

January/February 2015 Swisher County Cotton News

Part 1: The Value & Usefulness of Texas A&M AgriLife Research Trials

I wanted to send this out prior to leaving for major stock shows. This year, Swisher County- Texas A&M AgriLife Extension will be focusing major programs on corn, sorghum, wheat, and cotton related education, with an emphasis on how soil and water relationships affect the cotton crop. Look for topics related to this issue at upcoming programs including the Hale/Swisher Crops Conference on April 14, and the Swisher County Spring Ag Conference on April 21. Within this target area are many more detailed topics, which we will focus on. These topics are:

- Crop water requirements
- Soil moisture management tools and techniques
- Irrigation technologies and best management practices to improve water use efficiency
- Irrigation efficiency and economics
- Water quality impacts on production
- Tillage systems and rotations to manage soil water
- Water needs based on crop growth stage and development
- The relationship between soil type and water
- Pumping plant efficiencies
- Irrigation application equipment and systems
- Irrigation frequency for minimal water supply irrigation systems
- Salinity tolerance for cotton
- Value & usefulness of replicated research trials at the regional, district, and county levels

The Ag committee and I are excited to offer programs this year, which we feel are very hot button issues that all farmers in Swisher County face. Watch the ag newsletters in the future for timely information detailing these programs.

One thing, though, that I want to go over in this issue, is the importance of replicated research to Extension and the clientele that we serve. To better understand research trials and demonstrations, we should dive into how and why they came about.

The early history of Texas A&M AgriLife Extension Service is a blending of the history of the Cooperative extension service itself, Texas A&M University and Prairie View A&M University. The first step towards the creation of Cooperative Extension occurred in 1862 with the passing of the Morrill Land-Grant College Act. This law granted every state 30,000 acres of public land for each of its House and Senate members, with the land being used to endow land-grant colleges for the teaching of agriculture and other practical arts. This led to the Texas Legislature founding the Agricultural and Mechanical College of Texas which was funded through the Morrill Act and was Texas' first public institution of higher education.

With the land available in the West, most farmers had little incentive to adopt intensive farming methods and other advanced agricultural technologies. As with Texas A.M.C., the agricultural colleges were being criticized for not actually giving their students the training that would enable them to return to their family farms, and instead the graduates were leaving the farm life all together. For most people, however, the biggest issue was that there was no solid agricultural research on which to base the practical teaching being attempted, so to fill this need Congress passed the Hatch Experiment Station Act of 1887, which provided funding for agricultural experiment stations in each state. This led to the founding of the Texas Agricultural Experiment Station in 1887 at Texas A.M.C. This new organization was given the task of conducting research in all aspects of crop and livestock operations.

The founding of the Experiment Stations were considered a big step towards improving farming, however the Experiment Station personnel soon realized that without a way to effectively communicate their findings to farmers, all their effort was for not. While they made attempts of out-reach, the results were limited and required taking funds away from their core mission: research. In 1903, Seaman Asahel Knapp (1831-1911), a US Department of Agriculture agent, created two demonstration farms where he could show other farmers how new farming techniques and production methods could benefit them. As word of the work of Knapp and the others spread, Congress took notice. Impressed by the success, Congress passed the Smith-Lever Act on May 8, 1914, which gave states the ability to establish official extension agencies affiliated with their land-grant universities to help "extend" the research findings of the colleges and Experiment Stations in practical ways that helped the citizens in every county. Texas quickly took advantage of this new act, forming the Texas Agricultural Extension Service in June of the same year and associating it with Texas A.M.C. The Texas legislature formally accepted the provisions of the Smith-Lever Act on January 29, 1915.

So why is this historical information important? First off, it is what provides our basis for our core mission, even to this day, although much has changed in the way of farming methods and general production. As agents of Texas A&M AgriLife, we are charged with providing research based knowledge to those in the counties, with the end result of improved crops, methods, and adoption of these methods. The best thing about being involved with, or coming to a field day in which we showcase these trials and demonstrations, is knowing that we are tied to Texas A&M AgriLife Research, which employs the tops agricultural researchers in the world.

As an agent, I have been involved with many different result demonstrations in my time with Texas A&M AgriLife Extension, from figuring out the best herbicides to kill mesquite and prickly pear, to better understanding how residual herbicides should be utilized in cotton. This year will be no different as we setup a demonstration detailing how using wheat as a cover crop for cotton affects moisture uptake and plant growth and development. I look forward to planning and conducting this demonstration. I also invite any farmer in Swisher County who believes in the value of trials and demonstrations, to become a part of our team as a possible cooperator in the future.

We, at Swisher County AgriLife Extension, are dedicated to providing current information to our clientele, and are looking forward to the programs we will offer in 2015. Here's to hoping for a wet spring, and a great planting season!