

Texas A&M Animal Science

MONTHLY

DECEMBER 2013 | A monthly publication from the Department of Animal Science at Texas A&M University.



NATIONAL CHAMPIONS



INSIDE:

- Ground beef from grass-fed and grain-fed cattle: Does it matter?
- Window of Acceptability: A 25-year look back
- Mock interviews prepare animal science students for vet school application process

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MONTHLY



Howdy! Welcome to the December edition of the *Animal Science Monthly*. It's hard to believe 2014 is upon us.

In this issue, you'll read about several awards presented by the department as well as the latest success of our judging team program. As you saw on this issue's cover, the Texas A&M Livestock Judging Team clenched the 2013 National Championship, marking the 12th such title won by our program. The 1913 Livestock Judging Team is among the list of national champs,

and this year marked the 100th anniversary of that win. The 2003 team is also among the championship teams and was recognized this year for the 10th anniversary of their success (see related story, page 14). As the tradition continues, it is easy to see why our judging teams are such an important part of our teaching program. Our program continues to attract top-notch students and brings honor to the department and the university.

You'll also read about the successes of our Meat Judging Team, Horse Judging Team and Wool Judging Team. Dr. Davey Griffin has shared with us his thoughts on what being a member of the Meat Judging Team means to the students and the once-in-a-lifetime experiences gained by the members as they travel, practice and compete across the country.

I am proud of all our teams and coaches for taking full advantages of the wonderful opportunities the judging program provides. Many of these students continue to work over the winter break, in between semesters, in preparation for the spring competition season. I know they'll do great as usual.

2013 has been a good year. We've enjoyed many highlights, almost too many to mention in this column. Additional renovations were made to the Howard Hesby Student Atrium and we now have a beautiful trophy case to display the judging teams' successes. The department introduced the Animal Science External Awards Program as a way of recognizing former students and others who have made significant contributions to the department and the field of animal science. We will do this again this year. Watch for a new class of winners to be announced in April. Also, this year our undergraduate enrollment reached a new benchmark of 1,000 students (and included the largest incoming freshman class ever). This proves that animal agriculture continues to be important and very much needed today and in the future.

Our faculty continue to make significant contributions in the classroom, labs and out in the state to meet our priorities of outstanding teaching, research and Extension programs. We look forward to keeping you updated on our successes.

As always, I am grateful for your support throughout the year. I hope 2014 brings you joy, good health and prosperity.

A handwritten signature in black ink, appearing to read 'HRCross'.

H. Russell Cross, Ph.D.
Professor and Head
Department of Animal Science

Published monthly by the Department of Animal Science within the College of Agriculture and Life Sciences at Texas A&M University to keep current and former students, stakeholders, industry and trade organizations, and friends of the department informed on the accomplishments and discoveries achieved by one of the nation's most prominent and complex departments of its kind.

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On the Cover

The Texas A&M University Livestock Judging Team captured the 2013 national championship at the North American International Livestock Exposition in Louisville, Ky. on Nov. 18, marking the 12th national title won by the Texas A&M program. See page 14.

4 | Ground beef from grass-fed and grain-fed cattle: Does it matter?

6 | Understanding glutamate nutrition can lead to improved animal, human health

7 | Window of Acceptability: A 25-year look back

8 | Mock interviews prepare animal science students for vet school application process

9 | Equine Marketing, Development course offers students international, cultural diversity credit option

People

10 | Faculty Profile: Dr. Joe Paschal

12 | Faculty honored for Years of Service

News and Awards

14 | News, awards and activities representing the department's teaching, research and extension efforts.

News Briefs

20 | A summary of news, awards and activities.

Schedule of Events

23 | Mark your calendar for upcoming events hosted by the Department of Animal Science.

Ground beef from grass-fed and grain-fed cattle:

Does it matter?

■ By Stephen B. Smith, Ph.D.
Regents Professor, Department of Animal Science

The internet is awash in websites proclaiming the nutritional benefits of ground beef from grass-fed cattle. However, researchers in the Department of Animal Science at Texas A&M University have published the only two research studies that actually compared the effects of ground beef from grass-fed cattle and traditional, grain-fed cattle on risk factors for cardiovascular disease (CVD) and type II diabetes in men. Was ground beef from grass-fed beef actually more healthful?

Americans consume approximately 40 percent of their total beef intake as ground beef, which is much higher in total fat than most intact cuts of beef. In fact, ground beef is one of the most important sources of the healthful monounsaturated fatty acid, oleic acid in the diet (the importance of this is discussed below). Ground beef from grass-fed cattle naturally contains more omega-3 fatty acids than from grain-fed cattle (three times as much) but is higher in saturated and trans-fat. At the other end of the spectrum is premium ground beef, such as from conventionally produced Certified Angus Beef or from cattle with Japanese genetics (available as Wagyu or Akaushi ground beef). Ground beef from these cattle is very

high in oleic acid and is also much lower in saturated and trans-fat than ground beef from grass-fed cattle.

The information listed below is based on research conducted at Texas A&M University, which compared the fatty acid composition of ground beef from grass-fed and grain-fed cattle. Ground beef from grass-fed and grain-fed cattle that contains approximately 10 to 15 percent total fat (85 to 90 percent lean) is available in retail stores, so the values listed below are for a 4-ounce ground beef patty (quarter pounder) that contains 85 percent lean (15 percent fat).

The most abundant omega-3 fatty acid in our foods is α -linolenic acid (ALA), which is one of the two essential fatty acids that must be obtained from the diet (the other is linoleic acid, which is an omega-6 fatty acid). ALA is found in flax seed and walnuts, but Americans obtain most of their ALA from canola oil. Although the scientific studies are not conclusive, ALA may slow the rate of growth of cancer cells and may also reduce risk factors for CVD. The Daily Reference Intake (DRI) of ALA is 1.1 grams per day for women and 1.6 grams per day for men. So, a quarter pounder ground beef patty from grass-fed cattle contains 0.055 of the 1.1 grams ALA required by women and 0.055 of the 1.6 grams ALA required by men. In other words, that ground beef patty from cattle fed native Texas pastures contains only 5 percent of the DRI for ALA

for women and just over 3 percent of the DRI for ALA for men. Yes, grass-fed ground beef contributes to the omega-3 fatty acids in our diets, but can it be considered a significant source of ALA?

For comparison, a tablespoon of canola oil (approximately 14 grams of canola oil) contains 1.4 g of ALA. This is more than the DRI for women and almost as much as the DRI for men. That same tablespoon of canola oil also contains 8.4 grams of oleic acid, which is similar to the

	Omega-3 fatty acids	Oleic acid	Total saturated and trans-fat
Ground beef from grass-fed (grazing on native Texas pasture)	0.055 grams	6.3 grams	9.8 grams
Ground beef from grain-fed cattle (fed a feedlot diet containing primarily corn and milo)	0.020 grams	8.3 grams	8.2 grams



Most retail outlets offer prime ground beef and grass-fed ground beef.

amount of oleic acid in olive oil. Researchers have known for decades that oleic acid has positive health benefits, such as reducing LDL-cholesterol (the bad cholesterol) and perhaps increasing HDL-cholesterol (the good cholesterol). The World Health Organization has recommended that intake of oleic acid should be 15 to 30 percent of daily energy intake. For women, that would be equal to 25 - 50 grams of oleic per day, whereas for men, that would be equal to 40 - 80 grams of oleic per day. Research in the Department of Animal Science has shown that men consume about 20 grams of oleic acid per day, and women consume about 12 grams of oleic acid per day, but this can be nearly doubled by consuming ground beef high in oleic acid, such as ground beef from grain-fed cattle or cattle with Japanese genetics.

Grass feeding definitely does not increase the amount of oleic acid in beef. The quarter pound ground beef patty from grain-fed cattle contains over 2 grams more oleic acid than ground beef from grass-fed cattle. In fact, the grain-fed ground beef patty contains nearly the same amount of oleic acid as the tablespoon of canola oil. Also, ground beef from grass-fed cattle has 2 grams more saturated fat plus trans-fat than the patty from grain-fed cattle.

So, which is better, more omega-3 fatty acids (grass-fed) or more oleic acid with less saturated/trans-fats (grain-fed)? Studies in the Department of Animal Science demonstrated the effects of ground beef from grass-fed and grain-fed cattle. Men consumed both types of ground beef for five weeks in randomized crossover trials. In older, mildly hypercholesterolemic men, ground beef from grass-fed cattle decreased HDL-cholesterol. In men with normal cholesterol levels, only ground beef from grain-fed cattle increased HDL-cholesterol. Neither ground beef type increased LDL-cholesterol in men. Research by the Department of Animal Science similarly demonstrated that consuming ground beef does not affect

LDL-cholesterol in postmenopausal women.

In men, plasma insulin was decreased by ground beef from both grass-fed and grain-fed cattle, indicating that ground beef in general reduces this important risk factor for type II diabetes. Thus, neither type of ground beef had negative effects on risk factors for CVD or type II diabetes, but the ground beef from the grain-fed cattle provided more positive health benefits by increasing HDL-cholesterol.

What about the cholesterol content of ground beef? Many websites claim that beef from grass-fed cattle is lower in cholesterol than beef from conventionally raised cattle. An excellent study from Texas Tech University demonstrated that there is no difference in cholesterol in ground beef from grass-fed and grain-fed cattle if the fat content is similar. Early research conducted at Texas A&M University demonstrated that the cholesterol in beef and beef products is stored in both the lean and the fat within the meat. If you trim all of the fat from beef (including the marbling), there will be about 45 milligrams of cholesterol in a 4 ounce serving of beef. For every 1 percent increase in total fat content there is a 1-milligram increase in cholesterol. So, ground beef that is 95 percent lean (5 percent fat) contains about 50 milligrams of cholesterol and ground beef that is 85 percent lean (15 percent fat) contains 60 milligrams of cholesterol. This is as true for beef from grass-fed beef as it is for beef from grain-fed cattle.

So, at this point, there is no scientific evidence to support the claims that ground beef from grass-fed cattle is a healthier alternative to ground beef from conventionally raised, grain-fed cattle.

S.B. Smith is a Texas A&M AgriLife Research meat scientist in the Department of Animal Science at Texas A&M University and has published more than 180 scientific articles, most of which describe the nutritional quality of pork and beef.

Understanding glutamate nutrition can lead to improved animal, human health

■ By Blair Fannin
Texas A&M AgriLife Communications

COLLEGE STATION – Glutamate, an abundant amino acid found in milk and meat, is getting a closer look by Dr. Guoyao Wu, a Texas A&M AgriLife Research scientist and distinguished professor in the Department of Animal Science at Texas A&M University.

Wu's research suggests a diet containing sufficient glutamate can aid both animals and humans. Glutamate can aid the production of milk by lactating females (for example pigs and women), while improving breeding success rates of sows and providing nutrition in newborn pigs.

"When I first came to Texas A&M, everyone in the field of animal nutrition knew about amino acids, but there was no data on glutamate," Wu said. "That's why I wanted to develop methods for glutamate analysis and gather data, while conducting my primary research on biochemistry and nutrition of protein and amino acids."

Glutamate was also in the spotlight two months ago in Galveston at the 13th International Congress on Amino Acids, Peptides and Proteins.

"There were more than 200 people from 34 countries attending," Wu said. "That's where glutamate really began to be discussed more in-depth among nutrition scientists. We walked away with some great ideas and momentum going forward."

Most recently, Wu discussed the merits of glutamate as a functional amino acid for animals and humans at a conference on Dec. 12 in New York, "Frontiers in Agricultural Sustainability: Studying the Protein Supply Chain to Improve Dietary Quality."

Sow's milk is rich in free glutamine and glutamate. Wu said these two amino acids, together with branched-chain amino acids and proline, are important to stimulate protein synthesis and mammary growth.

The gut plays a key role in determining the provision of dietary amino acids to extra-intestinal tissues in animals, Wu said.

"It's (widely) believed that glucose is the only energy source for the gut, but it is not true," Wu said. "It's glutamate, along with its metabolites glutamine and aspartate. Until recently, Texas approved glutamate as a supplement for animal use, and its benefits are that it aids lactating, weanling and pregnant animals."

Wu said another component of his research will include incorporating glutamate into diets of lactating mothers. He gave a presentation recently at Japan's Kumamoto International Conference on Breastfeeding. He said that worldwide breastfeeding among women with infants is less than 50 percent.

"Glutamate accounts for 10 percent of amino acids in milk protein," he said. "That's why I think it is all tied to diet."

To increase lactation and get more glutamate in the gut, Wu said foods rich with glutamate such as seafood and meat can be consumed.

Scientists at Ajinomoto Inc. (Japan) found that glutamate also improves appetite. The human tongue has receptors for glutamate, Wu said.

Meanwhile, in Wu's laboratory in College Station, he



has developed new enzymatic methods to determine glutamate in proteins of foods such as meat, milk and plant products. After hydrolysis by digestive enzymes, the samples are run through a High Performance Liquid Chromatography machine to separate and quantify glutamate.

"Glutamate has many benefits for humans, specifically lactating females," Wu said.

Though there are concerns that sodium glutamate in diets is bad for animals and humans, he said, moderate levels of this nutrient from dietary supplementation can be beneficial. Results of recent studies by Wu and colleagues at Texas Veterinary Medical Diagnostic Laboratory indicate that dietary supplementation with as high as 4 percent sodium glutamate (4 g sodium glutamate per 100 g food) is safe in growing pigs.

Wu said there's also a misconception that dietary glutamate causes brain injury.

"It's not true," he said. "Almost all of glutamate in the diet is catabolized by the small intestine to fulfill its important physiological and nutritional functions. In pigs and humans, very little dietary glutamate enters the blood circulation. This is very different than the direct injection of glutamate into the brain, which bypasses intestinal metabolism."

Wu said he plans to continue his glutamate research with weanling, lactating and gestating swine, and study how glutamate enhances protein synthesis in the small intestine and mammary tissue. He also wants to broaden the work to include human lactation and infant formula.

Window of Acceptability: A 25-year look back

Savell, Cross set standard for how much fat in meat is acceptable for diets

■ By Jeff Savell, Ph.D.

*Regents Professor and E.M. Manny Rosenthal Chairholder,
Department of Animal Science*

2013 marked the 25th anniversary of one of the most important and significant contributions that Dr. H. Russell Cross and I may have ever made to the livestock and meat industries: the development of the “Window of Acceptability.” This window not only helped demonstrate the amount of fat in meat necessary for tenderness and flavor, but also helped establish upper limits so that current-day dietary guidelines for fat intake could be met.

The “Window of Acceptability” was part of a presentation we made on “The Role of Fat in the Palatability of Beef, Pork, and Lamb” (Savell and Cross, 1988) to the Committee on Technological Options to Improve the Nutritional Attributes of Animal Products of the Board on Agriculture of the National Research Council. The diet/health debate had been going on for more than 10 years at the point of our invitation, and fat in meat had been demonized quite heavily as the source of most health problems faced by humans at that time. This is the first paragraph of the Executive Summary of “Designing Foods: Animal Product Options in the Marketplace,” the committee’s final report, which gives a sense of the mood at the time:

“This century has witnessed tremendous advances in all fields of human endeavor, particularly the sciences. Our daily lives have been enriched, our standard of living improved, and the average life span prolonged. This report examines the changing interface between agriculture and human health—two fields that have been progressing geometrically during this century—and the role of animal products in the diet. Animal products contribute more than a third of the calories and between a third and all of the major nutrients in the food supply. They also contribute more than half of the total fat, three-fourths of the saturated fatty acids, and all of the cholesterol, food components that may adversely affect an individual’s health.”

One question that the committee had was why was any fat needed in animal products. When the answer came back from some members of the committee that some fat was necessary for palatability, this question then was how much. This is where Cross and I were asked to address this question.

We began an exhaustive review of meat palatability research to see what the literature had to say regarding fat and palatability. The research was very clear: if fat in meat was below about 3 percent on a chemical basis, tenderness, juiciness and flavor ratings would be quite low. Once fat was above 3 percent, palatability

ratings increased significantly and continued to do so as the percentage fat increased. We had the answer for at least the minimum amount of fat necessary for taste and that was 3 percent.

Once we established the minimum fat necessary for taste, we still felt that there was another question that we must address and that was how much fat in meat was too much. Although this was not part of our initial charge from the committee, Cross and I decided to tackle this. One weekend morning, we met in Cross’ office and went to the writing board to kick around different ideas. Using American Heart Association guidelines for no more than 30

percent of calories from fat and only 1/4 of the fat calories available for meat and based on a diet of 2,000 calories per day and two four-ounce portions of meat on an uncooked basis, we finally arrived at an upward number of 7.3 percent as the maximum fat that meat could contain and still comply with the American Heart Association guidelines. At this moment, we realized that we now had a “window” with both a low range and high range. We now felt that we had a more complete answer to the committee: how

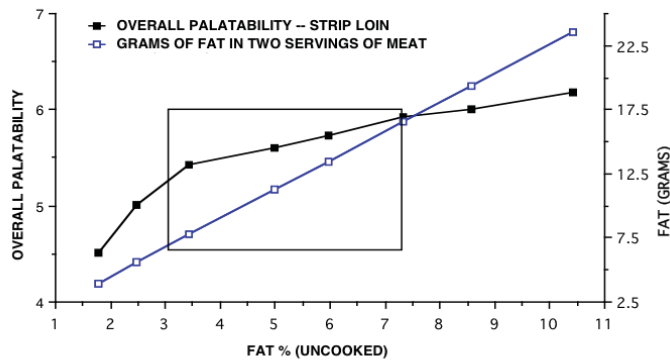
much fat was needed for taste, but how much was not too much for diet/health concerns. From a beef standpoint, this meant that beef from the lower end of Select to the upper part of Choice grades would meet the requirements of the “Window of Acceptability.”

The “Window of Acceptability” has been published in various textbooks, theses and dissertations, scientific journal articles, and marketing materials. I have been in a number of national and international meetings where speakers have mentioned the “Window of Acceptability” and I have felt that our work has made an impact on our understanding of the important role of fat in meat. It hardly seems that it has been 25 years since this work was done, but it is very satisfying that the “Window of Acceptability” is as important today as it was then.

In the 21st Century, it seems that fat in foods is all the rage. The popularity of various cooking shows, magazines and blogs that celebrate the great taste of foods and use real cream and butter in recipes demonstrate that people are searching for real experiences with real food. It may be that the “Window of Acceptability” helped pave the way to show that fat in meat was and is an important part of palatability and a necessary component of our diets.

Jeff Savell, Ph.D. is Regents Professor and E.M. “Manny” Rosenthal Chairholder, the holder of the Cintron University Professorship in Undergraduate Teaching Excellence, and the leader of the Meat Science Section in the Department of Animal Science at Texas A&M University.

WINDOW OF ACCEPTABILITY FOR FAT IN MEAT
PALATABILITY VERSUS GRAMS OF FAT (TWO SERVINGS)



SAVELL, J.W. AND CROSS, H.R. (1988). THE ROLE OF FAT IN THE PALATABILITY OF BEEF, PORK AND LAMB. NATIONAL ACADEMY OF SCIENCES, WASHINGTON, DC.

Mock interviews prepare animal science students for vet school application process

By Olivia Norton '16

The Texas A&M Department of Animal Science does more than provide students seeking a future in veterinary medicine with the classroom experience necessary to meet their goals. For years, professors and advisors have been going the extra mile to ensure student success on not only the rigorous Texas A&M vet school application but in the interview room, as well.

The Texas A&M College of Veterinary Medicine and Biomedical Science is one of the top universities for veterinary medicine in the country, so the quality of students applying is top notch.

The practice of offering students who have applied to veterinary school with mock interviews is not new. In fact, the beginnings of these interviews can be traced back to Dr. Howard Hesby's class "How to obtain a position in agriculture." Hesby brought in numerous professionals from the agricultural sector to provide insight into the students' chosen fields. He also invited a series of veterinarians to conduct mock interviews for the students who had their sights set on that career path.

These interviews simulated the environment each student would face in an actual application setting. "Before a recent change in style, the entrance interviews consisted of a panel of three to four vets directly from the vet school," explained Dr. Glenn Holub, instructional assistant professor. "This panel would sit down with one student at a time for about 45 minutes."

Years later when Holub took over the current ANSC 402 class, the opportunity for students to experience mock interviews was still available. Former animal science students who were in vet school volunteered their time and acted as the interviewers. This approach offered students not only realistic experience but immediate feedback on their performance from previously successful students.

Two years ago the vet school made changes to the interview style. In an effort to provide interested students with the best preparation available, the mock interviews evolved as well. Today, the interviews are called 'mini, multiple interviews.' The students visit three different rooms over the course of an hour with two veterinarians in each room. "The change came about so three people didn't determine a student's fate, 12 do," said Holub.

Last fall, the department held its first mock interviews. Six former animal science vet students were brought in and paired up, placed in three different rooms. Because of time and available space, only half of the mini, multiple interview was held. But the response from students who went through the mock interviews as well as the actual MMI was overwhelmingly positive.

"Our students who participated in our mock interviews said they found it so very helpful," Holub said. "Feeling prepared and confident gives the students an edge that is very essential to doing well in that high pressure situation."

The mock interviews held again this fall were not only the most realistic yet but also the largest. Sixty-two students partici-

pated in the half hour session. With the organizational help of Dr. Thomas Hairgrove, livestock and food animal systems coordinator, there was a veterinarian from the field in each of the 12 rooms along with a former animal science student. Posted on the door of each room was a scenario and question. The student was given two minutes to formulate their answer. After discussing their solution to the given scenario, they were directed to the next room.



Veterinarians and animal science former students lead mock interviews for current animal science undergraduates who plan to apply for vet school.

Following the half hour session, each student was invited to return and receive oral feedback from each of the veterinarians they consulted. Written feedback also was available from each interviewer.

Senior animal science major Brent Hale participated in the mock interviews for a second year and found them increasingly helpful.

"I believe that this is one of the best opportunities that our department can give vet school hopefuls in order to prepare us for the application process. Both years, the questions have been very indicative of the question types that are used in the multiple mini interviews that the vet school uses."

After applying his junior year, Hale returned to the process this fall with experience gained. "This being my second year to apply and having gotten an interview last year, I know the types of questions that are asked in the actual interviews, and Dr. Holub does a great job in developing the topic questions used in the mock interviews. Going through the mock interviews also helps to prepare us for the time constraints of the interviews and gives us the opportunity to practice brainstorming our responses in the given two minutes and develop our answers in the six minutes given with the interviewers," Hale said.

As the requirements and styles of the vet school interviews change, likewise so will the mock interviews held each year. Providing these students the best opportunity for success is one example of what makes the Department of Animal Science unique.

Olivia Norton '16 is a sophomore animal science major from Texarkana, Texas.



Equine Marketing and Development was first taught in the fall of 2011. On one field trip, students visited the George Bush International Airport in Houston and met with an equine export company. These horses were bound for Amsterdam.

Equine Marketing, Development course offers students international, cultural diversity credit option

By Maggie Berger

Students at Texas A&M University are required to take a certain number of core credits regardless of their major. Six of those credit hours must be classes that fall under the category of International and Cultural Diversity (ICD).

Characteristically these credits are usually obtained through anthropology, history or gender studies classes, for example. Beginning in the fall of 2014, students will have a new option. The Department of Animal Science will offer its first ICD course. Dr. Clay Cavinder, associate professor of equine science, has developed ANSC 431, Equine Marketing and Development, to serve this purpose. It will be one of seven ICD courses offered by the College of Agriculture and Life Sciences.

In the fall of 2011, Cavinder began teaching Equine Marketing and Development as ANSC 489, which has now been converted to 431 to include the ICD component. The basics of the class will focus on the history of equine transportation and things that go along with this. A large portion of equine transportation happens internationally, which is how the class was able to achieve ICD status.

“One of the biggest reasons I created the class was to give the students some perspective on things that we do not currently teach,” Cavinder said. This course is the only course of its kind; no other university offers anything like it.

Going hand-in-hand with transportation, the course will cover such topics as stress factors involved with travel, documentation requirements for domestic and international travel, illnesses and diseases, welfare issues, and more. The class also boasts numerous guest speakers, which serve a two-fold purpose, to have experts talk about their respective fields and to introduce students to the variety of job opportunities available in the equine industry.

“We get so many students that come in and say they want to be a veterinarian or horse trainer, but they really don’t know of all the career opportunities there are out there,” said Cavinder. “This

class should give them perspective on some other entrepreneurial or internship options to give them an opportunity to see what they may want to do with their future.”

While planning the class and talking to guest speakers and industry professionals, internship opportunities for students started to evolve, some of which Texas A&M students have already taken. For example, students have had the opportunity to go on trips with horses to Amsterdam. During the trips, students fly with the horses and are responsible for their general care. Throughout the flight they make sure the horses have water and during take-off and landing, students stand with the horses to try to keep them calm. Opportunities like this would not have been available to students if not for this class.

Another unique aspect of the class is the implementation of field trips. Every year the class goes on a field trip to the USDA quarantine facility at the George Bush Intercontinental Airport in Houston. This is where horses are inspected and quarantined before they can fly. Students have the opportunity to meet veterinarians, inspectors, horse importers and exporters, and get to see everything except the horses being loaded on the planes.

Those who took the class as ANSC 489 enjoyed it and recommend it to students with any interest in the equine industry. Because of its real world implications and topics, the class is applicable to horse owners and those who want to work in the industry.

“The class really gave me a lot of insight into so many different aspects of the equine industry,” said Courtney Phillips, a graduate student studying equine exercise and physiology. Phillips took the class the first time it was offered in the fall of 2011.

“I think it will be useful in my future career. The variety of topics makes it very applicable. I would highly recommend it to anyone interested in horses,” she said.

Students interested in taking this course in the fall of 2014 will register this coming spring and should contact Cavinder at cac@tamu.edu for more information or questions.

Faculty Profile | Dr. Joe Paschal

Paschal's time at Texas A&M shapes his career impacting the livestock industry

By Olivia Norton '16



As an Extension livestock specialist, Dr. Joe Paschal develops educational programs and provides expertise at events around the United States and abroad. Above, Paschal discusses bull breed selection at the Rock Ranch near Refugio.



Paschal discusses facility and pen design to high school FFA and Starr County 4-Hers at the RY Livestock Sales Facility in Rio Grande City.

Growing up in Corpus Christi surrounded by Santa Gertrudis cattle and Quarter Horses, livestock was never far from reach for Joe Paschal. It was no surprise that after completing high school, he set his sights on a future in the livestock industry.

Two years at Del Mar Junior College provided Paschal with his basic courses in math and science, allowing him to shift his focus to Texas A&M University for the remainder of his undergraduate career. In the fall of 1975, he transferred into A&M as an animal science production major and joined the Corp of Cadets.

“I wasn’t a stellar student,” Paschal recalled. “I was involved in the Saddle & Sirloin Club but because I transferred in as a junior and lived off campus, I missed my opportunity to participate on the judging teams, which I regret.”

After graduation, with the careful guidance and encouragement of advisors and professors such as Dr. Harold Franke and Dr. Gene King, Paschal had a new goal in mind. He began graduate work under the supervision of Dr. John K. Riggs and Frank Litterst in the beef cattle production section.

“I began helping with animal science practicum classes and working at the Beef Center,” Paschal said. “I can remember the old Beef Center was located where Reed Arena now stands.”

In the summer of 1979, Paschal left his graduate work and Texas A&M to pursue a career with the International Charolais Association in Houston. This provided him the opportunity to travel around the United States and Central and South America. Attending shows, conferences and ranches pertaining to one of his passions could hardly be considered work.

In November of 1981, Texas A&M called once again as Dr. Jim Sanders encouraged Paschal to return to finish his master’s degree with hopes of adding a doctorate to his list of credentials. After careful consideration, Paschal couldn’t turn down the opportunity to once again join his Aggie family and in January of 1982 he returned, teaching and assisting Sanders with his animal breeding laboratory along with Franke’s livestock marketing laboratory.

The careful encouragement and support of animal science faculty paved the way for Paschal, who completed a doctorate in animal breeding in 1986 and accepted a position as a livestock specialist with the Texas Agricultural Extension Service in Fort Stockton.

“At the time I had to look it up on a map to see where I would be working. It was a great opportunity,” Paschal recalled. “I worked with a close band of Extension specialists in range management, agricultural economics and wildlife management and nearly everything we did was done as a team focusing not just on production but the economics of production.”



Paschal discusses physical structure and beef cuts at a cattlemen's symposia in Guayaquil, Ecuador.



Paschal conducts a beef cattle training with Southern Region County Extension Agents at the La Copita Research Ranch near Alice.

After working as a livestock specialist for two years, a move was on the horizon once again for Paschal as he transferred to Corpus Christi to become the new Extension livestock specialist stationed at the Texas A&M AgriLife Extension Center and continues to hold this position today. Paschal is responsible for the supervision of 37 counties in the Southern and Gulf Coast areas and notes a lot of driving, many late nights and often quite a few weekends.

Alongside the other specialists in the different subject matter fields, Paschal has developed a number of educational programs. "As an Extension specialist, I support county based educational programs and activities," Paschal said. "County Extension Agents visit with committees of beef cattle producers and come up with plans or ideas for field days or programs, and I work with them to make sure they are conducted and now, most importantly, evaluated and reported."

Today, Paschal's influence on livestock extension programs has ranged anywhere from long range educational programs such as comprehensive ranch management, meat goat and stocker cattle management to the Texas A&M Ranch to Rail-South programs. "Because my position is extremely broad, I may talk about the vaccination of certain cattle diseases and the discovery and validation of genetic markers for carcass merit in the same day."

"Recently I have been evaluating the economic impact of various beef cattle management practices such as restocking, basic calf management, reproductive management, etc., and publishing the results in the FARM Assistance Focus Publications," Paschal said.

Paschal has received numerous awards throughout his influential career, but he will be the first to tell you the two he holds with the highest regard is the Texas A&M AgriLife Extension Specialist Superior Service Award and most recently, the State Specialist of the Year Award given by the Texas County Agents Agricultural Agents Association this year.

"My favorite part of my job has always been working with the County Extension Agents in their counties and with their clientele," Paschal explained. "Some CEAs have a great deal of livestock background, some have very little, but they all have one

thing in common, they are interested in helping their folks get answers and solve their problems."

When he isn't counseling with Extension agents in his region, you will find him traveling throughout the United States and abroad judging cattle shows and giving educational talks along the way since his expertise is sought after, commonly in Central and South America.

The work that draws Paschal to other countries is his work with "eared breeds" of cattle, characterized by *Bos Indicus* influence. "I think that these breeds were largely ignored by mainstream animal science until recently and that change is mainly because those breeders and animal science faculty at southern U.S. universities realized the importance of them in U.S. beef production," Paschal said. "Without the genetics in these breeds, production in the hot and humid areas of this state and others make for pretty poor beef production environments."

Outside of the livestock industry, Paschal and his wife, Vickie, have been married for 40 years and have two children. Their daughter, Helen Philips, DVM, is a Texas A&M animal science and vet school graduate who now owns Philips Veterinary Hospital in Brenham. She and her husband Chad have one child, Matthew. Their son, Robert, is a graduate of Texas A&M - Kingsville and is a pharmacy technician for Texas A&M.

"During my time off we ranch and graze a few steers and do some custom artificial insemination work for other ranchers in the area. We offer nature tours and like to do a little nature tourism ourselves," Paschal said. "I have been working for the Texas A&M University System since 1977 and at the age of 59 I am still enjoying myself and my work."

With a career that begins and currently resides in the Texas A&M System, it is easy to see where Paschal's loyalty will remain. With 36 years of influence in the livestock industry, Paschal's presence is one that will not fade with time.

Olivia Norton '16 is a sophomore animal science major from Texarkana, Texas.

— Faculty honored for — YEARS OF SERVICE

Each December, the Department of Animal Science recognizes faculty and staff for their years of service to the department. On Dec. 17 at the department's annual Christmas Party and Holiday Luncheon four faculty members were recognized for either 25 or 30 years of service and presented lapel pins. This included Drs. Gordon Carstens, Rhonda Miller, Stephen Smith and Tom Welsh. The longevity, drive for excellence and expertise of the animal science faculty significantly contribute to the overall success of the department and help make Texas A&M a leader in animal science research, teaching and extension. Read about this years' service award honorees and how they've built a successful career in animal science.

25 YEARS

■ DR. GORDON CARSTENS

An associate professor of animal nutrition, Dr. Gordon Carstens teaches animal nutrition courses and conducts research on energy metabolism and growth and development in ruminants. After receiving a bachelor's degree in animal science from Iowa State University, Carstens worked for a major pharmaceutical company prior to pursuing his advanced degrees. He then completed his master's and doctorate at Colorado State University.



Do you have a career highlight and/or a specific event you feel has been a crowning achievement?

The research accomplishments and career successes of former graduate students. Early research in the U.S. to establish residual feed intake as a key metric to quantify inter-animal variation in metabolic efficiency of beef cattle, and working with beef producers that have adopted technology to measure feeding efficiency in their cattle.

What is your favorite/most rewarding part of your job?

Working with undergraduate and graduate students as they develop a passion for careers in animal agriculture.

What advice do you give to your graduate students to keep them motivated and excel in their studies?

The key to a successful graduate career is to first discover the discipline or area of study that you are passionate about. Seek opportunities (e.g., student worker positions, internships) and visit with professors and other graduate students to help identify the area of study you wish to pursue. Always continue to explore new learning opportunities both on campus and off, and remain focused on how your research accomplishments will eventually have a positive impact on the animal agricultural industries.

■ DR. RHONDA MILLER

A professor in the meat science section in the Department of Animal Science, Dr. Rhonda Miller teaches undergraduate and graduate courses in meat science and sensory science. In addition to directing the Sensory Testing Facility within the department, she conducts research on the quality, quantity, safety and usefulness of meat and meat products. She is a three-time graduate of Colorado State University.



How or when did you develop a passion for meat science?

I knew that I would be a meat scientist when I participated on the 1977 Colorado State Meat Judging Team. I grew up on a livestock/crop operation in northeast Colorado. I loved cattle and horses. My career plans were to stay on the live side of the beef/horse industry; then I walked into the beef cooler at the Monfort plant in Greeley, Colo. on an early Saturday morning and I knew that I was home. If I was willing to get up early on a Saturday morning, spend my Saturday in a 32°F cooler grading carcasses and every time I left the cooler about 300 men hooted and howled words I can't repeat, I must be destined to be a meat scientist.

What is your favorite/most rewarding part of your job?

I came back into academics because I missed teaching and being with undergraduate and graduate students. I had the research challenges in industry, but working with young people and experiencing their growth and excitement for knowledge was missing in my life. I love to either be in front of the classroom, or working with my graduate students on research projects. They keep me thinking and they challenge me every day.

What is your teaching philosophy?

My teaching philosophy is simple: make it interesting and show my excitement for the material and they will become engaged.

30 YEARS

■ DR. STEPHEN SMITH

A regents professor of meat science in the Department of Animal Science, Dr. Stephen Smith teaches meat science, nutrition and physiological nutrition courses. He also conducts research on the growth and development of adipose tissue, particularly in the bovine species. He received his bachelor's degree in biology at California State College, Bakersfield, and his doctorate in metabolic physiology from the University of California, Davis.

How or when did you develop a passion for your field of study?

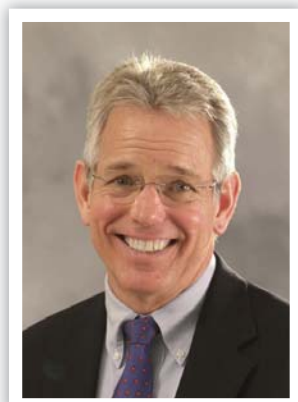
I was an art major for my first two years in college. I soon discovered that, being color blind and unable to compose pictures, art was not for me. Then I took a biology class where I could draw what I saw in the microscope, and decided that would be a great career choice.

Do you have a career highlight or a specific event you feel has been a crowning achievement?

In 1991, Dr. David Lunt took me to Japan for the first time. I discovered that, not only do Japanese Black (Wagyu) cattle deposit more marbling than any other breed type, their marbling also contains the most oleic acid. That began my passion for studying the development and composition of marbling in beef cattle in Pacific Rim countries.

What do you feel is unique about our department and/or being a faculty member at Texas A&M?

I have been lucky to be a member of the meat science section for the last 30 years. This increased my exposure to scientists with similar interests and introduced me to a vast number of really great meat science graduate students. It also has helped me to focus my research to address important, practical issues in meat animal production.



■ DR. TOM WELSH

A professor and Texas A&M AgriLife Research Faculty Fellow in the Departments of Animal Science and Veterinary Integrative Biosciences, Dr. Tom Welsh is the physiology of reproduction section leader and teaches undergraduate and graduate courses in growth, stress and reproductive physiology. Welsh's endocrine physiology laboratory team has studied the hormonal regulation of growth, reproductive and stress processes in various farm, zoo and laboratory animals. Welsh earned a bachelor's degree in animal science and doctorate in physiology/biochemistry from North Carolina State University, and was a postdoctoral scholar at the University of California-San Diego.

What is your favorite/most rewarding part of your job?

An enjoyable part of my position is seeing our students develop their ability to generate and apply new knowledge and progress into leadership roles in their profession and community. The success of students after their graduation should be a most rewarding aspect of a professor's career. If we do our job right, presumably we will develop a generation of scientists and educators whose contributions will exceed ours.

What do you feel is unique about our department and/or being a faculty member at Texas A&M?

The department members have always been highly collegial and supportive of me, my family and my professional activities. Fortunately for me, a series of administrators has allowed me the latitude to undertake a variety of educational and research activities. The support and encouragement from my personal family, my lab team family, and my departmental family have been instrumental.

Do you have a career highlight and/or a specific event you feel has been a crowning achievement?

It has been my good fortune to interact with Dr. Ron Randel at the Texas A&M AgriLife Research Center in Overton since my days as a graduate student at NCSU. Upon my joining the department in 1983, Dr. Randel and I began development of our on-campus/off-campus partnership to mentor graduate students and undergraduate research interns. Graduate and undergraduate research scholars are the conduit to link research groups. The physiology of reproduction section's philosophy and record of interactive development of undergraduate and graduate students continues to be an important aspect of our program.



NATIONAL CHAMPIONS -

Texas A&M Livestock Judging Team claims 12th national title

LOUISVILLE – The Texas A&M University Livestock Judging Team claimed the 2013 national championship at the National Collegiate Livestock Judging Contest on Nov. 18, marking the 12th national livestock judging title won by Texas A&M.

The contest took place at the North American International Livestock Exposition (NAILE) in Louisville, KY. It is known as the oldest and most prestigious livestock judging contest in the nation, according to event organizers.

Collegiate judging teams travel throughout the United States each year participating in contests, in preparation for this culminating national event in hopes of taking away the grand title.

This year, 151 individuals from 31 universities participated in the competition. During the judging contest, teams of five students from each university evaluated five classes of beef cattle, four classes of swine and three classes of sheep. Students were also required to present oral reasons – explaining why they placed animals in a particular order – for eight of the classes they placed.

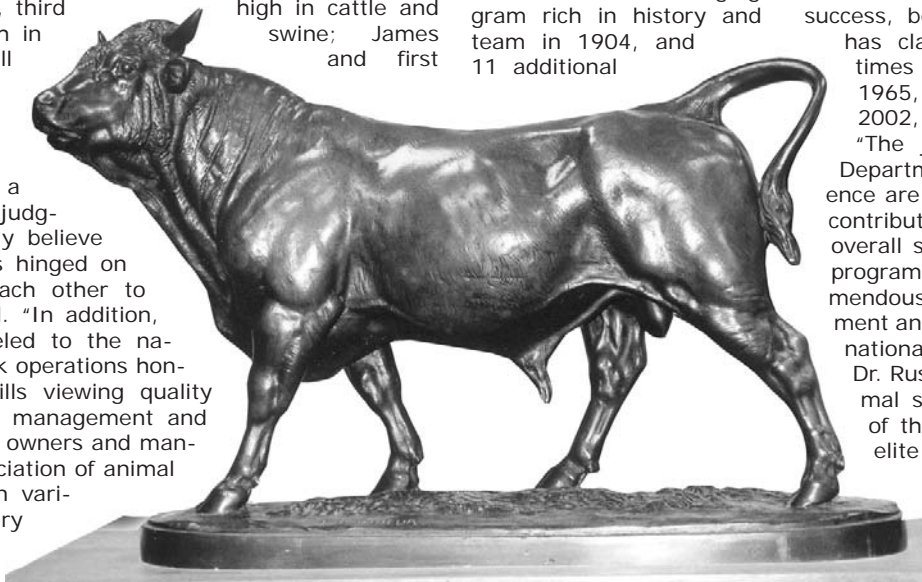
Texas A&M won the contest with 4,662 of 5,000 possible points, outscoring second place Texas Tech University by 18 points. Kansas State University, Oklahoma State University and Iowa State University finished third through fifth, respectively. As a team, Texas A&M won first place in the cattle and sheep categories, second in swine and third in reasons.

"The 2013 team is excited and honored to bring another national championship home to Aggieland and carry on the tradition," said Brant Poe, lecturer in the Department of Animal Science and team coordinator. "These young men and women understand that they were representing something more than just themselves, they performed their best for their team and the university."

Team members are Holly Behrens, from Port Lavaca, MaKayla Spaman, from Oakdale, Calif., Kit Clostio, from Sweeney, Zach Davis, from Willis, Keaton Dodd, from Blanco, Katie Eslick, from Winters, Calif., Justin James, from Prosper, Kati Keys, from Riverton, Wyo., Brett Moriarty, from Spokane, Wash., and Corey Sanchez, from Bangs, all senior animal science majors; Everleigh Hayes, senior agricultural leadership and development major from Port Lavaca; and Konni Kelso, senior agribusiness major from Seguin. The team is coached by Poe and his assistants, animal science graduate students Caleb Boardman and Cassidy Hayes.

Of the 12 students on the team, eight made the "traveling squad" to Louisville and five were chosen to judge in the contest. Competing on the winning team were Dodd, Hayes, James, Sanchez and Spaman. In individual rankings, Hayes won fourth high overall, third high in cattle and third high in swine; James won sixth high overall in sheep; Dodd scored seventh high overall; and Sanchez finished seventh high in cattle.

"Teamwork is such a vital component of the judging experience. I firmly believe that the team's success hinged on their ability to push each other to improve daily," Poe said. "In addition, the judging team traveled to the nation's most elite livestock operations honing their evaluation skills viewing quality livestock, while hearing management and breeding philosophies of owners and managers. Gaining an appreciation of animal agriculture operations in various parts of the country and insight into successful operations are



Front left, Justin James, MaKayla Spaman, Holly Behrens, Everleigh Hayes, Konni Kelso, Kati Keys, Katie Eslick and Brant Poe. Back left, Caleb Boardman, Cassidy Hayes, Kit Clostio, Brett Moriarty, Zach Davis, Corey Sanchez and Keaton Dodds.

invaluable experiences.

"I am proud of this team, of course for being crowned national champions, but also for taking full advantage of the opportunities judging offers, and growing in agriculture knowledge as well as life skills," he added.

As the championship team, Texas A&M was presented two highly-coveted valuable works of art. The first is a bronze bull known as "The Spoor Trophy." Over the past 108 years, approximately 3,000 teams and more than 20,000 contests have competed for the glory of winning the famous bronze bull. The other award is the silver epergne, a perpetual challenge trophy. This trophy was first presented in 1950.

The Livestock Judging Team at Texas A&M has built a program rich in history and success, beginning with the first team in 1904, and has claimed the bronze bull times in 1913, 1919, 1959, 1965, 1967, 1987, 1999, 2002, 2003, 2004 and 2006.

"The judging teams in the Department of Animal Science are a vital component and contribute immensely to the overall success of our teaching program. The teams bring tremendous visibility to our department and to Texas A&M through national championships," said Dr. Russell Cross, head of animal science. "We are proud of this team for joining the elite group of former students who have won before them and for being such wonderful ambassadors for the University."

Moriarty Named to All-American Team

Texas A&M team member Brett Moriarty was named to the 2013 All-American Livestock Judging Team.

The All-American Team recognizes the top ten livestock judging team members from across the nation who have made a personal commitment to livestock judging and who have excelled in academics, university and industry activities, and community service.

A total of 42 students were nominated this year.

In addition to livestock judging, Moriarty has been a member of the College of Agriculture and Life Sciences Student Council, the Saddle & Sirloin Club and the Aggie REPS organization within the Department of Animal Science. He has worked as a research assistant in cattle nutrition and as a sales intern for a livestock health technology marketer. He coaches the 4-H and FFA livestock judging team in Burleson, Texas and volunteers at the Agricultural Career Exposition at Texas A&M. After graduation, Moriarty plans to further his education by pursuing a master's of business education and hopes to become a successful entrepreneur within the agricultural field.

"Brett is very deserving of this award. By juggling his commitment to the judging team with excelling in his coursework and participating in many other activities, Brett demonstrates strong leadership skills that make him a valuable member of this team and are indicative of the success he will find in graduate school and his career," Poe said.

2003 Livestock Judging Team recognized in Louisville



The 2003 Livestock Judging Team won the national championship 10 years ago in Louisville. *Front left*, Robin Pennington, Garrett Parsons, Tracy Tomascik and Jeff Thayne. *Back left*, David Groschke, assistant coach, Craig Melton, Dr. Chris Skaggs, coach, Tammy Gottschalk, Garrett Wilkerson, Kelton Mason, Jake Franke, Dr. John McNeill, department head, Ryan Rathmann, coach.

In keeping with the rich traditions of the North American International Livestock Exposition, each year the organization recognizes the 10-year and 40-year anniversaries of the livestock team championships. This year, the 2003 Texas A&M Livestock Judging Team celebrated the 10th anniversary of their national win. Members of this team included Jake Franke, Kelton Mason, Craig Melton, Garrett Parsons, Tobin Pennington, Jeff Thayne, Tracy Tomascik and Garrett Wilkerson, most of whom were able to attend the 2013 awards banquet in Louisville. The team was coached by Ryan Rathmann, under the direction of Dr. Chris Skaggs.

Animal Science hosts Christmas luncheon, awards ceremony

COLLEGE STATION – The Department of Animal Science held its annual Christmas Luncheon and Awards Ceremony on Dec. 17 at the AgriLife Center.

Faculty, staff, retirees, graduate students and student workers gathered for a beef and chicken meal, holiday gift basket giveaway, a presentation of 2013 departmental highlights and departmental awards.

The 2013 Outstanding Support Staff Award was presented to Robbie Lukeman, business administrator



Robbie Lukeman, business administrator, was presented the 2013 Outstanding Support Staff Award by Dr. Russell Cross, department head.

II. Since joining the department in 2002, Lukeman oversees and manages all departmental business activities, from general departmental operating expenses to assisting faculty with budgeting and managing grant expenditures to ensure compliance with both agency and university guidelines. She also prepares and maintains the departmental budget to use available resources in the most efficient way so as to assist the department head, associate and assistant heads in accomplishing goals for teaching, research and Extension.

"Robbie's passion for her job and helping all of us effectively do our work is very much appreciated. She always has time to explain how something needs to be done - or more importantly, why something *can't* be done," commented one nominator.

In addition, four faculty members were recognized for their years of service to the department. Dr. Gordon Carstens and Dr. Rhonda Miller were recognized for 25 years and Dr. Stephen Smith and Dr. Tom Welsh for 30 years of service.

The Ronnie L. Edwards Graduate Teaching Award was presented to Raul Valdez, Natasha Bell and Lindsey Mehall. (see related story on page 18)

CONGRATULATIONS CLASS OF 2013

The Department of Animal Science was proud to present 89 undergraduates with a bachelor's degree in animal science at commencement held Dec. 13 in College Station. In addition, 10 graduate students earned advance degrees from the department.

This included Sally Farnsworth and Ari Sear (master's of ag, ansc); Kaycee Davis and Jasmine Dillon (master's of science, animal breeding); Meagan Igo, Raul Valdez and Caitlin Vonderohe (master's of science, ansc); and Samantha Cunningham, Holly Edwards and Chase Runyan, (Ph.D., ansc).



Texas A&M students named to All-American Meat Judging Team

DAKOTA CITY - Three members of the Texas A&M Meat Judging Team were selected for the All-American Meat Judging Team at the International Intercollegiate Meat Judging Contest held Nov. 18 at Tyson Foods in Dakota City, Neb.

Each year the American Meat Science Association recognizes students for their performance in judging and their grade point average by naming them to the All-American teams. Mallorie Phelps, Jessie Hoffman and J. Boyd Vaughan were among the eight students from across the country who received this high honor.

Phelps, from Grandview, is a senior animal science major. She is a member of the Saddle & Sirloin Club and is an Aggie REP. "Winning the first team All-American award is the greatest honor a judge can receive. It signifies the culmination of many hours of hard work, dedication and success, not only in the cooler, but also in the classroom, and I am truly honored to have received this award," Phelps said.

Hoffman, from Kennedy, is a senior animal science major. "To be selected for the All American team is a huge accomplishment. It was the result of a lot of hard work and putting my whole heart into this team," Hoffman said.

Vaughan, from Runge, is a senior agricultural economics major. He also is a member of the Saddle & Sirloin Club. "I have been so fortunate to be on a team of such elite judges, we all push each other to achieve the highest goals possible and that has been evident this season," Vaughan said.

To complement success on the individual level, the Meat Judging Team finished fourth overall, bringing a successful close to this season. The contest was won by Texas Tech University, followed by Angelo State University and Kansas State University.

In team competition, the Aggies showed a strong presence finishing third in beef grading, fourth in pork judging, second in beef judging, fifth in specifications and third in reasons.

This year's team members include Mallorie Phelps from Grandview, Drew Cassens from Burleson, Lindsey Turner from Georgetown, Cameron Olson from Rockyview, Canada, Grayson Russell from Mount Pleasant, Andrew Fry from Dumas, Kate McCarthy from Leander, Jessie Hoffman from Kennedy, Courtney Hemphill from Lohn, all animal science majors, and J.Boyd Vaughan from Runge, agricultural economics.

Animal science graduate student Leslie Frenzel from New Berlin heads the team as coach and Dr. Davey Griffin, professor and Extension meat specialist, is the team coordinator

This brings to a close a very rewarding season. Earlier this



Left, Mallorie Phelps, Kate McCarthy, Jessie Hoffman, Drew Cassens, Andrew Fry, Grayson Russell, Courtney Hemphill, Cameron Olson, Lindsey Turner, J. Boyd Vaughan and Leslie Frenzel.

season, the meat judging team clenched the overall team award at the American Royal Intercollegiate Meat Judging Contest, fifth high team at the Eastern National Meat Judging Contest and second high team at the High Plains Meat Judging Contest.

Fry presented 2013 Spirit Award

Andrew Fry, a senior from Dumas, was presented the 2013 Rachel Hamilton Spirit Award.

This spirit award is named in memory of Rachel Hamilton who served the American Meat Science Association as program director of meat judging for four years until her death. The award is voted on by members of each team and recognizes the one team member whose winning approach exemplifies Rachel's love of meats judging.

"Receiving this award is an incredible honor, but it became even more special knowing that it was voted on by my teammates," said Fry. "This season we learned a lot about meat judging but more so, we grew as a family bringing about friendships and memories that won't soon be forgotten."

Horse Judging Team wins reserve champion at NHRA contest

OKLAHOMA CITY -- The Texas A&M Junior Horse Judging Team won reserve champion at the National Reining Horse Association Collegiate Futurity Contest in Oklahoma City on Dec. 5-6.

Team member Marissa Garcia won third high individual and Abbey Jacks finished fifth high individual.

"I'm very proud of how far this team has come. In just a semester, they learned the disciplines of reining like the back of their hands and their performance at the NRHA Futurity proved this," said Courtney Phillips, assistant coach. "I know they learned from this contest which helped prepare them more challenging contests down the road." The team is coached by Dr. Clay Cavinder, associate professor.

Team members include Sarah Sprayberry, from Boerne, Olivia Norton, from Texarkana, Marissa Garcia, from Royce City, Abbey Jacks, from Conroe, and Kailyn Capps, from Brenham, all sophomore animal science majors; Allysa Amjad, a junior animal science major from Crockett; Lauren Friend, a sophomore ag. economics major from Tulare, Calif.; Amanda Driewer, a junior ag. systems management major from Seguin; and Dustin Lane, a senior animal science major from Red Oak.

The NRHA Futurity is the first contest in which the junior team competes.



Left, Courtney Phillips, Abbey Jacks, Allysa Amjad, Amanda Driewer, Marissa Garcia, Sarah Sprayberry, Olivia Norton, Kailyn Capps and Lauren Friend.

Meat judging exposes students to the meat industry

■ By Davey Griffin, Ph.D.
*Professor, Extension Meat Specialist and
Coordinator of the Meat Judging Team*

When students tell parents, fellow students and friends they are on the Texas A&M University Meat Judging Team, they typically get a blank stare followed by the question "what does one do on a meat judging team?". Although the team members have plenty of experience, it is still hard to describe all the information and practice time in refrigerated coolers required to be competitive and successful during their year of eligibility on the team.

The truth be told, meat judging team members have a unique opportunity to experience a large portion of the meat animal industry that is not accessible to the public. They also are invited to tour and practice in university meat science facilities across the nation, and because they travel to various parts of the country, they have an opportunity to see and experience more than just the inside of a meat cooler.

The 2013 Texas A&M Meat Judging Team recently wrapped up their successful year of judging and representing the Texas A&M Department of Animal Science. During 2013, they practiced and/or competed in 13 meat processing facilities throughout Texas, the Midwest and as far east as Pennsylvania. They also were provided tours and information on internships and potential future employment at JBS USA Headquarters in Greeley, Colo., Tyson Fresh Meats Headquarters in Dakota Dunes, S.D., Cargill Beef Innovations Center in Wichita, Kan., John Morrell in Sioux Falls, S.D., and Beef Products Incorporated in Dakota City, Neb.

"One of my favorite stops on the International trip was the one at the John Morrell plant in Sioux Falls. Being able to see a plant on such a large scale was very eye opening and helped me to realize the importance of what I have learned studying meat science," said Jessie Hoffman, senior animal science major from Kenedy and one of the team's three 2014 All-Americans.

The 2013 Meat Judging Team also had the opportunity to practice judging, reasons writing and specifications in seven different university meat labs.

"Being able to travel to the different universities was a very valuable opportunity because it allowed each of us to see how schools across the nation differ from each other and to also meet several of the professors from the respective universities. The chance to see other universities and to network was great for those on the team looking to attend graduate school," Hoffman said.

While on the road, the team has also had the opportunity to tour non-meat related stops such as Independence Hall, the Liberty Bell Museum and Betsy Ross House in the Philadelphia area and Central Park, Times Square, Wall Street, Ground Zero, Grand Station and others in New York.

"While we were in Pennsylvania for the Eastern National contest, the government was shut down which prevented us from



The Meat Judging Team travels to universities, meat processing facilities and potential future employers to practice and learn the ways of meat judging, including a trip this fall to Tyson Fresh Meats Headquarters in Dakota Dunes, S.D. *Front left*, Drew Cassens, J. Boyd Vaughan, Grayson Russell, Andrew Fry and Cameron Olson. *Middle left*, Mallorie Phelps, Kate McCarthey, Lindsey Turner, Jessie Hoffman and Courtney Hemphill. *Back*, Leslie Frenzel.

seeing a lot of sights, but it didn't stop us from taking part in the culture we were surrounded by, like by trying the Philly Cheesesteaks," Hoffman said.

Regarding the judging experience itself, Drew Cassens, junior animal science major from Burleson, said "Judging meats at the collegiate level has always been a dream of mine since I started judging in 4-H and FFA. To judge at Texas A&M and represent this university with my teammates has been a true honor."

Leslie Frenzel, team coach and meat science doctoral student, summed up the team experience saying, "Representing Texas A&M at an intercollegiate meat judging contest requires hard work, dedication and passion for judging and meat science. Traveling and competing on a Fightin' Texas Aggie Meat Judging Team is an incredible honor, but most of all it fosters teamwork, camaraderie, and a commitment to a common goal. For many of these students, the friendships formed throughout the past year will last a lifetime. Given the opportunity to coach the 2013 meat judging team is far more than teaching how to judge and traveling across the nation; it is sharing and creating friendships and memories with these students. The members of the 2013 Fightin Texas Aggie Meat Judging team will forever be a part of Texas A&M judging team history and a blessing in my life."



Valdez, Bell, Mehall receive Edwards Graduate Teaching Award

COLLEGE STATION – Three graduate students in the Department of Animal Science are recipients of the 2013 Ronnie L. Edwards Graduate Teaching Award, in recognition of their important contributions as graduate students to the undergraduate student experience.

Raul Valdez, Natasha Bell and Lindsey Mehall were presented the award during the department's Christmas luncheon held Dec. 17 at the AgriLife Center.

The Ronnie L. Edwards Graduate Teaching Award was created in remembrance of Dr. Edwards, who served as associate head for the Department of Animal Science and spent more than two decades working with graduate students. One of his major activities was coordinating the teaching assistantships for the department, helping to ensure the best graduate teachers possible for the courses taught.

Valdez, from Laredo, received a master's degree in animal science this December under the direction of Dr. Clay Cavinder. He received a bachelor of business administration degree from Texas A&M in 2010.

As a graduate research and teaching assistant, Valdez taught a lab section for ANSC 421, Advanced Stock Horse Training; ANSC 311, Equine Behavior and Training; ANSC 420, Equine Production and Management; and ANSC 481, Seminar. He was assistant coach of the Texas A&M Stock Horse Team and helped guide them to the 2012 national championship and the 2013 reserve national championship. In addition, he traveled to Norway, Sweden, Poland and Switzerland in 2010 and 2013 as part of a group of Texas A&M equine students and conducted horsemanship clinics.

"...Raul's greatest attribute is his kind attitude and genuine desire for the students he works with to progress. He is dependable beyond comparison and this is demonstrated by his involvement with multiple programs, classes and after-hours activities," said one nominator.

Valdez will begin working on a doctorate in animal science in January working under the direction of Cavinder.

Bell, from Normanna, is pursuing a doctorate in animal science with a focus on animal nutrition working under the direction

of Dr. Tryon Wickersham and Dr. Jason Sawyer.

Bell earned a bachelor's in animal science from Texas A&M in 2005 and went to work as a high school science teacher and district FFA advisor until 2012. During the last two years of her high school teaching career, Bell worked on and completed a master's degree in agriculture with a concentration in ruminant nutrition from Stephen F. Austin State University.



Left, Sigrid Edwards and granddaughter Claire, Natasha Bell, Raul Valdez, Lindsey Mehall, Cathy Edwards and Dr. Russell Cross.

As a graduate student, Bell teaches ANSC 320, Animal Nutrition and Feeding and the laboratory for ANSC 318, Feeds and Feeding. Her current research explores the utilization of ionophores for improvement of nutrient use in grazing cattle.

"Natasha places a strong emphasis on application by designing homework assignments that require a strong understanding of the fundamentals of nutrition and build on the material presented in class. Additionally, her well designed homework prepares the students for both the test and for solving "real world" nutritional problems. Natasha brings research into the classroom by sharing her personal experiences, data and observations. She assists students in identifying undergraduate research opportunities, writing letters of recommendation, and in working towards greater clarity regarding their future," said one nominator.

Mehall, from McKinney, is seeking a doctorate in animal science working under the direction of Dr. Jeff Savell and Dr. Kerri Harris. She received a bachelor's in animal science in 2008 and a master's in meat science in 2010, both from the University of Arkansas.

At Texas A&M, Mehall serves as a graduate teaching/research assistant for ANSC 307, Meats; Honors ANSC 307, Meats, and ANSC 457/657, HACCP. She coached the 2013 Texas A&M Meat Science Quiz Bowl Team and is the at-large director of the Animal Science Graduate Student Association. In addition, she assists with hands-on educational programs including Pork 101, Beef 101, Beef 706, Pfizer Beef University, Beef Sustainability 101, HEB Boot Camp and Camp Brisket. Her doctoral research investigates various parameters for controlling the major *E. coli* pathogens.

"In all of these endeavors, she is solid and dependable. I love watching Lindsey around our undergraduate students. She teaches with such charm and passion that it is difficult not to be drawn in by this. Our students will follow Lindsey wherever she goes! When you see her teaching ratings and comments from our students, you will understand how valuable she is as a teacher and leader of undergraduates in our department," according to a nomination letter.

The Ronnie L. Edwards Graduate Teaching Award in Animal Science is presented yearly and winners are selected based on nominations and supporting letters from department faculty.

Wool Judging Team finishes strong at Texas Invitational

LUBBOCK – The Texas A&M Wool Judging Team competed at the Texas Invitational Wool Contest in Lubbock and won every division including grading rails, placing classes and reasons.

The team secured 12 of the top 15 high individual awards in the contest. Texas A&M competed against Texas Tech University, Angelo State University and New Mexico State University.

"We have a great group of kids, and I couldn't have asked them to perform any better than they did at this stage of the game. We're constantly working and looking forward to the spring contest," said Tanner Wiegat, graduate student and team coordinator.

Team members are Kylie Bennett, Bridget O'Brien, Sierra Francis, Courtney Hancock, Kade Hodges, Samantha Jansen, Indiana Jones, Chase Long, Tana Luna, Shelby Martin, Mariel McFadin, Brooke Orsak, Brandi Ortolon, Jace Reynolds, Alexis Roach, Logan Speck and Emily Willingham.

In individual competition, O'Brien won second place high individual, followed by Francis, third; Bennett, fifth; Luna, sixth; Willingham, seventh; and Hodges, eighth.

The team is coached by Wiegat and Dr. Shawn Ramsey. Assistant coaches include Garrett Stribling, Emily Von Ewdins and Erika Wiggs.

The team will travel to Denver, Colo. on Jan. 16 to compete at the National Western Stock Show in the Wool Judging Contest.

Savell receives national teaching award

WASHINGTON – Dr. Jeffrey W. Savell, regents professor and E.M. “Manny” Rosenthal chair in the Department of Animal Science at Texas A&M University, recently received a regional national teaching award for food and agriculture science from the Association of Public and Land-grant Universities.

The award was presented at the association’s 126th annual meeting, which honored university faculty for the use of innovative teaching methods and service to students.

Sponsored by the U.S. Department of Agriculture, the American Association of State Colleges and Universities and the APLU, the annual awards include stipends of \$5,000 for the national winners and \$2,000 for regional and new teacher honorees to be used for improving teaching at their respective universities.

“When alumni recall their college days, they often think of teachers who had the biggest impact on them,” said Ian Maw, the association’s vice president of Food, Agriculture and Natural Resources. “The teachers presented with these awards will be fondly remembered for their service to students, to the teaching profession and to their chosen disciplines. The value of these teachers to their universities cannot be overstated.”

Since joining the department of animal science at Texas A&M University in 1979, Savell has been involved in teaching a wide variety of classes and mentoring a number of present and future leaders in academia, government, and industry. Since 1982, he has taught more than 8,000 students, some of whom are second generation, in his Animal Science 307 “Meats” class.

He also teaches an undergraduate livestock and meat marketing class, a graduate course in carcass composition and quality, and team-teaches a graduate and undergraduate course in Hazard Analysis Critical Control Points and a first-year seminar class

on Texas barbecue.

Savell has been recognized by the Texas A&M University System Board of Regents as a regents professor. He also received the Association of Former Students Distinguished Achievement Award in Teaching at both the university and college levels. Nationally, he was selected by the North American Meat Processors Association for the Harry L. Rudnick Educator’s Award, and has received the American Meat Science Association’s Distinguished Teaching Award. Most recently, he received the Cintron University Professorship in Undergraduate Teaching Excellence award for his outstanding work with undergraduate students.

Savell’s research efforts have been recognized with numerous university, regional, and national awards for individual and team efforts to resolve key issues in the livestock and meat industries.

Savell is a past-president of the American Meat Science Association and is a member of the Meat Industry Hall of Fame.

Savell earned his bachelor’s, master’s and doctoral degrees from Texas A&M.

The Association of Public and Land-grant Universities is a research, policy, and advocacy organization representing 223 public research universities, land-grant institutions, state university systems and related organizations.

Founded in 1887, the association is the nation’s oldest higher education organization with member institutions in all 50 states, the District of Columbia, four U.S. territories and Canada. Annually, member campuses enroll 4 million undergraduates and 1.2 million graduate students, award over 1 million degrees, employ over 1 million faculty and staff, and conduct \$39 billion in university-based research.



Rollstock vacuum packaging machine donated to Rosenthal

COLLEGE STATION -- The Rosenthal Meat Science and Technology Center is excited to announce its newest addition, a Rollstock Vacuum Packaging Machine. This state-of-the-art packaging system can vacuum package a variety of products and is typical of the type of equipment used in the industry today.

“Our students will be given the chance to use the same machine that is being used in the industry. This will better prepare them for the meat industry,” said Ray Riley, Rosenthal Meat Center manager.

Prior to the donation of this device, students had been using a 1970s/1980s Bivac Machine. While this is also a rollstock machine, it is not typical of what is used in the meat packaging industry today. Since the new equipment is up to date with industry standards, students will be able to enhance their packaging and marketing skills.

The new Rollstock machine was donated by Texas Meat Purveyors (a division of Freedman Foodservice, LP) in San Antonio, Texas. Dwayne Padalecki '86, is the general manager for Texas Meat Purveyors and the driving force behind the Roll-



The Rollstock Vacuum Packaging Machine will enhance teaching capabilities of the meat science program and will better prepare students for a career in the meat industry, pictured here with Ray Riley, center manager.

stock donation. Padalecki received a bachelor of science degree in animal science from Texas A&M in 1986. During his time as a student, Padalecki was a member of the 1984 Meat Judging Team and was a former student employee at the Rosenthal Meat Center.

“His [Padalecki] continued efforts supporting the Department of Animal Science, the Rosenthal Center and the Meat Judging Program have helped extend current industry practices through the teaching, research and Extension efforts at Texas A&M,” said Dr. Davey Griffin, professor and Extension meat specialist.

Lynn Davis, with Cryovac Sealed Air Corporation, has donated his time and resources to assist with the hook-up of the Rollstock machine and to train staff on its operation. In addition, Padalecki donated some packaging film to get the machine started. When it is up and running, the Rollstock machine will be able to package steaks, chops and various other types of meat cuts.

Aggiefest brings Texas youth to College Station for annual livestock judging contest

COLLEGE STATION -- The 2013 Aggiefest Livestock Judging Contest, hosted by the Texas A&M University Livestock Judging Team, offered 570 Texas youth an opportunity to practice judging on live animals while competing against different clubs and chapters throughout the state.

The contest, which was held Nov. 16 at Pearce Pavilion in College Station, was open to all youth ages eight years old and older and was divided into three age divisions. The students judged eight classes in 15 minutes intervals followed by 15 questions on three predetermined classes.

While the senior Livestock Judging Team was in Louisville getting ready for their national contest, the junior team served as the officials for the contest and worked to ensure that Aggiefest was a great success for the students in attendance. Though this was one of the first contests the junior team will put on during their time at Texas A&M it will certainly not be the last as the spring is filled with many contests for them to both compete in and host.

The youth winners of the contest were:

Top ten seniors: Kyle Ramsey, Harrison Smith, Kelsey Thomas, Samantha Nichols, HC Neel, Clayton Schram, Mills Meier, Cody Bishop, Alison Schram and Cameron Anderson

Top ten juniors: Kara Gobert, Zoedanae Fusselman, Dain Copeland, Ryan Williamson, Caelean Pearson, Wyatt Sisco, Lauren Laduque, Chet Fritsch, Cord Koenig and Presleig Barber

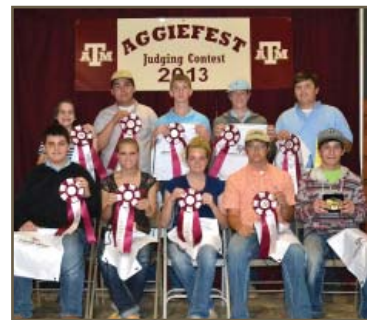
Top ten intermediate: Katie Koerth, Lauren Lee, Brian Sifford, Conner Neuman, Baylor Sebek, Hunter Bea, Taylor Loeffler, Emily Dibrell, Reilly Butler and Emily Fritsch



Top ten intermediate winners.



Top ten junior winners.



Top ten senior winners.



Aggiefest Horse Judging Workshop provides youth, coaches judging knowledge, practice

COLLEGE STATION -- Judging horses provides youth the opportunity to develop life skills, such as decision making, organizing thoughts, objective evaluation and effective communication. The 2013 Aggiefest Horse Judging Workshop held Nov. 16 at Freeman Arena in College Station, provided 4-H and FFA horse judging coaches and team members the knowledge and opportunity to put this into practice.

The workshop began with instruction on properly organizing and giving oral reasons, and four Texas A&M University Horse Judging Team members gave example sets of reasons to the audience. The focus then moved to providing instruction for the following classes: reining, stock horse pleasure, western pleasure, western horsemanship, hunter under saddle, hunt seat equitation and halter. A brief description of each class was followed with the opportunity to judge live horses and hear a critique and placing for each class.

The event was organized and conducted by Teri Antilley, Extension horse program specialist. Speakers included Antilley, Dr. Dennis Sigler, Extension horse specialist, Jennifer Zoller, doctoral student, and Courtney Phillips, master's student. Several members of the Texas A&M horse judging and stock horse teams, as well as others, helped by speaking and riding horses in the workshop. A total of 258 youth and adults attended.



Jennifer Zoller, *left*, explains the reasons for the official placing of the practice halter class to the youth participants.



Equine reproduction course set for January

COLLEGE STATION – Horse owners and breeders wanting to learn more about efficiency methods in reproduction and management can attend a short course Jan. 8-10 at Texas A&M University in College Station.

The Equine Reproductive Management Short Course will include classroom sessions on anatomy and physiology of the mare and stallion, control of the estrous cycle, gestation and foaling, feeding the broodmare and young horse, and estrous cycle manipulation of mares.

"Hands-on laboratory activities are scheduled each day and will include semen collection and evaluation, estrous detection, artificial insemination, body condition scoring, perineal conformation evaluation of the mare and foaling management," said Dr. Martha Vogelsang, senior lecturer for equine science in the Department of Animal Science at Texas A&M.

Vogelsang said course content includes a broad range of topics useful for horse owners in any segment of the breeding industry.

Lectures will be held in the Kleberg Animal and Food Sciences Center on the Texas A&M campus, while laboratory sessions will be conducted at the Texas A&M Horse Center on George Bush Drive.

Each short course will have limited enrollment to ensure adequate time and animals to allow every participant to develop the skill they desire, Vogelsang said.

Enrollment will be confirmed on a first-come, first-served basis as registration forms with fee payment are received. In addition to the lectures and laboratory sessions, the registration fee includes a handbook of the lecture material, information from equipment and supply dealers or vendors, lunches and snacks, and a certificate of course completion.

Cost is \$600 by Dec. 20 and \$650 after. If a registrant requests cancellation 15 days prior to the short course, the refund will be 75 percent. There will be no refund for cancellations less than 15 days before the program starts, Vogelsang said.

For more information, contact Vogelsang at 979-845-5796, email m-vogelsang@tamu.edu or visit <http://bit.ly/1fEGT5q>.

CNN's Eatocracy blog notes Texas A&M as top tailgating school, cites meat science program

In the Nov. 15 *Eatocracy* blog on CNN.com, writer Kate Krader discusses the top five tailgating parties in the Southeastern Conference, including Texas A&M. She writes, "In its September/October 2013 issues, *Tailgater Monthly* named Texas A&M the No. 1 tailgating college of 2013. No surprise: The school's College of Agriculture and Life Science has a Meat Science program, which offers coursework in meat science, meat selection and grading, food safety and more. The school's Texas Barbecue website is a comprehensive barbecue guide, from rub recipes to scientific explanations of why brisket and pork butt barbecue are so popular (it's all about the collagen in the muscle fibers)." To see the complete post, visit http://eatocracy.cnn.com/2013/11/15/sec-tailgating-schools/?hpt=ea_bn13.



Beef production class visits J.D. Hudgins, Inc.



HUNGERFORD -- Dr. Andy Herring and his ANSC 406, Beef Production class visited J.D. Hudgins, Inc in Hungerford on Oct. 30. The group was hosted by Coleman Locke and John Locke. The class heard about the history of J.D. Hudgins, Inc. and discussed various business and production considerations associated with American Brahman cattle and where they fit into the U.S. beef industry. The class saw cows and bulls on pasture and the bull development feedlot as well as cattle produced for major stock shows.



Farrier Conference scheduled for Jan. 10

COLLEGE STATION -- A Texas A&M Farrier Conference is set for Jan. 10 in College Station.

Sponsored by the Department of Animal Science and Texas A&M AgriLife Extension, the conference will include presentations from Texas A&M equine faculty and leaders in the equine industry. Topics include preparing and trimming, effects of nutrition on hoof growth and health, a laminitis research update, therapeutic shoeing and the latest in synthetic shoeing. A live demonstration will be presented on variances in foot flight on a high-speed treadmill.

Registration for the Farrier Conference is \$50, which includes handouts and lunch. Those who register for the AFA Certification tests will receive a \$20 discount on the conference registration. Late registration (after Dec. 20 and at the door) is \$60.

To register, visit AgriLife Extension Conference Services at <http://agriliferegister.tamu.edu/>. Enter keyword = Horse.

For more information on the conference, visit <http://animalscience.tamu.edu/files/2012/04/2014-Farrier-Conference.pdf>.

Lauretta Ngere completes fellowship in Kenya

NAIROBI, KENYA – Lauretta Ngere, an animal breeding doctoral student in the Department of Animal Science at Texas A&M University, has completed a three month fellowship at the International Livestock Research Institute (ILRI) in Nairobi, Kenya.

Ngere was one of ten graduate students selected as a Fellow for the Leadership Enhancement in Agriculture Program (LEAP) of the Norman E. Borlaug International Agriculture Science and Technology Fellows Program, funded by the United States Agency for International Development in 2013.



This competitive fellowship provided Ngere the opportunity to work with a prominent livestock geneticist, including her mentor, Dr. Karen Marshall; participate in genetic improvement of livestock at the level of African smallholder farms; and acquire thought processes, research approaches, and potential collaborators at a major international research center that could influence her future research.

During her time in Kenya, Ngere predicted genetic merit for internal parasite resistance in Dorper sheep using FAMACHA scores, subjective values from 1 to 5 which are assigned to sheep based on the color of the inner eyelid. This trait is indicative of anemia due to worm infestation.

A FAMACHA score of 1 indicates a normal bright pink eyelid and 5 indicates pale color, and therefore anemia. She estimated heritability for FAMACHA score and for hematocrit values and fecal egg counts as objective measures of parasite infestation.

Her role was analysis of baseline data generated from field surveys of dairy small holders from a gender perspective. Survey data was from 258 dairy households and entailed:

- Distinct analyses of data separately for male and female headed household for issues such as numbers of animals owned, the breed-type of those animals, results from artificial insemination, etc., and
- Evaluation of issues such as training needs for dairy production and perceived constraints to dairy production from male and female household head perspectives.

In addition, she received training from an ILRI senior gender scientist to consider how gender can impact the success of development interventions.

Ngere also participated in Dr. Marshall's project on peri-urban dairy systems in Senegal. Objectives of the project include:

- Determine appropriate dairy breed types for such systems and facilitate dissemination of that information
- Characterize the dairy germplasm production chain and related policies, and use this information to develop strengthened, sustainable dairy systems,
- Enhance local human, institutional, and organizational capacity on the access and promotion of different breed types of dairy cattle.

Ngere earned a bachelor of agriculture in animal production at the University of Agriculture in Makurdi, Benue State, Nigeria, and a master of science in animal science from the University of Ibadan, Ibadan, Nigeria.

Beef 101 closes year with full attendance

COLLEGE STATION -- A series of Beef 101 workshops held in 2013 concluded on Dec. 4-6 with a full attendance in College Station. Beef 101 is a three-day intensive hands-on program designed for anyone who has an interest in expanding their knowledge of the total beef industry. Participants in the class represented leading

meat and food companies from ten states and a large group from Sigma Alimentos, a food service company located throughout Mexico (hosted by the U.S. Meat Export Federation). U.S. based companies represented at Beef 101 included AJC International, Brinker International, Cargill Value Added Meats, Dot Foods, Niman Ranch, OSI Group, Phoenix Restaurant Group, Sky Chefs, Spring Creek Companies, Surlean Foods, The Schwan Food Company, Weidner Lou Trading, Windsor Foods and others.



Leslie Frenzel, *right*, teaches a participant how to properly use the hand saw to separate the chuck from the rib portion.

Originating in 1989, Beef 101 will celebrate 25 years of educational programming for the beef industry in 2014. This workshop has become known as the leading educational program for basic information about the beef industry provided anywhere in the U.S. Workshop dates for 2014 have been set for May 13-15, June 24-26 and Dec. 3-5. For more information, please visit <http://animalscience.tamu.edu/academics/meat-science/workshops/beef-101/>.



Gill provides expertise on use of bacteriophages

NANJING, CHINA -- In November, Jason Gill, assistant professor of bacteriophage biology and microbiology, visited the Jiangsu Academy of Agricultural Sciences (JAAS), located in Nanjing, China. He was invited and hosted by Dr. Ran Wang, who leads a research group in the JAAS Institute of Food Safety focusing on the safety of animal-derived foods. Wang's group has recently become interested in the use of bacteriophages - the viruses that infect bacteria - for the control and detection of pathogenic bacteria in food animal systems.

Wang's group has recently become interested in the use of bacteriophages - the viruses that infect bacteria - for the control and detection of pathogenic bacteria in food animal systems, Dr. Jason Gill, *fourth from right*, and colleagues and invited Gill to consult as an expert in this area. In particular, Gill delivered a lecture on mastitis in dairy cattle and the potential for the use of bacteriophages for mastitis control, and was also made available to members of the group for discussions of various aspects of bacteriophage biology and genomics. Potential collaborations between the two groups were discussed, including future visits to JAAS and the possibility of sending JAAS staff to the Texas A&M College Station campus for further training in bacteriophage research methods.



Dr. Jason Gill, *fourth from right*, and colleagues from the Jiangsu Academy of Agricultural Sciences in Nanjing, China.

Meat science group hosts BBQ Genius Counter

AUSTIN -- Faculty and students from the Department of Animal Science participated in the Texas Monthly BBQ Festival in Austin on Nov. 3. For the third year in a row, the group represented Texas A&M University at its BBQ Genius Counter where they answered questions and offered expertise on the science and art of barbecue. This included Jeff Savell, Davey Griffin, Ray Riley, Clay Eastwood, Chloe Geye, Kaitlyn Porter and Michael Berto. They also visited pitmasters, gave tips to backyard barbecue enthusiasts, and sampled great barbecue.



Left, Davey Griffin, Ray Riley, Michael Berto, Clay Eastwood, Kaitlyn Porter, Chloe Geye and Jeff Savell.



Smith presents research in South Korea

SOUTH KOREA -- Dr. Stephen Smith, regents professor, traveled to the Republic of Korea (South Korea) in October and visited universities and research centers to promote information and collaborative research between South Korea and Texas A&M University. He presented "Carcass and Fatty Acid Composition of Corn-fed and Yearling-fed Angus Steers" to staff at the Hanwoo Research Center and faculty, staff and graduate students at Kunkook University in Seoul, "Beef Quality Research Projects at Texas A&M University" to faculty, staff and graduate students at Daegu University, and "Nutrition and Physiology of High Quality Beef Production" to attendees of the 5th Korea-US Joint Symposium at the National Institute of Animal Science in Suwon.



Southwest Beef Symposium set for Jan. 9-10

CLAYTON, N.M. -- The Southwest Beef Symposium, jointly hosted by the Texas A&M AgriLife Extension Service and New Mexico State University Cooperative Extension Service, is set for Jan. 9-10 at the Clayton Civic Center, 124 N. Front St. in Clayton, N.M.

"This is the 10th year of the Southwest Beef Symposium," said Dr. Ted McCollum, AgriLife Extension beef cattle specialist in Amarillo. "We continue to address issues of concern to the industry at large, but also at the ranch level.

"This year we are focusing on aspects as the industry hopefully turns a corner and begins to stabilize the national cow inventory and as the weather hopefully turns a corner and allows ranchers to continue the recovery from the drought conditions of the past few years."

Individual registration is \$70, which includes a steak dinner on Jan. 9, lunch on Jan. 10, refreshments and symposium proceedings.

Registration forms are available at <http://aces.nmsu.edu/register/swbeef/>. Registration and payment can be completed online or via regular mail. If registering by mail, checks should be made payable to: NM State University and mailed to: Southwest Beef Symposium, Box 30003, MSC 3AE, Las Cruces, N.M. 88003.

Although registration will be available onsite, those planning to attend are asked to complete registration by Jan. 3 to aid in meal planning. Late registrations cannot be guaranteed a meal.

For more information, go to the Southwest Beef Symposium website <http://aces.nmsu.edu/ces/swbeef/> or contact McCollum at 806-677-5600 or ft-mccollum@tamu.edu.

Nutrition plays key role in maintaining efficient cows

■ By Blair Fannin
Texas A&M AgriLife Communications

BRENHAM – Heading into the winter months, cattle producers should give careful attention to adequate nutrition of beef cattle, said a Texas A&M AgriLife Extension Service expert.

Dr. Jason Cleere, beef cattle specialist and associate professor in the Department of Animal Science, told producers at the recent South Central Texas Cow-Calf Clinic in Brenham to monitor body condition of their cattle to ensure those cows will raise a healthy calf and properly re-breed.

"Cattle markets have been phenomenal," Cleere said, "and things are green and the outlook is great."

However, lack of nutrition is one of the main causes for cattle not breeding, he said.

"Nutrition is extremely important to the cow-calf operation," Cleere said. "The way we manage cattle to calve at two years of age and have a calf every year, you've got to have some nutritional management out there for them."

Cleere said one of the most important things producers should do is look at the body condition of their cows.

"The other thing is look at manure," he said. "It varies, but it tells us what is going on with those cattle, what they are eating and the quality of their diet."

Body condition scoring is a numerical system for evaluating the condition or fatness of breeding cattle. The system ranks cattle from one, very thin, to 10 very fat. Cattle in average condition would receive a score of five. Cleere said cattle will first put

on fat in the brisket area, then behind the shoulder and onward towards the rear of the animal.

"The effect of body condition score on pregnancy rates is significant," he said. "Research indicates that cows should be at least a body condition score of 5 at calving to achieve optimum re-breeding rates."

"However, the best time to be looking at body condition score would be when you wean your calves so that nutritional management decisions can be made prior to calving," he said. "You should look at it year round, and especially during the winter feeding period to make sure the cattle are being supplemented properly."

Cleere said body condition score also impacts how much money cull cows will bring when sold. He demonstrated a cow with a body condition score of two with a value of \$50-\$60 per hundredweight. A cow with a body condition score of six was worth \$75-\$85 per hundredweight.

"If we compare the two values on these cows, it equals \$920 to \$495 in difference between the cows," Cleere said. "The heavier cow weighs 1,150 pounds versus 900 pounds on the thin cow. When it comes to making culling decisions due to drought, if we let those cows get too thin and calve, it's going to hurt reproduction rates. If it didn't rain and we had to sell, we have animals a lot less valuable if you let them get too thin. Some tried to squeeze the value out of their cows and skimp on feeding."

Cleere advised monitoring cows throughout the year to not only optimize reproduction, but to have cattle in condition to bring added dollars if forced to decrease cow numbers due to dry conditions.

SCHEDULE OF EVENTS

Dec. 23 - Jan. 1 - **Texas A&M University closed.**

Jan. 8-10 - **Equine Reproductive Management Short Course (College Station).** For more information, go to <http://animalscience.tamu.edu/academics/equine/workshops/equine-reproductive-management-short-course/> or contact Dr. Martha Vogelsang at 979-845-5796.

Jan. 9-10 - **Southwest Beef Symposium (Clayton, N.M.)** - For more information, visit <http://aces.nmsu.edu/ces/swbeef/>.

Jan. 10 - **Texas A&M Farrier Conference (College Station).** For more information, visit <http://animalscience.tamu.edu/files/2012/06/2014-Farrier-Conference.pdf>.

Jan. 10-11 - **2014 Camp Brisket (College Station).** (SOLD OUT) For more information, visit <http://foodwaystexas.com/events/barbecue-camps/camp-brisket/>.

March 5-6 - **2014 High Plains Dairy Conference (Lubbock).** For more information, visit <http://www.highplainsdairy.org/>.

April 23 - **Animal Science External Awards Banquet (College Station).** More details available in January.

June 6-8 - **Barbecue Summer Camp (College Station).** (SOLD OUT) For more information, visit <http://foodwaystexas.com/events/barbecue-camps/barbecue-summer-camp/>.

To submit an upcoming event to be listed in the *Animal Science Monthly*, please email cacoufal@tamu.edu.



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Feature Photo



Photo by Victoria Pilger.

The Department of Animal Science would like to wish everyone a joyous and safe holiday season. Thank you for your support as we strive to educate the future generation of animal scientists, conduct basic and applied research in the areas of agriculture, life sciences and natural resources, and provide research-based educational programming to livestock owners, producers and processors throughout the state and nation.