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- Temperament and stress responsiveness affect performance of beef calves
- Aggies Down Under: Students gain unique perspective of sheep, dairy, beef and dairy production in New Zealand
- Animal Science presents alumni awards, introduces hall of fame
Howdy! Welcome to the latest edition of the Animal Science Monthly. I am pleased to update you on our programs and activities that keep us leading the nation in animal science education, research and extension. As you will see, we've been busy!

The landscape and skyline around Aggieland continues to change and grow. One of Texas A&M’s most well-known landmarks was taken down this summer to make way for future improvements to Kyle Field and to campus. The historical G. Rollie White Coliseum was home to many Aggie events and experiences including sports, concerts and graduation. More than 200,000 Aggies walked the stage there to receive diplomas.

G. Rollie was an iconic part of Texas A&M. Similarly, over the years, the Department of Animal Science has established several icons that represent the department’s teaching, research and extension efforts. Included in this newsletter, you’ll read about what makes our department special and unique – the judging team programs, summer youth camps, former and current student successes, research programs, and much more.

Specifically, in this issue we highlight our summer youth camps that attract more than 1,000 4-H and FFA members to Aggieland. Through these summer camps, young people are exposed to agriculture, livestock, the department’s faculty, staff and students, and Texas A&M - all while learning valuable life skills.

This fall, we welcomed a record number of freshmen into the animal science program, bringing our overall undergraduate student population to 1,000. It’s through programs such as the summer camps that we are able to recruit some of the brightest and most talented students and prepare them to become future leaders in the field of animal science.

Additionally, in 2013 we’ve welcomed three new faculty and are in the process of hiring a fourth. I am excited about these additions and know they will each provide valuable contributions and complement what is without a doubt the strongest group of faculty of any animal science program in the nation.

We watched as phase one of the Thomas G. Hildebrand, DVM ‘56 Equine Complex on F&B Road came to fruition, which is expected to be finished Jan. 1. With its completion, Texas A&M University will be home to the most prestigious equine complex in the nation.

Our faculty, staff and students continue to earn well-deserved awards. Likewise, our former students continue to succeed and often give much credit to their time spent at Texas A&M. For example, Joel Cowley was named President and CEO of the Houston Livestock Show & Rodeo. We are delighted to feature Joel in this issue’s Former Student Profile.

Enjoy the read – we have a lot to be proud of and to brag about, and we continue to be excited about our future. As always, many thanks for your support and friendship. I welcome your comments and suggestions. Come see us!

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 Aggieland Lamb Camp is one of several summer camps offered by the Department of Animal Science that exposes hundreds of youths and youth leaders to agriculture, showing and judging of livestock, and Aggieland.

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Each summer hundreds of school-aged kids are brought to the Texas A&M University campus, led by their interest in sports, history, engineering and science. However, for more than 1,100 4-H and FFA students and parents, it was a shared love of agriculture and animals that brought them this summer to one of the numerous camps hosted by the Department of Animal Science.

These camps are designed for students who show livestock animals or participate in judging animals at county, state and national livestock shows and competitions.

For two to three days at a time, students from around the country gather for a high impact, hands-on experience. They are taught all there is to know about being successful with their show projects or judging animals, while also being exposed to Texas A&M and the Department of Animal Science faculty, students and programs.

Call them like you see them
Evaluating livestock is more than picking the most desirable animal out of a lineup. It teaches critical thinking, decision making and confidence through defending one’s opinion on the class. The Texas A&M Livestock Judging Team and the Horse Judging Team are both nationally recognized programs, so it’s no surprise 335 competitors traveled here this year to learn from the best.

The Livestock Judging Camp brought in 215 attendees from as many as eight different states during their three sessions held in May and June. Centered on selection principles, oral reasons, live market evaluation and breeding animal performance data, students were surrounded by experts in these fields as well as current judging team members who take full advantage of encouraging the next generation of judges. Campers were even given an opportunity to test their new skills by way of a mock contest on the last day.
“Livestock judging is one of the few activities that forces students to make logical decisions then justify those decisions in an organized manner. The evaluation of livestock aids in boosting animal efficiency but in the grand scheme of things, these animals are used as a vehicle to develop young leaders,” said Brant Poe, Livestock Judging Team coordinator and coach. “We want students to come away from our camp with passion and valuable skills that will carry them into adulthood.”

Similarly, the Horse Judging Camp is growing in popularity. Dr. Clay Cavinder, associate professor and Horse Judging Team coach, said, “This year marked the seventh year I have done these camps and the attendance keeps getting bigger. We started in 2007 with 85 and have increased to as many as 125.”

During the three-day camp, students spend time with animal science faculty, receiving instruction on both halter and performance horse classes. To complement their newly acquired skills, students also participated in both large and small group instruction sessions on writing and speaking oral reasons led by current team members.

“This camp provides these kids with an experience they may not get anywhere else. It brings them to campus, helps them build relationships with each other as competitors, and gives them the tools to take home and get better at something they love to do,” Cavinder said. “Each year, we commit to getting better at conveying our message to these students and that is obvious when we see former campers going on to do big things at competitions.”

**Showing off**
The Texas A&M Department of Animal Science is one of the largest, most complex programs of its kind in the country which enables it to host one of a kind learning opportunities. For example, the Aggieland Lamb and Goat Camps are not only two of the more unique events bringing newcomers to campus, but also the largest of the camps.

**goat camp**  **lamb camp**
Training champions

Students come away from these camps with more than just knowledge gained. Just ask recent horse judging campers Lauren Moore and Trevor Yglecias, who have found success putting these newly-gained skills to use.

Lauren Moore, 16, of Canyon, Texas, has attended the Horse Judging Camp since 2009 to build upon and enhance skills she has gathered in six years of competitive horse judging. “My team and I were going to be competing at the Texas 4-H Roundup the week after camp so it was convenient to attend before the state competition,” Moore recalled. “Also, I love Aggieland and have a tremendous amount of respect for Dr. Cavinder and all of the Horse Judging Team.”

Many years of pursuing her passion and spending hot summer days in Pearce Pavilion at camp paid off this past year for Moore and her team. “My team and I won the state championship at 4-H Roundup! It was a very emotional experience because we won reserve champion team in 2012 and made a goal to win the next year, and we did,” she said. “The judging camp is so helpful, I always learn a lot and look forward to the next camp.”

Not every success story begins with an extensive agricultural background, just ask 18-year-old Trevor Yglecias from Robinson, Texas. “My parents were not involved in the agricultural field,” said Yglecias. “For the short time I have been around horses, I have learned that no matter how much you think you know about horses you will never know everything about horses and never stop learning.”

After four years of attending the Horse Judging Camp, Yglecias said there has been a noticeable difference in his performance on the judging floor. “This past season was by far the best judging season that I have had and I have to give a huge amount of credit to the Texas A&M Horse Judging Camp and Team.”

Simply being on campus each summer was a shaping experience for Yglecias. “I fell in love with A&M. I had never been to a college where you can walk by a random person and say ‘Howdy’ to them,” Yglecias said. “I hope that I will be able to attend Texas A&M for all four years.”

Welcome home

The benefits associated with attending one of the many summers camps do not begin and end with students. Each camp has become an effective recruitment tool for the Department of Animal Science. Students and parents who come to the Texas A&M campus receive more than livestock knowledge. Each person is immersed in the Aggie culture as well as the dynamics of the department. One such example is Kayley Wall, a junior animal science major whose attendance at numerous Aggieland Lamb Camps shaped her future plans.

“I already knew I wanted to be an Aggie; however, the Aggieland Lamb Camp certainly solidified my decision to attend Texas A&M,” Wall said. “As for selecting my major, I decided I wanted to claim what I had a passion for, and Aggieland Lamb & Goat Camps helped me in choosing, more so appropriately naming, the career field I was interested in.”

Once a student a Texas A&M, Wall’s involvement with the summer camps didn’t come to an end, as she has been an instructor and coordinator for the camps since 2010. “It is an indescribable feeling to have the opportunity to educate and motivate youth about their projects. I love thinking that I am helping to attract more Aggies and generate a greater interest in not only showing livestock but also the Department of Animal Science.”

For more information on the camps and other youth programs offered by the Department of Animal Science, visit http://animalscience.tamu.edu/workshops/youth-workshops/.

Olivia Norton ’16 is a sophomore animal science major from Texarkana, Texas.
Texas A&M AgriLife Extension leads 4-H Equine Ambassador Program to train future leaders

By Olivia Norton '16

Texas A&M AgriLife Extension invited 25 of the most promising equine-driven 4-H students in Texas to Gainesville in July to try their hand at becoming an equine ambassador by completing a five-day program that allowed students to walk through and participate in each facet of the equine industry.

The Equine Ambassador Program was introduced in 2012 with the help of Dr. Dennis Sigler, professor and Extension horse specialist, and Teri Antilley, Extension horse program specialist, in response to the popularity of a similar successful program, the Livestock Ambassador Program. In 2008, Extension personnel around the state noticed a need to encourage volunteer and leadership opportunities among teenage students, and that remedy came from the development of the Livestock Ambassador Program. A small group of students was chosen to be immersed in an intense, high impact experience that left them with more knowledge and passion than could have been anticipated.

"Immediately there was immense response by students willing to take the challenge to become advocates for livestock and agriculture. Similarly, the idea spread and we decided the same could be done with equine," Sigler said.

Dr. Billy Zanolini, Extension 4-H and youth development specialist, has been involved with each program since the beginning. “4-H programs were in need of a way to utilize youth volunteers. Putting the students in a position where they will be held to a standard of leadership and excellence in their field does just that.”

The Equine Ambassador Program sought the brightest 4-H students with an affinity for the equine industry through an application process. Once chosen, these students were sent to Lone Oak Ranch in Gainesville for five days where they were surrounded by industry professionals with experience in every aspect of the equine platform. Guest speakers covered topics such as basic horse management, nutrition, conformation and selection, breed associations issues, horse farm and horse industry business tours, leadership training, current topics affecting the industry, communication, organization and teamwork skills.

The training didn’t stop there, however. “In order to become an official ‘Equine Ambassador,’ the students had to pass a rigorous written test at the end of the program,” Sigler said. “They must then log a minimum number of hours over the next year in service and educational activities for their local 4-H clubs, their counties or for the horse industry.”

While the in-depth knowledge gained by each student is enough to make an impression on each of their equine industry paths, perhaps the most notable impact the program has on each student is the opportunity to become instrumental in educating their peers.

“It’s easy to see the transformation students make through this program as we train them to become leaders,” Sigler said. “They are able to take ownership of the information they have learned and take it back to their county clubs, apply it to their own future and the betterment of the equine industry as a whole.”

With each passing year, the expectations of these ambassadors are growing. Not only do they have a responsibility to their county, but they are now viewed as advocates for the entire equine industry.

“Through this program, we have found new ways to give each ambassador a better sense of responsibility and leadership within their county,” Zanolini said. “As the program grows we would like to further credit those high achieving students by giving them opportunities statewide, nationally and even internationally.”

The Equine Ambassador Program will move to Texas A&M University in College Station in 2014. The move is intended to provide a stronger connection between ambassadors and the continuation of their learning experience by taking advantage of facilities and faculty. Texas A&M AgriLife Extension specialists make providing new and exciting opportunities for the future ambassadors a priority of the program, Sigler said.
Temperament and stress responsiveness affect performance of beef calves

Cattle producers and caretakers are probably familiar with the ‘fight or flight’ concept, which is the ability of an animal to react quickly to a real or perceived threat (stressor). The manner in which cattle react to threats, humans, a fearful situation or a novel, stressful environment, is its temperament.

Temperament of cattle is a topic of increasing interest to the U.S. beef industry because of its negative relationship with animal wellbeing, health and productivity. Temperamental cattle can be excitable, stress responsive or wild and may injure their caretakers, other cattle or themselves, and they may damage facilities. Temperament is a heritable trait; therefore the beef industry may apply selection tools to improve their herds, protect animal wellbeing and enhance profitability.

For these reasons, the genetic basis, physiological mechanisms and practical impact of temperament and stress responsiveness continue to be investigated by Texas A&M AgriLife Research and Extension personnel in the Department of Animal Science.

Dr. Ron Randel, professor, regents fellow and senior AgriLife Research faculty fellow stationed in Overton, and Dr. Tom Welsh, professor and AgriLife Research faculty fellow, are two of the scientists in the Department of Animal Science who investigate the influence of stress and temperament on performance of beef cattle. Their research team has studied these relationships in weaning age cattle, and is currently studying the effect of prenatal stress on postnatal temperament, health and performance of beef calves.

Temperament and stress: definition and relationship to cattle management

Temperament is defined as the manner in which cattle respond to humans, a fearful situation or a novel environment. Stress is defined as the instance when animals make physiological or behavioral adjustments to cope with a stressor.

“The stress response helps an animal maintain balance or homeostasis. Temperamental animals are more stress responsive than their calmer herd mates,” Welsh explained.

Many production practices such as weaning, ear tagging, branding, castration, vaccination, social mixing, and transportation can be stressful for cattle, Randel said. Furthermore, temperamental cattle have reduced growth rates, carcass traits and immune function.

“Reduction of stress in a herd of cattle should result in improved productivity and profit. Selection of cattle with more easily managed temperaments will result in less stress as well as reduced risk in handling the cattle for routine management,” Welsh said.

Evaluation of temperament and stress responsiveness

To study temperament, the Randel-Welsh team used the pen score and exit velocity methods. Pen score is a subjective method to measure a calf’s reactivity to a human observer and is ranked on a scale of 1 (described as calm, docile and approachable) to 5 (described as volatile, very aggressive and wild). Exit velocity, the rate at which a calf traverses a defined distance of 6 feet after exiting a working chute, provides the team with an objective measure of temperament.

Through collaboration with Dr. Rhonda Vann at Mississippi State University and Dr. David Riley, associate professor of animal breeding and genetics in the Department of Animal Science at Texas A&M, the team documented that temperament and exit velocity are repeatable, moderately heritable traits. Hormone assay methods were used to demonstrate that the more temperamental cattle have greater peripheral blood concentrations of the adrenal gland derived stress-related hormones cortisol and epinephrine. Cortisol stimulates the production of glucose and stimulates the breakdown of muscle protein. Epinephrine (i.e., adrenaline) increases plasma concentration of glucose and non-esterified fatty acids by stimulating the breakdown of glycogen and triglycerides.

These hormonal and metabolic biomarkers have been positively correlated with subjective and objective measures of temperament in beef calves from birth to weaning age in studies conducted by Randel and Welsh and their collaborators, Vann at MSU and Dr. Jeff Carroll and Dr. Nicole Burdick with USDA ARSLivestock Issues Research Unit in Lubbock. The team uses these methods to study temperament’s association with health and performance traits of growing calves.

Newborn Brahman calves that are prenatally stressed are less competent to survive bacterial disease than nonstressed calves.

Temperament and stress responsiveness affect performance of beef calves
Prenatally stressed suckling calves are more temperamental than their nonstressed herdmates.

Temperament’s association with performance and health traits

Randel and Welsh graduate students conducted a series of collaborative studies with Department of Animal Science, Texas A&M University-Kingsville, USDA ARS Clay Center and Lubbock, Texas A&M College of Veterinary Medicine and Biomedical Sciences, Mississippi State University, Texas Tech University and Texas A&M AgriLife Extension personnel to study temperament’s association with performance and health traits of beef calves. They determined that stress-responsiveness and temperament at weaning were negatively associated with post-weaning immune function, feed intake and carcass traits.

For example, Welsh said temperamental steers had higher concentrations of stress-related hormones and a lesser degree of dry matter intake which was suggestive of a negative effect of temperament on feeding behavior. Also, the more temperament steers yielded less tender carcasses (based on increased shear force) and temperamental cattle had less fat stores (marbling, indicative of a negative effect on quality grade).

Temperament may affect white blood cells and influence susceptibility to viruses and bacteria.

Specifically, lymphocytes of temperamental calves produced less antibody relative to calm calves after vaccination at weaning time. Recent studies indicate that white blood cells of temperamental calves have less bactericidal activity than those from calm calves from 24 hours to 6-to-9 days post-weaning which may make these stress responsive calves more susceptible to pathogenic bacteria.

The team, in conjunction with Dr. Sara Lawhon, veterinary pathobiology, now studies the influence of temperament on susceptibility to enteric diseases and shedding of Salmonella typhimurium and E. coli in weaned calves.

Effect of prenatal stress on postnatal temperament, performance and health

Randel has stated that “One’s health begins in utero,” therefore, new projects focus on the impact of prenatal stress on postnatal stress responsiveness, temperament, immunity, feeding behavior, and metabolism of young cattle from birth to weaning age.

The Randel-Welsh team recently found that prenatally stressed neonatal calves are more temperament and have alterations in immune characteristics and energy metabolism that may negatively affect growth and health.

The Randel-Welsh team is one of several research groups within the Department of Animal Science that studies trans-generational metabolomic and health effects of prenatal stress. This topic is relevant as more evidence accumulates that postnatal health and productivity are affected by prenatal experiences. Determining the physiologic and genetic mechanisms that control temperament and stress responsiveness should improve animal wellbeing and enhance profitability in the beef industry.
In August, a group of 27 animal science students traveled down under to learn about international agriculture in New Zealand. The study abroad program, New Zealand Agriculture and Animal Production, provided students with a general understanding and evaluation of many aspects of the livestock industry, the role of international agriculture and its demands, and new technologies used in New Zealand. From Aug. 7 - 20, students gained hands-on experience through the exploration of New Zealand’s wool and lamb production systems dairy farms, deer farms, goat farms, beef cattle operations and forage production systems. They also visited a New Zealand livestock show and a couple of diversified crop production systems.

The students were led by Dr. Shawn Ramsey, associate professor, Donna Witt, senior academic advisor, and Sarah Sharpton, academic advisor. The study abroad trip was partially funded by the 2015 High Impact Program.

Above, Pictured at the natural hot springs in Rotorua, Animal Science students who attended were John Long, Garrett Stribling, Tyler Coufal, Gracie Valdez, Jessica Porras, Rebecca Kirkpatrick, Meridith Wilde, Kayley Wall, Sydney Reese, Misty Jackson, Kathryn Davin, Camryn Stoll, Helen Kline, Emily Von Edwins, Erika Wiggs, Summer Churchill, Lauren De Jong, Shelby Spikes, Marissa Wade, Katherine Salom, Maci Valdespino, Hope Gonzalez, Morgan Williams, Amelia Gonzalez and Melissa Grieve along with Brain Cesari, agricultural leadership and development, and Dillon Garr, agricultural economics.

Right, the picturesque view of snow-capped mountains was constant as the group made their way through the countryside. Driving to each destination provided students the opportunity to gain a first-hand understanding of the culture and surroundings of New Zealand.
As the tour continued on to Ngongotaha, a trip to the Agrodome introduced students to New Zealand’s local breeds of sheep, milking production, and working sheepdogs. The presentation also included an unfamiliar breed, the Perendale, developed by Massey University. The Agrodome educates visitors by way of animated presentations and shows using live animals and demonstrations.

The golden kiwi, found on a farm in Rotoura, is unique in the fact that it is the only fruit susceptible to *Pseudomonas syringae pv actinidiae*, a virus that causes small white bumps on the fruits’ exterior and renders it inedible. Unfortunately, a portion of the immediate crop had been affected in recent months. The farmer shared his methods of coping with the virus as well as managing large-scale production on a limited piece of land. A trip to a kiwi farm would not be complete without a sampling of the product. Students still marvel at the memory of the decadent fruit.

A day in Blenheim brought the group to the Avery farm, where they visited with farm owners who explained their land-to-profit ratio and how it related to livestock production in their region.

Students also visited Top Flite, a birdfeed producer, in Twizel. The ownership team explained different ideas pertaining to their specialty products, sales, and market strategy.

Students took in the ways of a large scale cattle and sheep station.

“This trip gave me a more realistic grasp of international agriculture since I was able to see it in a setting other than the classroom. As we saw the technology and methods of professionals in the field, it was an encouragement to realize that we, as the students, would soon be taking on those important roles to make an impact on that same industry.”

Katherine Salom
animal science, class of 2016
animal culture and the animal agriculture community have played a significant role in the progress our field has seen over the past 50 years," said Dr. Russell Cross, professor and head. “We felt it was time for the department of animal science to celebrate our former students' successes as well as others in the field who have become true pioneers in animal agriculture.”

### Outstanding Young Alumni Award

The Outstanding Young Alumni Award recognizes a graduate of the department within the past 12 years who has, early in their career, attained prominence in the field of animal science and brought honor to the department.

Rachel Cutrer is president and creative director of Ranch House Designs, a full-service web and graphic design agency located in Wharton, as well as a seventh-generation cattle rancher and Brahman breeder. Under Cutrer's leadership, Ranch House Designs has grown into a worldwide leader in livestock advertising, with more than 3,000 clients in North America, South America, Asia and Australia. In 2012, Cutrer published her first book, “Livestock Merchandising,” which is currently sold in four countries and used as a college textbook in the U.S. and Canada. The company has been the recipient of the Aggie 100 Award for five consecutive years.

A 2001 graduate of animal science, Cutrer also earned a master’s degree in communication from Michigan State University in 2003.

### Outstanding Alumni Award

The Outstanding Alumni Award recognizes a graduate of the department who has built a distinguished career in animal science and brought honor to the department.

Dr. Gary Smith is a university distinguished professor emeritus in the Department of Animal Science at Colorado State University where he occupied the Monfort Endowed Chair in Meat Science from 1990 until his retirement in 2010. Previously he served as professor from 1969-1982 and head of the Department of Animal Science at Texas A&M from 1982-1990 and remains an adjunct member of the graduate faculty. This award recognizes Smith as an accomplished researcher, a gifted teacher and legendary mentor to students, professors and technical specialists throughout the meat industry. His research interests include carcass evaluation and grading; composition, quality and palatability of red meat; red meat safety; and packaging and retailing of red meat. He has traveled the world extensively in support of animal agriculture and has received numerous awards including induction into the Meat Industry Hall of Fame in 2009.

Smith earned a bachelor’s degree in general agriculture/agricultural education from California State University – Fresno; a master’s in statistical animal breeding from Washington State University; and a doctorate in meat science and muscle biology from Texas A&M University.

Frank Litterst earned a bachelor’s degree in animal husbandry in 1943, and after graduation he worked in feed sales and operated a successful cattle business. In 1965, he started working for the department as a beef cattle specialist and traveled 350,000 miles and helped more than 12,000 ranchers improve their herds through his beef cattle short courses. In 1975, he became a lecturer in the department and over the course of 14 years taught more than 8,000 Aggies.

Litterst remains an avid supporter of the department by providing generous scholarships. He is the recipient of the Association of Former Students Distinguished Achievement Award for Extension in 1975 and for Teaching in 1984, and received its highest honor, the Distinguished Alumnus Award, in 2009.

### Hall of Fame

The Animal Science Hall of Fame was created to celebrate outstanding individuals who, through their exceptional work and achievements, advanced the field of animal science and made a profound difference in the productivity of animal agriculture.

E.M. "Manny" Rosenthal, a 1942 Texas A&M graduate, was chairman emeritus of the board at Standard Meat Company in Fort Worth and namesake of the Rosenthal Meat Science and Technology Center at Texas A&M. According to his award nomination, many of the current business models in the meat industry can trace their history to the influence of Rosenthal’s models developed throughout his career including the philosophy of “selling, then cutting” rather than “cutting, then selling.”

A proud Aggie and philanthropist, he and his wife, Roz, donated the first endowed chair in the Department of Animal Science, which was the first chair in the U.S. designed to support research...
and education in meat science. They later established the Manny and Roz Rosenthal Endowed Fund to further support teaching, research and outreach by animal science educators and students.

Rosenthal was posthumously inducted into the Meat Industry Hall of Fame in 2011, and in 2012 he was posthumously awarded Texas A&M AgriLife’s highest honor, the Distinguished Texan in Agriculture Award.

Paul Engler, a 1944 agriculture graduate of the University of Nebraska, founded Hereford Feedyards in 1955 and Cactus Feeders in Amarillo in 1975, and he now serves as chairman emeritus of what’s become the largest privately owned fed-cattle producer in the U.S. According to his award nomination, Engler is a pioneer of the Texas cattle-feeding industry because his leadership, vision and foresight are largely responsible for shaping the Texas industry. He also is recognized for developing the formula price method of fed cattle sales in 1987, which provides incentives to feeders to consistently produce beef that meets consumers’ health and quality demands.

Engler is a strong supporter of research and educational programs in agribusiness and has been inducted into the Cattle Feeders Hall of Fame and the Meat Industry Hall of Fame.

Dr. Zerle Carpenter is a respected professor and leader in animal science, meat science and Extension administration. His 35-year career with the Texas A&M University System started as an assistant professor in the Department of Animal Science in 1962. He rose through the ranks and in 1978 was named head of the department. In 1982, he was named director of the Texas Agricultural Extension Service – now Texas A&M AgriLife Extension Service – and in 1988 he was named associate vice chancellor for agriculture. Carpenter gained national attention for innovative leadership when he launched issue-based Extension programming in Texas, which became a model for redirecting Extension programming efforts in other states and at a national level. As a meat scientist, Carpenter has authored more than 600 articles, papers, abstracts and other professional publications.

In recognition of his valuable contributions, the Department of Animal Science established the Dr. Zerle L. Carpenter Award in Meat Science, an award given annually to a graduate student who demonstrates leadership skills and has made significant contributions to meat science teaching, research and Extension.
Graduate internships provide new learning experience

By Olivia Norton ’16

The summer of 2013 brought a new kind of challenge and opportunity for two animal science graduate students. Levi Trubenbach and Alyssa Word, both seeking a master’s of science, jumped at the chance to gain hands-on experience in the form of an internship with Cactus Feeders, a large scale cattle feeding operation based out of Amarillo, Texas.

Collaboration between Dr. Mike Engler, Cactus Feeders president and member of the Department of Animal Science External Advisory Council, and Dr. Jason Sawyer and Dr. Tryon Wickersham, both associate professors, put the idea for a graduate intern position in motion.

“Dr. Sawyer and I, thought Levi and Alyssa would do a good job based on their performance as master’s students,” Wickersham said. “An opportunity to work with Cactus Feeders would benefit their individual programs.”

Taking a step outside of the classroom of Texas A&M isn’t the normal procedure for graduate students. However, these new internships provided a chance to explore a relevant sector of the beef cattle production system.

Each of the three-month internships was tailored to the specific purpose and knowledge base of Trubenbach and Word. The Cactus Feeders professional staff, chief operating officer, and director of research coordinated with Wickersham and Sawyer in order to utilize the skills of the two students in a way that would meet direct business needs, benefit each student, and further both their academic and professional careers.

“After hearing from the students about their individual career goals, our team refined the program to meet their needs,” said Justin Gleghorn, a representative for Cactus Feeders. “In the end, we arrived at two very distinct projects that took advantage of the student’s individual education and experience while broadening their business and professional experience.”

Trubenbach was chosen to create a decision support tool to assist Cactus Feeders in making cattle procurement decisions. Word focused on the development of a database containing Cactus Feeders research details and assisted in multiple ongoing research projects at Cactus Feeders.

“I spent a lot of time analyzing large datasets. The tasks involved with manipulating these massive files really taught me how to utilize computer functions that are highly applicable to my own data,” Trubenbach recalled. “I also learned a lot about the macroeconomics in the cattle industry. We spent a lot of time discussing variables that could potentially have a large impact on sustainability.”

After completion of the internship, Trubenbach was able to see the benefits of such a unique opportunity. “The internship broadened my perspective on the industry as a whole,” he said. “We typically focus on the sector of the cattle industry in which we have the most interest, but Cactus Feeders gave me the opportunity to focus on an area that I did not have experience in.”

Trubenbach and Word returned to Texas A&M with new experiences that have made a noticeable impact on their performance back in the classroom.

“Upon their return, both students are better able to see and share the relevance of research conducted at Texas A&M and in the information presented in class,” said Wickersham. “Seeing beef cattle production from a ‘real world’ perspective has allowed them to have a more complete view of how their research and results can impact beef production.”

All parties involved were able to see tangible results after each internship, and collaboration between the Department of Animal Science and Cactus Feeders will continue in the future. “Both internships were certainly a success from our point of view; the students were top quality and produced excellent work,” Hazelwood said. “The professors were committed to the students’ success and engaged around our needs, and we will definitely continue to develop programs that benefit both Cactus Feeders and the Department of Animal Science.”
No stranger to the livestock industry, Joel Cowley has been involved with livestock since his youth. His interest in livestock started as a youth 4-H member and grew throughout his college days. Now well into his professional career, Joel recently embarked on one of his most exciting livestock adventures.

In August, Cowley was named president and CEO of the Houston Livestock Show and Rodeo, the largest livestock show and rodeo in the world. Cowley began his new duties after spending eight years as the Show’s executive director of agricultural competitions and exhibits. He will continue to work with the extensive volunteer base and staff to carry on the Show’s success.

Cowley first attended the Houston Livestock Show as an intercollegiate judging contestant in 1985, and has participated in every Show since 1988 as a judging team coach, livestock judge or employee.

As a youth 4-H member, Cowley was active in livestock projects and a member of national champion 4-H wool judging and livestock judging teams. He received a bachelor’s degree in animal science from Colorado State University, a master’s in animal science from Texas A&M and an MBA from Michigan State University.

While at Texas A&M, he coached more than 75 students from the 1989 to 1994 livestock evaluation teams as a lecturer and livestock judging team coach. These students competed with universities from across the nation and brought back dozens of trophies and banners in recognition of their hard work and livestock knowledge.

Prior to joining HLSR, Cowley worked for Certified Angus Beef LLC, as executive account manager in the international division and as assistant director of the food service division. Before joining CAB, he served as an extension beef cattle specialist at Michigan State University.

Here’s what Joel had to say about his time at Texas A&M and his current success:

● Do you feel your advanced degree in animal science and your time at Texas A&M has helped you prepare for where you are today?

Without question. With all due respect to my other alma maters and the great universities around the country, Texas A&M had, and continues to have, the finest animal science faculty in the nation. The relationships that I developed and the lessons that I learned, both in and out of the classroom, were a tremendous springboard in my professional development.

● What are you currently doing and how has your passion developed for this area of work?

I currently serve as president and CEO of the Houston Livestock Show and Rodeo. My passion for the stock show industry is a direct result of the impact that the junior livestock program had upon my early development. Having lost my father when I was eight and my mother when I was nine, my two brothers and I were adopted by our paternal grandparents. Despite living on a fixed income, my grandfather enrolled us in 4-H and made sure that we had the opportunity to raise livestock projects and participate in livestock judging. With the exception of home environment, nothing has had a greater impact on my personal development than my participation in these activities.

● What activities did you participate in as a graduate student? What is your fondest memory?

Though I enjoyed participating in many traditions and events that are unique to Texas A&M, the vast majority of my time was consumed with teaching class and coaching the livestock judging team. As a result, my fondest memories are related to the relationships that I developed with students and the successes that they experienced as a result of their hard work.

● Additional thoughts?

I believe that we succeed in life because other people believe in our character and our ability. I was very fortunate to earn the belief of many great people during my time at Texas A&M University. For any students who may be reading this, I would advise them to seize the opportunity that they have to do the same.

Former Student

Joel Cowley

“I believe that we succeed in life because other people believe in our character and our ability.”
Animal nutrition played a vital role in Tryon Wickersham’s life growing up around his parents’ cow-calf operation. Little did he know, a move to Texas following high school in Colorado would bring him to Texas A&M to pursue a degree in that very subject of livestock production.

While Wickersham has always been partial to the agricultural world, he began his career at A&M on a different path. “My parents asked me to apply to Texas A&M when we moved to Texas and I got in,” said Wickersham. “I actually started off in agricultural engineering. After one semester, I chose to move into animal science because I did not like engineering too much.”

Back to his roots, it didn’t take long for Wickersham to realize this was the path he was meant to be on. “I was interested in ruminants when I started school so I took Dr. Wayne Greene’s honors nutrition course, a course I now teach, and that solidified my interest in nutrition,” Wickersham recalled. “I knew by the time I was a sophomore that I wanted to be a professor at Texas A&M.”

His decision to pursue graduate studies was greatly influenced by the impact certain animal science professors had made during his four years in the Department of Animal Science. “While at A&M, I worked for Dr. Gordon Carstens and got a lot of exposure to graduate school and graduate students. Accordingly, I knew graduate school would be a good fit,” Wickersham said. “Dr. Chris Skaggs was also instrumental in me becoming a professor. His ability to push me beyond myself showed me the tangible effects of pouring into a student’s life.”

Wickersham received both his master’s degree and doctoral degree from Kansas State in ruminant nutrition and returned to the Texas A&M family in 2006, this time as a faculty member. His position in animal nutrition has become a place where his interests, passions and job collide.

While he does teach the undergraduate Principals of Animal Nutrition course, the majority of his time is spent working with and mentoring his graduate students. “It is amazing, getting to individually work with a person for a number of years. You can really see them grow and you can impact their lives,” Wickersham said. “Graduate students are why I do this job. Big classes

Wickersham driven to success by opportunities to impact students

By Olivia Norton ’16
don’t work for me because I like individuals and want to see them succeed.”

While Wickersham and his team have numerous projects running, current graduate students’ projects include feeding algae to cattle, differences in nitrogen metabolism between bos indicus and bos taurus cattle and feeding ionophores to grazing cow/calf pairs to look at adaptation in the calves and performance in cows. Wickersham is trained in the supplementation of protein to cow calf pairs and grazing cattle.

Because of the readily available facilities and capacity at Texas A&M to facilitate research of this kind, Wickersham has found a collaborative partner in Dr. Jason Sawyer. “Since I have been at A&M, the research has become a lot broader,” he said. “Dr. Sawyer and I have different backgrounds but similar enough interests to enable us to do a lot of different things as far as our graduate students’ research goes.”

Success in the classroom and achieving research goals are expected of Wickersham as a member of the animal science faculty, but it is the extra mile he is willing to go for his students that peaked the interest of COALS Council. In 2011, they nominated Wickersham for his first teaching award, the Association of Former Students Distinguished Achievement Award for Teaching at the College Level. “This award is very special to me particularly because the nominations normally come directly from each department, but the students in COALS were able to submit my nomination,” Wickersham recalled, “which was really neat because that recognition is coming directly from students.”

Since 2011, Wickersham has gone on to receive the Texas A&M University College of Agriculture and Life Sciences Honorary Professor, the Association of Former Students Distinguished Achievement for Teaching at the University Level, and the Dean’s Outstanding Achievement Award for Teaching College of Agriculture and Life Sciences.

By winning the Association of Former Students university level award, Wickersham’s time at Texas A&M has come full circle. “You receive a watch for winning and I remember noticing the same watch that I now have on a few of my professors when I was a student,” he said. “The student recognition that came with this award is the most rewarding.”

He credits these awards to being surrounded by students who want to be in the classroom and his ability to teach a subject that he and the students are passionate about.

Outside of his office, it is no surprise Wickersham doesn’t find himself far from cattle, as he lives on his parents’ cow/calf operation outside of Bryan with his wife Erin and five-year-old daughter Katherine. If you catch him on a fall Friday afternoon, once the grade book and lab have been closed, fighting Texas Aggie football will be mentioned, no doubt, as that is one of his favorite events to take part in.

While Wickersham travels from state to state or to the country of Georgia this winter to learn about their beef cattle industry, he always looks forward to time in Aggieland surrounded by motivated students and graduates. Wickersham recognizes that his journey to Texas A&M and back again “taught me the value of being passionate about your subject, your students, and your students’ success.”

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

Wickersham says mentoring graduate students is one of the most rewarding parts of his job. To date, Wickersham has served on 21 graduate student committees that have been completed.

Wickersham served as an instructor for the Jim Theeck ’65 Beef Cattle Seminar Tour of the Texas Panhandle where he readily shares his knowledge of the Texas beef industry with a group of animal science students.
The Department of Animal Science offers a solid graduate program supported by a current curricula, faculty mentors who are well-known experts in their field of study, and the animal and facility resources needed to excel in a successful research program. On average, more than 120 students are enrolled in graduate studies, seeking either a master's or doctorate degree in animal breeding, animal science or physiology of reproduction. Several animal science faculty and their graduate students participate in interdisciplinary degree programs including biotechnology and genetics. In addition, students may pursue a certificate in meat science or a certificate in food safety to accompany their degree. Advanced study in these areas prepares students to pursue careers in academia, research, extension education, livestock and dairy production, and in industries involving feed technology, livestock products, development and application of biotechnology and livestock managements. On a regular basis, our graduate students are recognized at the university and national levels for their teaching and research achievements.

ASHLEY B. KEITH
Doctorate, Physiology of Reproduction
Expected August 2015

Ashley B. Keith is seeking a doctorate in physiology of reproduction working under the direction of Dr. Carey Satterfield and Dr. Kathrin Dunlap. Her primary research focuses on the consequences of maternal nutrient restriction on placental development and function, along with subsequent fetal development, in ruminants. As a graduate student, Ashley teaches lab sections for ANSC 433 - Reproduction in Farm Animals, serves as chair of the Animal Science Graduate Student Association and is the animal science representative for the Graduate Student Council. She received the Ronnie L. Edwards Graduate Teaching Award in 2012. Upon graduation in August 2015, Ashley hopes to continue in education and research in an animal science or physiology faculty position. Ashley earned a bachelor's in animal science from Texas A&M.

Why did you choose Texas A&M for your graduate studies?
As an undergraduate, I received the chance to work on a research project in Dr. Satterfield’s lab, which sparked my interest in focusing on placental development and intrauterine growth restriction. The opportunity to study under his instruction, along with Drs. Kathrin Dunlap, Fuller Bazer and Guoyao Wu, for my graduate career was one that I could not pass up, as they are some of the top researchers in this field of study. Also, as an alumnus of the university and department, I knew the prominence and the exceptional atmosphere that exists throughout the educational, research and extension programs.

RAUL VALDEZ
Master of Science, Animal Science
Expected December 2013

Raul Valdez is seeking a master of science in animal science under the direction of Dr. Clay Cavinder. The primary focus of his research is to assess blood plasma concentrations of testosterone, luteinizing hormone, and estrone sulfate in stallions following hemicastration in order to provide insight to better understand the hormonal profiles in stallions following hemicastration. Raul teaches a lab section for ANSC 311 - Equine Behavior and Training; ANSC 420 - Equine Production and Management; and ANSC 481 - Seminar. He coaches the Stock Horse Team and helped guide them to the 2012 National Championship and the 2013 Reserve National Championship. He has traveled to Norway, Sweden, Poland and Switzerland with a group of Texas A&M equine students who conducted horsemanship clinics. Upon graduation, Raul plans to pursue a doctorate in animal science and continue his research in equine reproductive physiology.

How have you been able to tailor your graduate studies to prepare you for the future?
Between going to class, studying for exams, teaching labs, research, and extracurricular activities, graduate school is challenging and may seem overwhelming. However, graduate school is worth all the sleepless nights and long days. I have learned a significant amount about my graduate area of focus through my courses, the professors, and the research that I have conducted. I have had great opportunities to work with knowledgeable faculty members who have guided me through school with the ultimate goal of working in the equine industry. Because of the many expectations of graduate school, I have developed my written and oral communication skills as well as a strong work ethic.
KYLE WELDON
Master of Science, Animal Science, 2013

Kyle Weldon joined Anipro/Xtraformance Feeds in College Station in June 2013 as a beef cattle nutritionist/technical support. He provides support to the sales staff and provides consulting and nutrition advice to cow-calf producers across the United States. Kyle graduated with a master of science in animal science in 2013 and worked under the direction of Dr. Tryon Wickersham.

How did your degree prepare you for your current job?

Working in Dr. Wickersham’s ruminant nutrition lab was tremendous in preparing me for my new job. Along with a great set of graduate courses, the research conducted in our lab and out at the barn with the animals facilitated a great number of opportunities to learn and develop skills that can be applied to my job in the industry. My research was focused on supplementation of low-quality forages and improving our understanding of nitrogen metabolism of different beef cattle subspecies. With the drought conditions in the U.S., gaining a better understanding of how to improve the utilization of poor quality forages that must be fed under these conditions is critical for the beef industry. I still have much to learn, but I know that I have a solid foundation from my time at Texas A&M.

LAUREN L. HULSMAN HANNA
Master of Science, Animal Breeding, 2010
Doctorate, Animal Breeding, 2013

Lauren L. Hulsman Hanna is an assistant professor of genetic improvement of livestock at North Dakota State University in Fargo. She joined their faculty in June 2013 and is responsible for teaching undergraduate and graduate courses in genetics and animal breeding as well as other courses depending on departmental needs. Also, she develops educational materials pertaining to genetics and modern livestock animal breeding, is responsible for advising undergraduate students, provides mentorship to clubs as needed, and actively participates in graduate student training. Her research will focus on genetic improvement of livestock, particularly in beef cattle. Lauren is a three-time graduate of Texas A&M. She received a bachelor's of animal science in 2007; a master of science in animal breeding in 2010 under the direction of Dr. Clare Gill; and a doctorate in animal breeding in 2013 under the direction of Dr. David Riley.

How did your graduate degrees prepare you for your job?

I was fortunate to experience both a research assistantship and a teaching assistantship through my degree programs. I am extremely thankful for those opportunities as they allowed me to see and experience both sides of academia. The research assistantship allowed me the hands-on training in the lab or on side projects that really expanded my understanding of animal breeding and genetics. My teaching assistantship not only allowed me to become more confident in my teaching ability, but also created a stronger passion for helping students understand my field of study. Balancing those with my own projects and courses helped strengthen my time management skills, but most importantly I had advisors who were very supportive of allowing me to become highly involved in organizations on campus.

MEAGAN IGO
Master of Science, Animal Science and Graduate Certificate in Meat Science, 2013

Meagan Igo joined the American Meat Science Association as youth programs coordinator in July 2013. Primarily, she provides support for the current intercollegiate and 4-H meat judging programs and plans to enhance and expand education for future generations of meat scientists at the primary, secondary and university levels. Meagan graduated from Texas A&M with a master of science in animal science with a graduate certificate in meat science in August 2013 working under the direction of Dr. Jeff Savell.

You've been involved with the judging program for years including serving as coach for the Texas A&M Meat Judging Team. Explain how these experiences help you in your current job.

My judging and coaching of judging teams is what gave me my passion for working with students, and in particular the judging program. There is something special about working with students who want to be involved in a program and have a desire to be successful in an industry I care so much about. My coaching experience allowed me to have a deeper knowledge of my trade and to have a better understanding of the current judging program. Texas A&M and the meat science section gave me a great opportunity to pursue my dreams both coaching and with my career, as this was the job I told Dr. Davey Griffin and Dr. Jeff Savell I wanted when coming to College Station for my graduate program interviews. They encouraged me to pursue the opportunity when it became available.
**Cross, former animal science professors named to BEEF 50**

**College Station — Dr. H. Russell Cross, professor and head of the Department of Animal Science, has been recognized by BEEF magazine as one of the top 50 beef industry leaders in the United States.**

The BEEF 50 recognizes industry leaders who have been instrumental in the direction and development of the U.S. beef industry and marks the magazine’s 50th year of publication.

“The final 50 make for an interesting glimpse into the history, drive and resourcefulness of those who built, and are engaged in, this vital industry,” according to BEEF magazine.

Cross’ contributions to the beef industry include some of the most significant food safety measures adopted in the latter half of the 20th century, according to the magazine.

He has 40 years of experience in the food industry, holding or having held numerous positions in government, academia and the private sector.

Cross was the founding director of Texas A&M’s Institute of Food Science and Engineering. In 1994, as head of Texas A&M’s Center for Food Safety, he organized and led an international meat and poultry alliance that applied Hazard Analysis Critical Control Point principles, a food safety protocol that revolutionized meat processing. Soon thereafter, the U.S. Department of Agriculture Food Safety and Inspection Service began requiring these same principles in all domestic meat and poultry processing plants, along with foreign companies exporting meat to the U.S.


Within the private sector, Cross was the CEO and chairman of Future Beef Operations LLC. He served as director of food safety for IDEXX Laboratories. Within National Beef Packing Co., Cross served as executive vice president of Food Safety/Government and Industry Affairs. In addition, he was vice president of DuPont Food Industry Solutions.

Cross has received other industry and academic awards including induction into the Meat Industry Hall of Fame in 2009. Joining Cross on the BEEF 50 list are two former Texas A&M animal science faculty members, Dr. Charles E. Murphey and Dr. Gary C. Smith.

Murphey was considered for more than two decades to be the nation’s authority on livestock and meat standards and specifications, according to BEEF magazine.

Murphey, who died in 1988, served for 35 years as a livestock and meat marketing specialist for USDA. He observed in the 1940s that livestock, carcasses and meat were too fat. Following a series of investigations, Murphey developed the well-known “Murphey Equation,” which led to the establishment of the USDA Beef Yield Grades in 1965.

More than 20 million beef carcasses from fed cattle are yield-graded each year with application of the same Murphey Equation he devised almost 50 years ago. Murphey’s insistence regarding the importance of beef cutability to cattle producers, meat packers, retailers and consumers is said to have resulted in the savings of billions of dollars to the industry.

Born in Attica, KS, Murphey opened and closed his career in meats research at Texas A&M University, retiring in 1983. Murphey was Cross’ first boss in Washington D.C. following his doctorate in 1972.

Gary Smith is a distinguished professor emeritus of the Department of Animal Science at Colorado State University (CSU), where he occupied the Monfort Endowed Chair in Meat Science from 1990 until his retirement in 2010. Smith is an accomplished researcher, a gifted teacher and legendary mentor to students, professors and technical specialists throughout the meat industry. An internationally established meat scientist, he is considered one of the world’s top meat safety experts.

Prior to his service at CSU, Smith served as professor (1969-1982) and head (1982-1990) of the Department of Animal Science at Texas A&M University, and remains an adjunct member of the graduate faculty. Smith’s work in the composition, quality, safety, packaging and retailing of red meat earned him scores of awards. They include the Distinguished Research Award and the Distinguished Teaching Award from both the American Society of Animal Science and the American Meat Science Association.

He has authored more than 1,000 articles in scientific journals, conference proceedings, technical reports and industry magazines. He was chairman of the National Academy of Sciences committee that wrote “Irradiation of Meat and Meat Products,” and a member of the committee that wrote “Designing Foods.” He was inducted into the Meat Industry Hall of Fame in 2009.

**Faculty receive promotions**

Effective Sept. 1, several animal science faculty members received academic promotions. Congratulations to Dr. Jason Banta, associate professor and Extension beef cattle specialist stationed in Overton; Dr. Matt Taylor, associate professor; Dr. Davey Griffin, professor and Extension meat specialist; and Dr. Clare Gill, professor.

**Gill named Texas A&M faculty ombuds officer**

**College Station — Dr. Clare A. Gill, professor in the Department of Animal Science, accepted the position of faculty ombuds officer at Texas A&M University effective Sept. 10, 2013. Gill was selected for the position after a campus-wide search, filling the position vacated when Dr. Michael Benedik became dean of faculties.**

The faculty ombuds officer, a part-time appointment reporting directly to the provost, will serve as an independent, confidential and impartial resource for faculty at Texas A&M. Gill’s primary responsibilities will be to raise and clarify issues and concerns, identify options and request assistance to informally resolve workplace conflicts. In cases where informal resolution efforts fail or are not advisable, she will counsel faculty of their options for formal action and will direct them to the appropriate university rules, resources and offices.

Gill joined the Texas A&M faculty in 2001. She is a member of the graduate faculty, the Interdisciplinary Faculty of Genetics, and the Interdisciplinary Faculty of Biotechnology. She was co-leader of the Whole Systems Genomics for Improved Human, Animal and Environmental Wellbeing multidisciplinary research initiative and serves as associate vice president for diversity in the Office of the Vice President and Associate Provost for Diversity. In this role she assisted with the implementation of the Difficult Dialogues Program, providing leadership for and coordination of the mediation training program and mediation services for faculty and administrators.

Gill earned a bachelor of biotechnology honours (class 1) from Flinders University of South Australia and a doctorate in animal molecular genetics from the University of Adelaide, Australia. She teaches both undergraduate and graduate level courses and serves as a mentor to professional science master’s students in the biotechnology program who are undertaking industry internships. Her research focuses on animal genomics with significant emphasis on beef cattle genomics.
New faculty increase research, teaching efforts

COLLEGE STATION – The Texas A&M University Department of Animal Science increased its research and teaching capacity in 2013 with the hiring of Dr. Jason Gill, assistant professor, Dr. Kathrin Dunlap, assistant professor, and Dr. Ashley Arnold, research assistant professor.

Jason Gill, Ph.D.

Gill conducts research on the biology and application of bacteriophages, which are a group of viruses that prey exclusively on bacteria.

“We are pleased to welcome Dr. Gill to the department and the expertise he brings in the area of phage biology. His research promises to have a significant impact on how we deal with bacterial diseases and foodborne pathogens in the years to come,” said Dr. Russell Cross, head of animal science.

Phages are the most abundant organisms on Earth, and they are found ubiquitously in water, soil, and as part of the microbial flora of animals and plants. As natural predators of bacteria, phages are attractive agents for the control of pathogenic bacteria in humans, animals and foods.

Gill’s research encompasses phage genomics, basic phage biology and the applications of phages in real-world settings.

Kathrin Dunlap, Ph.D.

“Dr. Dunlap is an energetic and highly-motivated faculty member and I look forward to her making significant contributions to our teaching and research programs for years to come,” Cross said.

Ashley Arnold, Ph.D.

Arnold joined the faculty in September as a research assistant professor. In this position, she works with the meat science faculty to secure external funding for meat science and food safety research by writing grants, conducting research, managing projects, finalizing reports, presenting data at professional meetings and writing manuscripts.

Hawley honored by College with early career alumni award

COLLEGE STATION – Erin Morrow Hawley, a 2002 graduate of animal science, presented the Outstanding Early Career Alumni Award by the College of Agriculture and Life Sciences in October.

Hawley grew up on a cattle operation near Des Moines, N.M. She was involved in livestock judging in high school and competed for Casper Junior College in Wyoming before transferring to Texas A&M. While at Texas A&M, she completed an Agricultural and Natural Resources Policy congressional internship program, which sparked her interest in public policy and agricultural law.

After earning her bachelor’s degree in animal science with a Senior Merit Award and membership on the 2001 All-American Livestock Judging Team, Hawley earned her Juris Doctor from the Yale Law School in 2005. While at Yale, she was a Coker Fellow teaching assistant in constitutional law and was an editor of The Yale Law Journal.


She currently is associate professor of agricultural law and constitutional litigation with the University of Missouri School of Law in Columbia, Mo.
Livestock Judging Team wins State Fair of Texas Contest

DALLAS – The Texas A&M Livestock Judging Team secured an impressive win at the 2013 State Fair of Texas Collegiate Livestock Contest, winning first place in each class category and securing six of the top 10 high individual awards.

Texas A&M outscored second placed Texas Tech University by a margin of 89 points, followed by Colorado State University, West Texas A&M University and Angelo State University, respectively. In team competition, Texas A&M won cattle, swine, sheep and reasons.

“The team’s diligence and dedication over the past few weeks were reflected in their performance this weekend. We enjoy this success but will continue building toward the next contest,” said Brant Poe, lecturer and team coordinator.

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 Kermit, Texas, Everyday Hayes, 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.

In individual competition, Hayes won first place high individual, followed by James, fourth; Behrens, fifth; Dodd, sixth; Sanchez, seventh; and Spaman, eighth.

Also, this past weekend, Texas A&M won second place at the Tulsa State Fair Collegiate Livestock Contest.

Texas A&M trailed behind first place Oklahoma State University. Rounding out the top five overall teams were Oklahoma State, Iowa State University and Texas Tech University, respectively. Individually, Spaman finished second high and Sanchez came in fifth high.

The team is coached by Poe, Caleb Boardman and Cassidy Hayes. Senior animal science student Brent Cromwell served as student assistant.

The team will travel to Kansas City on Nov. 1 to compete in the American Royal Intercollegiate Livestock Judging Contest and will close the fall competition season on Nov. 18 in Louisville, KY, at the International Intercollegiate Livestock Judging Contest.

Horse Judging Team sweeps All American Quarter Horse Congress

COLUMBUS – The Texas A&M Horse Judging Team returned to Aggieland victorious after putting on a dominating performance at the largest collegiate horse judging contest in the nation, the All American Quarter Horse Congress held in Columbus, Ohio.

On Oct. 16, Texas A&M edged its closest competition, Colorado State University, Cal Poly, Oklahoma State University and West Texas A&M University, and secured the overall team championship, due much in part to the first place finishes in all three competitive divisions, halter classes, performance classes and reasons.

While there was much to celebrate in team competition, team members were also successful on the individual level. This year’s champion team was comprised of multiple high point individual awards and overall champions. Team members and their awards include:

- Paige Marek, agricultural science major from St. Croix Falls, Wis. - high individual overall, high point in performance;
- Derby Jones, accounting major from College Station - 4th high halter individual, 3rd high individual in reasons;
- Kaleigh Potter, animal science major from Klein - 10th high reasons;
- Meghan Wanstrath, animal science major from Batesville, Ind. - reserve high individual overall, high individual reasons, 6th high individual in halter, 5th high individual in performance;
- Erin Worthington, animal science major from Darlington, Md.;
- Jessica Medrano, animal science major from Ft. Worth;
- Bri Carillo, agricultural leadership and development major from Montauk, N.Y.;
- Carrie Esteams, agricultural science major from Kingwood.

“This team has improved dramatically because they became focused and determined. They put judging on top of their priority lists,” said Dr. Clay Cavinder, associate professor and team coach. “I couldn’t be more proud, not because we won, but because of their selflessness, perseverance and dedication to something greater than themselves. These are the things that we as coaches desire for our teams to grasp.”

The team takes their recent success in stride and will focus on their next goal, the Quarter Horse World Show Contest on Nov. 17-22.
Texas A&M Meat Judging Team clutches American Royal win

OMAHA – A trip to Omaha, Neb. proved to be successful for the Texas A&M Meat Judging Team when they secured the American Royal Intercollegiate Meat Judging Contest win on Oct. 20.

The team clenched the overall title by earning multiple category wins. The Aggies finished first in reasons, total beef placings, beef judging, and pork judging, followed by a second place finish in lamb judging and fifth place in beef grading.

“I am so proud of this team. They have worked extremely hard to be competitive in all segments of the contest and the results of the American Royal contest are a testament to their work ethic and positive outlook. I look forward to seeing the results in their last two contests later this month,” said Dr. Davey Griffin, professor, Extension meat specialist and team coordinator.

Team members include Mallorie Phelps from Grandview, Drew Cassens from Burleson, Lindsey Turner from Georgetown, Cameron Olson from Rockview, 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.

This team’s overall success was driven by the multiple accomplishments earned at the individual level. Phelps led the pack by bringing in fifth place individual, followed by Cassens, sixth, Vaughan, seventh, and Hoffman, eighth.

Texas A&M topped their closest competition Texas Tech University by 18 points, followed by Angelo State University, Colorado State University and Oklahoma State University.

The Aggies are looking forward to finishing the season with a strong presence. Their next contest will be held in Friona at Cargill on Nov. 3, followed by the International Intercollegiate Meat Judging Contest set for Nov. 17 at Tyson Food, Inc. in Dakota City, Neb.

Stock Horse Team holds on to winning streak

DECATUR – The Texas A&M Stock Horse Team won the overall championship title at the American Stock Horse Association Intercollegiate Show for the second consecutive year.

On Oct. 26 the Aggies cruised to the top earning the highest team award and adding to its collection, multiple individual honors.

The Stock Horse Team consists of six members who ride individual horses and compete in four separate events: stock horse pleasure, trail, reining and working cow horse. Students are divided into three separate divisions, based on their previous show experience and years of riding.

This year’s team consists of Kyla Kalinowski from Schertz, Nicole Brooks from New Braunfels, Ryan Birkenfield from Nazareth, Kyle Birkenfield from Nazareth, Kimberly Pritchett from Joshua, Anna Haines from San Antonio, Carrie Estrems from Kingwood, Elizabeth MacConnell from Plano, Brynna Diller from Canutillo and Kalley Fikes from Bay City.

In each of the three competitive divisions, non pro, limited non pro, and novice, an Aggie rose to the first place position. Haines earned top honors in the non pro division, followed by Pritchett in third. The limited non pro was won by K. Birkenfield followed by the third place finish of R. Birkenfield. Rounding out the novice division was Kalinowski in first and Brooks in second.

The team is coached by Dr. Dennis Sigler, professor and Extension horse specialist, Raul Valdez, graduate assistant in animal science, and Ari Sear, graduate assistant in animal science.

As the Aggies continue to impress, this marks their second win for the fall season. On Oct. 5, the team was named champion team at the Stock Horse of Texas Show in Bryan.

“With two wins under our belt, the fall season has been off to a great start,” Sigler said. “This team is continuing to show promise in all divisions. Each rider has put in a tremendous amount of work and dedication and it’s paying off with each show. Our goal is to work toward the National Championship Show, which is held each year in April.”

This year’s National Championship Show will be held in Pueblo, CO. For the past three years, Texas A&M teams have been named National Champions once and Reserve National Champions twice.
Students tour Texas Panhandle on Jim Theeck ’65 Beef Cattle Seminar

Texas A&M animal science undergraduate and graduate students spent one week in May touring a variety of beef operations in the Texas Panhandle as participants of the Jim Theeck ’65 Beef Cattle Seminar. Led by animal science faculty Dr. Jason Sawyer, Dr. Tryon Wickersham and Dr. Bill Mies, the students toured Triangle Ranch, Ferrell-Ross Manufacturing, OT Feedyard, Cargill Beef, Amarillo Brokerage, Cactus Feeders, Cadillac Ranch and R.A. Brown Ranch. The tour provides students with the opportunity to build working knowledge of the entire beef industry.

Freshmen complete learning community focused on One Health

COLLEGE STATION – A group of Texas A&M University freshmen majoring in animal science or biomedical science recently completed a semester-long learning community course focused on the concept of One Health and how various fields of study and research contribute to its objective.

One Health is a collaborative effort of multiple disciplines working locally, nationally and globally to attain sustained optimal health for humans, animals, plant and their physical environment interacting as a system, explained Dr. Matt Taylor, associate professor in the Department of Animal Science and primary instructor of the learning community.

Fourteen animal science and six biomedical sciences freshmen, selected from a pool of applicants, participated in the Spring 2013 semester. Faculty and staff from the Department of Animal Science, the College of Veterinary Medicine and Biomedical Sciences, College of Medicine, and several other departments and colleges campus-wide provided a One Health topic each week.

"Students were given first-hand exposure to multiple laboratories and programs on the Texas A&M campus that participate to enrich the lives of Texans, companion and livestock animals, and the environment in which they live," Taylor said.

Visits to facilities providing emergency veterinary response, medical imaging systems for animal and human health management, meat processing and safety, and the Texas A&M Health Science Center Simulator Laboratory, exposed students to research and teaching capacities within Texas A&M that represented core disciplines that contribute the One Health system. Additionally, students were engaged by faculty specializing in rural health, architecture, infectious diseases, and water management to broaden their understanding of the interrelationships of humans, animals and plants with their environment.

"The Department of Animal Science played an integral cooperative role with the Texas A&M University One Health program in executing the learning community," Taylor added.

In addition to Taylor, faculty from the department who contributed expert teaching to the learning community participants in differing venues included Dr. Jeff Savell, meat science, Dr. Tom Welsh and Dr. Kathrin Dunlap, reproductive physiology, and Dr. Russell Cross, department head.

The learning community represents only one component of the Department of Animal Science’s operation within the One Health system at Texas A&M. Other research and outreach components are under development or already in existence.

The next learning community will take place during the Spring 2014 semester and is being designed to incorporate students from additional disciplines on campus that will allow participants to further understand how the animal sciences interact with other fields of academic and professional study to meet the ever-changing needs of society.

Students participating in the One Health learning community attended a One Health Issues Forum held at Texas A&M University.
Students represent Texas A&M at International Livestock Congress

CALGARY, ALBERTA, CANADA – Texas A&M students Clay Eastwood, Jessie Hoffman and Cameron Olson attended the 2013 International Livestock Congress in Calgary, Alberta, Canada, this July.

Each year, the ILC-Calgary along with the International Stockman’s Educational Foundation host students from around the globe to attend the conference and participate in the student program, which exposes them to the future of the livestock industry, issues and opportunities, and allows them to network with more than 450 industry leaders.

Twenty students from around the globe were selected to attend the conference, and of these 20, three were Aggies: Eastwood, master’s student in meat science; Hoffman, a senior animal science major; and Olson, a junior animal science major.

While in Canada, the students toured various aspects of the beef industry; discussed the future of the livestock industry with industry leaders; and built relationships with their peers as they discussed their role in the livestock industry across the globe during a student forum.

“Gaining first hand knowledge through the tours and meeting and networking with a wide array of industry leaders was an incredible opportunity,” Eastwood said. “I believe the relationships with other students and industry leaders formed during the congress can be very valuable throughout my future endeavors and career. I thoroughly enjoyed learning the different perspectives from other students and learning about the Canadian beef industry.”

The students also focused on the technological advancements that the beef industry has achieved; the GrowSafe system is just one of many innovations in the beef industry that the students toured and discussed.

“It was simply amazing to have seen so much development and research being done within the Canadian cattle industry,” Olson noted.

Not only did the students view advancements within the livestock industry but also the Aggies were able to travel abroad and view the livestock industry from an international viewpoint.

“Overall, this was an incredible experience that allowed me to gain more international experience as well as expand my network and connections with students and industry leaders,” Clay said. “Therefore, I cannot say enough about this international experience and I am very grateful for the opportunity.”

Farmers Fight hosts national agriculture advocacy conference

COLLEGE STATION – The Farmers Fight organization at Texas A&M University hosted the inaugural National Agricultural Advocacy Conference held on Oct. 4-6, 2013, on the Texas A&M campus in College Station.

Forty-five agricultural student leaders from thirteen universities came together to discuss the future of the agriculture industry and the students’ role. The student advocates discussed industry challenges and discovered ways in which students can make a positive difference within agriculture. Universities in attendance at the conference included: Angelo State University, Auburn University, Chattahoochee Valley Community College, Louisiana State University, Mississippi State University, Purdue University, Sam Houston State University, Texas A&M University, Texas Tech University, University of Arkansas, University of California – Davis, University of Maryland and Utah State University.

Dr. Bowen Loftin, president of Texas A&M University, welcomed students to Aggieland for the two-day conference that included keynote speakers representing a wide variety of agriculture topics: Dr. Clare Gill, professor of animal genomics and associate vice president for diversity at Texas A&M; Dr. Elsa Murano, interim director of the Borlaug Institute for International Agriculture at Texas A&M; Dr. Edward McGruder, Elanco Animal Health; and Dr. Gary Briers, professor in the Department of Agricultural Leadership, Education and Communications at Texas A&M.

In addition to hearing from the faculty and industry experts, students shared and exchanged ideas with each other in roundtable discussion groups. The topics of the discussion groups included animal welfare; food safety; fuel; hunger and food waste; meeting consumer demand, retail and marketing; urban farms, organic and conventional farming; sustainability; water rights and policy. The discussion groups were facilitated by nine industry leaders and faculty from Texas A&M.

"The conference built a network of students who share a common passion for agriculture and agricultural advocacy," said Victoria Pilger, animal science major and Farmers Fight executive director. "This networking opportunity allowed students to share ideas and support one another in their efforts to bridge the gap between the consumer and the agriculturist through agriculture advocacy at their respective collegiate campuses."

Farmers Fight is a student-led initiative within the College of Agriculture and Life Sciences. It is comprised of three components: community outreach, campus connection and advocate development. The National Agricultural Advocacy Conference was introduced this year by Farmers Fight to unite student organizations on a national level who share a similar goal as Farmers Fight.
National group makes progress, animal science research funding

Since its inception in 2012, the National Association for the Advancement of Animal Science (NAAAS) has played an active role in highlighting the importance of the animal sciences with Congress and key federal agencies. NAAAS efforts have significantly increased awareness among policy officials of the funding inequities facing the animal sciences and the need for increased federal investments.

Established to advocate for an increased federal investment in agricultural research, in its first year the group has focused activities on supporting agriculture appropriations for research and extension conducted and supported by the U.S. Department of Agriculture; developed an initiative in the 2013 Farm Bill that would establish a new competitive grants program focused on the animal sciences; and worked closely with the USDA and the National Academies of Science (NAS) to develop a consensus study entitled “Considerations for the Future of Animal Science Research.”

“When the founding departments of NAAAS began looking into the funding situation for animals, we were shocked to learn that we had no official lobbying entity in Washington, D.C.,” said Russell Cross, Ph.D., president of NAAAS and head of the department of animal science at Texas A&M University. “We have made great progress in the first year. NAAAS has established a voice for animal agriculture research in Washington, D.C. and now the USDA, Congress and many others are paying attention.”

Historically, federal funding for plant versus animal research has been imbalanced with 71 percent designated for plants and 29 percent for animals, Cross added. Additionally, the U.S. falls behind other countries when comparing all competitive funding for agriculture – U.S. ($1.4 billion), Brazil ($3 billion) and China ($45 billion).

“Federal funding for animal research has been stagnant for more than two decades. The road ahead will be long, but we are off to a great start to reversing this trend,” Cross said. “As the world’s population grows and natural resources become limited, animal agriculture research will rely on this funding to continue to improve efficiency in order to provide safe and abundant food supplies.”

The association is comprised of leaders of animal, dairy, poultry and veterinary science departments from universities across the country as well as allied animal industry organizations. Others have taken notice of NAAAS’ progress. Association membership has grown to 18 academic departments and six national organizations as associate members.

Looking ahead, NAAAS expects work to begin on the NAS consensus study this fall with results highlighting the need and importance of additional investments in animal science to meet emerging grand challenges.

Amino acid conference attracts 200 international scholars

GALVESTON – The 13th International Congress on Amino Acids, Peptides and Proteins, a traditionally European scientific meeting, was held for the first time in North America on Oct. 5-7, 2013 in Galveston, Texas.

Scientific topics discussed include biochemistry, biomedicine, chemistry, food science, immunology, nutrition, physiology, pharmacology, reproduction, and toxicology of amino acids, peptides, and proteins, as well as genetics and bioinformatics related to their synthesis, catabolism, and utilization in humans and other animal species. Submitted abstracts spanned a wide range of research involving animals (e.g., fish, mice, rats, pigs and sheep), humans, microorganisms, plants, and cell culture models.

Dr. Guoyao Wu, university distinguished professor in the Department of Animal Science, served as the current president of ICAPP and was instrumental in bringing the conference and more than 200 international scientists to the United States.

“More than 135 papers from 32 countries and regions were presented at the 13th ICAPP either as oral or poster presentations. It was our goal that the forum provide an invaluable opportunity for both scientists and graduate students to learn about exciting research conducted outside of their own laboratories, foster new research collaborations, develop long-lasting friendships, and freely exchange scientific ideas in a relaxing setting,” Wu said.

Dr. Fuller Bazer, university distinguished professor in the Department of Animal Science, delivered one of three keynote addresses entitled "Amino acids, peptides and proteins as histotroph in embryo development: discoveries and important roles in reproductive health." Additionally, 12 faculty including Dr. Stephen Smith, professor, and Dr. Carey Satterfield, assistant professor, and graduate students from the Department of Animal Science and other academic units of Texas A&M University presented their current research.

Faculty, students conduct equine clinic in Uruguay

MONTEVIDEO, URUGUAY – Faculty and students from the Department of Animal Science and the Texas A&M University Equine Initiative conducted a seminar and clinic in Montevideo, Uruguay this June.

Anna Morrison, program coordinator, Equine Initiative and Dr. Josie Coverdale, associate professor, Department of Animal Science, were accompanied by Texas A&M University students Kailyn Capps, McKenna Galbreath, Hannah Holsey and DJ. Jeffrey. These faculty and students presented a wide variety of topics to clinic participants including equine nutrition, cattle handling techniques, fundamental of barrel racing and pole bending, practice strategies for reining horses, and fundamentals of barefoot trimming.

Joining the group and leading the horseback portion of the clinic was Chance O’Neal from the 6666 Ranch. The clinic focused on proper horse management and the fundamentals of horsemanship that are important to all riders.

The trip and clinic were sponsored by the American Quarter Horse Association and coordinated by Dr. Jim Heird, executive professor, Equine Initiative.

Front left, Texas A&M students Hannah Holsey and McKenna Galbreath; Chance O’Neal, 6666 Ranch; student Kailyn Capps; Anna Morrison, Equine Initiative; and Dr. Josie Coverdale, associate professor in the Department of Animal Science; lead a clinic in Uruguay this summer focused on proper horse management and the fundamentals of horsemanship.
Genome exhibit attracts 120,000 visitors, special guests and events

COLLEGE STATION – The traveling exhibit on display at the George Bush Presidential Library and Museum, "Genome: The Secret of How Life Works," closed on July 5, ending a nine-month showcase of the Human Genome Project and the important contributions to many genome projects made at Texas A&M.

The exhibit was sponsored in part by Texas A&M AgriLife Research and the Department of Animal Science.

The exhibit formally opened with an Opening Gala held last September. Dr. Davey Griffin, professor, and the Texas A&M Meat Judging Team provided and served smoked beef tenderloin. The gala provided a first preview for many Texas A&M administrators and those involved with the partnership to explore the exhibit complete with visually-rich environments, interactive displays and family-friendly activities that described the nature and impact of our genes.

"The success of this event was the result of an excellent partnership between the AgriLife Research, the Department of Animal Science, the George Bush Presidential Library and Museum, and faculty participants in the Whole System Genomics Initiative," said Dr. Penny Riggs, associate professor of functional genomics. "The exhibit served as a focal point for several other events held throughout the year that led to further discussion and education on the importance of this type of research."

Throughout the nine months, the exhibit shared the Texas A&M genomics research accomplishments with 120,000 visitors during the exhibit period and presented educational programs to approximately 10,000 K-12 students.

In addition, the exhibit on campus allowed for the recruitment of well-known agricultural leaders to speak at a monthly issues forum. In cooperation with Texas A&M AgriLife and the College of Agriculture and Life Sciences, guest speakers included Dr. Ron Phillips, National Academy of Science member and Wolf Prize recipient; Dr. Molly Jahn, former Deputy and Acting Under Secretary of Research, Education and Economics at the U.S. Department of Agriculture; and Dr. Sonny Ramaswamy, director USDA National Institute for Food and Agriculture. Graduate and undergraduate students also had opportunities to interact directly with the guest speakers.

In March, the 40th annual meeting of the Texas Genetics Society was held at the Bush Library in conjunction with the exhibit. 150 participants including graduate and undergraduate students from Texas universities and other states attended the conference and exhibit. Riggs served as chair of the conference and will serve as the president of Texas Genetics Society in 2013-14 along with animal science former student Dr. Sarah Canterberry who serves on the society's board of directors. Also at the meeting, Dr. Clare Gill, professor of animal genomics, served as a judge for student presentations.

Barbecue camp at Texas A&M draws sellout group of followers

By Blair Fannin
Texas A&M AgriLife Communications

COLLEGE STATION – They came from all walks of life: school teachers, information technology specialists, engineers and pit-masters. They all convened at Texas A&M University in College Station in June to learn how to cook better barbecue at the Barbecue Summer Camp.

There was no textbook, but lots of visual demonstrations and, of course, heavy tasting.

The camp is a partnership between Foodways Texas and the meat science section in the Department of Animal Science. More than 60 participants spent two and a half days learning the finer points of barbecue.

"I teach barbecue, but I'm also a student of barbecue," said Dr. Jeff Savell, instructor and E.M. "Manny" Rosenthal chair in the Department of Animal Science. "I'm always trying to learn something new."

Berry Madden of Pits and Spits in Houston told attendees, "There's no real secret to what you are doing. A hot, humid day is easy to regulate a pit and temperature. The meat comes out so much better."

Participants learned everything there was to ever know about barbecue – from rubs to cutting up sides of beef – it was all about the meat and how to cook it to perfection.

Dr. Davey Griffin, professor and Extension meat specialist, discussed food safety practices. He said ice chests, cutting boards and kitchen towels need to be clean to prevent contamination. Above all, clean hands are important.

"Our hands carry bacteria all of the time," he said. "A lot of times I see people put gloves on and they think they are invincible. You can still cross-contaminate."

Griffin said keep meat cool, preferably below 40 degrees Fahrenheit and cool in small portions.

"Thaw meat in the refrigerator or in cold water to keep the surface temperature level," he said.

Keep food hot at 140 degrees Fahrenheit. On thermometers, Griffin said it is a good idea to calibrate. Digital thermometers can be calibrated by using boiling water.
Animal Science faculty, staff, students honored with awards

Dr. Ted McCollum, Texas A&M AgriLife Extension beef cattle specialist, received the 2012 Vice Chancellor’s Award in Excellence, specialist category, during the Texas A&M AgriLife Conference held in January. McCollum is assigned to the Panhandle and South Plains districts, where he provides educational programming, agent training and support in beef cattle management.

Dr. Luis Tedeschi received the Texas A&M AgriLife Vice Chancellor’s Award in the international involvement category. Tedeschi is an associate professor specializing in ruminant nutrition in the Department of Animal Science. In his nomination, Tedeschi was cited for research that has been translated into technology with global application.

An endocrine physiologist in the department, Dr. Tom Welsh has been named a Texas A&M AgriLife Research Faculty Fellow. Welsh is section leader for physiology of reproduction in the Department of Animal Science. His major research focus is investigating how stress adversity affects metabolism, immunity and growth in animals.

Dr. Carey Satterfield, assistant professor, received the 2013 Outstanding Young Animal Scientist in Research Award from the Southern Section of the American Society of Animal Science in February. Satterfield’s research specializes in reproductive physiology, nutrition and growth.

An associate professor in the department, Dr. Tryon Wickersham received the 2013 Association of Formers Students Distinguished Achievement Award for Teaching at the University Level in April. This award is the most prestigious award that can be presented to faculty members at Texas A&M. Wickersham teaches undergraduate and graduate level courses and laboratories in animal nutrition. He also directs research in ruminant nutrition with an interest in forage utilization and nitrogen metabolism.

Dr. Guoyao Wu, distinguished professor, has been recognized by the Texas A&M University Chapter of Sigma Xi, The Scientific Research Society as a 2013 recipient of the Outstanding Distinguished Scientist Award, the chapter’s award which celebrates scientific excellence. Wu’s research interests include the biochemistry, nutrition and physiology of amino acids in animals at molecular, cellular and whole body levels.

Dr. Rick Machen, professor and Extension specialist stationed in Uvalde, was named the 2012-2013 Outstanding Alumni from the Department of Agriculture at Angelo State University. Machen graduated from Angelo State University in 1981 with a degree in agriculture. As a student, he was an active member of Block and Bridle, the livestock judging team and was a member of the first wool team to win first place in Denver. Today Machen remains an active Angelo State Alumni.

Donna Witt, senior academic advisor, was presented the 2013 President’s Award for Academic Advising at the University Advisors and Counselors (UAC) Award Banquet in May. This award recognizes outstanding individuals who exemplify the qualities and practices of exceptional academic advising and service to students. Donna also was elected to serve as President of UAC for 2013-14.

Amanda Smith received the Z.L. Carpenter Outstanding Graduate Student Award in Meat Science. Smith graduated with a master of science in the Department of Animal Science with certificates in meat science and food safety. This award is presented annually to a graduate student who demonstrates outstanding leadership skills and has contributed significantly to meat science teaching, research and Extension activities. While completing her degree, Smith coached the Meat Judging Team, taught ANSC 307 laboratories, participated in Beef 101, Beef 706 and Pork 101 activities, helped with the Texas Association of Meat Processors Convention and the Beef Cattle Short Course, and conducted research on yield and flavor and flavor profiles of dry-aged beef. Smith is currently an associate business manager with Daymon Worldwide in San Antonio.

Leslie Frenzel, a doctoral student in the Department of Animal Science, received the Distinguished Graduate Student Award of Excellence in Teaching in April presented by the Association of Former Students. Frenzel is specializing in meat science and food safety under the direction of Dr. Jeff Savell and Kerri Harris. She has taught meat science labs since the spring of 2011 and strives to convey her passion for the field through forming a personal relationship with each of her students. She is coach of the 2013 Meat Judging Team and has received two additional awards that highlight her teaching accomplishments: The Zerle L. Carpenter Outstanding Student Awards in Meat Science and the Ronnie L. Edwards Graduate Student Teaching Award.

Dr. Penny Riggs, associate professor, was presented an Award of Merit for Research by the Texas A&M Chapter of Gamma Sigma Delta on April 17. In addition, the Outstanding Graduating Senior Award was presented to Katie Moore and the Outstanding Graduate Student Award was presented to Chase Runyan, animal science, and Ashley Keith, physiology of reproduction. New inductees into Gamma Sigma Delta from the department include: undergraduate juniors Joshua Foundation, Emilee Haunber and Jeremy Purser; undergraduate seniors Cynthia Geier, Samantha Henderson, Kimberly Hckenbrocht, Jessica Johnston and Jade Nutting; graduate students Michelle Bedenbaugh, Terronica Blackmon, Kaycee Davis, Samantha Gasca, Deborah Price, Chase Runyan, and Xiaqiu Wang; and staff Sarah Sharpton and Amber Skinner.

Dr. Gary Acuff was named Fellow of the International Association for Food Protection (IAFP) in July. The Fellows Award is presented to an IAFP member who has actively contributed to the association for an extended period of time. Acuff has been a member for more than 30 years and serves as president in 2008. Acuff is Director of the Center for Food Safety and professor of food microbiology within the Department of Animal Science.

Dr. Davey Griffin, professor and Extension meat specialist, was named American Meat Science Association Fellow and Signal Service Award winner. The award was presented in June in recognition of devoted service and lasting contributions to the meat industry and to the association, according to officials. Griffin serves as a liaison between industry, commodity groups, medical and dietary professionals and Extension personnel to provide research information and technology. His key program and interest areas include cutability and composition of carcasses associated with value-based marketing, current consumer issues concerning meat and meat products, youth development, and cooperative research projects.

An associate professor in the department, Dr. Josie Coverdale received the 2013 Equine Science Society Outstanding Young Professional Award at the society’s annual symposium in May. In her current position, Coverdale teaches undergraduate and graduate courses in equine nutrition. She also directs research in equine nutrition with an interest in forage utilization and hindgut fermentation. Previous research has focused on the use of by-product feeds, effectiveness of probiotic preparations, passive immunity in foals, and nutritional influences on equine exercise physiology. Coverdale was nominated for this award for her commitment to excellence in both Texas A&M University and the equine industry.
Texas A&M students win AABP Quiz Bowl

MILWAUKEE – The American Association of Bovine Practitioners (AABP) Student Quiz Bowl team from the Texas A&M College of Veterinary Medicine & Biomedical Sciences (CVM) won the national quiz bowl competition at the 46th Annual Conference of the AABP held in September in Milwaukee, Wisconsin. The team members included third-year veterinary student Jayton Bailey, third-year veterinary student Bryan Weaver, and fourth-year student John David Nicholson, all recent former students of the Department of Animal Science.

Bailey received his master’s in animal science, Weaver earned a bachelor’s in animal science, and Nicholson, received both a bachelor’s and master’s in animal science.

Eng named BEEF magazine's 2013 Trailblazer

Kenneth Eng has been named BEEF magazine’s 2013 trailblazer. Eng spent the majority of his career as a consulting nutritionist and rancher and recently provided a $2 million endowment in memory of his wife Caroline to fund ongoing beef cow efficiency research at three major land-grant universities including Texas A&M. Visit http://beefmagazine.com/people/kenneth-eng-named-beef-magazines-2013-trailblazer to view the more details.

Undergraduates spend summer in research

Undergraduate research continues to be an important way for students to learn beyond the classroom and gain hands-on experiences in the laboratory. This summer, several faculty and students were engaged in research projects.

Students Christine Mesecher, Caitlin Hruzek, Meridith Wilde, Taylor Derr, Colton Harris, Megan Meier and Ramses Gonzalez conducted animal physiology research under the direction of Dr. Marcel Amstalden, Dr. Tom Welsh and Dr. Nancy Ing. Their project concluded with a poster presentation of their research at the Texas A&M University Summer Undergraduate Research Poster Session held in August.

In addition, Sarah Foster, undergraduate food science and technology student, worked under the direction of Dr. Matt Taylor to investigate whether some members of the non-O157 Shiga toxin-producing E. coli, or STEC, are capable of entering into a state known as viable but non-culturable (VNC). This condition can be of concern for food safety because it can lead to a situation where a pathogenic organism may not be detected by standard methods but could still cause disease to consumers if a food product was consumed undercooked or uncooked. Foster will conclude her project this fall.

Former students make 40 Under 40 in Ag list

Tonya Amen and Dustin Dean, both graduates of the Department of Animal Science, received Vance Publishing Corporation's inaugural 40 Under 40 in Agriculture Award. Amen is genetic service director for American Angus Association/Angus Genetics, Inc. She received a master's in animal science in 2004 and a doctorate in animal breeding in 2007. Dean is director of beef operations and beef product development for Sexing Technologies. He earned a doctorate in animal science in 2006.

The 40 Under 40 in Agriculture Award recognizes individuals for their leadership and commitment in advancing the cause to double food production by 2050. Candidates were nominated because of their passion for agriculture, demonstrated involvement in the food industry and a notable record of achievement.

Brazil trip leads to new opportunities

Animal Science faculty Dr. Russell Cross, professor and head, Dr. Dan Hale, professor and Extension specialist, Dr. Luis Tedeschi, associate professor, and Dr. Penny Riggs, associate professor, traveled to Brazil this September to visit key universities and federal agencies to establish research collaborations and opportunities for student and faculty exchanges. They also visited JBS, the world’s largest beef and poultry company, to discuss student internship opportunities.

The group’s first stop was in the state of Minas Gerais. They visited with Luciano Ribeiro, owner of Rancho da Matinha. The group learned about Ribeiro’s use of the Grow Safe® system to measure feed intake in his Nellore cattle and his selection practices to optimize reproductive efficiency and feed efficiency.

They visited the Zebu Association (ABCZ) and the Expoinel Expo Brahman (stock show) in Uberaga, and the Federation of Agriculture and Livestock of Mato Grosso do Sul (FAMASUL). They also toured a JBS plant and feedlots in Campo Grande and visited the headquarters of JBS in the state of São Paulo.

Discussions focused on research opportunities at EMBRAPA Gado de Corte (part of the national agricultural research system), the Instituto de Zootecnia in Sertãozinho, the Center for Bovine Genetic Excellence in Uberaba, and the Institute of Meat Science in Campinas for research collaboration related to beef cattle and internship opportunities for our students. The group met with faculty from Uberaba associated colleges, the University of São Paulo in Pirassununga and Piracicaba, the University of Campinas, the Federal University of Mato Grosso do Sul, and the State University of Mato Grosso do Sul.

“We learned a great deal about beef cattle production practices in the south central regions of Brazil and identified many opportunities for collaboration. Partnerships with companies such as JBS provide excellent opportunities for research and great experiences for student internships,” said Cross.

“As a result, faculty and graduate students will have opportunities to participate in and help shape the future of agricultural research in Brazil – to benefit food animal production for both the United States and abroad. These international experiences will also prepare our students for careers in an increasingly global work environment.”
Creative Sausage Making teaches basic skills

COLLEGE STATION – A Creative Sausage Making course held Oct. 11-12 in College Station taught basic sausage making skills and allowed the 12 participants to try new sausage recipes by preparing numerous hand-made batches of beef, pork, chicken and turkey sausages. Students were encouraged to use supplied recipes or to tweak the recipes to their own taste. The course concluded with a tasting and evaluation session, after which the participants were given the opportunity to take the remaining sausage home for further evaluation.

The course was designed and hosted by animal science faculty Dr. Wes Osburn, professor, and Dr. Davey Griffin, professor and Extension meat specialist, with assistance by meat science faculty, graduate and undergraduate students, and the Rosenthal Meat Science and Technology Center staff. Additionally, A.C. Legg Inc. (Rick Fitzgerald), Alamo Food Equipment & Supplies (Maurice Mounce), Dewied International (Mike Reagan) and SausageMaker.com supplied on-site assistance, supplies, equipment and/or door prizes that helped make the program a success.

Horsemanship school taught around the state

The Texas A&M Horsemanship School Program is held at various locations around the state. The fall semester includes the following programs:

- **Texas A&M AgriLife Extension Summer Horsemanship School Program**
  - The program covers topics such as rein aids, hipping-in, side-passing, two-tracking, bridling-up (collection), stopping, backing, rollbacks, turnarounds (spins), gaits and leads, speed control, simple and flying lead changes, bits and equipment, horse theft awareness, ground safety, and other specialized events.
  - The Summer Horsemanship School Program covers topics such as rein aids, hipping-in, side-passing, two-tracking, bridling-up (collection), stopping, backing, rollbacks, turnarounds (spins), gaits and leads, speed control, simple and flying lead changes, bits and equipment, horse theft awareness, ground safety, and other specialized events.

- **Horsemanship school taught around the state**
  - The program is designed to provide a solid foundation and advanced riding skills to students.
  - The program is taught by experienced instructors who have a strong background in equine education.
  - The program covers a wide range of topics, from basic horsemanship to advanced riding techniques.
  - The program is designed to help students develop the skills and knowledge needed to become successful equestrian athletes.

- **Texas A&M Horsemanship School Program**
  - The program is open to students of all ages and skill levels.
  - The program is designed to provide a solid foundation in horsemanship for students.
  - The program covers a wide range of topics, from basic horsemanship to advanced riding techniques.
  - The program is taught by experienced instructors who have a strong background in equine education.

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  - The program covers a wide range of topics, from basic horsemanship to advanced riding techniques.
  - The program is taught by experienced instructors who have a strong background in equine education.

Students tour Navasota Livestock Auction

NAVOSOTA – Eight students in Dr. Glenn Holub’s ANSC 107 class attended the Navasota Livestock Commission in June. Each semester, Holub selects students from his class with little to previous livestock experience and takes them to the Saturday auction. Greg Goudeau ’90, owner of the commission, greeted the students and answered their questions as they toured the facilities and discussed the process of livestock marketing, learning each step of the process. Holub said the students are often amazed by the size and scope of the operation, the record-keeping aspects of the market and the speed at which animals are safely and humanely moved through...

Texas A&M Aggie Brand Beef Jerky at top of the heap

TMBBQ.com barbecue editor Daniel Vaughn has placed Texas Aggie Brand beef jerky at the top of the heap. In his July 29th blog posting, Vaughn writes, “I picked up a bag while I attended Beef 101 in June and I got a tour of the entire process from the man behind the jerky - Ray Riley. … The grain of the meat is easy to pick out in the finished product. Cutting with the grain keeps the jerky on the chewy side, but the strips are thin enough to stave off mastication fatigue. … This is an excellent jerky from both flavor and tenderness, but the boys at A&M don’t really need our endorsement. Back in 2007 the New York Times ran a feature on epicurean jerkies. The Texas Aggie Brand got the spotlight (along with Riley) in the article.” To view the blog, go to http://tmbbq.com/jerky-heap-texas-aggie-brand/.

Horsemanship school taught around the state

Pictured, left, are the 2013 instructors Alicia Erwin, Lauren Fontenot, Hannah Nieschwander, Emilee Haubner, Julie Goodfellow and Jessica McDowell. The Texas A&M AgriLife Extension Summer Horsemanship School Program completed its 41st year of horsemanship education this summer and provided 532 youth, parents and volunteer leaders in 18 Texas counties with a solid foundation and advanced riding skill instruction. Texas A&M students served as instructors for the 2- or 3-day-long clinics. These students spend the spring semester sharpening their teaching and training skills. In addition to the 2013 instructors, Amy Heartfield, Caitlin Noble, Adrienne Paquette and Courtney Phillips, who taught in previous years, assisted with the clinics.

The Summer Horsemanship School Program covers topics such as rein aids, hipping-in, side-passing, two-tracking, bridling-up (collection), stopping, backing, rollbacks, turnarounds (spins), gaits and leads, speed control, simple and flying lead changes, bits and equipment, horse theft awareness, ground safety, and other specialized events.

For more information, visit aggiehorsemen.tamu.edu, find the club on Facebook or attend a meeting held on the second and fourth Tuesdays each month.
TAMU Saddle & Sirloin Club News

★ Children’s Barnyard

The Children’s Barnyard was held Oct. 16-18 at Pearce Pavilion and welcomed pre-kindergarten through third grade students. This event is Saddle & Sirloin’s biggest service event as they host more than 4,000 children and teach them about different livestock animals. Members of the club walk each group through the barnyard, pointing out educational information about each species.

★ Brazos Valley Pizza Ranch

On Oct. 9-10, Saddle & Sirloin Club members volunteered at the annual Brazos Valley Pizza Ranch held at the Brazos Valley Expo Complex. This event takes fourth grade students to different stations explaining each ingredient of pizza and where it comes from in its raw form.

★ Artist Harvest

Saddle & Sirloin members joined the Farmers Fight event Artist Harvest in downtown Bryan on Oct. 4. Students advocated for agriculture and careers in agriculture to a diverse public audience. The event coincided with the First Friday activities held in Bryan each month and made for a very proactive night.

★ Back to School Bash

The first social event of the semester was held Sept. 12 at Pearce Pavilion. The Back to School Bash featured volleyball and an inflatable course. Members had a chance to mingle with club advisors and meet new people.

★ Steer, Heifer and Swine Futurities

The Steer, Heifer and Swine Futurities were held Aug. 3-4 at the Brazos County Expo Complex. Hosted by the Saddle & Sirloin Club, this event draws the attention of youth exhibitors from all over Texas and even a few from out of state. This event is the club’s largest fundraiser event and profits are used to support the Department of Animal Science judging teams and club activities.

Schedule of Events

Nov. 8-9 - Beyond Basics: HACCP Plan Improvement Workshop (College Station). For more information or to register, visit http://meat.tamu.edu/extension/beyond-basics/.

Nov. 16 - Aggiefest Horse Judging Workshop (Freeman Arena, College Station). For more information, visit http://animalscience.tamu.edu/academics/equine/workshops/aggiefest-horse-judging-workshop/.

Nov. 16 - Aggiefest Livestock Judging Contest (Pearce Pavilion, College Station). For more information, visit http://animalscience.tamu.edu/files/2012/06/13_aggiefest_ad.pdf.

Nov. 20 - Department of Animal Science Seminar Series (Kleberg 126, Noon). Dr. Penny Riggs and Dr. Dan Hale will present about potential faculty collaboration and student exchange opportunities in Brazil. RSVP to Dr. Tryon Wickersham at tryon@tamu.edu by Nov. 19 at noon.

Dec. 4 - Saddle & Sirloin Christmas Formal (Wellborn Community Center, 9 p.m.-1 a.m.) For more information, contact club office Brandon Masi at brandonmasi@att.net.

Dec. 4-6 - Beef 101 (College Station). For more information, visit http://animalscience.tamu.edu/academics/meat-science/workshops/beef-101/.

Dec. 10-11 - Introductory HACCP Course (College Station). For more information, visit http://meat.tamu.edu/extension/introductory-haccp-course/.

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

To submit an upcoming event to be listed in the Animal Science Monthly, please email cacoufal@tamu.edu.
Current and historical trophies won by the judging teams in the Department of Animal Science now have a beautiful place to call home in the Howard Hesby Student Atrium in the Kleberg Center. The trophy case was added this summer and serves as a significant focal point in the atrium for displaying past and present victories of the Livestock Judging Team, Horse Judging Team, Meat Judging Team, Wool Judging Team and Stock Horse Team. The judging team program at Texas A&M started in the early 1900s with the Livestock Judging Team and has grown into a national judging powerhouse representing several teams and many wins.