

Feeding Our World



Growing populations, decreasing natural resources, and increasing environmental challenges mean that we must find the most efficient and

beneficial ways to provide food for all, both domestically and globally. The Norman Borlaug Institute for International Agriculture partners with governmental, academic, and private organizations the world over to develop programs that augment agricultural industries by addressing key issues along the entire chain of production.

Improving Our Health



improving health. Our faculty and staff collaborate with Healthy Texas, a Texas A&M AgriLife Extension and Texas A&M University Health Science

The College is dedicated to

Center program that is creating a new crop of health educators to engage families, enhance education, promote healthy behaviors, and improve the quality of medical care and health outcomes across a 27-county region in south Texas. Healthy South Texas is a pilot program for Healthy Texas, which would encompass our whole state.



Growing Our Economy

Helping producers to grow more, sell more, add value, and increase the safety and security of what we trade are some ways the College is growing our economy. For

example, under the leadership of Dr. Leonardo Lombardini, professor of horticultural sciences, the Center for Coffee Research and Education works to improve the quality and sustainability of coffee. Without such research, experts predict a difficult future for coffee producers: The \$30 billion a year coffee-growing industry is threatened by diseases, narrow genetic diversity, climate change, and an ever-increasing global demand for coffee.

Protecting Our Environment



Because agriculture and a healthy environment must go hand in hand, the College is concerned with the health of our ecosystems. Our

students can follow their passion by creating parks, protecting wildlife, and guarding the health of waterways and fisheries. Our students can learn from faculty members like Dr. Yongheng Huang, associate professor of biological and agricultural engineering and AgriLife Research scientist. Alongside our collaborators at Evoqua Water Technologies, Dr. Huang has created a breakthrough technology to remove metal contaminants such as mercury, selenium, and lead — from industrial wastewater.

Enriching Our Youth



We prepare students to be leaders in solving the world's problems, whatever career they choose. As they obtain a world-class education, our

students can enrich their classroom training through study abroad, field experiences, internships, undergraduate research, and a wide choice of clubs and student organizations. They can take advantage of the opportunities we offer to meet professionals in their chosen field. For example, agricultural economist Dr. Ed Rister brings together students and business leaders from across the state in his rural entrepreneurship classes.

COLLEGE FAST FACTS FOR 2015–2016



AgLifeSciences.tamu.edu

98 Doctoral

5,837 Enrolled

GrandChallenges.tamu.edu

Enrollment and Student Demographics 2016-2017

(U) Undergraduate (M) Master's (D) Doctoral (T) Total

Agricultural Economics			
864 (U)	73 (M)	66 (D)	1,003 (T)
Agricultural Leadership, Education, and Communications			
1,051 (U)	71 (M)	52 (D)	1,174 (T)
Animal Science			
1,152 (U)	87 (M)	48 (D)	1,287 (T)
Biochemistry and Biophysics			
429 (U)	2 (M)	156 (D)	587 (T)
Biological and Agricultural Engineering			
294 (U)	50 (M)	40 (D)	384 (T)
Ecosystem Science and Management			
277 (U)	35 (M)	37 (D)	349 (T)
Entomology			
196 (U)	20 (M)	60 (D)	276 (T)
Horticultural Sciences			
143 (U)	20 (M)	31 (D)	194 (T)
Nutrition and Food Science			
633 (U)	18 (M)	44 (D)	695 (T)
Plant Pathology and Microbiology			
311 (U)	5 (M)	25 (D)	341 (T)
Poultry Science			
111 (U)	20 (M)	31 (D)	162 (T)
Recreation, Park and Tourism Sciences			
403 (U)	35 (M)	48 (D)	486 (T)
Soil and Crop Sciences			
149 (U)	58 (M)	92 (D)	299 (T)
Wildlife and Fisheries Sciences			
374 (U)	59 (M)	65 (D)	498 (T)

Total students 7,786 **Undergraduate** 6,438 Master's 553 **Doctoral** 795

Past enrollment Fall 2015 7,852 Fall 2014 7,890 Fall 2013 7,658 Fall 2012 7,265 Fall 2011 6,984

Gender 57% female 43% male

Ethnicity and race

White only 66.6% Hispanic, any race 17.7% International 6.0% Black, plus multiracial 3.3% Asian 3.2% Multiracial, non-black 2.2% American Indian 0.4% Unreported 0.4% Native Hawaiian 0.1%



TEXAS A&M

STUDENT ACTIVITIES AND FACULTY RESEARCH

New technology helps make cotton water-efficient

Texas is the largest producer of cotton in the United States, and cotton is a staple of our economy. However, droughts and dwindling irrigation water mean that Texas cotton farmers must balance the desire to grow more cotton with the need to conserve water. Now, thanks to the work of a College of Agriculture and Life Sciences faculty member, that balancing act has become easier.

Research started by Dr. Greg Sword, a Texas A&M entomologist, has led to a seed treatment that can yield up to 10 percent more fiber without using more irrigation water. The treatment involves coating cotton seeds with specific microbes, called endophytes, that live inside plants. The seeds are then planted and harvested as usual. Fifty thousand acres of the treated seeds were planted this year, when the technology first became commercially available. The advance could become a major boon for cotton growers in Texas and beyond.

The Gardens: Taking the classroom outdoors

Construction is underway at the Texas A&M West Campus for The Gardens, a space that will teach and inspire.

The first phase of construction for the

Gardens will restore White Creek and create the Leach Teaching Gardens. Eventually, West Campus will cultivate a collection of green spaces covering not only an impressive expanse - about 40 acres but also an impressive array of academic disciplines. This ambitious living project will be a place for discovery, where we take research further and understanding wider, and where creativity sprouts. To learn more, visit Gardens.tamu.edu.

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Students help conserve nature worldwide

Texas A&M University was the first university in the United States to partner with the International Union for Conservation of Nature (IUCN), which maintains



the most widely recognized list of plants and animals that are at risk of becoming extinct. The list is based on meticulous data that both graduate and undergraduate students helped gather and analyze after passing a rigorous training course.

Many of our students assist faculty on their research, allowing the students to learn valuable skills, advance their careers, and make a positive change. Protecting the environment is just one of the many contributions student research makes.

Dr. Thomas Lacher, professor of wildlife and fisheries sciences, manages our partnership with the IUCN and supervises our students' work for the organization. Partnerships like this one — with a premiere international conversation group — help students direct their passion for our environment to a project that is making a difference globally.

Scientists take aim at Zika

Researchers all over the world are working to squelch the threat of mosquito-borne diseases, which are among the deadliest and most destructive diseases in the world. The Zika virus is the latest mosquito-transmitted virus to gain notoriety.

The Zika virus is spread by two species of mosquito that breed in many regions of the world, including Texas. Women infected with the virus while pregnant have a higher risk of having a miscarriage or a stillbirth, and their babies are more likely to have serious birth defects.

Dr. Zach Adelman and Dr. Kevin Myles have joined the ranks of Texas A&M scientists who aim to stop Zika. Myles is studying how viruses replicate in mosquitoes, and Adelman is creating mosquitoes resistant to Zika and other viruses, among other projects. These scientists, along with their colleagues, are working to keep Texans safe.







College of Agriculture and Life Sciences



Welcome to the College of Agriculture and Life Sciences! Agriculture was one of the pillars on which Texas A&M University was founded, 140 years ago.

FROM

THE DEAN

We take a holistic approach to educating our students, preparing them to thrive in today's competitive job market. Their reputation for academic excellence is in part a result of the College's emphasis in science, technology, engineering, and math (STEM) — we produce more STEM graduates than any other U.S. college of agriculture.

Our award-winning faculty members are discovering the fuels of the future, unlocking genetic mysteries to cure diseases, and working to ensure a healthy and abundant food supply. The students they have educated and the scientific advancements they have shared have made life better for millions.

Access to a quality education for everyone was the key tenet to the Morrill Land-Grant College Act that established our university in 1876. We are proud that our College still has one of the highest numbers of students who are the first in their family to attend college.

Our nation still looks to its land-grant universities for leadership in meeting five Grand Challenges: feeding our world, protecting our environment, improving our health, enriching our youth, and growing our economy. As we carry on our proud traditions, we need to continue innovating to meet these challenges in the future.

— Dr. Mark A. Hussey Vice Chancellor and Dean for Agriculture and Life Sciences