

Texas A&M Animal Science

MONTHLY

OCTOBER 2014 | A monthly publication from the Department of Animal Science at Texas A&M University.



Thomas G. Hildebrand, DVM '56 Equine Complex Opens

INSIDE:

- An overview of the Texas A&M Equine Initiative, Hildebrand Equine Complex and the Department of Animal Science Equine Science Program.
- Animal Science presents alumni awards, hall of fame
- Dr. Jeff Savell named University Distinguished Professor

THOMAS G. HILDEBRAND DVM '56
EQUINE COMPLEX

Texas A&M Animal Science **MONTHLY**

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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Howdy! Welcome to the latest edition of the *Animal Science Monthly*. I am pleased to update you on the growth, success and activities of our department that are based on our group's commitment to adhering to our core values - integrity, excellence, scholarship, leadership, selfless service and respect.

We have a lot of things to brag about in this edition. As you can see from the cover and as you delve into the many articles, we continue to grow, both in terms of enrollment and our physical facilities. This

spring, we witnessed the grand opening of one of the finest equine facilities dedicated to teaching, research and service activities in the world. The Thomas G. Hildebrand DVM '56 Equine Complex at Texas A&M University serves as a home for equine programs from the College of Agriculture & Life Sciences and the College of Veterinary Medicine & Biomedical Sciences and the Texas A&M AgriLife agencies. I look forward to Texas A&M faculty, staff and students enjoying this new facility as it supports our current programs and leads to new, exciting opportunities.

As you will notice, the theme of this issue is focused on our equine programs, which date back to the 1920s. We have provided the history of the program, as well as a synopsis of the ways we currently serve the equine industry through teaching, research and Extension and introduce you to who's who.

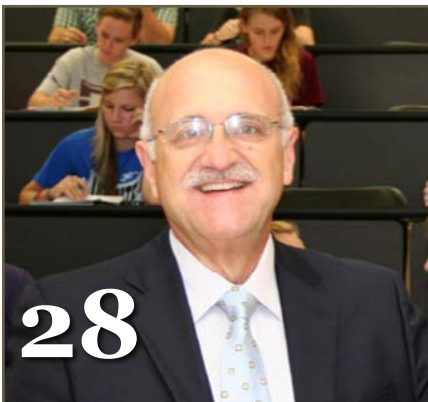
At our annual awards banquet in April, we honored four individuals who have made the department proud through their significant contributions to the field of animal science. You will be impressed as you read more about the influences of Erin Morrow Hawley, R. Hollis Klett, T.D. Tanksley, Jr., and Anne Legendre Armstrong.

With much excitement, we celebrate the announcement of another distinguished professor in our department, with Dr. Jeffrey Savell recently receiving this honor, preceded by Dr. Fuller Bazer and Dr. Guoyao Wu.

It is with a heavy heart that we remember one of our own. As many of you may know, Dr. Marcel Amstalden passed away in September from injuries sustained in a car accident. Marcel was a brilliant scientist and a valued member of the animal science family. He will be deeply missed by us all.

Our faculty, staff and students continue to make significant contributions in the classroom, labs and out in the state as we meet our priorities of outstanding teaching, research and Extension programs. We look forward to keeping you updated. As always, I am grateful for your support throughout the year.

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



On the Cover

Texas A&M University and the Equine Initiative celebrated the grand opening of the Thomas G. Hildebrand, DVM '56 Equine Complex in April. This state-of-the-art complex is the most elite facility of its kind in the world for equine science education, research and outreach. See story on pages 6-9. (Photo by Larry Wadsworth.)

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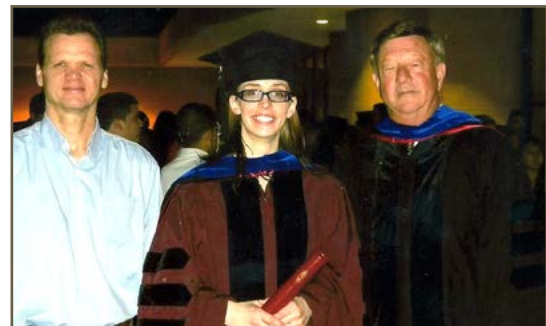
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IN LOVING MEMORY

MARCEL AMSTALDEN

March 9, 1970 - Sept. 3, 2014



Dr. Marcel Amstalden, associate professor of physiology of reproduction in the Department of Animal Science at Texas A&M University, died Sept. 3, 2014, from injuries sustained in a car accident.

Marcel, age 44, was traveling near Hallettsville, Texas, on Sept. 3 when the accident occurred.

"We are incredibly saddened by the loss of Marcel Amstalden," said Dr. Russell Cross, head of animal science. "Not only was he a brilliant scientist and a rising star, he was a valued member of the Animal Science family, bringing pleasure to those around him with his caring personality and gentle smile."

Marcel was born in Marilia, São Paulo, Brazil, to Francisco and Beatriz Lex Amstalden. He grew up in Assis, São Paulo where he was involved with his family's business and cattle operation.

In 1992, he graduated from the Universidade Estadual Paulista, Botucatu, São Paulo, with a Degree in Veterinary Medicine. From 1992 to 1997, Marcel practiced herd health and reproductive management of beef cattle and horses in the state of Mato Grosso do Sul, Brazil. From 1995-1997 he worked for the São Bernardo Veterinary Clinic in Campo Grande, Mato Grosso do Sul, practicing large animal

medicine and surgery.

In 1997, Marcel married the love of his life, Katia, in Campo Grande, Mato Grosso do Sul.

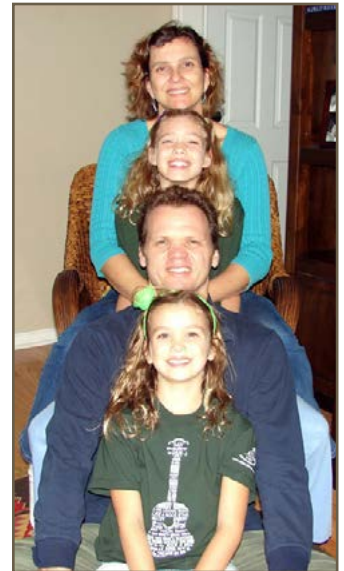
Shortly after, they moved to College Station, Texas, where he entered the physiology of reproduction graduate program at Texas A&M in 1998. During this time he worked as a graduate research and teaching assistant. He was awarded a master's degree in 2000 and a doctorate in 2003.

Amstalden conducted award-winning graduate research at the Texas A&M AgriLife Research station in Beeville, Texas, working under the direction of his mentor, close friend and collaborator, Dr. Gary Williams.

Upon graduation from Texas A&M, Marcel worked as a postdoctoral research fellow in neuroendocrinology at the University of Cincinnati's College of Medicine in Cincinnati, Ohio. He was a visiting professor at the Federal University of Mato Grosso do Sul during 2006 before returning to Texas A&M to accept a position as an assistant professor in physiology of reproduction in the Department of Animal Science.

In 2012, Marcel was awarded tenure and promoted to the rank of associate professor, the position he held at the time of his death. In addition, Marcel held an adjunct appoint-





ment in the Department of Veterinary Integrative Biosciences in the College of Veterinary Medicine & Biomedical Sciences. He was active in the Interdisciplinary Faculty of Neuroscience and he also was serving as 2013-2015 chair of the Interdisciplinary Faculty of Reproductive Biology. In addition, Marcel co-instructed a graduate reproductive biology course and he was the lead professor for the ANSC 434 Animal Reproduction Management course.

He led an active research and teaching program, mentoring dozens of graduate students and trainees. To his students, Marcel is remembered as a caring, highly effective instructor of undergraduate, graduate and veterinary students. His impact is evident by the significant awards acquired by the students he mentored.

Marcel was recognized by reproductive physiologists and neuroendocrinologists around the world for his unique research that determined how neural and nutritional factors affect onset of puberty and cyclicity in female animals. His work was relevant to human reproductive health and was of biologic and economic significance.

In recent years, he was an invited speaker at major conferences across the United States and other countries including his recent presentations at conferences in Australia and Japan. His research attracted the funding of the U.S. Department of Agriculture and the National Institute of Health. In his brief career, Marcel published more than 30 peer-reviewed papers, and numerous book chapters and popular press articles.

Marcel was honored by the College of Veterinary Medicine, Universidade Estadual Paulista, Botucatu, São Paulo, for outstanding performance in large animal medicine. He was the only three-time recipient of the Mauro Procknor Memorial Award (2000, 2001, 2002) for excellence in teaching, research and service. Marcel was awarded the Dr. A.M. Sorenson, Jr. Achievement Award for excellence in doctoral research in 2003.

Students remember Marcel as demanding yet kind with high expectations and a caring, gentle smile. Colleagues remember Marcel as an excellent yet modest scientist, an outstanding friend who got things done, and someone always true to his word - a quiet professional.

In addition to being an accomplished teacher and researcher, two of the most important roles Marcel played was that of a husband and father. Marcel and Katia were blessed with two daughters, Sophia in 2003 and Clara in 2005. He was a loving husband and caring father.

Marcel was always pleased to attend his daughters' dance and ice skating lessons and performances. As a family, they

especially enjoyed trips around Texas and to other states.

Marcel enjoyed spending time outdoors grilling in his backyard to provide a taste of Brazil for his family and friends. He frequently made time to build things for his family, including a brick path by his garden, a new deck, a doll house for his daughters and a dog house for the family pet Tiny.

To view the complete obituary, visit <http://obits.dignitymemorial.com/dignity-memorial/obituary.aspx?n=Marcel-Amstalden&lc=4965&pid=172380155&mid=6112179>.



Online memorial established by graduate students

Shortly after Dr. Marcel Amstalden's passing, a group of his graduate students formed an online memorial. The memorial has provided a place for his friends, family and colleagues to post fond memories and their condolences as well as make monetary contributions towards an education fund for his daughters. The memorial has since been closed for contributions, but the kind words written about Amstalden remain. To view the memorial site, visit <http://www.youcaring.com/memorial-fundraiser/memorial-for-marcel-amstalden/229264>.

Grand Opening



Texas A&M equine complex opens doors

By Megan Palsa

College of Veterinary Medicine and Biomedical Sciences

COLLEGE STATION – Texas A&M University celebrated the grand opening of the Thomas G. Hildebrand, DVM '56 Equine Complex in April. This \$32 million facility is the first phase of a planned \$80 million project of the Equine Initiative.

The equine complex was named in honor of Thomas G. Hildebrand, DVM '56 to recognize his contributions to the field of veterinary medicine and his love for Texas A&M. The new complex represents one of the core efforts of the Texas A&M Equine Initiative of bringing together equine research, teaching, extension, and outreach in the Texas A&M College of Agriculture & Life Sciences including the Department of Animal Science and the College of Veterinary Medicine & Biomedical Sciences (CVM).

“This new facility solidifies Texas A&M University’s position as a national leader in equine programs—in equine sciences and veterinary medicine,” said Dr. Eleanor Green, the Carl B. King dean of veterinary medicine. “The considerable support from current leaders in the equine industry, all friends of Texas A&M,

clearly indicates the importance of our university serving the significant equine industry, locally to globally. This premier facility will help us not only serve but also significantly impact the future of the industry. In addition, this state-of-the-art facility honors Dr. Hildebrand, one of the revered graduates of the College of Veterinary Medicine & Biomedical Sciences.”

“This facility provides an outstanding home for the work of our two colleges and the Texas A&M AgriLife agencies. Together, we are raising the profile of equine sciences across Texas,” said Dr. Bill Dugas, acting vice chancellor and dean for agriculture and life sciences.

The new complex brings together academic and non-academic departments, industry partners, and a vast array of equine professionals in a unique collaborative and innovative environment. “This equine complex will help develop future leaders for the equine industry, as well as provide a new home for some well-known Aggie traditions,” Dugas said.

The complex, located on F&B Road in College Station, provides support for teaching, research, extension, and outreach initiatives and athletics dedicated to equine programs. Completed as



More than 500 guests joined the Equine Initiative in celebrating the grand opening of the Thomas G. Hildebrand, DVM '56 Equine Complex. See additional photos on page 9.



The stage party was led through the Dr. H.B. "Woody" Bartlett Recognition Hall and into the auditorium by members of the drum unit from the Fightin' Texas Aggie Band.



Dr. Jim Heird, *right*, was named Glenn Blodgett Equine Chairholder. Also pictured are, *left*, Neils Agather, Burnett Foundation; Dr. Glenn Blodgett, 6666 Ranch; and Dr. Karan Watson, provost and executive vice president for academic affairs at Texas A&M.

part of Phase I are first-class arenas and barn facilities for the Texas A&M NCAA Women's Equestrian Team, as well as a teaching and outreach complex which features multiple classrooms, meeting spaces and offices. Also, the new facility includes a cross country course to be utilized by the Texas A&M Men and Women's Cross Country Teams to train and host meets at the local, state, national and international levels.

These premier facilities will also positively influence the recruitment and retention of the best faculty and students. This environment better equips faculty and students to excel, resulting in an equine program that will foster the development of equine academic leaders and graduate the industry's future leaders in equine sciences and veterinary medicine.

"We are thankful for the partnership of the College of Agriculture & Life Sciences, the College of Veterinary Medicine & Biomedical Sciences, Texas A&M Athletics, and the equine industry for making this vision a reality," said Dr. Jim Heird, executive professor and coordinator of the Equine Initiative. "Together we will not only advance new knowledge for the benefit of horses and horse owners, but also enhance Texas A&M's rich equine traditions."

About the Equine Initiative

The Equine Initiative at Texas A&M was started in 2009 to develop the best collaborative equine program possible to serve the equine industry in Texas, the nation and the world. Texas A&M is world renowned for its equine programs in the Department of Animal Science, the College of Veterinary Medicine & Biomedical Sciences, and the Texas A&M Agri-Life agencies. Through this unique partnership between the Colleges of Agriculture & Life Sciences and Veterinary Medicine & Biomedical Sciences, the Equine Initiative combines all equine programs and activities at Texas A&M in an effort to provide the equine industry with the most comprehensive equine educational opportunities, the most knowledgeable faculty and the best equine veterinary care available anywhere.

"By combining the expertise available on its campus in animal science, veterinary medicine, business, facility and event management, and international studies, Texas A&M intends to be the ultimate measure for all equine programs around the globe," said Dr. Jim Heird, executive professor and coordinator of the Equine Initiative.

The Equine Initiative has developed four major strategic planning and fundraising imperatives: curriculum enhancement, outreach and engagement expansion, facility construction, and partnership development.

Since its inception, the Equine Initiative has made great strides in supporting equine programming at Texas A&M, raising more than \$40 million in gifts to support curriculum, scholarships, outreach programming, facilities and more. Funds raised by the Equine Initiative have impacted faculty, staff and students in multiple colleges and departments, as well as equine enthusiasts in Texas and beyond.

To date, several key accomplishments of the Equine Initiative include:

- Secured funding and oversaw construction of Phase I of the Thomas G. Hildebrand, DVM '56 Equine Complex opened in April 2014.
- Ongoing fundraising for Phase II of the Equine Complex, which will provide new and modern facilities for Animal Science equine teaching and research programs.
- Worked closely with the Department of Animal Science to update and enhance the equine curriculum, adding a new Certificate of Equine Science and a Master of Equine Industry Management.
- Secured external financial support for an endowed chair in honor of Dr. Glenn Blodgett of the 6666 Ranch for the Equine Initiative's leadership position, currently held by Dr. Jim Heird, executive professor and coordinator.

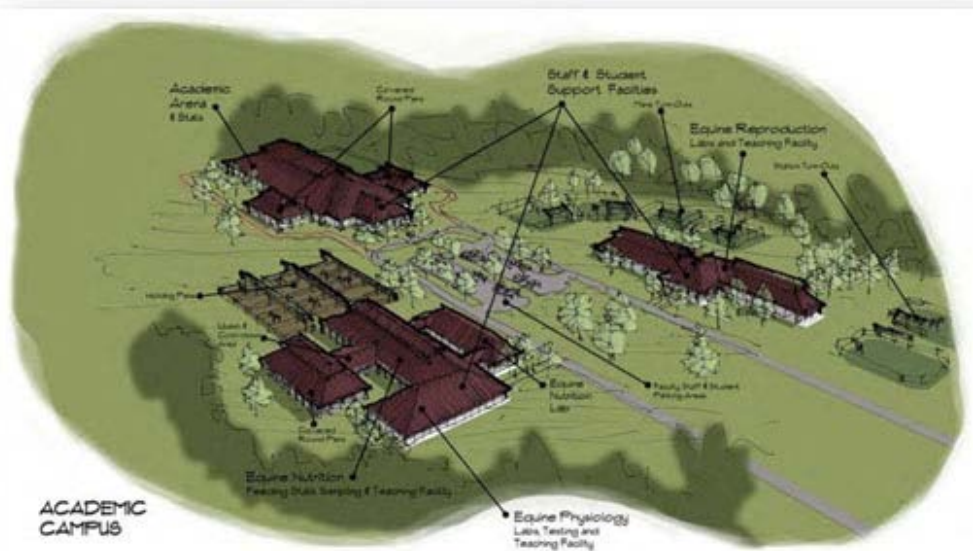
Additional new construction, renovations planned

With Phase I of the Equine Complex construction complete, the Equine Initiative is moving forward with efforts to raise funds for additional equine facilities to be used for teaching, conducting research, housing student activities and serving the industry. Plans include new buildings on the grounds of the Equine Complex as well as renovations to existing equine facilities located at Texas A&M.

Phase IIA will include construction of a new Mare Research and Educational Facility and a Stallion Research and Educational Facility, both to be located near the College of Veterinary Medicine & Biomedical Sciences. Additionally, this phase will include remodeling of the existing CVM Reproduction Pavilion. Estimated cost: \$10 million.

Phase IIB will provide new teaching and research facilities to be used primarily by Animal Science and will be located on the northeast corner of the Equine Complex grounds. This will include a Teaching Arena for equine classes and the Polo Team, an Equine Nutrition and Physiology Research Complex, an Equine Reproduction Teaching Complex, and pastures and fences to support these facilities. Estimated cost: \$35 million.

Phase III will include a complete remodel of the existing Freeman Arena which will be used primarily by the Rodeo Team and the Texas A&M AgriLife Extension Summer



Phase IIB of the Equine Complex construction will include a new teaching arena for Texas A&M students and a home for the Polo Team, as well as equine nutrition and physiology research facilities.

Horsemanship School Program. In addition, an easy access thoroughfare will be installed from Parsons Mounted Cavalry to Freeman Arena. Estimated cost: \$6-\$8 million.

The final goal for facility improvements includes a proposed Phase IV for an Equine Rehabilitation Center. This facility would be used for sport and performance horses, rehabilitation, and research and prevention. Estimated cost: \$5 million.

Canon named general manager

Steve Canon has been named general manager of the Thomas G. Hildebrand DVM '56 Equine Complex. Canon began this position in the fall of 2013 to prepare for the spring opening.

In this capacity, Canon manages and maintains the equine complex facilities and cross country track, and oversees the equine operations of the Texas A&M Equestrian Team.

"We are excited to have Steve as complex manager because of his facility management experience and detail-oriented approach," said Dr. Jim Heird, executive professor and coordinator of the Equine Initiative and Glenn Blodgett Equine Chair.

A two-time graduate of Texas A&M, Canon earned a bachelor's degree in recreation, park and tourism sciences in 2001 and a master of agriculture in animal science with an emphasis in equine reproduction in 2007.

Prior to joining the equine complex, Canon worked as facilities manager for the Equestrian Team and was responsible for the care and maintenance of the Aggie's facilities at the Brazos County Expo Complex.

EQUINE INITIATIVE: WHO'S WHO?

● Dr. Jim Heird

Executive Professor and Coordinator of the Equine Initiative, Glenn Bodgett Equine Chairholder

Heird directs the activities of the Equine Initiative, building relationships across campus and throughout the equine industry. He is well known for his experience with developing equine academic programs and for his active leadership in the industry. In addition to his work in development and strategic planning for Texas A&M's equine programs, Heird also developed and co-teaches a course for Animal Science students that focuses on equine industry issues.

● Anna Morrison

Program Coordinator

Morrison provides support for Heird's efforts and focuses on Equine Initiative public relations, event coordination and outreach efforts. In addition to her full-time work with the Equine Initiative, Morrison is pursuing her doctorate at Texas A&M. Morrison has developed and teaches three courses for Animal Science students.

Thomas G. Hildebrand DVM '56 Equine Complex

PHOTO ALBUM



Photos by Larry Wadsworth.



The Equine Complex is home to the Equine Initiative offices, classrooms and conference rooms.



The completed Phase I of the Equine Complex includes two large competition and practice arenas, each with a dedicated warm-up area.



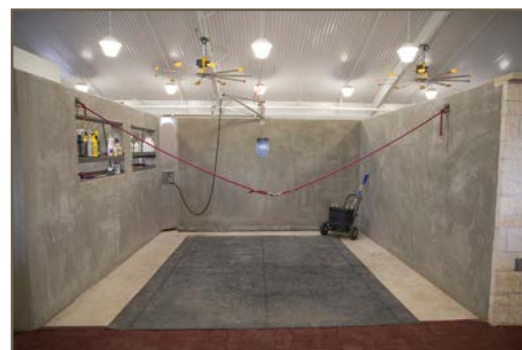
The Aggie locker room provides a home for the Texas A&M Equestrian Team student athletes and is designed to facilitate team meetings. The Equine Complex is complete with practice areas for the team and is home to the coaching staff offices.



During the grand opening, guests were invited to explore the complex and enjoy cowboy music and chuck wagon snacks and refreshments.



The aisles of the Equestrian Team barn feature non-slip rubber pavers, creating a horse-safe surface throughout the barn.

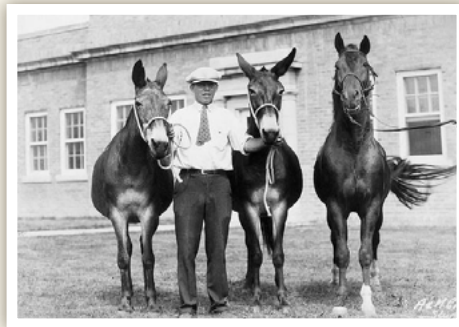


Dedicated wash and grooming stalls provide safe areas for athletes to groom and saddle horses without creating congestion in the barn aisles.

EQUINE SCIENCE:

Serving the horse industry through teaching,

Texas A&M University has built a rich heritage and long history in equine excellence through programs dedicated to equine science. Most recently, with the establishment of the Equine Initiative and the opening of the Thomas G. Hildebrand, DVM '65 Equine Complex, Texas A&M has strengthened its commitment to becoming a global leader in equine teaching, research and outreach. The Department of Animal Science (historically known as the Animal Husbandry Department) and the Texas A&M AgriLife agencies are key components of the collaborative equine programming at Texas A&M. As Texas A&M ushers in a new era of equine excellence and opportunities, let's take a look back through Texas A&M Department of Animal Science places in history that helped build the foundation for this thriving program (pages 10-11) as well as a look at where we are today (pages 12-16).



1921: "Old Beck," a mare mule owned by a farmer in East Texas, was mated to a jack and produced a mule foal named "Kit." In 1921, "Old Beck" was brought to Texas A&M where she was mated with a stallion and produced a foal horse named "Pat." The story caught the attention of many scientists around the country, making "Old Beck" famous, as female mules are usually considered sterile.

1937: The beginning of the American Quarter Horse Association can be traced back to the efforts of Robert M. Denhardt, a history professor hired by the A&M College in 1937. Denhardt's personal interest and research into the Quarter Horse led him to the idea of creating a registry for the Quarter Horse breed which led him and six others to form the AQHA during the organization's first meeting held at the 1940 Southwestern Exposition and Fat Stock Show in Fort Worth.

He was appointed as the first executive secretary of AQHA. In 1982, he became one of the first two people to be inducted into the American Quarter Horse Hall of Fame.

Consequently, Quarter Horses were added to the Animal Husbandry Department's herd in the 1940s and continue today. In 1999, the department was recognized by AQHA and awarded the Legacy Award for 50 years of continuous breeding of Quarter Horses.

1952: The current Department of Animal Science Horse Center, called Garrigan Stables, located on George Bush Drive was built. Since that time, many notable stallions have stood either in the original barn or in the newer stallion barn constructed in the 1980s, including Rey Jay, Eyes of Texas (by Three Bars), Merry Legs Jr (by Leo), Nu Bar (by Doc Bar), Docs Flying Bar (by Doc Bar), and many others.

1960: The first annual Texas A&M Horse Short Course was held in 1960 and planned by Dr. O.D. Butler, animal science department head, and Roy Snyder, Extension meats and horse/mule specialist. The educational event was held yearly for more than 30 years until the mid 1990s when it was re-

placed by more specific topic workshops. It is estimated that more than 14,000 horse enthusiasts have attended these programs, which feature presentations by many of the top equine trainers and professionals in the world.



1963: The first-ever Texas State 4-H Horse Show was held at Texas A&M at the Aggie Rodeo Arena, located in the area where Blue Bell Park now stands. The Texas State 4-H Horse Show celebrated its 50th anniversary in 2012. Several Extension horse specialists have provided key support to running the show. B.F. Yeates was the first Extension horse specialist to serve the show from 1966 to 1988 followed by Dr. Pete Gibbs from 1988 to 2009. Also serving the show during this time was Dr. Gary Potter (1972-1975) and Dr. Doug Householder (1975-2000). Today the State 4-H Horse Show is managed by Dr. Dennis Sigler, Extension

research and Extension excellence

horse specialist, and Teri Antilley, Extension horse program specialist, with the help of the show's management team of more than 80 County Extension Agents and adult volunteers.

1966: B.F. Yeates was hired as the Extension horse specialist to provide leadership to the emerging 4-H horse program and Extension education. Yeates was inducted into the AQHA Hall of Fame in 2006 for his lifetime of dedication to youth and education programs in Texas.

1968: In the late 1960s, ruminant nutritionist Dr. Les Breuer conducted horse nutrition trials including research on the amino acid requirements of young horses. His research showed lysine to be the first limiting amino acid for growth in young horses and set the stage for equine research that continues today.

1970: The American Junior Quarter Horse Association was formed nationwide as a result of Louisiana and Texas Extension specialists working with the Amarillo-based American Quarter Horse Association.

1971: Doug Householder was hired to work as a part-time Extension assistant while he completed his graduate studies. Householder assisted Yeates with Extension horse programs. Upon completion of his doctorate in 1975, Householder was hired full-time as Extension horse specialist. Also during this time, Dr. Gary Potter joined Yeates as Extension horse specialist with a teaching assignment, but later assumed a full-time teaching and research appointment, a position he held until his retirement in 2005.

1972: The first Texas A&M Horse Judging Team was formed to teach students to evaluate horses and horse performance, while gaining valuable life skills. The program continues today and has won 29 national championships, more than any other collegiate horse judging program.

1972: The Summer Horseman-ship School Program was introduced to train youth and adult leaders at the 4-H county level on horse safety, general riding practices, equipment and problem solving. Texas A&M equine students serve as instructors under the direction of the Extension horse specialists. 2012 marked the 40th anniversary of the program which has taught more than 45,000 4-Hers, parents and adult leaders and allowed 230 college students to serve as instructors for more than 1,300 county clinics.

1975: The Department of Animal Science equine science program was organized into the integrated teaching, research and Extension program as it's known today.



1977: Physiology of reproduction graduate student Stephen Vogelsang performed the first non-surgical equine embryo transfer, working under the

direction of Drs. A.M. Sorensen, Gary Potter and D.C. Kraemer. The embryo was collected in the spring of 1977 and the filly, known as Miss T, was born in the spring of 1978. It was initially thought that the technique would help in the production of foals from older mares that could no longer carry a pregnancy. However, its primary use in the past decade has been to produce multiple foals per year from mares that have been successful performers.

1979: The Equine Reproductive Management Short Course was established for horse owners and breeders to learn more about efficiency methods in reproduction and management. The course is offered every January and has welcomed more than 1,000 horse owners and breeders from 30 states and four countries.

1983: Don Henneke, a doctoral student working under the direction of Drs. Gary Potter and Jack Krieger, researched the effects of body condition at foaling and developed a Body Condition Scoring system. The scoring system, which used measurement of fat in the horse to quantify body condition, has been adopted by horsemen and veterinarians worldwide. Dr. Henneke's published work remains the most cited equine research literature to date.

1985: The Texas Reining Horse Association was formed as a result of Extension Service leadership, in association with industry representatives.

1999: The Texas A&M Women's Equestrian Team, which began in the Department of Animal Science, became a varsity sport managed by the Athletic Department.

EQUINE SCIENCE: *Today*

Teaching

The equine science undergraduate and graduate programs in the Department of Animal Science are the leading equine science teaching programs in the United States, providing educational resources on all components of the horse industry including production and research. More than 16,000 students have taken equine science courses through the department as they prepare to become leaders in the equine industry.

Students interested in equine science can earn a Bachelor of Science in Animal Science and also may choose to earn a Certificate of Equine Science. The certificate, open to any major, was introduced in the fall of 2012 and requires a minimum of 22 credit hours of equine coursework including equine care, production and management, evaluation, behavior, and health and nutrition.

The graduate equine program has

trained more than 40 doctorates and will soon become even more prominent with the introduction of a Master of Equine Industry Management beginning in the fall of 2015. The master's degree will focus on developing skill sets in equine sciences, marketing, management, public affairs, communication and leadership.

Students and faculty have access to state-of-the-art facilities in equine science research and activities including the Texas A&M Horse Center, Freeman Arena and the Hildebrand Equine Complex.

Several opportunities exist for students to advance their classroom education by participating on the Texas A&M Horse Judging Team, Stock Horse Team, the Horsemen's Association or through hands-on learning experiences, independent study (see story on page 19), internships with top equine companies, undergraduate research, class field trips, and study abroad.

Highlights

- ▶ The Texas A&M Horse Judging Team continues to lead the nation in most national team wins.
- ▶ The Run for the Roses Banquet, hosted by the Horse Judging Team, was introduced in 2012 and has become a widely-popular event in support of the Horse Judging Team program.
- ▶ The Texas A&M Stock Horse Team was formed in 2007. The team won the national championship in 2012 and 2014 and the reserve championship in 2011 and 2013.
- ▶ The Texas A&M Horsemen's Association will host the 2015 American Collegiate Horsemen's Association national convention in March, bringing 120 students from 15 universities to Aggieland.
- ▶ Jennifer Hazlett became the first student to graduate with the Certificate of Equine Science in 2012. Since then, five other students have completed the requirements, and the certificate grows in popularity.
- ▶ The equine curriculum was reviewed and updated in 2014, resulting in a more complete, well-rounded curriculum to prepare students for careers in the horse industry. (See story on page 17.)
- ▶ The first Master of Equine Industry Management cohort will begin in the Fall of 2015.



EQUINE TEACHING: WHO'S WHO?

Undergraduate and graduate equine science courses offered include:

- **Dr. Clay Cavinder**
Associate Professor & Horse Judging Team Coordinator
Introductory Equine Care and Use;
Equine Selection and Judging;
Equine Marketing and Development;
Equine Reproduction
- **Dr. Noah Cohen**
Professor, Department of Large Animal Clinical Sciences, CVM
Equine Disease and Epidemiology
- **Dr. Josie Coverdale**
Associate Professor
Equine Nutrition;
Equine Nutrition and Health;
Equine Handling and Safety
- **Dr. Jim Heird**
Glenn Blodgett Chair, Executive Professor and Coordinator, Equine Initiative
Issues in the Equine Industry
- **Dr. Eleanor Green**
Dean, CVM
Issues in the Equine Industry
- **Chelsea Huseman**
Animal Science Doctoral Student
Equine Behavior and Training
- **Anna Morrison**
Program Coordinator, Equine Initiative
Equine Industry and Career Preparation;
Equine Sales Management
- **Dr. Martha Vogelsang**
Senior Lecturer and Equine Internship Coordinator
Equine Production and Management;
Equine Reproduction;
Equine Exercise Physiology;
- **Jennifer Zoller**
Animal Science Doctoral Student
Equestrian Technology

Extension

The Texas A&M AgriLife Extension Service is a unique education agency with a statewide network of professional educators, trained volunteers and county offices. The Extension Horse Program within the Department of Animal Science addresses priorities and needs identified at a local level by county horse program committees. Specialists, County Extension Agents and industry professionals work together to address issues and opportunities of horse production, ownership and use through development of educational resource materials and activities.

Through educational programs and workshops, the Extension horse specialists provide research-based best management practices as related to nutrition, breeding, management, care and use. Information developed by the Extension horse group is available to all clientele, including individ-

ual horse owners, goods and service providers, and industry professionals.

While annual workshops are held at Texas A&M University in College Station, specialists also serve as instructors in support of county-based educational programs such as adult horsemanship and training clinics, performance horse workshops, small landowner's workshops, general livestock programs, and feed industry workshops. Extension specialists are often invited to give science-based educational presentations to adult groups of the major livestock and equine trade organizations.

In addition, the horse specialists are committed to supporting Texas 4-H through educational and competitive activities that foster decision making, problem solving and other important life skills. Faculty also serve as instructors for county horse clinics, horsemanship programs and judging

contests, and coordinating and planning the State 4-H Horse Show.

Extension also provides the Online Horse Judging website to assist horse judging coaches and judging team members become more knowledgeable and skilled judges.

Horse owners have access to printed and digital educational Extension publications through the Texas A&M AgriLife Bookstore and the departmental website.

Highlights

► The Extension horse specialists serve more than 950,000 Texas horse industry participants and more than 289,000 Texas horse owners.

► The Summer Horsemanship School Program marked its 42nd anniversary this year. The program has taught more than 45,000 4-Hers, parents and adult leaders and allowed 270 college students to serve as instructors for more than 1,300 county clinics.

► The Texas State 4-H Horse Show, managed by Dr. Dennis Sigler and Teri Antilley with the help of more than 80 county extension agents and adult volunteers, involves as many as 900 4-H youth, 800 to 1,000 horses, and more than 2,000 entries from across the state annually.

► Annual or biannual workshops held at Texas A&M University in College Station include the Equine Reproductive Management Short Course, the Mare/Foal Workshop, the Farrier Conference and Texas A&M Horse Short Course.

► The Texas Equine Ambassador Program was introduced in 2012 and brings together 25 of the most promising equine 4-H students in Texas for five days to train them on leadership and all facets of the equine industry.

► The Texas A&M AgriLife Extension Bookstore includes printed and digital educational publications provided by the horse specialists on topics such as drought and emergency management, emergency preparedness and response, horse theft, awareness and horse identification, nutrition and general health, reproduction and breeding, and youth programming.



EQUINE EXTENSION: WHO'S WHO?

● Dr. Dennis Sigler

Professor & Extension Horse Specialist

Sigler coordinates educational programs and serves as a resource person for adults, youth and horse industry groups across Texas; and co-manages the Texas State 4-H Horse Show.

● Teri Antilley

Extension Horse Program Specialist

Antilley manages the Summer Horsemanship School Program, co-manages the Texas State 4-H Horse Show, and organizes horse judging contests and workshops.

Extension to hire additional full-time horse specialist

Announced in July 2014, for the first time in the history of the Extension horse program, a full-time Horse Specialist will be located in a district office at the Texas A&M AgriLife Research and Extension Center in Stephenville. This specialist will work with Dr. Dennis Sigler and Teri Antilley to expand the efforts dedicated to the equine program development and delivery. Candidate interviews will be conducted in November. More details can be found at <https://greatjobs.tamu.edu>.

Research

Many faculty in the Department of Animal Science conduct equine research through their joint appointments with Texas A&M AgriLife Research, the state's premier research and technology development agency in agriculture, natural resources and the life sciences. These researchers are committed to serving the equine industry through basic and applied research in the areas of animal wellbeing, equine nutrition, exercise physiology, reproductive physiology, endocrinology and genomics.

Animal Science research faculty have built strong research collaborations with other faculty and experts in departments and colleges at Texas A&M as well as many other elite universities, agencies and companies in order to create the most knowledgeable and well-rounded research teams.

For decades, equine research conducted at Texas A&M has set the standard for practices common in the equine industry and provided horse owners with information for immediate application for the care and wellbeing of their horses.

Additionally, these research programs continue to provide opportunities for training and educating graduate students in preparation for careers in equine science or the equine industry.

Equine research currently underway or completed within the last five years includes:

- Hindgut fermentation and the impact on diet on cecal microbial environment and populations.
- Developmental programming in the equine and role of maternal nutrition in late gestation on foal health and performance.
- Dietary prevention strategies to mitigate joint inflammation and cartilage turnover in young horses.
- Neuroendocrine control of reproductive seasonality in the mare and reproductive management of the mare.
- Development of a highly successful hormonal strategy allowing nearly 100 percent control of season breeding, resulting in the development of large follicles and pregnancy as early as February using GnRH.

Highlights

► Researchers in the Department of Animal Science have led successful collaborative projects with faculty in the Texas A&M College of Veterinary Medicine & Biomedical Sciences, Texas A&M AgriLife Extension, the Department of Kinesiology, the Department of Agriculture Education, the Texas A&M Health Science Center, North Dakota State University, Clemson University, Iowa State University, USDA/ARS as well as individuals at 6666 Ranches, Millenium Farm, McDermott Ranch, David Unnerstall, DVM, O'Brien Ranches, Flying V Quarter Horses and Robeson Road Farm.

► Equine research is often published in peer reviewed journals representing a variety of disciplines including Theriogenology, Journal of Animal Science, Applied Animal Behaviour Science, Biology of Reproduction and Journal of Veterinary Internal Medicine.

► Faculty have given invited presentations including at the International Conference on Farm Animal Endocrinology (Switzerland), North Dakota State University, International Symposium on Equine Reproduction (New Zealand, Netherlands, Kentucky), AQHA International Horsemanship Programs (Argentina, Uruguay, Paraguay, Colombia, Panama), Mid-Atlantic Nutrition Conference, World Horse Welfare's Meeting of Experts (England), Rutgers University Equine Management Seminar, International Symposium on Agriculture (Greece), Joint Animal Science Society Symposium.

► Research is presented annually at the Equine Science Society Symposium, American Society of Animal Science and Society

for the Study of Reproduction meetings. Several graduate students have won first place in competitions.

► Researchers have been awarded grants and contracts from USDA-CSRS Animal Health Program, H. Patricia Link Quasi-Endowment, Texas A&M AgriLife Research, American Quarter Horse Foundation, USDA NRI, USDA APHIS Veterinary Services, Morris Animal Health, Cargill Animal Nutrition, Diamond V, Inc., American Protein Company and Arenus.

► Within the last 10 years alone, 75 students in the Department of Animal Science have received either master's or doctorate degrees in animal science or physiology reproduction with an emphasis in equine science.

► Several graduate students have received university awards including the Tom Slick Senior Graduate Fellow, Dr. A.M. "Tony" Sorensen, Jr. Achievement Award, Ronnie Edwards Graduate Teaching Award, Dean's Award for Outstanding Achievement in Graduate Teaching and Distinguished Graduate Student Award for Excellence in Teaching.

► Many of these students now lead successful careers in academia, research, veterinary medicine and the equine industry. Currently, Texas A&M graduates now work as equine science faculty members at Texas A&M University, Sam Houston State University, Truman State University, University of Tennessee, University of Florida and at universities in Colombia, Mexico and Switzerland.

Editor's note: This information provides a snapshot of equine research conducted within the Department of Animal Science and is not intended to provide an all-inclusive list of projects, collaborators, publications, presentations, contracts, grants and gifts, and graduates and their successes.

- Fundamental role of a brain peptide, RFRP-3 and its antagonist, RF9. The latter may serve as an alternative approach for controlling reproductive seasonality.
- Researchers have measured gene expression in the stallion testes and sperm to identify genes turned on during sperm maturation, to identify markers of fertility in sperm and to understand how stress hormones impair testosterone synthesis.
- The existing regulations for the transport of commercial slaughter horses in the United States and Canada are largely based on a series of studies. In addition, studies conducted demonstrated that the European Council's proposal for regulations requiring frequent off-vehicle rest stops and the associated unloading and reloading of horses were detrimental, resulting in more realistic regulations.
- Studies provided fundamental information important to improving the welfare of horses during transport including: usefulness of rest stops and transport in stall vs loose group.
- Effect of stress-related factors on reproductive functions of stallions and on immune functions of foals.
- Influence of exercise-induced thermal stress on reproductive function in the horse (mare and stallion).
- Effects of nutrition and exercise stress on reproductive performance in horses.
- The first genomic sequence of an individual Quarter Horse mare was conducted, unlocking the secrets of what makes this breed so unique.
- Studies examine horse rider energy expenditure during high intensity horse activity using a COSMED K4b² Portable Telemetric Gas Analysis System.
- Studies utilize a novel computer nutrition modeling program to provide more accurate feeding recommendations to minimize resources spent in managing horses and improve the health and welfare of the horse.
- Research concerning management practices that may influence the severity of Equine Gastric Ulcer Syndrome.



EQUINE RESEARCH: WHO'S WHO?

● Dr. Marcel Amstalden (recently deceased)

Associate Professor, Physiology of Reproduction

Research interests were focused on endocrine and neuroendocrine mechanisms regulating the establishment of reproductive cycles and estrous cyclicity in sheep, cattle and horses.

● Dr. Clay Cavinder

Associate Professor, Equine Science

Research focuses on how nutrition and exercise affect reproductive efficiency of both the stallion and mare.

● Dr. Josie Coverdale

Associate Professor, Equine Science

Research includes equine nutrition with interest in hindgut fermentation, fetal development and joint inflammation.

● Dr. Ted Friend

Professor and Texas A&M AgriLife

Research Faculty Fellow, Animal Behavior and Wellbeing

Equine research focuses on ways to improve the conditions of horses during transport.

● Dr. Nancy Ing

Associate Professor, Physiology of Reproduction

Studies how stress hormones decrease testosterone synthesis by altering gene expression in the stallion.

● Dr. Dennis Sigler

Professor, Equine Science

Studies nutrition and exercise science, primarily conditioning and management of the athletic horse to maximize performance and enhance structural integrity.

● Dr. Martha M. Vogelsang

Senior Lecturer, Equine Science

Research focuses on equine reproductive physiology with particular interest in factors relating to reproductive efficiency in the mare including nutrition, thermal stress and regulation of the estrous cycle.

● Dr. Tom Welsh

Professor and Texas A&M AgriLife Research Faculty Fellow, Physiology of Reproduction

Research interests include investigation of the endocrine regulation of reproduction in the stallion and effects of stress on immune function of foals.

● Dr. Gary Williams

Professor, Regents Fellow and Texas A&M AgriLife Research Faculty Fellow, Physiology of Reproduction

Research interests focus on neuroendocrine mechanisms regulating seasonal reproduction in the mare and reproductive management.

To learn more about these research projects, visit:
<http://animalscience.tamu.edu/researchprograms/equine-science-research/>.

Facilities

Faculty, staff and students in the Department of Animal Science equine program have access to several facilities on the Texas A&M campus in College Station to support their teaching, research and Extension activities. These include the Texas A&M Horse Center, Freeman Arena and the newly opened Hildebrand Equine Complex.

Hildebrand Equine Complex

The Thomas G. Hildebrand, DVM '56 Equine Complex is administratively housed in the Department of Animal Science but serves all equine science programs at Texas A&M including teaching, research, Extension, athletics and student activities. Construction of Phase I was completed in early 2014 and provides a home for the Women's Equestrian Team as well as teaching and outreach activities. Plans for Phase II are in progress and will include facilities for equine nutrition, exercise physiology and reproduction teaching and research. For additional details on the recently-opened facilities and future phases of construction, see page 8.



Horse Center

The Texas A&M Horse Center is located on approximately 120 acres and includes a central barn and office area, stallion barn and reproduction laboratory, research barn, hay barn, and several pasture areas. Texas A&M registered its first horse with the American Quarter Horse Association in 1941, and the Horse Center continues to be home to more than 100 American Quarter Horses. The Center breeds and sells horses throughout Texas, giving students a hands-on look at the horse industry from breeding to management to marketing. In addition, the Center features specific areas for teaching, research and Extension activities and is equipped to support breeding, artificial insemination, live animal evaluation, animal health demonstrations, behavior demonstrations, and nutrition and exercise physiology research. The facility can accommodate animal holding and feeding for both group and individual horses. Lanes allow easy access and movement of horses within the facility.



Dick Freeman Arena

Dick Freeman Arena is a covered arena devoted to equine teaching including coursework in horse training, judging, shows and rodeos. Extension programs including the Aggiefest Horse Judging Workshop and training for the Summer Horsemanship School Program are conducted at Freeman Arena as well as horse shows, rodeos, cutting contests and many other activities. The facility consists of a 34-stall main barn with two storage areas and living quarters, a 150 x 300 feet covered riding arena with 500 bleacher seats and an announcer's box, and 59 housing stalls located under the arena roof adjacent to the riding space. Several small paddocks are located near the arena. Built in 1977 with the bleachers and roofing added in 1985, Freeman Arena will undergo a complete remodel as Phase III of the Equine Initiative's facility construction plan.



EQUINE FACILITIES: WHO'S WHO?

● Steve Canon

Manager, Hildebrand Equine Complex

Canon manages and maintains the Equine Complex facilities and cross country track, and oversees the equine operations of the Texas A&M Equestrian Team.

● Cheryl Darby

Assistant Facilities Manager, Hildebrand Equine Complex

Darby manages the equine operations for the Texas A&M Equestrian Team.

● Ross Glenn and Roy White

Grounds keepers, Hildebrand Equine Complex

Glenn and White are responsible for maintaining the Equine Complex grounds.

● Krissy Schroeder

Facilities Manager/Breeding Manager, Horse Center

Schroeder manages and maintains all operations at the Horse Center and Freeman Arena including the facilities and care of the horses.

For more information on all equine programs at Texas A&M University, visit:

★ equine.tamu.edu ★

A GATEWAY TO EQUINE EDUCATION, RESEARCH, OUTREACH AND SERVICES AT TEXAS A&M.

Texas A&M introduces new equine options for students

A review of the equine science curriculum offered in the Department of Animal Science has resulted in an enhanced curriculum and greater educational options for Texas A&M students.

The introduction of a Master of Equine Industry Management, a Certificate of Equine Science and several new equine courses will strengthen the education available for Texas A&M students interested in a career in equine science or the equine industry.

“Texas A&M has been successfully training students in equine science for decades. Now with the enhanced curriculum and new master’s degree and certificate program, we are raising the bar and giving students recognition for completing the coursework,” said Dr. Russell Cross, head of the Department of Animal Science.

“We are one of the few universities in the United States to offer a Certificate of Equine Science and the only university with a Master of Equine Industry Management. We are setting the stage for Texas A&M to become a premier institution for equine education.”

The Master of Equine Industry Management will be structured similar to many Master of Business Administration programs. Students will work through two years of coursework as a cohort, allowing them to benefit from each other’s varied experiences and areas of expertise.

Coursework requirements draw equally from graduate level equine science classes, leadership and communication courses, and business courses. Additionally, students will be required to participate in two high-quality internship and/or research experiences.

“We are excited about what this program will mean for students who are looking to enter the equine industry in leadership positions,” said Dr. Jim Heird, Glenn Blodgett Equine Chair and Executive Professor for the Equine Initiative.

Recruiting for the first Master of Equine Industry Management class will begin in spring 2015.

In addition to the new master’s program, the Department of Animal Science now provides a structured curriculum for undergraduate students with interest in equine science. Students can obtain a Certificate in Equine Science by completing 22 credits in select equine courses.

“Many of the courses included in the Certificate of Equine Science were already in place at Texas A&M. Our goal in establishing the certificate was to give students with equine interest credit for a body of coursework that will help them as they pursue leadership positions in the equine industry,” Cross said.

Students who pursue the certificate take several recently established equine courses, including Equine Industry and Career Preparation, Equine Disease and Epidemiology, and Issues in the Equine Industry. Completion of the certificate signifies that students have gained knowledge in equine nutrition, reproduction, disease, handling, management, career preparation and industry issues. Also, each student is required to complete an internship as

a part of the certificate requirements, giving students hands-on experience in the industry.

The Certificate in Equine Science became available in the fall of 2012 with the first student graduating with the certificate in May 2013. Most recently, five students earned the certificate upon graduation in May 2014 and the program continues to grow in popularity.

In addition to the newly structured master’s degree and certificate programs, the Department of Animal Science worked closely with the Equine Initiative to conduct a comprehensive review of the equine science courses to ensure the appropriate classes were available to support the two programs. The new courses will be taught by faculty in the Department of Animal Science, the College of Veterinary Medicine & Biomedical Sciences and the Equine Initiative, drawing upon the combined excellence of faculty experts in each equine program.

“Recommendations of the review committee resulted in modification of some existing courses and development of new equine courses to enhance the equine curriculum,” said Dr. David Forrest, associate head for academic programs in the Department of Animal Science.

Curriculum changes resulting from the review include:

- Content modifications for Equine Behavior and Training, and Equestrian Technology;
- The Advanced Stock Horse Training course was moved into a Directed Studies credit for students interested in the Stock Horse Team;
- An Equine Handling and Safety course was developed to provide experiential learning for students with limited horse background;
- An undergraduate Equine Exercise Physiology and Equine Reproduction courses will be offered for the first time in Fall 2014;
- An Equine Marketing and Development course is now approved for International Cultural Diversity credit;
- A new Sales Management course will provide students with experience in all facets of preparing and conducting a horse sale.
- An Equine Disease and Epidemiology course is now taught through Veterinary Large Animal Clinical Sciences to address control and prevention of selected equine infectious diseases and epidemiological principles applied to equine health.
- A sophomore-level course was developed to prepare students for the multiple career paths available in the equine industry.
- A capstone course called Issues in the Equine Industry now provides students an opportunity to integrate skills, concepts and information to demonstrate critical thinking and problem-solving ability relative to current issues affecting the equine industry.

For more information regarding the Master of Equine Industry Management, contact Anna Morrison at (979) 845-6098 and for the Certificate of Equine Science, contact Donna Witt at (979) 845-7616.

“Texas A&M has been successfully training students in equine science for decades. Now with the enhanced curriculum and new master’s degree and certificate program, we are raising the bar and giving students recognition for completing the coursework.”

-- Dr. Russell Cross
Head, Animal Science

Prevention, dietary adjustment show promise in fending off joint pain in young horses

By Blair Fannin
AgriLife Communications

COLLEGE STATION – A series of studies by researchers in the department of animal science at Texas A&M University suggest prevention is the best solution to prevent arthritis in young quarter horses.

Dr. Josie Coverdale, associate professor in equine science, and Dr. Jessica Lucia, a former graduate student under Coverdale and now a professor at Sam Houston State University, found use of anti-inflammatory aids mixed with daily rations can help decrease joint inflammation in young horses.

“Arthritis is one of the most common reasons we retire horses, and this study shows that prevention of joint damage in early training may be possible through diet,” Coverdale said. “It’s pretty clear the damage comes during early training and that damage often leads to arthritis later in life. A lot of pharmaceuticals are given to treat pain, but few actually help repair the cartilage. We went with the premise that prevention is the best approach rather than trying to treat an existing condition.”

Coverdale said they used the horse production herd at Texas A&M to develop the model and test several diet additives. Lucia read through numerous journals and read a study that used LPS (lipopolysaccharide) injected into the joint for induction of localized inflammation in horses.

“We came across LPS, which has been used in older horses, but not younger horses,” she said. “LPS is the inflammatory part of *E. coli*, which can be injected using a sterile solution. The beauty of that method is you inject it in the knee and in 24 hours you get pretty quick swelling that is associated with cartilage turnover and related pain.”

This allowed researchers to study the inflammation and breakdown of cartilage over time and mimic the progression of inflammation and cartilage changes associated with intense exercise.

“This initial model study showed us the pattern of inflammation and isolated appropriate markers to measure cartilage breakdown using joint fluid removed from the knee at various time points,” Coverdale said.

Once the LPS model was established to predictably cause joint inflammation, Coverdale said, different dietary strategies were used to try to decrease the amount of inflammation, which included anti-inflammatory dietary supplements such as glucosamine – commonly used by men and women runners to aid in building back damaged cartilage.

Coverdale said previous data with glucosamine supplementation was “hit or miss with adult horses,” but they wanted to see for themselves and test the theory that prevention in young horses

was easier than treating arthritis in the adult.

“We found that it tended to increase new cartilage production and decrease the breakdown of existing cartilage, which was good,” she said.

Thirty milligrams of glucosamine per kilogram of body weight was given to the study horses, Coverdale said.

“We certainly got a positive response, which was what we wanted,” she said.

Another component of Coverdale’s research has been studying conjugated linoleic acid, or CLA, which “is fairly similar to glucosamine in that there are documented anti-inflammatory effects, which may be used to remediate and repair cartilage in joints.”

“Horses receiving supplemental CLA tended to exhibit greater repair of their cartilage when injected with LPS rather than break it down,” she said. “Two percent of the diet was given in the CLA and that can be economically feasible for horse owners.”

The research group has also evaluated horses at varying ages to determine the response to LPS based on age. They concluded that young horses were more likely to synthesize new cartilage in response to inflammation while older horses were more likely to experience cartilage degradation

or damage.

“This further illustrates that dietary intervention provided to young horses in training to prevent joint damage may yield the best results,” she said. “With all four of these projects it confirmed that intervening during times of early growth and training with some of these dietary additives is worth it. Waiting on down the line as the horse ages is probably too late. Most people are waiting until they see symptoms in these adult horses and by then it is too late.

“It’s more cost effective and beneficial to do this early. Using it as a prevention method is much better.”

Coverdale also praised the collaborative efforts of other researchers at Texas A&M, including Dr. Tom Welsh, a professor of physiology in the department of animal science, and Texas A&M College of Veterinary Medicine researchers Caroline Arnold and Robin Dabareiner.

“These types of projects truly represent what being an Aggie is all about – the function of a group with varied interests to develop research projects that answer real world questions and provide high-quality training of students.”

The initial project to develop the LPS model was funded by the H. Patricia Link Quasi-Endowment funds in the department of animal science, she said. “This funding was pivotal in furthering the research efforts and helped generate interest from other funding sources such as Cargill Animal Nutrition and the American Quarter Horse Association.



Aggies follow passion, learn valuable skills through service-oriented equine opportunity

By Olivia Norton '16

Dr. Martha Vogelsang and her strong commitment to student success took an informal request for help at a local therapeutic riding center and turned it into an opportunity for Texas A&M students to impact their community and take away values of their own.

Vogelsang is a senior lecturer of equine science in the Department of Animal Science. When a student stood up in Vogelsang's Equestrian Technology class to announce that the Gallop Foundation, a therapeutic riding center located in College Station, was in need of new volunteers, Vogelsang saw an opportunity.

"When a student wants to get involved with horses on campus, they can help with a research project or other activities like this as an independent study," Vogelsang said. "I thought involving our students at an equine facility like the Gallop Foundation would be a formal way for motivated students to earn credit for something they felt passionate about."

In January 2011, the decision was made to give a one-hour credit, ANSC 485 Special Topics in Equine-Assisted Therapy, to volunteers and the response from students was more than encouraging. The initial informative meeting drew more than 100 interested students for 25 available spots.

Students now provide help as side walkers, with horse care, and support for clients three hours a week. Students also witness first-hand how equine therapy can affect individuals with almost any range of cognitive, emotional and physical disability. The gentle, rhythmical gait of a horse has been shown to increase flexibility, muscle strength and balance among clients, while the bond formed between a horse and rider is used as another support system to instill confidence and increase self-esteem among participants.

Coincidentally, Vogelsang was selected to participate in the 2013-2014 Service-Learning Faculty Fellows, a group of eight Texas A&M faculty members from campus who have an affinity for instructing students by way of a service-oriented curriculum.

"This year-long program brought together faculty from medicine, engineering, kinesiology to, in my case, animal science to integrate service-learning into their instruction. I decided to use my time in the fellows group to improve upon the therapeutic riding volunteer program already in place," Vogelsang said.

With a year of monthly meetings among professionals sharing her vision and new funding, Vogelsang revisited the format of the volunteer-based class.

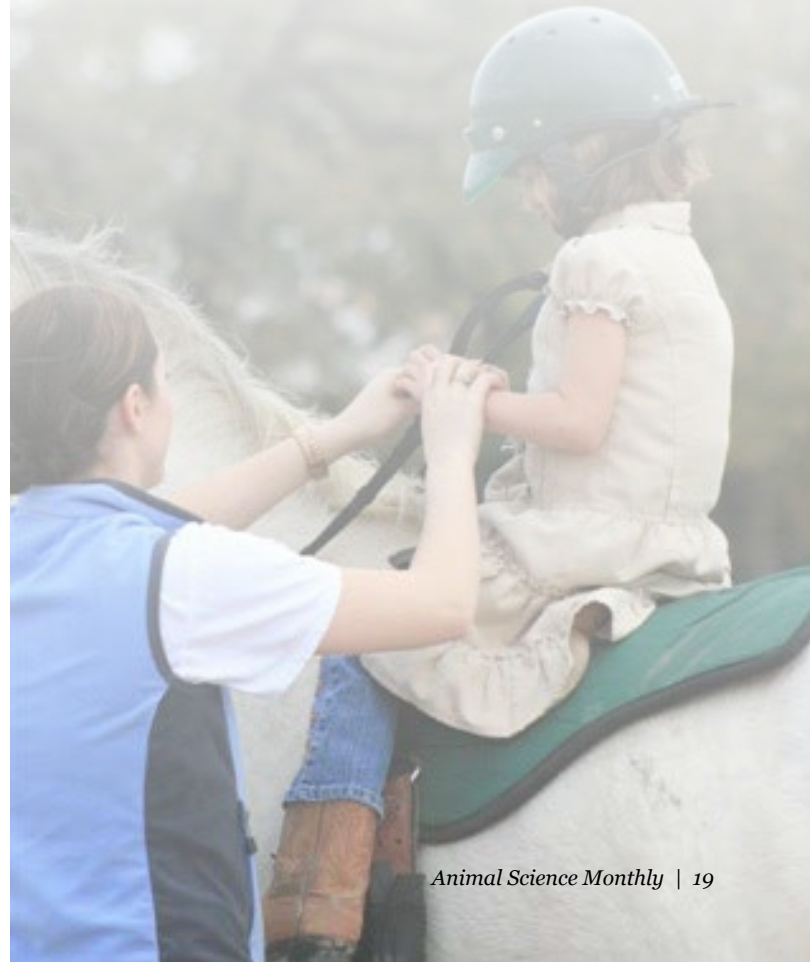
"I decided to take advantage of the techniques and resources I gathered from the fellows group and expand the equine-assisted

therapy class by utilizing funding to include a field trip to Ride On Center for Kids in Georgetown and also bring in a guest speaker from Equest, one of the oldest therapeutic riding centers in the state," Vogelsang said.

Today, students continue to explore equine-based therapy at the Gallop Foundation, but they can also participate in the Courtney Grimshaw Fowler Equine Therapeutic Program at Freeman Arena. Courtney Cares, as the program is known, was established in memory of Courtney Anne Grimshaw Fowler, a graduate of the Department of Animal Science, in order to provide equine-assisted therapy to a range of clients including children and veterans. Students visit one of the two facilities weekly and serve as side walkers for clients of the program or are trained to assist in multiple ways.

"An overarching goal is to let students learn through service with the result being beneficial to both Texas A&M students and those who need these therapies. Whether the student is interested in pursuing some form of occupational therapy, possibly equine related, or whether the student is seeking the rewarding experience of helping others, everyone gains valuable experiences through this program," Vogelsang said.

The independent study program is open to all Texas A&M students. Vogelsang said students from many majors and interests have participated, including kinesiology majors interested in therapy as an occupation as well as students who want a reason to be around horses and give back to their community.



Students at Texas A&M can participate in a Special Topics in Equine-Assisted Therapy course and witness first-hand the healing benefits of equine therapy while gaining valuable life skills of their own.

England, Ireland

STUDY ABROAD



The England and Ireland Agriculture and Animal Production study abroad program offered a group of 28 animal science students a complete educational experience including tours of notable cities and landmarks, the scenic countryside and coastlines, a taste of local cuisine, visits with leaders from agricultural associations and in-depth tours to numerous farms and agricultural centers.

The main focus of the study abroad program explored many aspects of the regions' livestock industry including sheep, beef, dairy, horse and grain production systems. Daily trips included:

Aug. 5: Sightseeing tour of London including views of Buckingham Palace, Tower of London and Westminster Abbey.

Aug. 6: Visit to the Centre for Dairy Research in Reading (CEDAR) including a presentation and tour of the largest facility in the U.K. for nutritional, reproducing and metabolic studies in dairy cows. Visit to the Animal Science and Research Group (ASRG) and a visit to a private horse stud offering breeding services.

Aug. 7: Visit to the Laverstoke Park Farm, a large organic farm home to 400 pedigree Hereford and Angus cattle, 880 Lleyn and Hebridean breeding ewes, wild boar, poultry, pigs and water buffalo producing meat, mozzarella, yogurt and ice cream. Students learned first-hand about sustainable land management, biodiversity, farm animal welfare and healthy food production from field to fork.

Aug. 8: Travel to Devon for a visit to a cyder producer using apples from their 100-year-old orchards. Visit independent bull stud set up to collect, store and distribute semen around the world, working with top cattle breeders, artificial insemination companies, buyer groups and cooperatives collecting semen from the very best of

British dairy and beef genetics.

Aug. 9: Visit to a goat farm breeding Golden Guernsey Goats, British Guernsey Goats and Pygmy Goats in Devon. Visited the Cornish coast for a traditional Cornish pasty lunch (savory meat and vegetable pie) followed by a tour of the area scenery.

Aug. 10: Visit to the Cheddar Gorge Cheese Company to see the various stages of transforming rich, local milk into award winning authentic cheddar cheese. Visit to a pedigree dairy farm where more than 300 milkers run commercially on a no-frills operation. Dinner in Wales.

Aug. 11: Morning visit to a beef, sheep and arable farm in the Brecon Beacons National Park. The farm owner is a National Farms Union County Chairman and recently won a competition for farm conservation. Next, the group visited a neighboring family farm producing apple juice and then traveled into Abergavenny for sightseeing including a trip to the Abergavenny Castle.

Aug. 12: Visit to a family farm with Huacaya alpacas and Black Welsh Mountain, Jacob and Shetland sheep whose focus is to take high-quality females and breed to improve temperament.



Photos courtesy of Peyton Barrier, Allison Raley and Shawn Ramsey.

The group then took a foot passenger ferry from the west coast of Wales to Rosslare, Ireland and then toured Waterford.

Aug. 13: Tour of Cork along the South Coast of Ireland, a stop at a sheep farm and a visit to the Old Jameson Distillery for a tour. Visit to Billy Nicholson's Suckler Beef, Arable and Woodland Farm.

Aug. 14: Visit to the O'Leary Farm Area, whose owner was recently elected as the national Vice President of Irish Farmers Association. Visit to Nangle & Niesen Wholesale Nursery Stock Producer, one of the biggest producers of semi-mature trees in Ireland. Visit to Blarney Castle. Presentation by an Irish Farmers Association representative on Irish agriculture.

Aug. 15: Visit to Cobh Heritage Centre. Ferry ride to Spike Island for a guided tour of the island located in Cork Harbor. Visit to an

Artisan/Farm House Cheese Producer and a potato producer.

Aug. 16: Drive the Ring of Kerry through spectacular landscape awash with history and exquisite views. Meet with a beef farmer who farms the mountainous west coast.

Aug. 17: Drive to Kilkenny via Adare and through Limerick with a stop at Kilkenny Castle. Visit to Kilkenny Farm Houses.

Aug. 18: Visit to Hyland Farm, a very commercial farm and frequent host to the Irish Grassland Association. Visits to Talbot Beef Farm and Larry O'Reilly's Arable Farm.

Aug. 19: Morning tour of Dublin City with a visit to Trinity College and the Book of Kells, Christchurch Cathedral and the Guinness Store House.

Department of Animal Science recognizes *Outstanding Alumni & Hall of Fame*

COLLEGE STATION – The Department of Animal Science at Texas A&M University recognized two former students and announced the Animal Science Hall of Fame inductees at the department’s annual awards banquet held in April. Erin Morrow Hawley was presented the Department of Animal Science Outstanding Young Alumni Award; R. Hollis Klett was presented the Department of Animal Science Outstanding Alumni Award; and T.D. Tanksley, Jr. and Anne Legendre Armstrong were posthumously inducted into the Animal Science Hall of Fame.

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 of Animal Science.

Erin Morrow Hawley is an associate professor of law in agricultural law and constitutional litigation at the University of Missouri School of Law in Columbia, Missouri, where she says she hopes to pass on the love for agriculture instilled in her by her Texas A&M professors.

After earning a bachelor’s degree in animal science at Texas A&M in 2002, Hawley completed one year at the University of Texas Law School before transferring to Yale Law School where she earned her degree in 2005.

She followed graduation with appointments of Litigation Associate with Kirkland & Ellis LLP in Washington, DC and law clerkships with J. Harvie Wilkinson, III, U. S. Court of Appeals for the Fourth Circuit, and Chief Justice Roberts with the Supreme Court of the United States. She has briefed cases in the Supreme Court of the United States as well as numerous federal courts of appeals. She worked with Attorney General Michael Mukasey with the Department of Justice in the fall of 2008. She taught at George Mason University School in the spring semesters of 2009 and 2010. She then worked as an associate in the national appellate practice at King and Spaulding LLP in Washington, DC., and as a counsel with Bancroft LLP in Washington, DC.

As a student at Texas A&M, Hawley was a member of the Livestock Judging Team and named to the All-American Livestock Judging Team in 2001. She was selected as a Senior Merit Award recipient by the College of Agriculture and Life Sciences in 2001. In addition, Hawley served as an Agricultural and Natural Resources Policy intern and spent a semester working for Congressman Mac Thornberry in Washington, D.C. Sitting in on farm bill hearings sparked her interest in the ways agricultural laws and regulations affect farmers and ranchers, and she credits this experience with setting her on a career path to become an attorney and law professor.

In 2013, Hawley was recognized by Texas A&M College of Ag and Life Sciences with the Outstanding Early Career Achievement Award.



Dr. Chris Skaggs presents the Animal Science Outstanding Young Alumni Award to Erin Morrow Hawley.

Outstanding Alumni Award

The Animal Science Outstanding Alumni Award recognized a graduate of the Department of Animal Science at Texas A&M University who has built a distinguished career in animal science and brought honor to the Department and the field of animal science.

R. Hollis Klett’s leadership in the field of ruminant nutrition and beef cattle production spans 55 years. His research on using liquid feeds for supplementing beef cattle changed the face of the cattle-feeding industry.

A native of Menard, Texas, Klett majored in animal science at Texas A&M and was a member of the wool and livestock judging teams. After graduation in 1958, he worked as a ranch manager in Mississippi for three years before returning to Texas A&M to earn his master's degree in 1963. After earning his doctorate at Oregon State, Klett taught animal science at Louisiana State University and then became a professor and researcher at Texas Tech University.

In 1972, Klett presented a groundbreaking paper on feeding urea in liquid supplements at an American Feed Industry Association conference. From that meeting, he went on to present his research and conduct demonstrations in Kenya and Uganda, study cattle breeds in Europe, and travel around the world as a nutrition consultant and researcher.

In 1974, Klett accepted a feedlot nutritionist position with Nutrition Service Association of Illinois where he served as a consultant for feedlots in Texas, Arizona, California, Kansas and Mexico. In 1986, after managing the Southwestern Division for 12 years, Klett purchased the company. Today, he is the president and major shareholder of XF Enterprises, the holding company for Nutrition Service Associates, which he expanded throughout the U.S., Canada, and Australia to now represent over 2.5 million feedlot cattle.

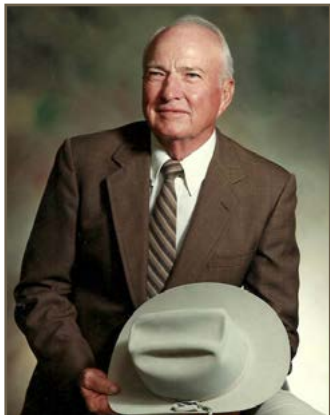
Klett also owns the Klett Ranch in Tucumcari, New Mexico, and the 22,000-head OT Feedyard and Research Center in Hereford, Texas. The center collaborates with industry and commercial groups, as well as with Texas A&M and West Texas A&M Universities, to provide student internships. Klett was inducted into the American Feed Industry Association Hall of Fame in 2006. He was also a Mays Business School "Aggie 100" recipient in 2011 and was named an Honorary Lifetime Member of the Saddle & Sirloin Club in 2012.



Dr. Tryon Wickersham, *left*, presents the Animal Science Outstanding Alumni Award to R. Hollis Klett.

Animal Science Hall of Fame

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



T.D. Tanksley Jr.

The son of T.D. and Olivia Tanksley, "Tank," as he was affectionately known, grew up on the family livestock farm in Burnet County. At age 16 he became an Aggie and was drafted to serve his country in World War II after only completing two semesters of school. After his return, Tank married his high school sweetheart, Margaret McAndrew, in August of 1945.

After graduating as the valedictorian of his class in 1947, he spent 10 years in Llano County serving producers and students first as a Vocational Agricultural Teacher and then as a County Agricultural Agent. His hard work and dedication in the county earned him recognition as one of five outstanding young Texans in 1956. Among the other four honorees that year was George H.W. Bush.

In December 1956, Tanksley joined the Texas A&M College Animal Husbandry Department, now the Texas A&M University Department of Animal Science, as the Extension Swine Specialist while working towards his doctorate degree, which he received in 1968. He went on to hold a rare three-way appointment in the College of Agriculture, the Texas Agricultural Experiment Station, and the Texas Agricultural Extension Service. He was named Professor Emeritus of Animal Science, when he retired in 1985.

Tanksley's early research resulted in swine-feeding guidelines that were followed worldwide. In other research, he helped build bone strength in boars and determine optimum feed formulas for digestibility. He also pioneered the development of the meat-type hog, which has less fat and more muscle.

Chuck Real, owner of Real Hog Farms, said Tanksley "was the ultimate educator. He had the unique ability to talk with producers at the end of the road that never left the farm helping them solve their problems, but could also talk to researchers on the highest level." Real also said that Tanksley's integrity and work ethic were unmatched.

Dr. Bob Easter, president of the University of Illinois, is a former student of Tanksley's. Easter credits Tanksley with helping him to determine and establish an educational path that ultimately led him to his current appointment. "Perhaps

more important than anything was the extent to which I have been influenced by Tank's sense of the responsibility that we in the academy have to understand the needs of our state and to implement research and educational efforts that bring pragmatic solutions to real problems," said Easter.

Regardless of the many teaching, research and extension awards Tanksley received, his first love was always livestock shows. Tanksley was the best-known swine show judge in Texas history, conducting programs throughout the state. In 1997, the Houston Livestock Show and Rodeo recognized him for 50 years of continuous support as an exhibitor, 4-H and FFA youth advisor and superintendent of the Market Swine and the 4-H and FFA Livestock Judging Contest.

For 30 years the Tanksley's raised Brahman steers that often topped the consigned cattle sale at the S&S Show Steer and Cattle sale in Taylor. Many of the steers went on to win major show champions. Tanksley will long be remembered and recognized by many for developing top notch, highly competitive Brahman cross show steers.

In 2011, Dr. Tanksley passed away at his home in Bertram. He left his love for animal science and youth advocacy in the capable hands of his children, grandchildren, and great-grandchildren.



Anne Legendre Armstrong

Anne Legendre Armstrong, who advised four presidents and was the first woman to serve as U.S. ambassador to Great Britain, was known for her intelligence, diplomacy, political savvy and sense of humor. She made a legendary contribution to animal science at Texas A&M University and worldwide through her role in obtaining political and financial support for the Bovine Genome Sequencing Project.

Born in New Orleans, she was educated at Foxcroft School in Middleburg, Va., where she was head of the student body and served as valedictorian of her graduating class. Armstrong received a bachelor of arts degree from Vassar College in 1949. Soon after graduation, she married cattleman Tobin Armstrong whom she had met a few years earlier while visiting the King Ranch in South Texas. The couple made their home at the Armstrong Ranch in Kenedy County for the remainder of their lives where they raised their five children, Barclay, Katharine, Sarita, and twins Tobin, Jr. and James.

Armstrong was the first woman appointed Counselor to the President with Cabinet rank, serving Presidents Richard Nixon and Gerald Ford. In 1976, President Ford appointed her ambassador to Great Britain. She also advised Presidents Ronald Reagan and George H. W. Bush, and was the first woman to serve as co-chair of a national political party. President Reagan honored her with the Presidential Medal of Freedom in 1987.

Anne and Tobin Armstrong were active in Texas politics throughout their lives. She succeeded her husband after his death in 2005 as a County Commissioner of Kenedy County, Texas, and held the office until her death in 2008. Armstrong also served on the Board of Regents of The Texas A&M University System, among her many other board positions in both government and industry.

Fred McClure, now chief executive officer of the George Bush Presidential Library Foundation, had known Armstrong for 20 years when they began serving together as regents. He recalled, "When I think of the standard to which selfless public servants should aspire, Anne Armstrong set the bar. Her elegance and South Texas rancher values combined to make her a powerful force in agriculture, business, public policy, international affairs, and politics."

Armstrong met Jim Womack, now University Distinguished Professor in the Department of Veterinary Pathobiology, while they served together on the search committee that chose Dr. Robert Gates as a candidate for president of Texas A&M. She and Womack talked often about advancements in cattle genetics and genomics and how they might improve cattle breeding.

In 2002, the National Human Genome Research Institute called for proposals to sequence the genome of model organisms to follow the human genome project. Many people believed that cattle would be a good candidate, and the institute agreed. But \$25 million in additional funding had to be contributed by the agricultural sector. Armstrong used her influence to help raise the money, with contributions from the USDA and agricultural agencies in four other countries. By late summer of 2003, \$15 million was committed for the project. To help make up the shortfall, she arranged a meeting with Texas Governor Rick Perry and his staff and as a result secured the remaining \$10 million from the State of Texas.

The Bovine Genome Sequencing Project was launched in January 2004. The sequence data were generated by the Baylor College of Medicine Human Genome Sequencing Center, and analysis of the data was led by faculty in the Department of Animal Science. The entire project took six years to complete, with participation by more than 300 scientists from 25 countries. A draft sequence of a Hereford cow was made available in a public database in October 2004 and the project culminated with a publication in the journal *Science* in April 2009.

Having the bovine genome sequenced as early as 2004 made this information available to a generation of scientists who have already helped to improve the beef and dairy industries, enhance consumer products, and create more sustainable food production for increasing populations.



FORMER STUDENT
**JESSICA LUCIA
LEATHERWOOD**

"It is an honor to be a graduate of a program with leading experts in equine science."

Jessica Lucia Leatherwood has been involved with horses since her youth. She gained a strong background in animal science through her involvement in 4-H while growing up in Franklin, Texas, and continued to pursue those interests while earning three degrees in animal science from Texas A&M University. Now as a faculty member at Sam Houston State University, she's making a career out of her love for horses.

During her time as an undergraduate student in the Department of Animal Science, Leatherwood participated on multiple judging teams, the Stock Horse Team, COALS Council and the Horseman's Association, to name a few. She also competed for four years as a member and co-captain of a three-time national champion Texas A&M Women's Equestrian Team.

Due to much encouragement from faculty and peers within the department, Leatherwood chose to continue her education at Texas A&M after graduating with her bachelor's degree in 2007 by earning her master's in 2009 and doctorate in 2013.

Leatherwood made the most of her time as a graduate student and earned multiple awards for her talents including the American Quarter Horse Association Young Research Investigator Award in 2013, Ronnie L. Edwards Graduate Teaching Award in 2011, Graduate Research Presentation Competition in 2009 and 2011, and she was a member of the Equine Science Society.

Today, Leatherwood has made a successful transition from student to teacher and works as an Assistant Professor and Equine Science Coordinator at Sam Houston State University.

Here is what Leatherwood has to say about Texas A&M:

• *Why did you choose to attend Texas A&M and major in animal science?*

My love for horses stems from my involvement as a youth in the 4-H extension program. Often times Texas A&M graduate students and faculty participated in multiple horse judging, showing, demonstrations, as well as clinic programs, and it is here that I credit my decision to attend Texas A&M. I can remember participating as a student instructor in the Summer Horsemanship School Program in my local Robertson County 4-H Club and it was hard to imagine at that time the potential impact I could have on each of the youth participants. I also had the opportunity while at Texas A&M to assist with the State 4-H Horse Show as a scribe, again hoping to contribute back to a program that gave me so much. I spent many summers enjoying the Abilene weather in late July.

• *Explain what you do at your current job?*

I am the Equine Science Coordinator for Sam Houston State University which encompasses teaching courses, both traditional classroom lectures and hands-on laboratories, conducting research, and serving in an equine outreach capacity which includes hosting youth equine clinics and contests. Efforts also are placed on coaching a competitive ranch horse and horse judging team, and I oversee the Horsemen's Association for undergraduate students. I serve as a national advisor for the American Collegiate Horsemen's Association. Sam Houston and Texas A&M will co-host the American Collegiate Horsemen's National Convention in March.

In addition, I oversee nearly 100 equine science minors at Sam Houston and escort students to the AQHA International Horsemanship Camp each year. This summer, I will travel with the undergraduate students to Germany, Switzerland and Slovenia, a program I originally participated in as an undergraduate student at Texas A&M.

• *Do you feel your education in animal science has helped you prepare for your career in the equine field? If so, in what ways?*

The Texas A&M Department of Animal Science equine section is the most unique graduate program in the U.S. because it allows students to assist and teach behavior and training labs and traditional classroom lectures, conduct large-scale research projects, utilize current laboratory technologies, and become involved in outreach programs. I also had the opportunity to participate in the Parsons Mounted Cavalry and interact with Bob Byrns, site manager. This group provided me with the ability to develop equitation lesson plans, gain herd management experience, and develop teaching skills for persons interested in riding with limited previous experience. I also enjoyed traveling across the state with this large, visual equine mounted unit and, of course, riding through campus and participating in football game-day operations.

As the chair of my graduate committee, Dr. Josie Coverdale encouraged her graduate students to become involved in teaching and outreach programs, to gain research experience across species, and to assist other graduate students with their research endeavors. She also allowed me to participate in the grant writing process, and I was fortunate to receive a H. Patricia Link-Quasi Endowment grant. All of these experiences were invaluable when preparing for my current faculty position at Sam Houston.

Faculty Profile | Dr. Frank Craddock

Craddock retires after 29 years as Extension sheep/goat specialist

By Olivia Norton '16

As a young man, Dr. Frank Craddock never questioned the direction his career path would take. He did not, however, foresee the far-reaching impression he would make on the animal science industry and Texas A&M Agrilife Extension during his career.

After 29 years with Texas A&M AgriLife Extension and the Department of Animal Science, Craddock retired on Aug. 31 from his post as Professor and Extension Sheep and Goat Specialist stationed in San Angelo.

Craddock credits his early years spent on his family's central Texas sheep, goat and cattle ranch and his heavy involvement in local 4-H and FFA with leading him to his profession. The decision to attend Texas A&M was an easy one, so in 1967 Craddock packed his bags and made his way to Aggieland in pursuit of a degree in animal science. During his time as a student, Craddock was a member of both the wool and livestock judging teams.

Upon graduating in 1971, Craddock set his sights on pursuing a career in Extension work.

"When I went to interview for a county Extension Agent position, I learned that obtaining a master's degree was required," Craddock said. "So at that point, I made the decision to leave A&M and head to the University of Wyoming to begin work on graduate studies."

During his time in Wyoming, Craddock worked in the meat science department and in 1973 received a master's degree in animal science with an emphasis in meat science.

About the time Craddock finished his master's degree, Texas A&M was calling once gain.

"As an undergraduate at Texas A&M, I worked in the Wool and Mohair Laboratory under Dr. Jim Bassett," Craddock said. "He called me when I finished at Wyoming and informed me that there was a position open as a research associate running the Wool and Mohair Laboratory and that there would be an opportunity to work on my Ph.D., as well."

Five years later with his doctorate in hand, Craddock returned to Wyoming where he took the position of Wyoming Sheep and Wool Specialist and remained there from 1978 to 1981.

In 1981, Craddock returned once again to Texas to join the faculty at Texas Tech University, where he taught the basic ani-

mal science course, the sheep and goat production course, senior seminar, and coached the livestock and wool judging teams. After a six-year stint as an assistant professor within the Animal Science Department at Texas Tech, Craddock was offered one of two Texas sheep and goat specialist positions stationed at the Texas A&M Center in Uvalde.



In 1992, following the retirement of the second specialist, Dr. George Ahlschwede, the decision was made to consolidate the two jobs. Craddock was awarded this position and moved to the Texas A&M AgriLife Research and Extension Center in San Angelo where he spent the remainder of his career as the sole Sheep and Goat Specialist.

"I never really set out to go this far but the right opportunities presented themselves at the right times," Craddock said. "Sheep and goats have always had a soft spot in my heart so I have been very fortunate to end up where I am."

The job description of a state specialist has many technical duties but Craddock's career is storied with years of reaching out to both youth and adults in the sheep and goat industry. While he worked with both young and old enthusiasts, he spent a notable amount of time enriching the lives of youth with an interest in the sheep and goat industry.

Day-to-day youth activities included officiating judging and showmanship contests at the county, regional, state and national levels; helping conduct lamb and goat showmanship camps; and supporting roles in stock shows around the state. But one of his most influential accomplishments was his involvement in the Texas Lamb and Goat Validation Program. This includes validating all market lambs, market goats and breeding sheep, and traveling to stock shows to insure all ownership is correctly documented.

Craddock's history with judging programs is rich, as he previously coached both a national champion collegiate livestock judging team and a five-time national champion wool judging team, as well as a state champion 4-H livestock judging team. Throughout the years, he supported the 4-H Wool and Mohair Youth Judging Program, Texas 4-H Round Up, the Texas Sheep and Goat Youth Leadership Workshop, and the National 4-H and FFA Wool Judging Contests.

"The job of a specialist, in my opinion, is to support the Coun-



ty Extension Agents,” Craddock said. “Anytime they wanted to put on a program, show or contest I was there to assist them in successfully accomplishing these events.”

Beyond youth show and judging programs, Craddock mentored up-and-coming professionals in the sheep and goat industry through his Extension Sheep and Goat Assistant Program. Students pursuing a master’s degree at San Angelo State University with a sheep and goat interest had the opportunity to work with Craddock over a period of three years to learn how to manage the duties of a specialist along with maintaining a tradition of excellence in youth work.

“One of the beauties of the specialist job is every day is different,” Craddock said. “Just one ring of the telephone can change your whole day.”

Craddock partnered with several other experts in the animal science field to educate both producers and consumers on current issues within the industry. This includes the Internal Parasite Management program, run with the help of Dr. Rick Machen, professor and Extension livestock specialist, to raise awareness on the proper prevention and treatment of parasites that are prevalent during wet years. In more recent years, his education programs have addressed drought conditions.

“One of the challenges we have faced in the industry in past years has been drought,” Craddock said. “But we have had programs in place to help producers efficiently downsize during the drought and now as we come out of it, rebuild and restock again.”

Craddock saw the sheep and goat industry through a series of ups and downs but when asked, some of the accomplishments he is most proud of have come out of these times.

“I really enjoyed the work I did as the meat goat and hair sheep industries have continued to evolve,” Craddock recalled. “Mr. Preston Faris, retired Sutton County Extension Agent, and I conducted the Judges Certification Program for the American Boar Goat Association for many years. I also planned and con-

ducted the North American Hair Sheep Symposium that was held in San Angelo in 2005.”

Another notable outcome of Craddock’s work within the industry is the development of the Pasture to Packer program, designed much like the Ranch to Rail program in the beef industry. During its 12-year span, producers brought 15 to 30 head of their sheep to a feedlot in order to collect growth and carcass data. These values were then analyzed and were used as feedback for the producers to encourage genetic improvement within their flocks.

Another genetic improvement program was the Texas Rambouillet Superior Genetics Program in which top producers sent their top ewes to a central location to produce elite offspring to improve their breeding programs.

Over the years Craddock assisted the National Lamb Feeders Association in continuing six Sheep Industry Leadership Schools. Participants from all over the United States attended these 4-day schools to increase their knowledge and understanding of the changing sheep industry.

Craddock’s efforts have been recognized far beyond the producers or youth he supports and he will continue to leave his mark on the animal science industry. He has received multiple honors and awards such as serving as the President of the San Angelo Livestock Show and Rodeo Association, Texas A&M Agrilife Extension Superior Service’s Superior Unit Award, Texas Sheep and Goat Raisers’ Association Fred T. Earwood Memorial Award, National Lamb Feeders Association Appreciation Award, Texas County Agricultural Agents Association Specialist of the Year Award, Texas Tech University Aggie Council Outstanding Teaching Award and Texas Tech University Collegiate FFA Outstanding Professor Award.

While Craddock is returning with his wife, Fayrene, to the Texas Hill Country where they both grew up, he plans to stay involved in the industry that he spent decades supporting.

Savell named University Distinguished Professor

COLLEGE STATION -- Dr. Jeffrey Savell, a faculty member in the Department of Animal Science, has been named university distinguished professor, one of the highest honors given to Texas A&M University System faculty.

As leader of the meat science section in the Department of Animal Science, Savell also holds the E.M. "Manny" Rosenthal Chair and the Cintron University Professorship in Undergraduate Teaching Excellence.

Savell became the third member of the animal science faculty to receive this honor, joining Dr. Fuller Bazer and Dr. Guoyao Wu.

Since becoming a faculty member in the Department of Animal Science in 1979, Savell has built a distinguished career in meat science research and teaching and has become widely known as an expert in the field.

"Dr. Jeffrey Savell is truly an exceptional individual, teacher and scientist who is recognized nationally and internationally for seminal contributions to the field of meat science," Dr. Russell Cross, head of the Department of Animal Science, wrote in the nomination.

"Accordingly, his peers have recognized him with prestigious honors, awards and invitations for major presentations and key leadership positions in his professional societies. In addition, he has proven to be a tremendous teacher in the classroom, an outstanding mentor to graduate students and a colleague who creates synergies throughout collaborations. Dr. Savell is known globally as being among the top two percent of scientists in the field of meat science and is responsible for having trained many of the leading meat scientists in the world. He is a phenomenal credit to his field of meat science and to Texas A&M University."

According to his nomination, Savell's research led to the production and marketing of leaner beef, meeting consumer demand for beef with less fat that is now marketed as "Select" beef.

His work also demonstrates the role of beef in a healthy diet and provided an economic incentive for the beef industry to produce leaner beef. In addition, he is considered to be a thought leader in the area of food safety and the implementation of programs to ensure the safety of meat products.

In 2001, Savell was recognized by ISI HighlyCited.com as a "Highly Cited Researcher" for being one of the 250 most cited researchers in the world in the field of agricultural science. At the time, there was only one other meat scientist (a distinguished professor) who received this recognition. Savell has an extremely high h-index of 42, which is the highest h-index for an active academic meat scientist in the world, according to Google Scholars. His work has been cited more than 5,725 times and he has published more than 300 articles in peer-refereed journals, as well as hundreds of AgriLife Extension publications and presentations, plus 19 book chapters.

In addition to his research, Savell has been involved in teaching a wide variety of classes and mentoring a number of present and future leaders in academia, government and industry. Since 1982, he has taught more than 8,000 students, some of whom are second generation, in his Animal Science 307 "Meats" class.



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

Savell has been recognized by the American Meat Science Association at the national and international levels, having received the Distinguished Research Award, Distinguished Teaching Award and Signal Service/American Meat Science Association Fellow Award, which is presented to preeminent scientists, educators and professionals in the meat science discipline. He has also received the highest award given by the American Meat Science Association, which is given for "extraordinary and lasting contributions to the meat and livestock industry." He is a recipient of the North American Meat Processors Association Harry L. Rudnick Educator's Award. In 2010, Savell was inducted into the Meat Industry Hall of Fame.

In addition, Savell has received numerous university awards including the Association of Former Students Distinguished Achievement Award in Teaching at both the university and college levels. Most recently, he received the Cintron University Professorship in Undergraduate Teaching Excellence award for his outstanding work with undergraduate students.

Smith named Regents Professor by Texas A&M System

COLLEGE STATION -- Dr. Stephen B. Smith was honored earlier this year with the Regents Professor Award presented by the Texas A&M University System Board of Regents.

A member of meat science faculty in the Department of Animal Science, Smith also serves as a member of the Faculty of Food Science and Technology and the Faculty of Nutrition.

During his 30 years at Texas A&M, Smith has built a nationally and internationally recognized research program in the growth, development and composition of bovine adipose tissue. He has investigated the limitation of cattle to marble and has used his background in molecular biology to investigate lipid metabolism in the bovine muscle. He has organized, hosted and chaired two U.S. - Korea Joint International Symposia.

Smith teaches meat science, nutrition and physiological chemistry courses and works to engage students in discussion and evaluation of scientific literature. Smith has served as mentor to numerous meat science graduate students and as a committee member for graduate students in animal science, poultry science, food science, nutrition, health and kinesiology, and veterinary medicine.

The Board of Regents established the Regents Professor Award program in 1996 to recognize employees who have made exemplary contributions to their university or agency and to the citizens of Texas.



Smith returns to Texas A&M

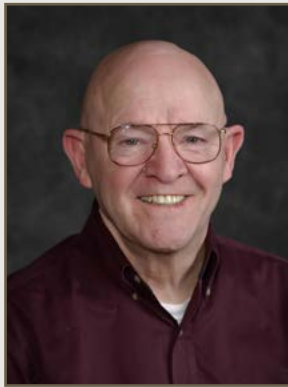
Dr. Gary Smith, a world-renowned expert in meat science and food safety, rejoined the Texas A&M University Department of Animal Science on April 1, 2014, as visiting professor located in College Station.

Smith previously worked at Texas A&M as professor from 1969-1982 and head of the Department of Animal Science from 1982-1990.

In addition, effective July 1, 2014, Smith also serves as a visiting professor in animal science and advisor to the president at Colorado State University, where he previously served as a university distinguished professor emeritus and occupied the Monfort Endowed Chair in Meat Science from 1990 until his retirement in 2010.

Smith lives in College Station and works part-time at Texas A&M.

"Dr. Smith is an accomplished researcher, a gifted teacher and legendary mentor to students, professors and technical spe-



cialists throughout the meat industry," said Dr. Russell Cross, head of the Texas A&M Department of Animal Science. "We are truly fortunate to have Dr. Smith return to our department, where he will be able to share his vast knowledge and expertise with our meat science faculty and students."

In his new role at Texas A&M, Smith will assume responsibility for efforts to expand the master of agriculture in animal science for students with an emphasis on meat science, which will include responsibility for a section of ANSC 694, Internship. He also will contribute to the mentoring of faculty, serving as an active member of the graduate faculty and being involved in the training and mentoring of graduate students.

Known as the 'dean' of meat scientists, according to Cross, Smith is nationally and internationally recognized for his efforts in meat science and food safety.

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 in the U.S and has received numerous awards including induction into the Meat Industry Hall of Fame in 2009.

Paulk hired as swine nutritionist

Dr. Chad Paulk joined the Department of Animal Science faculty in August as an assistant professor of animal nutrition.

In this position he will teach swine production and hopes to develop and teach a swine nutrition class and data management in animal production systems. Paulk will direct research in determining nutrient digestibility coefficients for new ingredients, nutrient requirements for late finishing pigs, and improving marketing strategies.

His previous research has focused on nutritional effects of feed processing, determining the optimal sampling method to accurately and precisely estimate the mean and standard deviation of pig weights in a barn, Zn supplementation to finishing pigs, and dietary effects on pork fat quality.

Paulk graduated from the University of Georgia with a bachelor's degree in animal and dairy science. He received his master's degree and doctorate in swine nutrition from Kansas State University.

"We are pleased to welcome Dr. Paulk to the department. His experiences with the pork industry and commercial production will be an asset to the swine program. We look forward to his input and expertise in strengthening this program," said Dr. Russell Cross, head of animal science.



Americans on the 2013 team and placing in the top five at every contest. She also had a national championship team while serving as the meat judging coach at Tarleton.

"We are pleased to have Leslie join the undergraduate teaching faculty and advising group. Her experience with meat evaluation will continue to make us proud. We expect great things from her," said Dr. Russell Cross, head of animal science.

Frenzel received a bachelor's degree in animal science from Tarleton State University, where she also completed a master's degree in animal science with a meat science emphasis. Frenzel is currently seeking a doctorate in animal science with a meat science and food safety emphasis at Texas A&M.



Frenzel to teach, advise students

Leslie Frenzel was hired as Lecturer and Undergraduate Academic Advisor in August.

In this position, Frenzel serves as an undergraduate academic advisor and will teach General Animal Science, Meat Selection, Evaluation, and Grading, Exploring Animal Industries, and eventually Market Animal Evaluation.

In addition to teaching classes and advising, she will coach the 2015 Meat Judging Team. Frenzel has served as the meat judging team coach in the past. Some of the team accomplishments under her coaching include winning the American Royal, three All

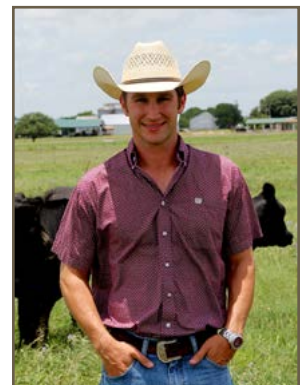
Muehlstein: Beef Center Manager

Chance Muehlstein joined the Department of Animal Science this spring as the Beef Center manager.

Muehlstein is responsible for assisting with the teaching, research, and extension activities within the department that involve beef cattle, including the care and wellbeing of the Beef Center's cattle herd, as well as the equipment and facilities.

"Chance Muehlstein is a valuable addition to the department. As a former student and livestock judging team member, he joins us with an understanding of the department, university, and cattle industry," said Dr. Russell Cross.

Muehlstein graduated from the Department of Animal Science in 2011 with an emphasis in beef cattle production. After graduation, he interned on the Brett Gray Ranch, a 50,000 acre stocker and cow/calf operation in eastern Colorado. He returned to Texas to work as assistant manager in the Collier Farms' South Texas Division in Cuero.



Animal Science faculty, staff honored with awards

Gehring receives distinguished teaching award

Dr. Kerri B. Gehring, associate professor in the Department of Animal Science, is a recipient of the 2014 Association of Former Students' Distinguished Achievement Award for College Level - Teaching.

The award was presented during the College of Agriculture and Life Science's 2014 Awards Ceremony in September.

Gehring joined the Department of Science in 2005 and leads active teaching and research programs. Since her appointment, she has advised three undergraduate research scholars, chaired or co-chaired 17 master of science students and four doctoral students, and served as a committee member for five additional graduate students. Gehring teaches Hazard Analysis and Critical Control Point System, a graduate/undergraduate class, each fall. In the spring, she alternates between two graduate courses Food Safety: Policy, Regulations and Issues and Applied Microbiology for Foods of Animal Origin: Processing, Sanitation and Sanitary Design. Gehring also often serves as a guest lecturer for several other animal science courses.

According to the nomination letter,

Gehring "understands and appreciates that teaching via research is an important aspect of her responsibilities." She is recognized as one of the leading food safety experts in the United States and is "able to guide both undergraduate and graduate students through the difficult federal regulations and research decisions to ensure that her students enter the workforce with valuable insight that can be applied to daily food production."

A three-time graduate of Texas A&M University, Gehring received a bachelor's in food science in 1986, a master's in nutrition in 1989 and a doctorate in nutrition in 1994. Gehring also serves as President/CEO of the International HACCP Alliance, a non-profit organization that promotes HACCP training and serves as a resource for scientific and technical support.

The Distinguished Achievement Award recognizes, encourages, and rewards the superior classroom teachers whose command of their respective discipline, teaching methodologies, pervasive caring, communication skills, and commitment to the learning process exemplify the meaning of teacher/mentor in its highest sense. This



Dr. Bill Dugas, *left*, acting Vice Chancellor and Dean of Agriculture and Life Sciences, made a surprise visit to Dr. Kerri Gehring's class on Sept. 2 to make the award announcement. He was accompanied by Marty Holmes, Association of Former Students, and Dr. Russell Cross, head of animal science, as well as Gehring's family and graduate students.

award is designed to distinguish those teachers who maintain high expectations of their students and who ensure academic rigor in their courses.

Faculty, staff receive Dean's achievement award, recognized at College awards ceremony

Several faculty and staff in the Department of Animal Science were recognized during the College of Agriculture and Life Science's 2014 Awards Ceremony.

Dr. Tom Welsh, **Dr. Clare Gill** and **Grace Glenn** each were recognized as recipients of the Dean's Outstanding Achievement Award.

Welsh received the Dean's Outstanding Achievement Award in the Faculty Mentoring category. As a professor of physiology of reproduction and an AgriLife Research Faculty Fellow in the Department of Animal Science for 31 years, Welsh has not only conducted meaningful research and excelled as a teacher but has followed a philosophy of teamwork and service to the benefit of other faculty.

As stated by a colleague, "the foundation of Dr. Welsh's commitment to faculty mentoring is his philosophy that if we do our job correctly, then the contributions and accomplishments of the next generation of students and faculty will exceed ours." Welsh is known for looking out for his mentees and more often than not, putting them ahead of himself. As a mentor, Welsh is "quick to identify opportunities for new faculty, to advocate for them, or simply to check in on how they're doing."

Gill, professor in animal genomics, received the Dean's Outstanding Achievement Award in the Research category. Gill has been with the Department of Animal

Science for 13 years and during this time she has been recognized nationally and internationally for her contributions to the field of bovine genomics and her efforts to identify genes that affect production efficiency in beef cattle. She was instrumental in securing \$10 million to facilitate initiation of the \$53 million bovine genome project in 2002. She has published 36 peer-reviewed publications and secured a patent and two licensed technologies.

Gill is well regarded by the scientific community and is a "sought-after presenter at conference and industry conventions."

Glenn, senior administrative coordinator, received the Dean's Outstanding Achievement Award in the Staff category. During her 16 years in this position, Glenn has contributed to the welfare of the College of Agriculture and Life Sciences through exceptional service that goes beyond the expectations of her position.



WELSH



GILL



GLENN

Glenn provides assistance to the administrators, faculty, staff and students in the department and does so with respect and care.

According to a nomination letter, Glenn's colleagues are constantly impressed by her "dedication, loyalty and work ethic that she demonstrates on a daily basis." In everything she does, Glenn does it with "class, style and dignity."

In addition to the achievement awards, **Dr. Gordon Carstens** was recognized for his recent faculty promotion from associate professor to professor. **Dr. Chad Paulk** and **Leslie Frenzel** also were welcomed as new faculty.

Hale awarded distinguished achievement award

Dr. Dan Hale, Extension meat specialist and professor, received the 2014 Distinguished Achievement Award for Extension, Outreach, Continuing Education and Professional Development university-level in April.

Hale received his bachelor's and master's degrees in animal science from Kansas State University and a doctorate in food, nutrition and institutional sciences from Oklahoma State University. He joined the faculty of the AgriLife Extension Service in 1985 as a meat specialist.

During his time at Texas A&M, Hale has built a strong Extension outreach program to benefit the livestock and

meat industries of Texas. Hale delivers and interprets information on diet and health, food safety, livestock growth, animal welfare, livestock management, and meat science. His educational programs and resources include hands-on seminars and online videos that engage consumers, youth and 4-H members, health professionals, retailers, food service managers, packers, processors, and livestock producers across the nation, according to award nomination information.

In addition, he also performs applied meat science research and, with others, conducted nationally recognized studies, such as the National Beef Quality Audit,



National Consumer Retail Beef Study, National Market Basket Survey, and National Beef Tenderness Survey. These led to major changes in the way cattle are raised, the way meat is processed, and the manner in which meat is offered to consumers through retail and food service.

"Without a doubt, Dr. Hale has developed and implemented Extension, outreach, and educational programs that have made a lasting impact on the state and national livestock and meat industries. Dr. Hale's years of selfless service to these industries and to the development of youth and young adults are beyond worthy of this prestigious recognition," said one nominator.

Hale has been recognized numerous times by the university and industry groups including the American Meat Science Association's Signal Service Award in 2012.

The Distinguished Achievement Award is given by Texas A&M and The Association of Former Students, which selected 24 outstanding members of the school's faculty and staff to be honored with 2014 Distinguished Achievement Awards. The university-level Distinguished Achievement Award is presented to those who have exhibited the highest standards of excellence at Texas A&M.

Carpenter inducted into Meat Industry Hall of Fame

Dr. Zerle Carpenter, professor emeritus of animal science and retired director of extension and associate vice chancellor, was inducted into the Meat Industry Hall of Fame, Class of 2014 on Sept. 13, 2014 in Charleston, SC. Carpenter's induction marks the fourth faculty member from the Department of Animal Science to join this prestigious group. Dr. H. Russell Cross and Dr. Gary Smith were inducted in 2009 and Dr. Jeff Savell in 2010.

The selection committee cited Carpenter "for his leadership in helping conduct the foundational research that led to the establishment of the USDA's official grades of beef, pork and lamb. The value of U.S. livestock produced in the United States is based on this research and established U.S. meat products as the world standard."

Carpenter's career with the Texas A&M University System spans 35 years as a respected professor in the Department of Animal Science and leader in animal sci-



ence, meat science and extension administration. Carpenter began his career at Texas A&M as an assistant professor of meat science in 1962 and rose to the rank of full professor of animal science in 1971. He served as head of the Department of Animal Science beginning in 1978, and director of the Texas Agricultural Extension Service beginning in 1982. In 1988, he was named associate vice chancellor for agriculture for the Texas A&M University System. Carpenter retired in 1977 after providing leadership to the Texas Extension Service for 15 years.

In 1985, Carpenter gained national attention when he launched issue-based Extension programming in Texas. This approach sought greater involvement by community members in planning and developing local Extension education programs. This approach became a model for other Extension programs across the states and at the national level.

ASAS recognize faculty at annual meeting

Dr. Fuller Bazer, regents professor, university distinguished professor and O.D. Butler Chair, was presented the Morrison Award at the American Society of Animal Science Joint Annual Meeting held July 20-24 in Kansas City. This award is given to animal scientists who have made a meritorious scientific contribution or discovery in research. Bazer, who studies reproductive biology, has published more than 390 peer-reviewed articles throughout his career, focusing on the interactions between uterine environment and pregnancy in livestock. These discoveries changed animal management to increase conceptus survival and pregnancy.

Dr. David Forrest, professor and associate head for academic programs, received the ASAS Fellow Award in the teaching category. Throughout the past 32 years, Forrest has taught nearly 10,000 students in reproductive physiology courses. He has improved instructional programs nationally through the Houston Livestock Show and the ASAS Academic Quadrathlon committees. Through his appointment with Texas A&M AgriLife Research, he conducts research focusing on the determination of hormonal mechanisms that control gonadal function and mating behavior.

In addition, **Dr. Jeff Savell**, university distinguished professor and E.M. "Manny" Rosenthal Chair, was presented the ASAS Fellow Award in the research category. A nationally-known meat scientist, Savell's research interests include quality, food safety, nutrition and value added products. Savell's research has led to increased demand for leaner beef and updating the beef nutrient composition data. His research contributions have changed the USDA grade "U.S. Good" to "U.S. Select." He has assisted the National Beef Quality Audits and the National Beef Tenderness Surveys. Since beginning his teaching career at Texas A&M in 1982, he has taught more than 8,000 students. He teaches introductory meat science courses, a course covering carcass composition and quality and a graduate and undergraduate course in Hazard Analysis and Critical Control Points.

The ASAS Fellow is presented to animal scientists who have made excellent contributions to the animal industry and have had continuous membership in the ASAS for a minimum of 25 years.

Litterst, Reagan to receive college alumni award

COLLEGE STATION -- **Frank C. Litterst '43** and **Dr. James O. "Bo" Reagan '68**, both graduates of the Department of Animal Science, received the Texas A&M University College of Agriculture and Life Sciences Outstanding Alumni Award at the College's Legacy and Leadership Banquet held Oct. 25.

The Outstanding Alumni Award recognizes graduates of the College of Agriculture and Life Sciences for outstanding leadership and noteworthy contributions in agriculture, natural resources, life sciences or related areas.

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 of Animal Science as a beef cattle specialist and over time he traveled more than 350,000 miles to visit 2,400 Texas ranches and helped more than 12,000 ranchers improve their herds through his beef cattle short courses. In 1975, he became a senior lecturer in the department and taught three courses including Beef Cattle Production 406. Over the course of 14 years, he taught more than 8,000 Aggies. In addition, Litterst worked as the manager of the Texas A&M Beef Cattle Center.

In 1989, Litterst retired from Texas A&M and was awarded the title of Senior Lecturer Emeritus. Over the course of his career, Litterst became known to many beef cattle producers as the face of the Department of Animal Science and is considered a living legend and icon for the Texas beef industry and Texas A&M.

Reagan is a three-time graduate of Texas A&M, receiving a bachelors (1968), masters (1970) and doctorate (1973) in animal science with an emphasis in meat science.



LITTERST



REAGAN

He has built a distinguished career as a prominent meat scientist through his efforts in academia and service to the livestock and meat industries on state, national and international levels. Reagan began his career in academia and worked as a faculty member at Oregon State University and then University of Georgia, rising through the ranks from assistant professor to professor. During this time, he taught meat science courses, coached meat judging teams, and developed an active research program focused on meat quality and meat safety.

In 1991, Reagan left academia to become director of research for the National Livestock and Meat Board and led the national check off research programs for both beef and pork. In addition, he led the industry's efforts in developing technology for instrument grading, genome mapping and interventions to reduce incidence prevalence of pathogenic microorganisms on meat products.

From 1996 to 2013, he progressed from executive director of research to senior vice president, Department of Research, Education and Innovation for the National Cattlemen's Beef Association. During this time, he led national research and education programs in areas of beef safety, meat quality, human nutrition research, culinary utilization and product development.

Reagan has led many professional organizations and received numerous awards and honors during his distinguished career. Most recently, he served as chairman of the International Stockmen's Education Foundation. In 2013, he was inducted into the Meat Industry Hall of Fame, an honor reserved for industry leaders whose business excellence, scientific prowess and community service have enhanced the legacy of the U.S. meat industry.

Graham named Distinguished Texan in Ag

SAN ANTONIO – **Dr. Charles W. Graham** has received the Distinguished Texan in Agriculture Award from Texas A&M AgriLife – the highest honor given to individuals demonstrating outstanding leadership and providing significant contributions to Texas agriculture.



Graham earned his Bachelor of Science in Animal Husbandry in 1953 and a Doctorate in Veterinary Medicine in 1961, all from Texas A&M.

In the early 1960s, Graham and Dr. W. H. Cardwell built the Elgin Veterinary Hospital and grew the practice into one of the largest equine veterinary facilities in the nation. Graham is now owner of a number of other businesses, including the 1,300-acre Southwest Stallion Station in Elgin, which has bred some of the top stallions and broodmares in the quarter horse industry.

The numerous awards Graham has received include the 2010 Texas A&M University College of Agriculture and Life Science Outstanding Alumni and his 2009 induction into the American Quarter Horse Hall of Fame. He is the only individual to be selected Horseman of the Year by both the Texas Quarter Horse Association and the Texas Thoroughbred Breeders Association. He also has been named Outstanding Alumnus of Texas A&M's College of Veterinary Medicine and Biomedical Sciences.

Graham participates in numerous stock show events to support youth involved in 4-H, FFA and other agricultural organizations. In 2005, the Star of Texas Rodeo of Austin named their new offices for Graham.

Welsh recognized by SS-ASAS

Dr. Tom Welsh, professor and Texas A&M AgriLife research faculty fellow, received the American Society of Animal Science Southern Section Distinguished Service Award in February. Welsh has participated in and served the Southern Section since his graduate school days. As a graduate student, Welsh attended meetings and presented abstracts and competition papers. Following postdoctoral training, he joined the faculty of the Department of Animal Science. During his 30 years as a faculty member, he has supported the Southern Section by serving on the Graduate Student Awards, Physiology Program, Growth and Development Program and Young Animal Scientist-Education committees. He has served as secretary-treasurer elect, secretary-treasurer, president-elect, president and past president. He has mentored numerous graduate students as they began their careers. His unwavering dedication to the Southern Section has benefited the students and professional members alike, according to SS-ASAS.

Acuff named Fellow

Dr. Gary Acuff, director of the Center for Food Safety and professor of food microbiology, was elected as a Fellow in the American Academy of Microbiology. Acuff directs activities of the Center for Food Safety, which is an interdisciplinary collaborative effort revolving around food safety research, training and Texas A&M AgriLife Extension activities. Fellows are elected through a highly selective, annual, peer review process, based on their records of scientific achievement and original contributions that have advanced microbiology. Each elected Fellow has built an exemplary career in basic and applied research, teaching, clinical and public health, industry or government service.

Jordan named Fellow of Dairy Association

Dr. Ellen Jordan, professor and Extension dairy specialist, was named a Fellow of the American Dairy Science Association during the group's annual meeting held in Kansas City. The award recognizes dairy food division and production division members who have made exceptional contributions to the dairy industry and have a minimum of 20 years membership. The award citation noted Jordan has made exemplary contributions to the ADASA and dairy industry, and stated that since joining the association in 1977, she has "steadfastly supported the organization through dedicated leadership" as demonstrated by her service on numerous committees, production division offices, and as association director and treasurer.

Hale receives OSU alumni award

Dr. Dan Hale, Extension meat specialist and professor, was presented the Advanced Degree Graduate of Distinction Award from the Oklahoma State University Department of Animal Science. This award is presented annually to recognize recipients of graduate degrees in the department who have attained singular professional excellence in the field of animal agriculture. Hale received a doctorate in food, nutrition and institutional sciences from OSU.

Skinner receives advising award

Animal Science academic advisor **Amber Skinner**, received the 2014 New Advisor Award from the Texas A&M University Advisors and Counselors in May. The award recognizes and rewards novice professional advising staff who embody the spirit of caring, compassionate, skillful advisement and genuine concern for the welfare of individual students.

Cross recognized by Food Technologists

Dr. Russell Cross, professor and head of animal science, received the 2014 Carl R. Fellers Award from the Institute of Food Technologists and Phi Tau Sigma during the organization's annual meeting held in New Orleans in June. The award was presented to Cross for his outstanding work to improve the field of food science, inspire food engineers and scientists, and provide leadership. The Institute of Food Technologists serves as a voice for food science and a catalyst for change around the world, educating a variety of audiences from consumers and the media to the public policy community and government agencies.

Grandin receives honorary degree, presents lectures to department

COLLEGE STATION -- Dr. Temple Grandin, professor of animal science at Colorado State University and nationally-renowned author, autism activist and animal scientist, received an honorary doctoral degree from the College of Agriculture and Life Sciences at Texas A&M University in August. Grandin also gave the commencement convocation address to August graduates.

Grandin has advised ranchers, feedlots and meat plants throughout the U.S. and Canada on handling equipment as well as developing animal welfare guidelines for the meat industry.

While on campus, Grandin visited with animal science students and presented a lecture to faculty in the Department of Animal Science and invited guests regarding animal behavior.

When it comes to handling livestock, observing the little things can make for a more pleasant experience – both for the animal and the livestock, Grandin said.

"I stress to students the need to be observant," said Grandin.

"I'm a visual thinker, and it's all about the details when it comes to cattle and horses and what they are afraid of," she told the audience. "It's the little things."

Such things as a dangling chain in a loading chute or dogs roaming around the holding pen and chute – all can make livestock frightened and hard to handle for producers.

Grandin, who is autistic and was the subject of an Emmy award-winning HBO documentary in 2010, said her condition has helped her gain a better understanding of animals' sensitivities to bright light, sudden movements and strange objects.

Grandin said much unwanted cattle behavior can be avoided if basic livestock handling practices are followed.

Research has shown that yelling and whistling will elevate the animal's heart rate, Grandin said.

"Never surprise an animal," she added.

With cattle prices at historic highs, Grandin said, many ranchers are shipping calves with little or no preconditioning. Many are penning and loading sale-weight calves onto the trailer for the first time without any pre-conditioning programs.

"With prices high, calves are being weaned on trucks," she said.

That makes it even more difficult to eliminate stress on calves as they are sold off of ranches and transferred to feedlot operators and other segments of the beef industry, Grandin said.



Dr. Temple Grandin received an honorary doctoral degree from Texas A&M in August. She is pictured here with, left, Dr. Russell Cross, Dr. Jeff Savell, Dr. Gary Smith, Dr. Kevin Pond and Dr. Dan Hale.



Grandin visited with staff and students during her trip to campus.

Many have never been exposed to handlers on foot, horseback or both, she said.

The simplest advice on handling animals, according to Grandin: "Don't get animals excited in the first place."

Meat Judging Team wins second at American Royal



Left, Jenny Jones, David Bayona, Katherine Salom, Wade Hanson, Katie Garrett, Candace Moeller, Emery Kunze, Bradley Belota, Stormy Joplin, Sara Arsenault, Ray Rodriguez, Crystal Waters, Matt Carrigan, Courtney Boykin and Baylee Bessire.

OMAHA – A trip to Omaha, Neb., proved successful for the Texas A&M Meat Judging Team when they secured the Reserve Champion title at the American Royal Intercollegiate Meat Judging Contest held Oct. 5.

The team clinched the second place finish by earning first in placings and beef judging, second in specifications, third in rears, and fourth in lamb and pork judging.

Team members are animal science majors Sara Arsenault from Cameron Park, Calif.; David Bayona from San Antonio; Bradley Belota from Cypress; Baylee Bessire from Muleshoe; Courtney Boykin from Pflugerville; Matthew Carrigan from Millsap; Katie Garrett from Marshall; Wade Hanson from Clifton; Jenny Jones from Nemo; Stormy Joplin from Slaton; Emery Kunze from LaCoste; Candace Moeller from Cuero; Raymundo Rodriguez from Brookshire; and Katherine Salom from Baytown.

Animal science graduate student Crystal Waters from Ft. Bragg, Calif., heads the team as coach and Dr. Davey Griffin, professor and Extension meat specialist, is the team coordinator.

In individual competition, Kunze won first place high individual, followed by Belota in ninth. In the alternate contest, Bessire was second; Boykin, fifth; and Bayona, tenth.

Texas A&M trailed contest winner Colorado State University by eight points and topped their closest competition Texas Tech University by 19 points, followed by Oklahoma State University and Kansas State University, rounding out the top five teams.

Livestock Judging Team secures second in Dallas, third in Tulsa

The Texas A&M University Livestock Judging Team competed twice in October and brought home second and third places.

On Oct. 4, the Aggies finished third at the Tulsa State Fair Collegiate Livestock Contest. Oklahoma State University and Texas Tech University won first and second. Team members Tyler Mackey and Frank Aniol finished sixth and eighth high individuals.

The team competed at the State Fair of Texas in Dallas on Oct. 6 and secured the second place finish, behind first place Tex-

Stock Horse Team wins Bryan



Left, Helen Hardy, Zach Haydon, Taylor Godwin, Haley Birkenfeld, Michelle Glover, Derby Jones, Shelby Hill, Sarah Savage, Morgan Moreno, Kyla Kalinowski, Lane Birkenfeld and Raul Valdez.

BRYAN -- The Texas A&M University Stock Horse Team won the collegiate championship title at the Stock Horse of Texas Show held in Bryan on Sept. 27.

Team members are Haley Birkenfeld, Nazareth; Lane Birkenfeld, Nazareth; Michelle Glover, Madisonville; Taylor Godwin, Port Arthur; Helen Hardy, Georgetown; Zach Haydon, Marble Falls; Shelby Hill, Hutto; Derby Jones, College Station; Kyla Kalinowski, Seguin; Morgan Moreno, Georgetown; and Sarah Savage, Marble Falls.

The team is coached by animal science graduate student Raul Valdez. Dr. Clay Cavinder, associate professor, serves as faculty advisor.

Texas A&M secured several high overall honors and numerous class wins to capture the first place win over Tarleton State University. Individual results are:

Open/Non-Pro Division

- Zach Haydon – reserve champion high point overall; first in cow horse and second in reining
- Sarah Savage – first in pleasure and first in trail

Limited Non-Pro Division

- Taylor Godwin – fourth high point overall; first in pleasure and fourth in reining
- Kyla Kalinowski – second in pleasure
- Haley Birkenfeld – third in please

Novice Division

- Lane Birkenfeld – fourth high point overall; third in trail and fourth in reining
- Michelle Glover – first in trail and fourth in pleasure
- Shelby Hill – fifth in reining
- Helen Hardy – first in pleasure
- Morgan Moreno – fifth in cow horse

as Tech University. Aniol won second high individual.

Team members competing include Joseph Blount, San Augustine; Tyrel Jimerson, George West; Tyler Mackey, Rosanky; Frank Aniol, San Antonio; Taylor Osbourn, Llano; Dakota Moyers, Newcastle, Okla.; Zach Clodfelter, West Salem, Ill.; and Shelby Meyer, Lakeside, Calif.

The team is coordinated by Brant Poe and coached by animal science graduate students Caleb Boardman and Cassidy Hayes.

Dairy consortium teaching program graduates seventh class

CoBank, Farm Credit of New Mexico pledge financial commitment to support endowment

CLOVIS, N.M. -- The 2014 U.S. Dairy Education and Training Consortium (previously known as the Southern Great Plains Dairy Consortium) brought together 46 students from 17 universities and three countries for six weeks of large dairy herd education and training in Clovis, N.M. from May 19 - June 27.

The 2014 consortium class included nine students from Texas A&M University: animal science majors Cara Crane, Lauren De Jong, Lauren Fontenot, Mary Lavender, Linden Rudolph, Blythe Shill, Erika Ulloa and David Trujillo; and nutrition science major Cynthia Becerra.

In addition, for the first time the consortium welcomed one student from the University of Alberta, Canada, and two students from Lincoln University in Christchurch, New Zealand.

Introduced in 2008, the consortium has grown into a nationally recognized center of excellence for larger dairy herd education and training, said Dr. Michael Tomaszewski, professor emeritus of dairy science in the Department of Animal Science and coordinator of the teaching consortium.

"The consortium curriculum continues to emphasize the cornerstones of large herd management with topics such as reproductive strategies, mastitis and milk quality issues, genetics and genetic program utilizing new genetic tools, dairy cattle feeding and general management," Tomaszewski said. "Also, to keep pace with the evolving dynamics of the dairy industry, we expanded our topics this year to include leadership development, managing the workforce and the inclusion of women into the dairy workforce."

The Southern Great Plains Dairy Consortium was renamed earlier this year to the U.S. Dairy Education & Training Consortium to represent the move beyond its original regional concept to a national stage. Simultaneously, the program launched a fundraising effort to establish a \$6 million endowment with a \$150,000 multi-year commitment from CoBank and Farm Credit of New Mexico. CoBank has committed \$25,000 a year over a four-year period



Texas A&M students attending the 2014 U.S. Dairy Education & Training Consortium teaching program were, *front left*, Cara Crane, Cynthia Becerra, Blythe Shill, Erika Ulloa and Linden Rudolph. *Back left*, Lauren Fontenot, Mary Lavender and Lauren De Jong.

with an additional \$12,500 per year provided by Farm Credit of New Mexico.

"CoBank and Farm Credit of NM's contributions are the first large commitments toward our endowment goal. When completed, the Consortium will have the financial stability needed to move beyond the regional effort to a national concept," Tomaszewski said. "Consortium students come from all regions of the country and internationally. The large herd best management practices taught at the Consortium are comparable to those used in all dairy regions."

For more information on the program, visit <http://usdetc.tamu.edu>.

2014 Eng Symposium --

Research presented on intensive, semi-confined cow production

SAN ANTONIO - The 2014 Dr. Kenneth & Caroline McDonald Eng Symposium was held Sept. 18-19 in San Antonio and focused on improvements of beef cow efficiency and profitability by intensive and semi-confined production systems.

The Department of Animal Science hosted the event with the Eng Foundation which included participation by the University of Nebraska-Lincoln and Oklahoma State University. Symposium attendees included researchers, students and cattle producers.

Specific presentations addressed managing energy requirements, feeding production cows, efficiency and sustainability, nutritional and management considerations, fetal programming, using wheat pasture and herd health, all regarding cows in semi-confinement production system.

The proceedings from the symposium may be found online at <http://animalscience.tamu.edu/eng-symposium>.

The Foundation was established in memory and as a legacy to Caroline who loved life, cattle and cattle people, and as an avenue to help future scholars while enhancing beef cattle research. A symposium is held yearly as an outlet for universities to present research being conducted through grants provided by the Eng Foundation.

Next year's symposium will be hosted by Oklahoma State University and the Eng Foundation, in Stillwater, Okla.

BCSC attendees hear optimistic view on industry future

COLLEGE STATION - More than 1,500 beef cattle producers from across Texas and abroad gathered at Texas A&M University in College Station for the 60th Beef Cattle Short Course Aug. 3-5 to learn more about cattle production and maximizing profits during times of record prices.

With beef cattle inventory in the U.S. the smallest since the 1950s, strong prices are predicted to continue with slow, gradual herd rebuilding after decades of drought throughout Texas and the nation, according to experts.

During the general session, attendees heard from Dr. Bill Mies and Dr. Gary Smith, both visiting professors in the Department of Animal Science; R.C. Slocum, Central Texas rancher; and Brian Bledsoe, weather forecaster for the Southern Livestock Standard.

This year's short course was dedicated to Dr. Larry Boleman, associate vice chancellor for outreach and strategic initiatives for Texas A&M AgriLife. He also serves as special assistant to Texas A&M interim president Dr. Mark Hussey.

Boleman served as beef short course coordinator from 1991 through 2004. He was Extension state and area beef cattle specialist from 1975-2005. In all, Boleman has 50 years of service with the Texas A&M University System.

For the complete story, please visit <http://animalscience.tamu.edu/2014/08/05/texas-am-beef-cattle-short-course-attendees-hear-optimistic-views-on-industry-future/>.

Pakistani group visits department

A group of dairy herd managers from Pakistan and a representative from the USDA Foreign Agricultural Services visited the Department of Animal Science on Oct. 9-10 to learn more about general management, heat stress, health, and nutritional management considerations of Texas beef cattle producers as well as ways to increase the value of male dairy calves for beef. Dr. Andy Herring, associate professor and holder of the John K. Riggs '41 professorship, hosted the group and organized classroom lectures and tours of the Beef Cattle Systems Research Unit on FM and Liere Dairy in Franklin. The Pakistani dairy herd managers are responsible for herds ranging from 300 to 4,000 cows. The group was visiting the United States as part of the USDA Cochran Fellowship Program which provides training for agriculturalists from middle-income countries, emerging markets and emerging democracies.



Food microbiology lab hosts student researcher from University of Hohenheim, Germany

The Food Microbiology Laboratory in the Department of Animal Science, led by Dr. Matthew Taylor, associate professor, recently was given the opportunity to host undergraduate student researcher Tanita J. Bugbee from the University of Hohenheim, in Stuttgart, Germany. She spent six months in the research laboratory participating in research experiments conducted by graduate students focusing on produce and meat safety.

Bugbee completed a series of experiments on the antimicrobial activity of various plant-derived essential oils (EOs) encapsulated in nano-scale micelles against the foodborne pathogens *Listeria monocytogenes*, *Escherichia coli* O157:H7, and *Escherichia albertii*. In addition to her own research, Bugbee participated in a series of corporately sponsored experiments investigating the sanitizing activity of a commercially available foaming sanitizer delivery technology on the surfaces of retail deli slicers in a project led by Dr. Wes Osburn, associate professor of meat science, cooperating with other graduate students in the Food Microbiology Laboratory as well as the meat science section.

In addition, Bugbee participated in several Texas A&M AgriLife Extension meat science workshops including Beef 101 and the Aggie Processed Meat School, in which she learned fundamental information related to the science and technology of fresh and further processed meats manufacture, and even got her "hands dirty" cutting up beef carcass sides.

At the conclusion of her visit, Bugbee completed a detailed report and was awarded six hours of academic credit at her home institution. This experience laid the groundwork for her entry into graduate school at the University of Hohenheim under the direction of Dr. Jochen Weiss.



42nd Summer Horsemanship School Program

The 42nd annual Summer Horsemanship School Program hosted by Texas A&M AgriLife Extension provided 487 youth and adults in 20 Texas counties education on horse safety, general riding practices, equipment and problem solving, and the chance to improve overall confidence and ability when working with horses. The county clinics were taught by six Aggie students selected to work as Extension horse program assistants including Taylor Godwin, Chelsea Cooper, Emilee Haubner, Jessica McDowell, Michelle Glover and Nicole Brooks. The program is coordinated by Teri Antilley, Extension horse program specialist.



Smith presents research in China, Korea

Dr. Stephen Smith, regents professor, traveled to Yanbian University in Yanji China and the Hanwoo Experiment Station in Korea in September. At Yanbian University, Smith gave three lectures on adipose tissue composition, growth, and endocrine function to graduate students in Animal Science in Yanbian University. He also worked with Dr. Xiang-Zi Li to initiate collaborative research between Yanbian University and Texas A&M University. In Korea, Smith presented "Effects of Grass and Grain Feeding on Beef Fatty Acid Composition" at the 2nd International Hanwoo Experiment Station Research Symposium – The Applications of Novel Technology to Improve Hanwoo Meat Quality and Quantity.



Aggies win national Quiz Bowl

The Texas A&M University Academic Quadrathlon team represented the Southern Section in the American Society of Animal Science National Academic Quadrathlon competition held in July in Kansas. The four components of the competition include a written examination, laboratory practicum, oral presentation and Quiz Bowl. The first two components were hosted by Kansas State University in Manhattan, KS. The final two components of the competition were held in Kansas City in conjunction with the annual meeting of the ASAS. The Texas A&M team of Tyler Coufal from Troy, Kaysi Dean from Eula, Sydney Reese from Pleasant Grove, Calif., and Kayley Wall from Boerne, all animal science majors, was undefeated in the double elimination Quiz Bowl. The final round of the Quiz Bowl was conducted during the ASAS Awards Session, with A&M declaring victory. In the overall competition, the Ohio State University won the national championship and Texas A&M earned the reserve champion Animal Science Academic Quadrathlon title.



State 4-H Horse Show features 1,821 entries

The 52nd Texas State 4-H Horse Show, considered one of the top state 4-H shows in the nation, featured 1,821 entries with more than 600 horses and 474 4-Hers. Dr. Dennis Sigler, professor and Extension horse specialist, and Teri Antilley, Extension horse program specialist, along with their staff of dedicated volunteers manage and carry out all aspects of this large show. Dr. Pete Gibbs was honored for his long-time support of the Texas 4-H horse program. Gibbs managed the State 4-H Horse Show for 20 years as a Texas Extension Horse Specialist. In recognition of Gibbs' dedication to the State Horse Show, an endowment was set up in his honor to fund the "Pete Gibbs Horsemanship Award."



Reproductive Forum dedicated to Bazer

The 20th annual Texas Forum on Reproductive Sciences held this spring in San Antonio was dedicated to Dr. Fuller Bazer, distinguished professor and O.D. Butler Chair. Bazer, along with three colleagues, founded the Texas Forum on Reproductive Sciences in 1995 to encourage the exchange of scientific knowledge and collaboration between Texas scientists in the area of female reproduction. Several years later, this cooperative group included male reproduction and began an all-inclusive Forum on Reproductive Sciences.

Bazer was cited as an international leader in reproductive biology among scientists spanning the fields of animal agriculture, biology, and veterinary and human medicine. The most outstanding and significant achievements of Bazer's research at the University of Florida and Texas A&M University have, and continue to be, in defining interactions between the maternal uterine environment and developing conceptuses in livestock species based on the integration of scholarship in animal sciences, physiology, biochemistry and molecular biology to define expression, endocrine control, and function of molecules secreted into the uterus during pregnancy and required for conceptus development.



Students take beef tour of Texas Panhandle

Animal science students took part in the Texas Panhandle Beef Production Tour from May 12-15 and studied all facets of beef production from cow/calf operations to the final retail product. The tour included educational visits to Triangle Ranch, Cargill Beef, Ferrell-Ross Manufacturing, OT Feedyard, Cactus Feedyard, Sweet Bran, Hartley Feeders, Five Rivers and R.A. Brown Ranch. The students also enjoyed meeting Dr. R. Hollis Klett and representatives from Zoetis Animal Health and Elanco. The group was accompanied by Dr. Tryon Wickersham, Dr. Jason Sawyer, Dr. David Forrest and Amber Skinner. The Jim Theeck '65 Beef Cattle Seminar has been held for three consecutive years.



ANSC Job Board now online

The Department of Animal Science has introduced an online Job Board to serve current and former students. The job board features full-time and part-time positions, student worker jobs, internships, postdoctoral appointments, and more. Businesses, individuals and organizations are invited to submit job announcements directly to the website by filling out a simple online form. All jobs posted must in some way be related to animal science, animal agriculture or agricultural business. To view job announcements or to post a job, please visit <http://aglifesciences.tamu.edu/anscjobboard/job-board-2/>.



Hale, Carstens present articles, contest on evaluating cattle in BEEF magazine

In the September issue of *BEEF* magazine and on the website beefmagazine.com, Dr. Dan Hale, professor and Extension meat specialist, and Dr. Gordon Carstens, professor, presented to the readers an opportunity to test their skills at evaluating cattle for efficiency and profitability.

"We presented this contest for the purpose of drawing the reader into the educational information that was presented in the September issue and that will be presented in the November issue," Carstens said. *BEEF* magazine readers were provided with production data, pictures and videos for 12 steers, and asked to make estimates regarding their feedyard performance and carcass traits. Along with that information, Carstens discussed a relatively new way to evaluate efficiency of gain called residual feed intake.

For the November issue, Hale and Carstens wrote an article discussing the feedyard and carcass characteristics for each of the 12 steers. They also presented important considerations for maximizing profitability and for implementing best cattle management practices. These articles and the contest results can be viewed at <http://beefmagazine.com/>.



Students visit food microbiology lab at NASA

On Aug. 26, graduate students in the food safety microbiology laboratories led by Dr. Alex Castillo, Dr. Jason Gill and Dr. Matt Taylor traveled to the Johnson Space Center in Houston to visit with members of the food microbiology laboratory group at the Space Center.

Gill and Taylor accompanied the graduate students to hear a presentation from NASA personnel describing NASA's food testing programs, microbiological criteria and the interactions of microbiologists with astronauts completing missions on board the International Space Station. Students heard presentations on food safety research ongoing at NASA and the development of sanitary procedures for use on board the ISS. After completing their visit to the microbiology laboratory group, the Texas A&M graduate students and faculty visited the Johnson Space Center Visitor Center, enjoying tours of NASA facilities and even some freeze-dried ice cream.



Professor Emeritus Dr. Gene King passes away



General Tye King, known to most as Dr. Gene T. King, passed away on Aug 6, 2014. He was 94.

A Veteran of Foreign Wars and member of the American Legion, Gene served as a member of the National Guard and saw active duty in World War II for six years. He advanced from Private to Captain and followed Patton's army in his great campaign across Europe to the Rhine River as an officer and company commander in charge of evacuating and caring for the wounded. Later, he evacuated casualties from Bastogne. In three and a half years, he was not aware

of ever losing a patient that was in the care of his medic-evacuation unit.

A native of Kentucky, Gene and his wife, Lois Gatliff King, moved to College Station in 1953 and stayed. He was a Professor in the Department of Animal Science at Texas A&M University and also served as Associate Department Head. Over a long career in teaching and student advising, Gene coordinated countless undergraduate laboratories for thousands of Aggie students, and he supervised the preparation and training of various classes by graduate student assistants. He was respected because he truly

cared about students and their career goals. Students remember him as demanding yet kind with high expectations and a trademark grin. Gene was a father figure in many respects and his work with students earned him the Association of Former Students Distinguished Achievement Award for Student Relations.

Upon his retirement in 1986, Gene was named Professor Emeritus, reflective of his professionalism and service to Texas A&M. Former students remember him for his consistency and simplicity, recalling that he lived in the same house since 1955 and drove only one pickup truck, named 'The General', with an American flag on the bumper.

With formal training in meat science, Gene was recognized nationally for his scholarly achievements. He authored or co-authored over 150 scientific papers related to meat and muscle physiology and was recognized by the American Meat Science Association with the Signal Service and the Fellow Awards in 1981. A year later, the American Society of Animal Science recognized him again. He spent time coaching the Meats Judging Team at Texas A&M, served for a period of time as the Meats Section Leader in the Animal Science Department, was an advisor to the Saddle & Sirloin Club and served as President of the Texas Section of Food Science and Technology.

King was a deacon at First Baptist Church of College Station for many years. He chaired numerous committees at the church and was a familiar face to Aggies on Sunday morning. His strong Christian faith was reflected in the way he treated others and in how he lived life daily.

SCHEDULE OF EVENTS

Nov. 6-7 - Beyond Basics: HACCP Plan Improvement Workshop (College Station). For more information, visit <http://meat.tamu.edu/extension/beyond-basics/>.

Nov. 8 - Aggiefest Horse Judging Workshop (College Station). For more information, visit <http://animalscience.tamu.edu/livestock-species/equine/workshops/aggiefest-horse-judging-workshop/>.

Dec. 2-3 - Introductory HACCP: Developing and Implementing HACCP Plans (College Station). For more information, visit <http://meat.tamu.edu/extension/introductory-haccp-course/>.

Dec. 6 - Texas A&M Saddle & Sirloin Club Winter Formal (Wellborn). For more information, visit <http://saddleand-sirloin.tamu.edu/>.

Dec. 10-12 - Beef 101 (College Station). For more information, visit <http://meat.tamu.edu/2013/02/14/beef-101/>.

Dec. 24 - Jan. 2 - Texas A&M University closed.

Jan. 7-9 - Equine Reproductive Management Short Course (College Station). For more information, go to <http://animalscience.tamu.edu/academics/equine/workshops/equine-reproductive-management-short-course/> or contact Dr. Martha Vogelsang at 979-845-5796.

Jan. 9-10 - 2015 Camp Brisket (College Station). (SOLD OUT) For more information, visit <http://foodwaystexas.com/events/barbecue-camps/camp-brisket/>.

Jan. 14-15 - Southwest Beef Symposium (Amarillo) - For more information, visit <http://aces.nmsu.edu/ces/swbeef/>.

March 4-5 - International Livestock Congress-USA (Houston) - For more information, visit <http://theisef.com>.

April 29 - Department of Animal Science Awards Banquet (College Station) - For more information, visit <http://animalscience.tamu.edu/awards/> or call (979) 845-1541.

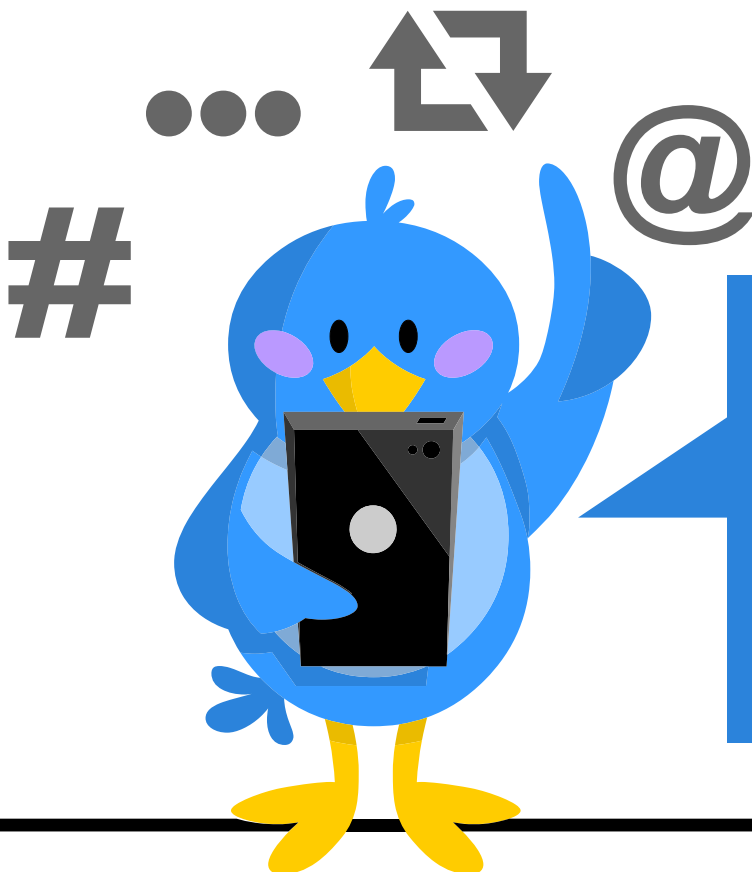
To submit an upcoming event to be listed in the *Animal Science Monthly*, please email cacoufal@tamu.edu.

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