characteristics. Body weights and scrotal circumferences also were measured. Body weights and scrotal circumferences were similar between treatments. Bulls treated with the trace mineral product had elevated blood mineral concentrations at 8 hours post-injection. At 24 hours post-injection, Cu and Zn had returned to levels comparable to control bulls, whereas Se and Mn remained elevated compared with bulls in the control treatment. Sperm characteristics did not differ between treatments at either 42 or 91 days post treatment, although on day 42 bulls treated with the trace mineral tended to have greater sperm concentrations in semen. Bulls from the control and trace mineral treatments also did not differ in their ability to pass a yearling breeding soundness exam at 91 days.

  Bottom Line… Injectable trace mineral did not improve sperm quality or ability to pass a yearling breeding soundness examination in developing beef bulls when dietary trace mineral supplementation was adequate. View the complete report at www.asi.ksu.edu/cattlemensday. For more information, contact Karol Fike (785-532-1104; karol@ksu.edu) or Bob Weaber (785-532-1460; bweaber@ksu.edu)

- **Evaluation of Fermented Soybean Meal Sources in Diets for Nursery Pigs -** A total of 296 mixed-sex pigs (PIC 327 × 1050; 14.5 ± 3.0 lb BW and 21 d of age) were used in a 31-d experiment evaluating the effect of further processing methods for soybean meal on weanling pig growth performance. There were 11 replicate pens per treatment with 6 or 7 pigs per pen. At weaning, pigs were allotted to pens by initial weight to 1 of 4 treatments in a completely randomized design. Experimental treatments were: (1) negative control (NC: no specialty protein sources), (2) fermented soybean meal processing method 1 (FSBM 1), (3) fermented soybean meal processing method 2 (FSBM 2), and (4) enzymatically treated soybean meal (ETS).

  The specialty soybean meal protein sources were included in Phase 1 (d 0 to 7) and Phase 2 (d 7 to 20) diets at 5%, and diets were formulated to the same standardized ileal digestible (SID) amino acid level. All pigs were subsequently fed a common diet during Phase 3 (d 20 to 31). Phase 1 and 2 diets were fed in pellet form, whereas the Phase 3 common diet was fed in meal form. Nutrient analyses of specialty soybean meal ingredients were conducted and generally matched those used for diet formulation. From d 0 to 7, pigs fed FSBM 2 had increased ADG and BW compared with pigs fed ETS, whereas those fed NC and FSBM 1 were intermediate. No other differences were observed between treatments for growth or BW during the experimental period, common period, or overall.

  Bottom Line…In summary, further processed soybean meal sources did not improve nursery pig growth compared with traditional soybean meal. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. *(This study conducted by A.M. Jeffrey, H.L. Frobose, J.M. DeRouchey, M.D. Tokach, R.D. Goodband, S.S. Dritz, and J.C. Woodworth)*

- **Evaluation of Different Oil Sources for Nursery Pigs-** A total of 210 pigs (PIC 327 × 1050, initially 28.9 lb BW) were used in a 21-d trial to evaluate the effects of increasing oil sources on nursery pig growth performance. The 2 oil sources included a commercial source of soybean oil and a proprietary source of corn oil originating from the ethanol industry (Corn Oil ONE, Feed Energy Co., Pleasant Hill, IA). The 5 experimental diets included: a control diet without added oil, diets with 2.5 or 5% added soybean oil, or diets with 2.5 and 5% added corn oil. Diets were formulated with an identical standardized ileal digestible lysine:calorie ratio and were fed in meal form. There were 6 pens per treatment with 7 pigs per pen.

  Overall, from d 0 to 21, no oil source × level interactions were observed. Increasing corn oil or soybean oil had no effect on ADG or final BW. Increasing corn oil or soybean oil decreased ADFI, which resulted in improved F/G. Caloric efficiency was not affected by oil source or level. Feed cost per pig tended to decrease for pigs fed increasing levels of soy oil. Cost per pound of gain decreased for both Corn Oil ONE and soybean oil as oil level increased. Value of the weight gain and income over feed cost was similar for pigs fed diets with Corn Oil ONE and soybean oil.

  Bottom Line… This study shows the benefits of adding a dietary oil source in late-phase nursery diets to achieve improved feed efficiency. Corn Oil ONE is a suitable alternative for soybean oil, and cost and availability should dictate which source is used. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. *(This study conducted by K.E. Jordan, M.A.D. Goncalves, J.A. De Jong, J.C. Woodworth, M.D. Tokach, S.S. Dritz, R.D. Goodband, and J.M. DeRouchey)*

- **Effects of Added Zinc During the Grower and/or Finisher Phase on Growth Performance and Carcass Characteristics of Finishing Pigs Fed Diets With or Without Ractopamine HCl-**A total of 1,197 pigs (PIC 337 × 1050) were used in a 72-d study to determine the effects of added zinc from zinc oxide (ZnO) fed in grower (d 0 to 45; initially 129.6 lb) and finisher (d 45 to 72; initially 218.3 lb) pig diets with or without ractopamine HCl (RAC; Paylean; Elanco Animal Health, Greenfield, IN) on growth performance and carcass characteristics. Pens were randomly assigned to a 2 × 2 × 2 factorial arrangement in a split-plot design. The whole plot consisted of diets with or without 75 ppm added Zn from d 0 to 45, and the subplots were diets with or without 75 ppm added Zn and with or without 10 ppm RAC from d 45 to 72. All diets contained 50 ppm Zn supplied from the premix. No interactions were observed. Addition of 75 ppm Zn during either period or both periods did not influence overall pig growth performance or carcass characteristics. Pigs fed RAC had improved ADG, F/G, final BW, HCW, loin depth, and fat-free lean index compared with pigs fed the control diet.

  Bottom Line… In conclusion, feeding RAC improved the performance of growing-finishing pigs, but additional Zn did not. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. *(This study conducted by C.B. Paulk, M.D. Tokach, S.S. Dritz, J.M. Gonzalez, J.M. DeRouchey, and R.D. Goodband)*

AS&I Faculty Spotlight

Duane Davis (davis@k-state.edu; 785-532-1224)
Professor/Swine Reproductive Physiology

Dr. Davis teaches courses in the reproductive physiology of farm animals to both undergraduate and graduate students. His research program addresses embryonic and fetal survival, fetal programming, and stem cell biology.

He received his BS and MS from Kansas State University and completed his PhD at the University of Missouri. He currently serves as coordinator of the KSU Swine Teaching and Research Center and the AS&I Tissue Culture Lab. Dr. Davis teaches courses in the reproductive physiology of farm animals to both undergraduate and graduate student.

Current projects include studies of pig umbilical cord matrix stem cells, evaluation of transcription factors in the development of pig embryos, and studies of omega-3 fatty acids on development of pig embryos and fetuses.

Dr. Davis' laboratory studies the properties of stem cells that were discovered in the umbilical cord of pigs. These cells are found in a matrix (Wharton's jelly) and are readily harvested and grown in vitro. The umbilical cord matrix stem (UCMS) cells are distinct from those found in umbilical cord blood. UCMS cells are potentially useful for human medicine as replacements for cells damaged or lost due to developmental or degenerative diseases, accidents or aging. In agriculture UCMS cells from pigs and other farm animal have great potential. They provide a cheap, plentiful, and easily harvested source of multipotential cells and may find uses to enhance food safety, food production efficiency, and to stimulate resistance to infectious diseases.

His research program addresses embryo and fetal survival, fetal programming, and stem cell biology. Current projects include studies of pig umbilical cord matrix stem cells, evaluation of transcription factors in the development of pig embryos, and studies of omega-3 fatty acids on development of pig embryos and fetuses.

Joe Hancock (jhancock@k-state.edu; 785-532-1230)
Professor/Monogastric Nutrition

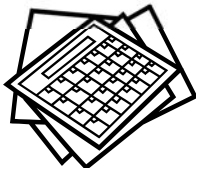
Dr. Joe Hancock grew up on a dry-land cotton farm near Gail, Texas. After his B.S. degree in Agricultural Education, M.S. degree in Swine Production, and Ph.D. degree in Animal Nutrition, Dr. Hancock joined the faculty here at KSU. His assignment is 50% teaching and 50% research.

As for teaching responsibilities, those include lecture and lab classes in nutrition (thus far 81 classes involving 2,607 students) and advising 15 to 20 undergraduate and graduate students each semester. His research activities have centered on factors that limit fat, protein, and carbohydrate utilization in weanling pigs and broiler chicks and processing techniques to maximize nutrient utilization and minimize nutrient excretion in finishing pigs, sows, and layers. Those activities have been funded by 104 grants/gifts from 36 companies and government agencies at the local, state, and federal level.

Results from Dr. Hancock's research activities have been shared in some 400 abstracts, technical reports, symposia proceedings, journal articles, and book chapters and have yielded invited presentations in 41 countries (Japan, Korea, China, Vietnam, Malaysia, Indonesia, the Philippines, Ireland, England, Denmark, Holland, Germany, France, Spain, Portugal, Italy, Romania, Russia, Senegal, Mali, Burkina Faso, Niger, Nigeria, South Africa, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Brazil, Venezuela, Colombia, Peru, Ecuador, Cuba, the Bahamas, Jamaica, and throughout Mexico, the United States, and Canada).

In his spare time, Dr. Hancock likes to fish, reload, shoot, and hunt pretty much anything that walks, flies, or crawls. Also, he tries to get away at least once a year to do a bit of SCUBA (Cabo, Puerto Vallarta, Cozumel, Costa Rica, Fiji, Sulawesi, Cheju-do, Oahu, Kauai, California, Texas, Missouri, Iowa, Florida, Grand Cayman, Bahamas, Grand Turk, Puerto Rico, St. Croix, St. Eustatius, Saba, Dominica, Bequia, Tobago, Bonaire, Los Roques, Bocas del Toro, Corn Island, Utila, Roatan, and Belize) with his wife Melisa. Joe and Melisa live on a hill just northeast of Manhattan with a couple cats, Beano (Chihuahua), Dixie (Yorkie), a pontoon boat, and the occasional possum, raccoon, deer, wild turkey, coyote, and copperhead.

What Producers Should Be Thinking About…..



WHAT PRODUCERS SHOULD BE THINKING ABOUT IN JUNE……..

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

June is a month to let Mother Nature take her course. **Assuming timely precipitation**, native grasses are usually at peak production; therefore, little supplementation is needed, with the exception of some minerals.

Cow-herd nutrition

- ☑ Provide plenty of clean, fresh water.
- ☑ Provide free-choice minerals to correct any mineral deficiencies or imbalances.
- ☑ Monitor grazing conditions and rotate pastures if possible and practical.
- ☑ Consider creep-feeding if it's cost-effective.

Herd health

- ☑ Monitor and treat pinkeye cases.
- ☑ Provide fly control. Consider all options; price and efficiency will dictate the best options to use.
- ☑ Monitor and treat for foot rot.
- ☑ To reduce heat stress, avoid handling and transporting cattle during the hottest times of the day.

Forage and pasture management

- ☑ Check and maintain summer water supplies.
- ☑ Place mineral feeders strategically to enhance grazing distribution.
- ☑ Check water gaps after possible washouts.
- ☑ Harvest hay in a timely manner; think quality and quantity.

Reproductive management

- ☑ If using AI, do not expect all females to conceive. A common practice is to breed once or twice with AI, then turn out cleanup bulls for the balance of a 65-day breeding season. A 42-day AI season with estrus synchronization at the front end gives most females three chances to conceive by AI.
- ☑ Watch bulls for libido, mounting and breeding function.
- ☑ Record breeding dates to determine calving dates.
- ☑ By imposing reproductive pressure (45-day breeding season) on yearling heifers, no late-calving 2-year-olds will result. This will increase lifetime productivity and profits.

Genetic management

- ☑ Monitor herd performance. Then identify candidates to cull because of poor performance.

General management

- ☑ Check equipment (sprayers, dust bags, oilers, haying equipment, etc.), and repair or replace as needed. Have spare parts on hand because downtime can make a big 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.*