

# Animal Science Weekly

June 14, 2010

ATM | TEXAS A&M UNIVERSITY

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## Kerth joins department as associate professor

COLLEGE STATION – Dr. Chris Kerth joined the Department of Animal Science on May 17, 2010 as an associate professor of meat science/muscle biology.

Kerth will teach undergraduate and graduate level courses in the meats area including a course on statistical quality control and analyses in food manufacturing.

His research interests will focus primarily on the animal nutritional, management, and genetic factors that impact the sensory and quality traits of meat. His work includes everything from consumer acceptability to color quality and oxidative stability to fatty acid composition of beef, pork, lamb and goat.

Prior to joining Texas A&M University, Kerth worked as an associate professor in the Animal Sciences department at Auburn University. Kerth graduated with a bachelor's degree in animal science and industry from Kansas State University, and both a master's and doctoral degree in animal science with an emphasis in meat science from Texas Tech University.



## Hardin appointed to USDA national committee

COLLEGE STATION - Dr. Margaret Hardin has been appointed to the U.S. Department of Agriculture's National Advisory Committee on Microbiological Criteria for Foods.

The appointment was made by U.S. Secretary of Agriculture Tom Vilsack.

The committee provides science-based food safety advice to the USDA.

Hardin is an associate professor of food microbiology in the meat science section of the Department of Animal Science.

Before joining the Texas A&M faculty, she was director of food safety with Sara Lee Foods, director of food safety with Smithfield and director of food safety and quality assurance with Boar's Head.

Hardin is one of nine new members to the committee, who, along with 10 returning members, serve as scientific experts from disciplines related to health

and food safety issues. Eleven additional experts will be appointed later this year to form the full 30-member committee.

"The NACMCF, established in 1988,

provides scientific advice on public health issues relative to the safety and wholesomeness of the U.S. food supply," according to a USDA news release. "The committee also assists in the development of microbiological criteria and reviews and evaluates epidemiological and risk assessment data as well as methodologies for

assessing microbiological hazards."

The committee serves the U.S. Departments of Agriculture (Food Safety and Inspection Service), Department of Health and Human Services (Food and Drug Administration and Centers for Disease Control and Prevention), Department of Commerce (National Ma-

(see **Hardin** page 6)

# Animal Science Former Students: Take Academic Survey

The Department of Animal Science is conducting a review of its curriculum and values the input from its former students. If you are a former student of the department and would like to answer a few questions regarding your educational experience here, please click on the survey link below. Names and answers from all former students will remain anonymous.



<http://www.surveymonkey.com/s/ANSCreview>

## Acuff to chair, Harris to serve on national food safety committee

COLLEGE STATION – Dr. Gary Acuff, professor and head of the Department of Animal Science, has been appointed by the National Research Council to chair a 10-member committee that will evaluate food safety requirements of the Federal Purchase Ground Beef Program.

Dr. Kerri Harris, associate professor, also has been appointed a member of this committee.

Under the Federal Purchase Ground Beef Program, the USDA purchases and distributes ground beef for federal food and nutrition programs. Suppliers to this program must comply with strict nutritional, food safety and quality requirements.

According to the program website, <http://delsnas.edu/Study-In-Progress/Evaluation-Food-Safety/DELS-BANR-10-01>, the committee will examine technical and other documents that describe the food safety measures required of suppliers of ground beef to the program. Such measures include food safety requirements in the process of manufacturing ground beef items and the testing of materials throughout the process, from slaughter to delivery of product to the recipient. The study will also examine how USDA standards, methods and requirements compare

to those used in the large purchasing programs of industry leaders who supply ground beef products directly to the consumer through retail sales and food service operations.

Acuff's area of expertise is the microbiological quality and safety of foods. He received a bachelor's degree in biology from Abilene Christian University and a master's and doctorate degree in food science and technology from Texas A&M University.

Harris serves as associate professor



and director of the Center for Food Safety in the meat science section of the Department of Animal Science, and as president and CEO of the International HACCP Alliance. She received a doctorate degree in nutrition from Texas A&M University.

## Acuff appointed to FDA Food Advisory Committee

Dr. Gary Acuff, professor and head of the Department of Animal Science, has been appointed to serve on the U.S. Food and Drug Administration's Food Advisory Committee.

Acuff, whose expertise is in food microbiology, will serve a three-year term beginning in June.

The Food Advisory Committee provides advice to the Commissioner of Food and Drugs on emerging food safety, food science, nutrition

and other food-related health issues that the FDA considers important for its food and cosmetics programs, according to the committee website.

The 17-member committee is selected by the Commissioner based on knowledge in areas such as physical sciences, biological and life sciences, food science, risk assessment, nutrition, food technology, molecular biology and other relevant scientific and technical disciplines.

## Department of Animal Science Research --

### Study shows ground beef from grain-fed cattle healthier than grass-fed

By Blair Fannin  
AgriLife Communications

COLLEGE STATION – Grass-fed beef may not have as many healthful traits as some perceive, according to results from a recent Texas AgriLife Research study.

Dr. Stephen Smith, an AgriLife Research meat scientist, and a team of researchers have found that contrary to popular perception, ground beef from pasture-fed cattle had no beneficial effects on plasma lipid.

However, high monounsaturated fat ground beef from grain-fed cattle increased HDL cholesterol, increased LDL particle diameters, and decreased insulin, suggesting that ground beef produced by intensive production practices provides “a healthful, high-quality source of protein.”

“We wanted to see from this study if product from pasture-fed and corn-fed cattle had different effects on LDL or HDL cholesterol,” Smith said. “We looked at the scientific literature and could not find any justifications for the statement that pasture-fed beef is better for you. All we found were rat studies in which they were fed omega-3 fatty acids, so we wanted

to know if this applied to beef from grass-fed cattle.”

The study, funded by the National Cattlemen’s Beef Association, used Angus cattle raised at the McGregor AgriLife Research Center. One group of cattle was fed a pasture diet with supplement hay. The steers were kept on pasture until 20 months of age.

A second group of Angus steers was fed the same way a feedlot operator would and kept on a corn-based diet until 16 months of age, then reaching USDA Choice status.

A third group of Angus steers were fed the corn-based diet the longest, until reaching USDA Prime. The fat in cattle that are high in marbling is low in saturated and trans-fats, and higher in monounsaturated fats.

Beef cuts from the plate and flank taken from all three grades were made into a ground beef product, containing 24 percent fat.

Next, a group of 27 men completed a three-way crossover study. Each group rotated, consuming five 114-gram ground beef patties per week for five weeks from each of the three sets



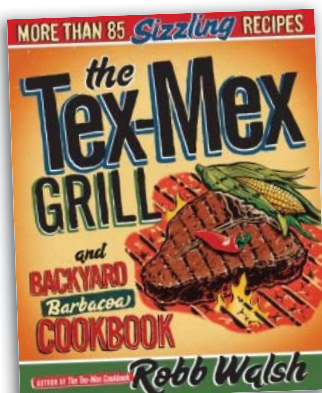
of cattle used in the study.

“There really were no negative effects of feeding ground beef from the pasture-fed cattle,” Smith said. “We did see many positive effects in men that consumed ground beef from corn-fed cattle. The ground beef from the USDA Prime cattle increased HDL cholesterol and LDL particle diameter. Both effects are protective against cardiovascular disease. The Prime ground beef also decreased insulin, so it may have some protective effect against type II diabetes.”

Smith said the study results surprised many. “As we talked to some (see **Ground beef study** page 6)

### Cookbook references Beef 101 Course

Robb Walsh, noted Houston food writer and cookbook author, recently released his newest endeavor, “The Tex-



Mex Grill and Backyard Barbecue Cookbook.” One chapter is devoted to fajitas and his search for the origin, new meat cuts used to make this dish and other interesting historical and cultural notes. The feature of this chapter was describing his experience attending Beef 101 and learning about beef. Walsh derived this chapter from

an article he wrote for the *Houston Press*, which was nominated for a James Beard Foundation Award this year.

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## Demonstrations part of Beef Cattle Short Course in August

COLLEGE STATION – From brush control on the ranch to cuts of beef sold to the consumer, the 2010 Texas A&M Beef Cattle Short Course will provide a number of beef cattle-production demonstrations Aug. 2-4 in College Station.

The Texas AgriLife Extension Service sponsors the three-day program, which will be held on the Texas A&M University campus.

“One of the most exciting aspects of the short course each year is the cattleman’s college,” said Dr. Jason Cleere, conference coordinator and AgriLife Extension beef cattle specialist. “There are 20 different Cattleman’s College educational sessions, which will have a mix of information, addressing current beef industry issues and providing fundamental information on basic beef cattle and ranch management.”

On Aug. 3, beef cattle specialists and animal health officials will give an overview of the cattle-tick program activities.

“Even if you are not in the quarantine zone, you need to understand the impact of this pest,” Cleere said.

An overview of the history of the fever tick, its current management

program and, economic impact, plus other topics will be discussed.

The Aug. 4 sessions take some of the information that was provided

**2010 TAMU  
Beef Cattle Short Course  
August 2-4, 2010  
<http://beef.tamu.edu>**

during the first two days of the short course “and demonstrate how it can be applied in working cattle operations,” Cleere said.

“There will be demonstrations on brush control, cattle selection, cattle handling, vaccinating cattle, business management and cuts of beef,” he said.

A tour of the Texas A&M College of Veterinary Medicine will also be offered “so that participants can see some of the latest technology that we have in livestock care,” he added.

“Participants will also have an opportunity to receive a private pesticide applicator’s license on Wednesday,” Cleere said.

Training will occur before lunch on Aug. 4 and the certification test will

be at 1 p.m.

Short course registration is \$140 per participant by July 26, and includes admission to the conference, a copy of the short-course proceedings (a 600-page reference book), trade show admittance, tickets to the special Aggie prime rib dinner, and additional meals and refreshment breaks.

Attendees can earn at least seven pesticide continuing education units, 15 veterinary credits and numerous Beef Quality Assurance credits.

For more information or to register, visit <http://beef.tamu.edu>, or contact Cleere’s office at 979-845-6931 or email <[jjcleere@tamu.edu](mailto:jjcleere@tamu.edu)>.

### Aggie REPS to attend Texas FFA Convention

The Animal Science Aggie REPS will represent the Department of Animal Science at the 82nd Texas FFA Annual Convention July 13-15, 2010 in Corpus Christi. The REPS will greet FFA students from across the state at their booth complete with information about the department and will share their experiences as current Aggie students.

## 2010 Southwest Dairy Day attracts 550 visitors to Hart, Texas

HART, TEXAS – More than 550 participants and 70 vendors turned out for the 2010 Southwest Dairy Day held at Spandet Dairy near Hart, Texas on May 27, 2010. More than 300 of these guests toured the facility to view the cross-ventilated barns where Dr. Joe Horner, Kansas State University, conducted a smoke test to demonstrate how air flowed through the facility. The group also heard from Dr. Saqib Mukhtar, TAMU Biological and Agricultural Engineering. He discussed how the nutrients excreted by the cow were recaptured to be used to fertilize crops, sand was separated for re-use as bedding, and water was recycled. Nich Kenney, irrigation specialist at the Texas AgriLife Research and Extension Center, Amarillo, discussed how

the water from the facility was used to irrigate crops and conservation methods implemented by the producer.

The event was coordinated by Dr. Todd Bilby, associate professor and Extension dairy specialist, and was assisted by the Extension dairy team of Dr. Ellen Jordan, Dr. Ralph Bruno and Kevin Lager as well as other Extension personnel from across Texas.



*Top: Dr. Saqib Mukhtar explains to one of the tour groups how nutrient management on the dairy is accomplished.*

*Left: This 100-cow carousel milking parlor is one of the largest in the nation.*

## Department participates in several 4-H Roundup events

COLLEGE STATION – The Texas 4-H Roundup was held on the Texas A&M University campus the week of June 7, 2010. Several faculty and staff members from the Department of Animal Science assisted with contests and workshops held throughout the week.



Animal Science personnel served as superintendents in the following events:

- Horse Judging - Teri Antilley and Dr. Dennis Sigler
- Livestock Judging - Dr. Jason Cleere and Dr. Chris Skaggs
- Meat Judging and Identification - Dr. Dan Hale
- Mohair Judging and Evaluation - Dr. Frank Craddock
- Wool Judging and Evaluation - Dr. Frank Craddock
- Beef - Dr. Andy Herring and Dr. Jason Banta
- Horse - Dr. Brett Scott
- Invitational Livestock Judging Contest and Workshop - Jake Franke, Dr. Jason Cleere and Dr. Chris Skaggs
- Meat Science - Dr. Davey Griffin
- Sheep and/or Goats - Dr. Frank Craddock
- Swine Skall-A-Thon - Dr. Jodi Sterle

The A&M judging teams assisted the event superintendents during the contests.

Texas 4-H Roundup is a qualifying event for youth between the ages of 14 and 18 that have successfully placed in a qualifying spot at the district level. For a complete list of events and results, go to <http://texas4-h.tamu.edu/youth/roundup/index.php>.



*The Invitational Livestock Judging Contest and Workshop was a new addition to this year's roundup. The contest was open to all 4-H members from across Texas who did not compete in the Livestock Judging Contest. The inaugural event attracted 153 participants to Pearce Pavilion. A livestock judging contest was held in the morning followed by a livestock judging workshop conducted by Jake Franke and members of the Texas A&M Livestock Judging Team.*



*Rylee Wilkerson from Canon, Texas, center, won first place in the Meat Science Demonstration Contest. She is pictured here with, from left, meat science students Amanda Smith and Laura May, Tommy Phillips, Van Zandt County Extension Agent 4-H and Youth Development, and meat science student Melanie Moore. Smith, May and Moore served as contest judges and Dr. Davey Griffin was superintendent.*

### Livestock judging team reunion set for August

Plans are underway for the first annual TAMU livestock judging team reunion scheduled for August 28, 2010 at the TAMU Beef Center. The main event will occur on Saturday night and will include a steak dinner, introduction of the current judging teams and recognition of several previous livestock judging teams. All former team members along with their spouses and children are invited to attend. An official letter of invitation and schedule will be released later this month. Please contact Jake Franke at (979) 845-7616 or at [jfranke@tamu.edu](mailto:jfranke@tamu.edu) if you have any questions.

# Texas A&M Show Cattle Camp

COLLEGE STATION -- The fifth annual Show Cattle Camps were held May 28-30, 2010 and June 4-6, 2010 at the Texas A&M Beef Center. Camp goers were instructed on day-to-day management, show day management and showmanship skills needed to be successful in beef cattle projects.

The camps were coordinated by Paul Maulsby and staff from the Beef Center. Key speakers in ad-

dition to Maulsby were Dr. Chris Skaggs, Dr. Lesley Easterwood and Dr. John Davidson. Jake Franke and Garrett Thomas served as showmanship judges.

The culmination of the camps has served as an educational experience for the whole family and serves as a helpful addition to the success of showing cattle, said Maulsby.



## Ground beef study *(continued from page 3)*

user groups and told them that we had found pasture-fed beef is higher in saturated trans-fat, they were shocked.”

Smith presented the findings to the National Cattlemen’s Beef Association last year and is now sharing among consumers and producers. He recently gave a presentation at the Texas Human Nutrition Conference in College Station. Smith said he did receive some initial negative feedback from ranchers in the grass-fed beef business, but he isn’t telling them that what they are doing is wrong.

“I know that cattle are adapted to growing on high-roughage, pasture diets, but my focus is the beef product,” he said. “A lot of producers are receptive. What I’m trying to show

them is that the longer cattle are fed a corn or grain-based diet, the healthier the product will be.”

“I realize cost is involved – feeding corn is expensive. But, if you want a healthier product, you need more marbling. Time on feed is a big

factor.”

The study team included Dr. Rosemary Walzem, AgriLife Research poultry scientist, and Dr. Stephen Crouse, researcher from Texas A&M University’s health and kinesiology department.

## Hardin *(continued from page 1)*

of Defense (Veterinary Service Activity).

The Secretary of Agriculture appoints committee members following consultation with the Secretary of Health and Human Services. Appointees are from academia, industry and government. Committee members serve a two-year term.

Hardin earned a bachelor’s degree in animal science from the University of Florida and a bachelor’s degree in agricultural education from North Carolina State University. She earned a master’s degree in animal science from the University of Georgia and doctorate in food science and technology from Texas A&M.

## Recent publication

Lorenzen, C. L., C. R. Calkins, M. D. Green, R. K. Miller, J. B. Morgan, and B. E. Wasser. 2010. Efficacy of performing Warner-Bratzler and slice shear force on the same beef steak following rapid cooking. *Meat Sci.* 85: 792-794.

Lawrence, T. E., N. A. Elam, M. F. Miller, J. C. Brooks, G. G. Hilton, D. L. VanOverbeke, F. K. McKeith, J. Killefer, T. H. Montgomery, D. M. Allen, D. B. Griffin, R. J. Delmore, W. T. Nicholas, M. N. Streeter, D. A. Yates, and J. P. Hutcheson. 2010. Predicting red meat yields in carcasses from beef-type and calf-fed Holstein steers using the United States Department of Agriculture calculated yield grade. *J. Animal Sci.* 88: 2139-2143.

## Upcoming events

**Livestock Judging Camp** (June 13-15, June 20-22 & June 23-25, 2010) - For more information, please visit the website at [http://animalscience.tamu.edu/workshops/youth-workshops/livestock\\_judging\\_camp.htm](http://animalscience.tamu.edu/workshops/youth-workshops/livestock_judging_camp.htm) or contact Jake Franke at 979-845-7616 or by email at <jfranke@tamu.edu>.

**Aggieland™ Lamb & Goat Camps** (July 16-18, 2010 & July 23-25, 2010) - For more information, please visit the website at <http://animalscience.tamu.edu/academics/sheep-goats/sheep-center/youth-camps/index.htm> or contact Dr. Shawn Ramsey at 979-845-7616 or by email at <sramsey@tamu.edu>.

**Saddle & Sirloin Club Steer, Heifer and Pig Futurities** (July 30-Aug 1, 2010 - Brazos County Expo Complex) - For more information, contact Colton Atkins at <coltonatkins07@tamu.edu>.

**56th annual Texas A&M Beef Cattle Short Course** (Aug. 2-4, 2010 - College Station)- For more information, please contact the Beef Cattle Extension office <extansc@ag.tamu.edu> at 979-845-6931 or visit <http://beef.tamu.edu>.

**Beef 706** (August 10-11 & August 12-13, 2010 - College Station) - For more information, please contact Dr. Dan Hale at 979-845-3935 or email <dhale@tamu.edu>.



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*Please forward additions to the mailing list and future requests and events to Courtney Coufal <cacoufal@tamu.edu>*