

1956–1965

New Dimensions in Agriculture and Life Sciences

The “miracle decade,” that post-war period of miraculous growth and business expansion — when Americans earned \$2.6 trillion, paid some \$290 billion in personal taxes, invested \$50 billion in foreign aid and another \$190 billion in personal savings, and spent uncounted billions on automobiles, new homes, air conditioning, education, and recreation — came to a close in 1957. The decade that followed was a time of accommodation to a new domestic and global economy. Efforts in international agriculture began in the College of Agriculture during the 1960s and grew steadily over the decades that followed. At home in Texas, cities became larger, especially Houston, Dallas, Fort Worth, San Antonio, and El Paso. Urban and rural life became more intermeshed, and “community” came to have a more regional meaning.

The decade from 1956 to 1965 also brought new dimensions to the services of Texas A&M’s College of Agriculture and state agricultural agencies. American society was changing, and they adjusted to serve and foster that change. There were more young Americans in both rural and urban environments, and the Texas Agricultural Extension Service, through 4-H clubs, offered them more diverse and challenging programs. 4-H clubs became community-based, with urban-oriented programs incorporating more science. There were also more aging Americans, and Extension organized special programs to help meet their unique needs. Environmental safety, the dispersion of educational materials, resource conservation programs, and urban forestry initiatives all became part of the changing role of the Texas agriculture programs. The Texas Forest Service shifted its focus in part to an infestation of southern pine beetles, which presented a serious threat to the timber industry.



“The goal of education is the advancement of knowledge and the dissemination of truth.”

— President John F. Kennedy



O. D. Butler, Jr., is named professor and head of the Department of Animal Husbandry (later Animal Science), a position he would hold for 22 years. Under his leadership, the department saw the building of new facilities with state-of-the-art equipment. His contributions to animal science resulted in positive changes in animal agriculture, including disease eradication; crossbreeding for better productivity; and performance testing programs.

1956

October 1956

The Adriance Laboratory is dedicated on the Texas A&M campus, and E. E. Burns begins developing a curriculum in food processing. The program expanded and in 1962 was placed under the coordination of the Department of Animal Science.





ABOVE: Widespread damage from southern pine beetle infestation, 1957

LEFT: Texas A&M College campus, 1951



Perry L. Adkisson joins the Department of Entomology as an associate professor. He later served as department head (1967–78), expanding the research and teaching faculty on campus and staffing the regional centers with entomologists. He gained international acclaim for his research in insect diapause and cotton Integrated Pest Management, and served as chancellor of The Texas A&M University System (1986–91).

1958

1957

A 100-acre infestation of southern pine beetles near Saratoga marks the beginning of a serious pest problem for the timber industry. The infestation became a target of Texas Forest Service controls for the next 30 years.





Texas A&M's colleges and agencies were also restructured to better assist in international trade and commerce. At the same time, research and extension programs were strengthened in the traditional Texas venues with the organization of regional research and extension centers, which provided a vital connection between individuals and communities and their county, state, and federal governments.

On the Texas A&M campus, the evolution in the national culture was reflected in landmark changes made during the term of President James Earl Rudder '32 (1959–1970): women students were admitted to the university, the university was desegregated, and compulsory service in the Corps of Cadets ended.

Changes on the agricultural front were in part a result of the now almost 100 years of constantly improving food and fiber production; food preservation and safety initiatives; and improved and expanded farm production, pest and insect control, and hybridization developments resulting from advancements in agriculture and life sciences.



LEFT: Dr. George Kunze views results of X-ray study of soil, 1962.

ABOVE: Dr. Charles W. Livingston uses a microscope in sheep disease research, Sonora Station, 1956.

Texas A&M releases the 'Brazos' blackberry, one of the foundation varieties for all modern blackberries grown in the southeastern United States and elsewhere. 'Brazos' was developed by the Experiment Station in the nation's first public blackberry breeding program, established in 1909.

1959

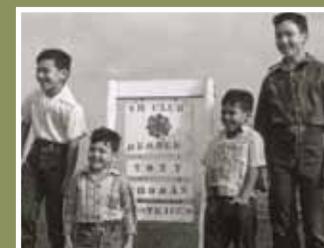


July 2, 1962

The 100th anniversary of the Morrill Land-Grant College Act.

The Texas 4-H Foundation, established in the 1950s, is incorporated as a nonprofit organization, facilitating private support of the community-based Extension 4-H Clubs.

1962





Cotton and Cattle: The Texas Kings

Cotton and cattle are two of Texas's oldest and largest agribusinesses, and cotton remains the king of Texas cash crops, with some 5 million acres harvested each year. Texas ranks first in U.S. cotton production. Because of its highly desirable spinning qualities, Texas cotton is sought by textile mills worldwide. The crop averages \$1.6 billion in cash receipts annually. Cotton contributes more dollars to the Texas economy than any other crop and is second only to cattle among all the agricultural commodities. Scientific management has contributed to sixfold increases in cotton yields per acre since the Great Depression era, when yields rarely exceeded one-half bale per acre. Texas growers plant about one-half of the nation's cotton acreage. More than 120 counties in Texas produce cotton, and each region requires different pest control, crop management, irrigation, and fertilization systems. Through the release of its improved TAMCOT cotton varieties, Texas A&M has made major contributions to cotton production. Current research in breeding cottonseed that is free of the toxic substance gossypol could provide a new protein-rich food source for both animals and humans.

Texas ranks first in the nation in sales of cattle and other livestock. Animal agriculture accounts for over two-thirds of gross farm-gate sales. Texas agriculture has also become more competitive in the global market. Scientists at Texas A&M AgriLife Research and in the Department of Animal Science conduct genetics and genomics research to improve net feed efficiency in an effort to breed beef cattle with greater weight gain on less feed and with less manure output. They also study behavioral and physiological responses in cattle and their effect on meat quality, and they study relationships between feed efficiency and fertility. Texas A&M AgriLife Extension Service meat specialists provide education and technology transfer in meat quality and food safety to food service personnel, retailers, and the meat industry. The Texas A&M Veterinary Medical Diagnostic Laboratory performs tens of thousands of tests annually to help protect the state's \$11.4 billion livestock industry, including tests that allow owners to move commercial livestock between states and export them to other nations. Through programs focusing on cotton and cattle, Texas A&M AgriLife helps to enhance the state's economy, reduce the cost of food and fiber for consumers, and conserve natural resources.

The Texas Forest Service establishes the Forest Pest Control Section to survey and coordinate control of the southern pine beetle and other pests attacking Texas pines and hardwoods.

1962

1962

The Food and Agricultural Act gives the Texas Forest Service authority to begin Resource Conservation and Development Projects.



1962

The Departments of Horticulture, Floriculture, and Agronomy are combined to form the Department of Soil and Crop Sciences. Programmatically, the horticulture group remains separate, and in 1976 it becomes the Department of Horticultural Sciences.

Yet, these improvements were not without their problems. In the mid-1950s, new insect and environmental issues arose as a result of the use of chemical pesticides. The boll weevil became resistant to some chlorinated hydrocarbon insecticides, and the pink bollworm was causing millions of dollars in damages to Texas cotton. Other insects developed resistance as well, and Texas A&M entomologists began seriously reassessing methods of insect control. The publication of Rachel Carson's book *Silent Spring* in 1962 heightened public concern about the long-term effects of chemical pesticides on the environment. Answering these concerns, Texas A&M entomologists worked with colleagues at other universities to develop and promote Integrated Pest Management, a system that minimized insecticide use and relied on other methods to control pests.

Overall, however, the larger populations and greater urban demographics in Texas and the nation were the results of improved science, better medicine, and a more nutritious and abundant food supply. For 100 years, since 1862, the land-grant colleges and agencies had helped to provide these critical services and products to Americans.

"... to commemorate the unparalleled opportunities for higher education provided by these publicly supported institutions and their efforts through teaching, research, and service to improve the economic, social, and cultural lives of the people of this Nation and of other nations."

— President John F. Kennedy
(Proclamation on the Centennial of the Establishment of the National System of Land-Grant Universities and Colleges, August 25, 1961)



The Texas legislature approves a bill changing the name of the Agricultural and Mechanical College of Texas to Texas A&M University. The School of Agriculture is renamed the College of Agriculture, reflecting a university-wide name change from schools to colleges.

August 23, 1963

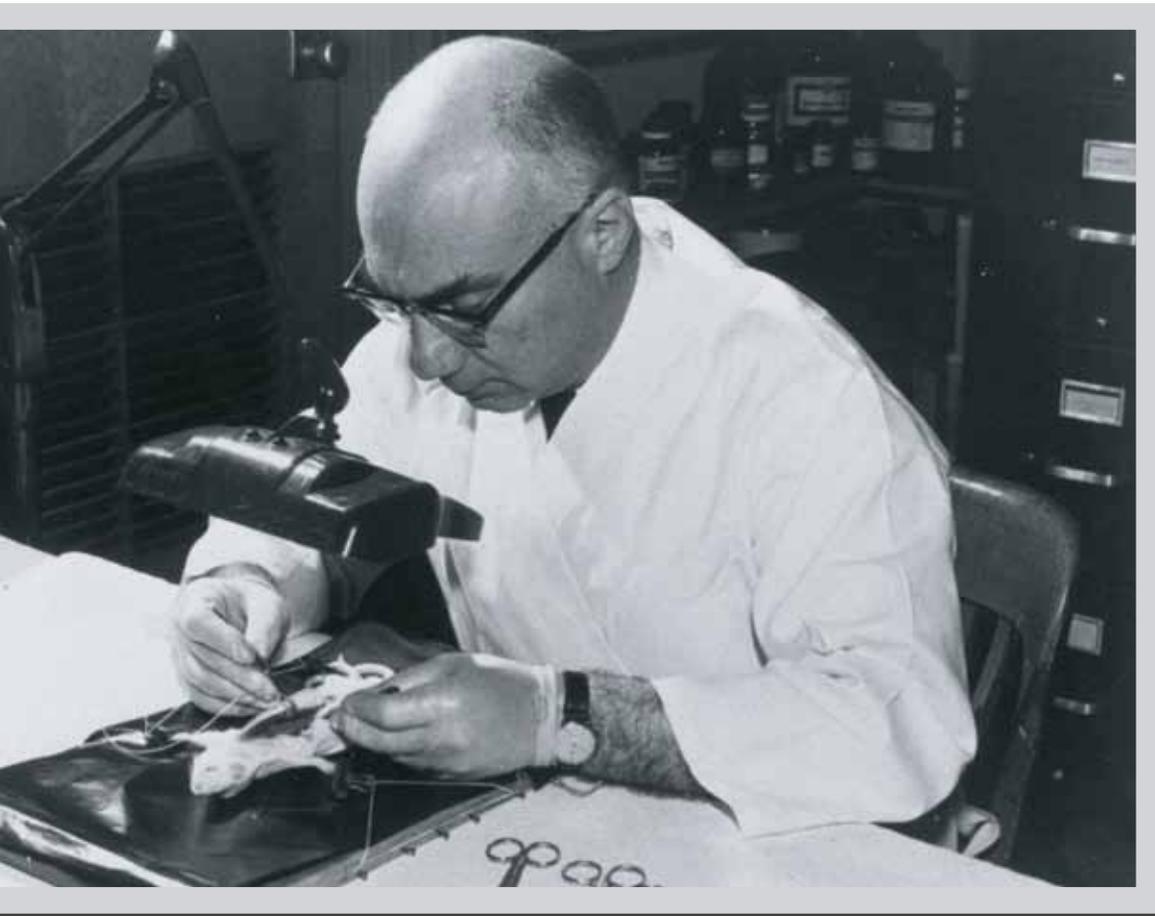


The Department of Animal Husbandry becomes the Department of Animal Science. The new name better reflects the broadened scope and focus of the discipline. Today the department is one of the largest of its kind in the nation.

1963

1963

Women are officially allowed to enroll as students at Texas A&M University on a limited basis. They were admitted on an equal basis with men beginning in 1971.



LEFT: Dr. R. E. Karper inspects new grain sorghum breeds, Lubbock Station, 1957.

ABOVE: Dr. Raymond Reiser made major contributions to the field of lipid biochemistry and also developed a synthetic diet for the pink bollworm for pest management research.

“Technology of measuring spinning qualities of cotton lint had developed so that a machine could measure more qualities than the human eye could see. The evaluation indicated that much better varieties of cotton were needed to improve yield, spinning qualities, and price. The Texas A&M Experiment Station and Extension Service professionals, as a team, accepted the challenge. Growers and agribusinesses supported the educational and research programs needed. The Extension Service set up demonstration farms to compare varieties, yield, and spinning qualities.”

— Carl Anderson, Professor and Texas A&M AgriLife Extension Service Specialist Emeritus

The American Association of Land-Grant Colleges and Universities merges with the National Association of State Universities to form the National Association of State Universities and Land-Grant Colleges (NASULGC).

1963



1963

The Department of Plant Sciences is created by combining the related disciplines of genetics, plant physiology, and plant pathology. This name reflects the expertise of the faculty as well as the nature of the major research efforts within the unit.

1963

The first Texas State 4-H Horse Show is held on the Texas A&M campus.



ABOVE: In the 1950s and 1960s Texas families began enjoying new parks, state forests, and U.S. Army Corps of Engineers recreational facilities such as Lake O' the Pines in Marion County.

CENTER: G. J. Gerard (left) and USDA soil scientist L. M. Namken demonstrate operation of a neutron soil moisture probe, Weslaco Center, 1961.

RIGHT: Dr. I. M. Atkins conducts oat research at the McGregor Station, 1961.



A basic beef cattle genetics laboratory is organized in the Department of Animal Science.

1964



U.S. President Lyndon B. Johnson declares war on poverty, and Texas Agricultural Extension work expands in urban areas.

1964

1964

The Texas Forest Service leases an 1,800-acre hardwood demonstration forest in Cass County for timber production, water conservation, and wildlife habitat.



Photo: LBJ Presidential Library



The Department of Recreation and Parks is formed, with Leslie Reid of Michigan State University as founding department head and Hazel Grubbs as the first secretary. The first course offered is Principles of Park Administration, with 23 students enrolled. Current faculty member Lou Hodges (below) was the department's first graduate. The department was renamed Recreation, Park and Tourism Sciences in 1989.

February 1965



Photo: LB / Presidential Library

1965

The Older Americans Act approved by Congress creates funds to enable the Extension Service to form over 200 local governors' committees on aging as part of the County Program Building effort. Extension agent Minnie Bell transfers to College Station from El Paso to become an Extension specialist on aging.



Texas A&M initiates plans to convert some agricultural experiment stations into regional research and extension centers. These plans are modified in 1968 to emphasize location of the centers near Texas's population centers.

1965



1965

Compulsory service in the Texas A&M Corps of Cadets is ended, and military training becomes optional. Women were welcomed into the Corps in 1974.

The Agricultural Chemical Unit is renamed the Agricultural and Environmental Safety Office and is assigned responsibility for pesticide safety education and training in the agricultural, agribusiness, and rural and urban sectors.

1965



LEFT: Agricultural Engineering Building, c. 1965

CENTER: Dr. H. M. Beachell compares short study straw of new rice varieties with other varieties, Beaumont Center, 1957.

ABOVE: 4-H Roundup at Texas A&M, 1961



Teaching through the Printed Word

The Instructional Materials Service (IMS) began in 1965 as the Agricultural Education Teaching Materials Program, under the leadership of Professor John Holcomb. The program was designed to produce and distribute instructional materials regarding “off-farm” agricultural activities and occupations for teachers of vocational agriculture in the secondary schools of Texas. Administered by the Department of Agricultural Leadership, Education, and Communications in partnership with the Texas Education Agency, the IMS produces and distributes agricultural and science curriculum materials for all 50 states and some foreign countries.

Scientists at the Agricultural Research and Extension Center at Lubbock conduct studies on the greenbug and the sorghum midge, which are causing widespread damage to sorghum crops. Their research leads to the development of greenbug-resistant sorghum hybrids, made available to farmers in 1976. Germplasm from this breeding program has now been distributed throughout the world's sorghum-growing regions.

1965



1965

The Cereal Quality Laboratory and program are established when Lloyd Rooney (left) joins the Department of Soil and Crop Sciences to conduct research on cereal grains and develop courses in cereals research. Ralph Waniska joined the laboratory in 1984. Today, it is internationally known for its pioneering research on sorghum and maize and for developments in making tortillas, sorghum snacks, and other new food products.

