

# Introduction to Texas

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## Introduction

This presentation will be about the history and people of Texas, Texas A&M University, and the role Texas AgriLife Research encompasses for agriculture in the State of Texas.

Texas is known as the Lone Star State, due to the fact Texas was once a country or nation before it joined the United States. If a Texan is traveling internationally, and you ask him where he is from, he will say Texas; however, if he is from any other state, he will say USA. The reason for this is Texans want you to know exactly where they are from and they are proud of it (McDonald, 2007). Texas has been under the control of six different nations, namely Spain, France, Mexico, Texas, the Confederacy of Southern States, and of course the USA. The first inhabitants were the Native Americans or American Indians. There were several tribes of Indians which included Forest Indians, Plains Indians and Inter Mountain Seed Gatherers. They had to adapt to the climate to survive in the wet Gulf Coast Region, or extremely dry West Texas Mountains. When the Spanish introduced horses, the Comanche adopted the horse culture and became the greatest light cavalry in the world. The demise of the Indian culture was brought on by the interaction with Americans moving west and European emigrants who moved in to claim much of their land. Even more importantly, many common diseases were highly contagious and often fatal to Indians who had little resistance.

**Six flags over Texas:** The first Spaniard to visit Texas was Alonzo Alvarez de Pineda in 1519, when he sailed along the Gulf Coast (McDonald, 2007). The Spanish were interested in Texas for two reasons, they had settled in Mexico, where they had found gold and brought much gold back to Spain. Secondly, French and English activities east of Texas were viewed as a threat, so Texas was a buffer between Mexico and the other foreign powers. In 1682, the French explorer La Salle sailed down the Mississippi and claimed all territory drained by the river including Texas (only a small part of Texas is drained by the Mississippi River). The first Spanish Mission was erected by De Leon in 1690 and several other missions were opened over the next 100 or so years. In 1821 the Mexican revolution resulted in the establishment of the independent Mexican government. By this time, American settlers were moving into East Texas and were at first welcomed to help develop the region. Farmers were given 177 acres of land. By 1833, so many Americans were moving to the region that was to become Texas that the Mexican government passed laws and raised taxes which began to cause resentment among the settlers. This would soon result in the Texas Revolution. The battle of the Alamo was on March 6, 1836, although the mission had been under siege for several days. The Mexican General Santa Anna was defeated at San Jacinto on April 21, 1836, and shortly thereafter the Republic of Texas was established. Sam Houston was elected President. The Republic of Texas had a population of 40,000, almost none who lived in a town. There was no system of local, county or even state government. Texas joined the United States in 1845 with more than 100,000 citizens, of which

40,000 were slaves (McDonald, 2007). In 1861, Texas withdrew from the United States and joined the Confederate States of America; however, Texas was back in the USA by 1865. Many of the early settlers were from the Southern US as they moved westward. Significant numbers of French, Polish, Czechs, and Germans also emigrated directly from Europe and numerous towns kept native customs, and even spoke their native language for a generation or more. The present day population of Texas is about 25,378,000 of which 45% are Anglo, 38% Hispanic, 12% Black and 5% other (Texas Dept. of State Health Services).

After the Civil War, there was a great amount of lawlessness in Texas. This resulted in the old image of Texans often seen in western movies. In fact much of it was true as there were often feuds, gunfights and eventually the Texas Rangers were recruited to keep the peace. There were Cattle Kingdoms formed in South Texas and later on in North Texas. Cattle drives in the 1850s moved cattle north to Missouri, Nebraska and Kansas. One of the main cattle trails came through Fort Worth, close to where this meeting is taking place.

**Modern Day Texas.** The oil industry has made Texas an important and rich state in the twentieth century. The Spindletop oil field near Beaumont was extremely important in World War I, and the East Texas Oil Field fueled the war effort in World War II. These and many other oil fields are still active today and new oil and gas wells are being drilled every day in Texas. Many wind generators are present in West Texas, where strong winds are normal. The estimated numbers by the end of 2008 were 5877 wind turbines located on 56 wind farms, producing 8,876 MW of electrical power (Nelson et al. 2008). The number of wind generators is likely to be near 10,000 today, and provides a significant amount of electrical energy for Texas.

**Agriculture.** Almost all crop species can be grown for seed production somewhere in Texas, due to the wide environmental conditions which exist here. Due to climatic conditions, profitable seed production is not possible on most species. Many summer annuals adapted to northern climates can be grown in Texas in the winter, when only light frosts occur. Examples of this would be spring oats (*Avena sativa*) and spring wheat (*Triticum aestivum*) and many annual clovers (*Trifolium* spp). There is great potential to test plant species collected in northern Russia and China as winter annuals in Texas. Many of the important grass species used in the eastern half of Texas were introduced. Examples of cool season species would include *Lolium* spp., *Secale cereale*, *Avena sativa*, and *Triticum aestivum*, *Trifolium* spp, *Lespedeza stipulaceae* and many more. Some warm-season forage crops would include *Cydonon* spp., *Paspalum* spp., *Trifolium* spp., *Vigna unguiculata*, and *Pisum* spp., etc. West from Central Texas, or Fort Worth, less crop production occurs (unless under irrigation), and more rangeland is present. Rangelands grow the tall and short prairie grasses and a multitude of forbs and shrubs species. Native bluestems, mostly *Andropogons*, and introduced bluestems *Bothriochloa* spp., buffalograss, some native from South Texas and also introduced from South Africa, and switchgrass (*Panicum virgatum*) especially in South Texas are commonly found (Smith and Anciso). Seed production and seed yields on most of the range grasses are quite low and difficult to harvest in most cases. Seeds often shatter prior to harvest, but they tend to reseed themselves, if not over grazed. Rainfall in most of the rangelands is limiting and very unpredictable, thus careful management of livestock and grazing levels is required to maintain desired forage species in the range ecosystem. In West Texas large agriculture cropping enterprises are present due to modern irrigation systems. Vast aquifers of underground water have allowed relatively inexpensive

water to be used to grow cotton (*Gossypium hirsutum*), corn (*Zea mays*), wheat (*Triticum aestivum*), peanuts (*Arachis hypogaeae*) and grain sorghum (*Sorghum vulgare*) crops. Water levels in the aquifers have dropped significantly in recent years, and crops can no longer be grown in some regions.

**Texas AgriLife Research** was formerly called the Texas Agricultural Experiment Station and is part of the Texas A&M University System. Texas A&M University at College Station was founded in 1876, and in 2010 has 38,000 plus undergraduates and 9,000 graduate students. It is located on a 5,000 acre campus in College Station. The College of Agriculture has 40 undergraduate degrees and 50 graduate degrees. There are 400 nationally recognized faculty members, including one Nobel laureate. Texas AgriLife Research is the agricultural research agency of the Texas A&M University System. Many of the scientists with this agency do not teach and are located off-campus at 13 Research and Extension Centers. These centers were strategically located to conduct research across the wide array of environments of Texas. They are located on the high plains in Northwest Texas, the southern tip in semi-tropical Weslaco, to the desert conditions of El Paso, to the very wet conditions near the Gulf Coast at Beaumont. The Texas AgriLife Research and Extension Centers and their main emphasis in research are as follows. Figure 1 provides the location of each of the centers and the main campus or headquarters of Texas A&M University at College Station.

Amarillo	Cattle feedlot nutrition, wheat breeding, precision agriculture, etc.
Beaumont	Rice breeding and production systems, developing bio-energy crops, etc.
Corpus Christi	Improved cropping systems, animal reproduction, shrimp production
Dallas	Urban management of turf, horticulture and water resources
El Paso	Water-use efficiency, water quality including pathogen detection, etc.
Lubbock	Abiotic & biotic stress of crops including cotton, corn, grain sorghum, etc.
Overton	Ryegrass & clover breeding, pasture management & horticulture
San Angelo	Sustainable rangelands with cattle, sheep, goats & wildlife
Stephenville	Sustaining healthy ecosystems, biofuel feedstocks & peanut breeding
Temple	Modeling with soil & water natural resources and cropping systems
Uvalde	Wildlife and beef cattle systems, vegetable quality research and water
Vernon	Rangeland restoration, livestock & forage production systems & wheat
Weslaco	Citrus & sugarcane production, molecular, biotechnology & genomics

## References

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- Smith, D.T. and J.L. Anciso. 2005. The Crops of Texas. Dept. Tech. Rept. SCS-2005-01. Department of Soil and Crop Sciences. Texas A&M University System, 63 p.

# Research and Extension Locations

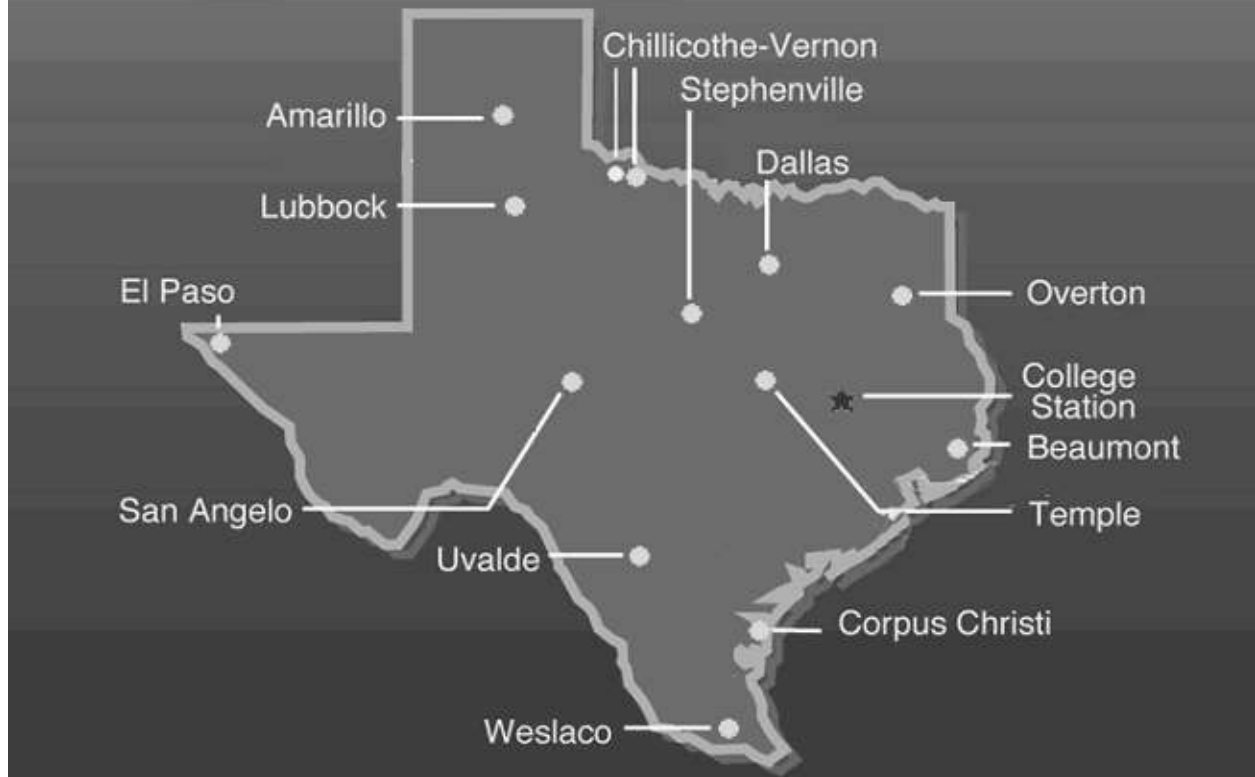


Fig. 1. Texas AgriLife Research and Extension Centers and Research Stations in Texas.