

1966–1975

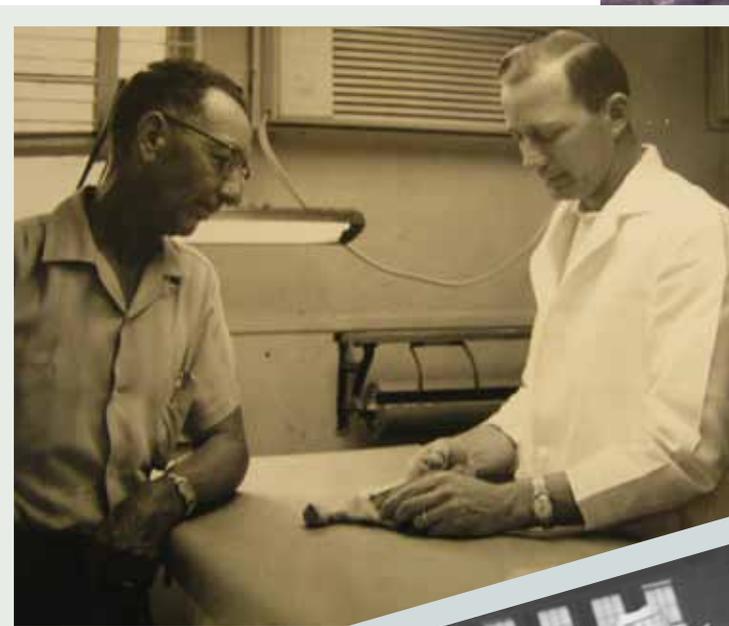
Scientific Agriculture

In the 1960s, Sterling C. Evans '21, a Texas rancher and former Aggie, discovered that to sell and ship his cattle to Japan they had to be certified free of disease by a full-service diagnostic laboratory. The only one accessible was in Ames, Iowa.

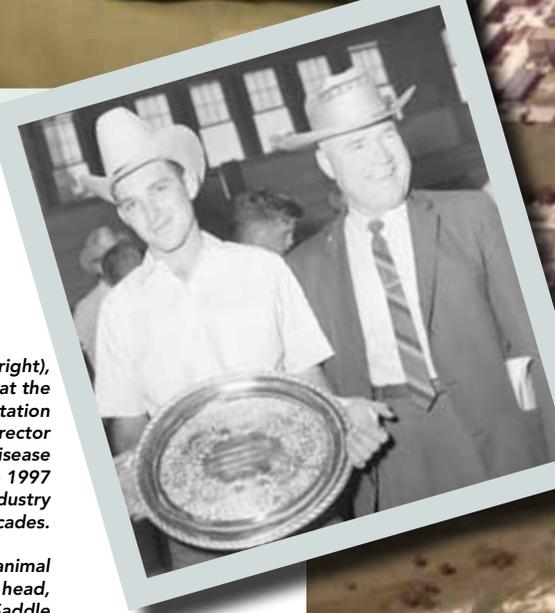
To address the problem, the Texas livestock industry, the Farm Bureau, Texas A&M University, and others raised money to help fund a veterinary diagnostic laboratory in Texas. In 1967, the state legislature approved an act creating the Texas Veterinary Medical Diagnostic Laboratory (TVMDL) at Texas A&M. Its mission is to serve the animal industries of the state and to provide disease surveillance information to the Texas Department of Public Health. TVMDL helps to ensure the safety of livestock and meat products and is at the interface between human and animal health through the prevention and control of zoonotic diseases (diseases that are communicable from animals to humans under natural conditions).

In the post-miracle decade years, agriculture and the life sciences assumed new scientific dimensions and new responsibilities to better serve the changing character of Texas, American, and global society.

A fundamental change in the American cotton industry occurred with the design and testing of the cotton module builder by Professor Lambert H. Wilkes in the Department of Agricultural Engineering. The cotton module design dramatically improved the efficiency of the harvesting and ginning process, improved storage, and improved lint quality, with higher returns in the marketing of a crop. The new harvest technique was soon adopted throughout the cotton-growing regions of the United States and in some nations abroad.



ABOVE: Sam Glass, DVM (right), examines a client's chickens at the South Texas Poultry Research Station in Gonzales, 1960s. Glass was director of the Texas A&M Poultry Disease Laboratory until his retirement in 1997 and served the state's poultry industry for more than three decades.



RIGHT: Dr. O. D. Butler (right), animal science professor and department head, presents an award at the 1967 Saddle and Sirloin Club banquet.

FAR RIGHT: Texas A&M University campus, 1960s



The Research and Extension Center at Overton opens, with generous donations of land, cattle, and funding from the Bruce McMillan, Jr., Foundation and the neighboring Montgomery family.

June 1, 1967

1966

The Department of Biochemistry and Nutrition is renamed Biochemistry and Biophysics. The name change reflects the migration of animal nutrition studies to the Departments of Animal Science and Poultry Science as well as Texas A&M's reach toward a more scientific stature.





The regional research and extension centers statewide are renamed "Texas A&M University Agricultural Research and Extension Center (and Research Station) at" followed by the name of the nearest city.

1967



1967

The 60th Texas Legislature establishes the Texas Veterinary Medical Diagnostic Laboratory (TVMDL) as a separate state agency under the administration of The Texas A&M University System. From 1967 to 1995, a rider was attached to this legislation stating that TVMDL should give highest priority to diagnostic work involving large animals.

1967

The first varietal trials and breeding programs for soybeans are started at the Beaumont and Lubbock Centers.

Between 1966 and 1975 there were also changes in the structure of agricultural studies at Texas A&M. The university established the College of Education, and the Department of Agricultural Education began offering graduate studies in agricultural education in association with the new college. The Department of Agricultural Engineering began offering the undergraduate degree in Mechanized Agriculture and instituted the Master of Agriculture degree. The Department of Forest Science was organized and began awarding undergraduate degrees, Master of Science degrees, and the Ph.D. in forestry. The Texas Forest Service began a successful urban forestry program. Increasing enrollments in agriculture resulted in the construction of the Robert Justus Kleberg, Jr., Animal and Food Sciences Center and the Heep Center for Soil and Crop Sciences and Entomology in 1975.



LEFT: Cotton breeder Dr. Luther Bird studies cold tolerance in plants, 1967.

ABOVE: Architectural drawing of the Kleberg Animal Science Building, 1966



Luther Bird, cotton breeder with the Experiment Station, releases the first multi-adversity resistant (MAR) cotton varieties, which carry genetic traits conferring resistance to major cotton diseases and other stresses. Eventually, the MAR program released 300 germplasm lines and 12 TAMCOT varieties and led to the development of 29 commercial cotton varieties that had a long-term economic impact on cotton production and profitability in Texas and the southeastern U.S. Cotton Belt.

1967



1967

Harriott O. Kunkel, professor of animal science and biochemistry, is named acting dean of agriculture and acting director of the Experiment Station. Kunkel's research as a professor was focused on metabolic, biochemical, and physiological aspects of ruminant growth rates and health.





The Cotton Module Builder: Historic Landmark in Agricultural Engineering

A revolution in cotton harvesting and processing began with the 1971 design and construction of an experimental cotton module builder by a team led by Texas A&M agricultural engineering professor Lambert H. Wilkes, in collaboration with Cotton Incorporated. In 2002, the American Society of Agricultural and Biological Engineers named this invention a historical landmark of agricultural engineering, one of the top three inventions in mechanized cotton production.

Traditionally, cotton had been hand picked and then transported to gins in trailers. The introduction of mechanical pickers increased the need for rapid ginning. Maximum fiber quality (and market value) depended on the timely harvest and ginning of the cotton. Ginning and marketing of cotton, in turn, depended on the availability of trailers or trucks to transport the raw cotton and on the capacity of the gin to produce cleaned cotton fiber. Cotton left in the fields awaiting harvest or transport or stored at the gin in open containers called “ricks” was subject to weather damage.

Texas Agricultural Experiment Station research showed that cotton at low moisture content could be compressed into higher densities than with the open trailer or ricking systems. The cotton module builder made it possible to handle and store cotton long-term, resulting in enhanced market value and less expensive storage. Today, more than 90 percent of the cotton harvested is compacted with module builders. This invention has revolutionized the U.S. cotton industry, and the module has been introduced in other countries where cotton is mechanically harvested.

Three top scholars from Michigan State University join the faculty in the Department of Recreation and Parks: Clare Gunn (below), Frank Suggitt, and Carlton van Doren. Gunn becomes known as the Father of the Scientific Study of Tourism during his career at Texas A&M.

1968



1968–69

Semi-dwarf wheat is developed by Experiment Station and USDA Agricultural Research Service agronomists I. M. Atkins, K. B. Porter, and O. G. Merkle. This genetic system brings increased yields by making wheat less susceptible to weather damage and increasing production per acre, allowing the world's wheat growers to feed millions more people on the same land resources.



The 18,000-square-foot Texas Veterinary Medical Diagnostic Laboratory opens on the Texas A&M University campus in College Station, with Texas A&M College of Veterinary Medicine professor William Sippel as the first director. Over the next four decades, additions were made to accommodate expanded laboratories and more sophisticated equipment.

September 1, 1969



The Texas Forest Service formalizes the Western Gulf Forest Tree Improvement Program to preserve and improve the populations of five southern pine species and several hardwood species. Today, four state forestry agencies and eight nongovernmental organizations are members, and the cooperative plants an estimated 300 million tree seedlings each year.

1969

1969

Texas A&M University creates an undergraduate degree program in forestry.





The V. G. Young Institute of County Government is created by the Texas legislature, to be administered by the Extension Service. The institute — named for Vernon G. Young, a longtime state agricultural agent and vice director of the Extension Service until his death in 1969 — offers educational programs, published reference materials, and counsel to county officials, community organizations, and citizens across the state.

1969

1969

Professional graduate studies are authorized for the College of Agriculture. The Master of Agriculture degree is approved in 1974, making it the first professional graduate degree at a land-grant university.



1969

The Expanded Food and Nutrition Education Program, federally funded to provide nutritional education to low-income families, is established under the Extension Service.



The Master Clothing Volunteer program is established in Hidalgo County, leading to similar Agricultural Extension volunteer programs across Texas.

1970

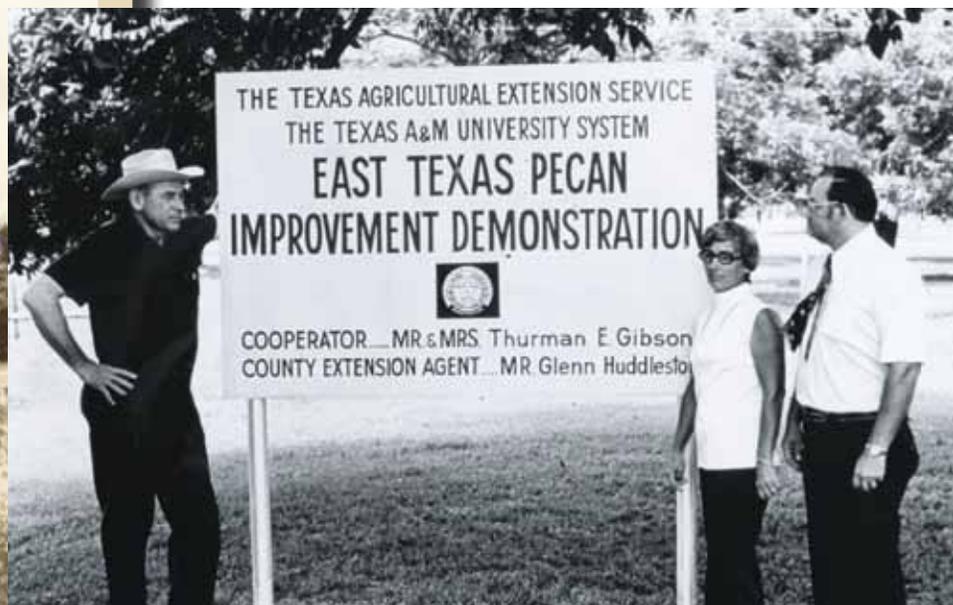
The Master of Agriculture program is initiated in the Department of Range Science.

1970



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

1970
Cotton breeders in the Department of Soil and Crop Sciences provide the genetics research that increases cotton fiber strength by 25 percent and continues to improve fiber quality over the coming decades. Today, Texas produces more than one-half of the nation's cotton.



LEFT: Agronomy professor Dr. Kenneth Porter examines hybrid wheat strains being tested at the Bushland Station, 1967.

CENTER: South Texas Poultry Research Station, Gonzales, 1960s

ABOVE: Extension pecan improvement demonstration, 1970s



Breeding a Better Potato

The Texas Potato Breeding and Variety Development Program began in the Department of Horticultural Sciences in 1973. Since the 1980s, through research led by horticulture and genetics professor J. Creighton Miller, Jr., the program has developed, co-developed, or released 12 improved varieties. The Texas Russet Norkotah strains are the most popular. By 2009, virtually all of the russet potatoes grown in Texas were of this variety. Since the inception of the program, the farm-gate value of the potato crop in Texas has grown from less than \$20 million per year to approximately \$117 million.

The Texas Forest Service employs a silviculturist in Lubbock to help landowners establish windbreaks to protect their land, animals, crops, and structures from wind and harsh temperatures. A nursery greenhouse is established in 1979 to grow 50,000 tree seedlings for the project.

1971



The Experiment Station's Poultry Diagnostic Laboratory at Gonzales is built to replace the South Texas Poultry Research Station, founded in 1949.

1971



1971

Patented under the trade name NZN® by horticulture professor Benton Storey and Allied Chemical Company, a unique formulation of soluble zinc becomes one of the first plant nutrients to be applied to tree leaves on a large scale to correct zinc-deficiency in pecan orchards. Storey's later research on fatty acids in pecan germplasm led to the development of varieties that can improve human health by lowering cholesterol levels.



1971

The Research and Extension Center at Vernon opens, with the Chillicothe Station as a substation.



LEFT: Ralph Bower, Texas Forest Service, 1974

CENTER: The Minnie Belle and Herman F. Heep Buildings, built in 1975, form the Heep Center, home of the Departments of Entomology and Soil and Crop Sciences.

RIGHT: Experiment Station peanut research, South Texas, 1967



The Texas Sea Grant College Program is established at Texas A&M under the National Sea Grant College and Program Act of 1966. It is one of the first four state programs established under the act and is modeled after the land-grant college concept.

1971



The Research and Extension Center at San Angelo is dedicated, with Texas A&M President Jack K. Williams as speaker. The center holds its first sheep and goat field day the same year.

May 3, 1972



1972
The Research and Extension Center at Dallas is established when land and buildings are transferred to the Texas A&M System from the Texas Research Foundation.



May 28, 1972
The Research and Extension Center at Uvalde officially opens. At the groundbreaking in September 1971, Texas Governor Dolph Briscoe, Jr., called it "the most important thing to happen in Southwest Texas this century."



Don Rummel, a student of entomology professor Perry Adkisson's, transitions from Extension entomology to Experiment Station research at the Lubbock Center, focusing on cotton entomology. He makes major contributions to boll weevil suppression.

1972



The Department of Agricultural Education extends its scope in "general agriculture," fostering an undergraduate curriculum and then a major in Agricultural Development in 1989. This program lends greater recognition to the broad mission of preparing human resource specialists in agriculture.

1972



1972

The Texas Forest Service begins its Urban Forestry Program. By 1986-87, the Texas Urban Forestry Council and 10 supporting regional councils would be established, with Texas Forest Service urban foresters in 10 cities. The TUFC was incorporated in 1990.

1973-75

The 63rd Texas Legislature establishes the Texas Veterinary Medical Diagnostic Laboratory at Amarillo to address the needs of the young and rapidly growing cattle feedlot industry. The facility opens in 1975.



LEFT: Aquaculture research at the Flour Bluff Substation, Corpus Christi Center, began in the 1970s.

CENTER: Texas A&M plant pathologist R. A. Frederiksen (left) confers with visiting researcher B. L. Renfro on downy mildew diseases, 1969.

RIGHT: 4-H'er on the climbing wall at Texas 4-H Center in Brownwood.



The Texas Forest Service's fire control program converts its personnel from part-time to full-time.

1974



During a massive anthrax outbreak in Falls County in East Central Texas, National Guard helicopters deliver specimens to TVMDL daily, and the agency develops a national and international reputation for its anthrax expertise.

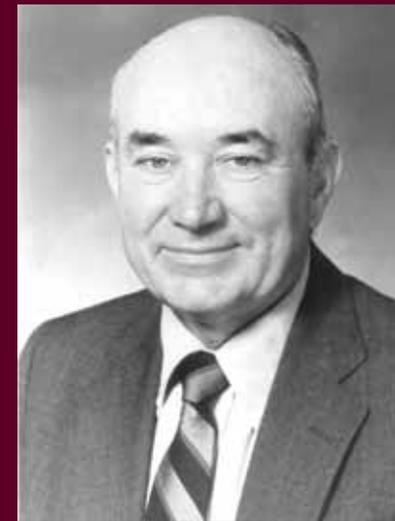
1975

1974

The Research and Extension Center at Corpus Christi is established and dedicated, with substations at Beeville, Flour Bluff, and Port Aransas.

1975

The Texas 4-H Center opens; it was built on 78 acres on Lake Brownwood and funded through contributions to the 4-H Foundation. An official dedication is held in 1978.



A Better Way to Manage Pests

In 1971, Perry Lee Adkisson (above), head of the Texas A&M College of Agriculture's Department of Entomology, and University of California entomologist Ray Smith determined that most plant diseases, weeds, insects, and other pests could be controlled by employing good crop management practices and maximizing the many controls already existing in nature. The concept of Integrated Pest Management (IPM) was born. In the 1970s, the Department of Entomology launched new IPM projects covering major crops and pine forests, in cooperation with Texas Agricultural Experiment Station and Extension Service entomologists. The initial focus was on cotton, but sorghum and peanut crop management were soon added. IPM uses crop rotation, planting dates, natural insect enemies, and other biological and mechanical controls to manage pests. Since its introduction, this science-based, holistic approach has resulted in decreased use of chemical pesticides, increased yields, and markedly higher net profits from crops. Recent additions to the program are IPM for greenhouse and nursery crop production, fire ant control, and school and home pest control. These better pest-management solutions benefit the Texas economy by more than \$1 billion per year. In 1997, Adkisson and Smith received the World Food Prize for their pioneering work in IPM.



1975

The federally funded Volunteer Fire Assistance Program, administered by the Texas Forest Service, begins. It provides equipment grants to volunteer fire departments. In 1978, the new Federal Excess Personal Property Program allows TFS to acquire excess federal and military vehicles and equipment for loan to volunteer fire departments.