

Texas Tech “tailgate”

I can now say I have been to a Red Raider “tailgate”. There was no football game or hordes of red-clad fans, but the event was hosted by one of the most energetic and gracious Red Raider Tall XIV members. Steven Akers provided luxurious tailgate accommodations where we had some elusive down time to get to know our classmates and a few non-TALL folks. The old adage that “the world is a very small place” rang true once again. During the course of the evening, I realized one of the guests I was speaking to was a relative to one of my mentors. TALL networking continues to surprise me and my circle of contacts is growing exponentially because of my 27 new friends.

The luxurious accommodations did not end with the Monday night tailgate. On Tuesday morning, we walked out of the Overton Hotel to find a Texas Tech Red Raider bus next to the curb. As we loaded the bus, our hearts soared as we realized the bus had air conditioning, heat and room for the class to spread out and enjoy the comfortable arrangements. Dr. Jim then announced that we had the same bus for the duration of the trip. We could leave our laptops, coats and other personal affects on the bus and set out to explore the Panhandle with bright eyes and empty hands. Many thanks to the TALL sponsors, supporters and alumni that ensured TALL XIV experienced as much agriculture in the Texas Panhandle that four days would allow.

PYCO Oil Mill Tour:

Once on the bus, we met our warm and charismatic host, Shelly Heinrich. Shelly ensured that we made it to our first stop on the Lubbock trail, PYCO Oil Mill, where we were greeted by the Vice President of Oil Sales, Mr. Ronnie Gilbert. PYCO is a Cottonseed Oil Mill and is the largest cottonseed cooperative serving the southern United States. Mr. Gilbert explained that, in addition to cottonseed oil, PYCO produces and supplies whole cottonseed, meals, hulls, and linters. He showed us 11 different examples of these products and I was surprised to learn all the uses for cottonseed by-products.

Cottonseed oil is used in the snack food industry as a cooking and frying oil and that a further refined cottonseed oil is used as a high quality all-purpose cooking and salad oil. Whole cottonseed can be used as a feed product for both dairy and beef cattle. Likewise, cottonseed hulls are also used for bulk in animal rations. Cottonseed meal is also produced for feeding and is utilized by the livestock and catfish industry. Linters are used to produce quality papers, mattresses, upholstery padding, yarns, and medical grade cotton products. I was surprised to learn that chemical conversion of linters contributes to products such as fingernail polish, paint, gunpowder, food casings, ice cream, plastics, and films.

This tour opened my eyes to the unlimited uses of cottonseed products. I am constantly checking the products I purchase to see if it includes cottonseed and continue to be pleasantly surprised to find the cottons seed product in my pantry.

Heinrich Brothers Farms and Drip Irrigation

We boarded the bus and made our way to Heinrich Brothers Farms' cotton field where I saw my first drip irrigation cotton field. Heinrich Brothers Farms is a family owned business that was established in 1987 and is managed by brothers Burt and Eric Heinrich with the support and help of their families, including our tour host Shelly. Looking at the operation and hearing from the family members, you can tell the business model is one of hard-work, determination and innovation.

I say innovation because of their collaboration with Diversified Sub-Surface Irrigation (DSI) and Monsanto Agronomist, Eric Best. The marriage of all their respective expertise results in an efficient, environmentally friendly farm that utilizes the best of all technologies to combat the fact that the farm on average receives 12-15 inches of average rainfall per growing season. Irrigation is critical to the operation but in an effort to minimize their impact on the Ogalla aquifer and reduce labor costs, Heinrich Brothers Farms was one of the first farms in the area to install a sub-surface drip irrigation systems. Heinrich Brothers Farms has grown to be a leader in cotton production by combining efficient irrigation and fertility practices as well as minimal land tillage.

The family is warm, gracious and a community pillar that embraces agriculture and advocates for agriculture through education and outreach. In fact, when the TALL session concluded I had a few hours to spare before my flight to Kansas City. I was in awe of the scope of the agricultural operations I had seen during the trip and I casually mentioned that I would love to see the cotton we had seen earlier in the week being harvested. Well, lesson learned...you do not mention things casually in front of my classmate, Michelle Moore. Within a couple of hours, Shelly Heinrich and Michelle Moore had me back at Heinrich Brothers Farms where I climbed onto a cotton module builder and witnessed my first module/bale of cotton form as the builder slowly moved away from the cotton. Many thanks to the Heinrich family for making my last couple of hours in the Panhandle some of the more hands-on, remarkable experiences I had during our Lubbock/Amarillo session.

Lubbock Cotton Growers Co-op Gin Tour

Our next cotton stop was Lubbock Cotton Growers Co-op Gin where we met the General Manager, Jerry Butman. Mr. Butman explained that the Gin has more than 50 producer members and is a state-of-the-art ginning facility that is configured for an hourly output of 90 bales per hour. The facility was also built for expansion and, when fully built, could produce more than 2000 bales per day. Mr. Butman walked us through the facility showing us where the cotton is stored, fed, sorted, cleaned and packed.

It was also at this stop where I met one of our local hosts and TALL alum, Koby Reed. Koby graciously interrupted his daily routine to ensure TALL XIV had the most efficient and productive experience while touring Lubbock and surrounding areas. Many thanks to Koby and all the session hosts (Shelly Heinrich, Casey Cook and Brady Mills) for sharing their time to make sure our time in Lubbock, Amarillo and surrounding areas was a success.

Llano Estacado Winery Tour

Our next stop was the Llano Estacado Winery, where we toured the facility and learned that the winery was started by a Texas Tech horticulturist and chemist who found an abandoned vineyard. The winery has grown from approximately 6,000 cases of wine in the early 80s to more than 170,000 cases of wine today. The tour ended with wine tasting that was as flavorful as the company's origins.

Tour Fiber & Biopolymer Research Institute

After leaving the winery we ventured back to the cotton tour to the Fiber and Biopolymer Research Institute, where Dr. Dean Etheridge guided us through the facility and explained how the institute strives to enhance the economic value of cotton as an industrial raw material through research. Dr. Etheridge was passionate about ensuring cotton's future as a global fiber and Texas' role in the global market.

During our visit, we observed the Biopolymer Research Lab and had the opportunity to tour the Cotton Phenomics and Spinning Labs. The Cotton Phenomics Lab provides physical testing and evaluation for fibers, yarns, and fabrics. The lab supports research and serves the testing needs of plant breeders, cotton merchants, textile manufacturers and others. The Spinning Lab contains state-of-the-art spinning equipment and is used in spinning trials and performance observation of yarn.

Overview of South Plains Agriculture

Our next stop was the Texas Tech Animal Food and Science Center where we were welcomed by Tanya Foerster with Capital Farm Credit and TAMU Agrilife and Extension Center Resident Director, Jaroy Moore who turned the floor over to the Lubbock County Extension Agent, Mark Brown. Mr. Brown provided an engaging historical sketch and overview of South Plains Agriculture and the value of that industry in the count and on the Texas Economy.

Commodity Organization Presentations

The next session was a fire drill of speakers that illustrated that Southern and High Plain commodities contribute to the local economy and also have a state-wide, national and international impact. We heard from Steve Verett, with Plains Cotton Growers, Angie Martin from Texas Corn Producers Board, Tim Lust with National Sorghum Producers, and Shelly Nut with Texas Peanut Producers Board. All speakers stressed the

importance of their individual commodities but also promoted agriculture advocacy in general and insisted that we all have a role to play in educating the public and ensuring agricultural voice are heard at all levels of government

Tour Animal Science Building “Research in Animal Agriculture”

Next, Dr. Samuel Jackson hosted our group’s tour of the Animal Science Department. Through the years, this Aggie has come to appreciate Texas Tech for its contribution to agriculture and student development. Walking past the hordes of trophies and banners lining the walls, I guess you could say “seeing is believing”. Texas Tech has a reputation to maintain and their judging arena, meat processing facility, packaging and research facilities shows the university continues to provide one of the best opportunities available for students wanting to not just earn but experience an animal science degree.

Tour Lubbock Cotton Classing Office

After leaving Texas Tech, we boarded the bus to for our last tour of the day at the USDA Lubbock Cotton Classifying Office, where we met Mr. Gerald Talkmitt. Mr. Talkmitt showed us the USDA facility while explaining the process producers use to have their cotton classified. He showed us the machinery that is used to facilitate this process and also showed us the grading standard boxes which were previously the gold standard for cotton grading.

Diamond Ethanol Plant

Early the next morning we boarded the bus for our first tour of the day of the Diamond Ethanol Plant in Levelland, Texas. We learned the plant was started in 2012 and takes sorghum to commercial grade ethanol by purchasing sorghum (mostly from area producers), grinding it into flour, mixing the grain with water and enzymes, running it through a cooking system and then fermenting the yeast for approximately 50 hours. After this, the product is distilled and it is concentrated up to a 200 proof ethanol. Gasoline is then used to denature the ethanol.

Kettner Pumpkins

After leaving the ethanol plant we boarded the bus for Muleshoe, Texas, where we had the absolute pleasure of meeting Kelly Ketner and tour his pumpkin operation. Kelly was kind enough to answer all of our questions and identify the challenges and benefits of pumpkin farming 120 acres. He explained that it takes about \$200 to seed an acre, he plants in June and the harvest is approximately 6 weeks long. He shared that pumpkins do not need a lot of water, just timely water. He went on to explain the complications and costs of humidity and fungicide. Mr. Kettner divulged that even “bad” pumpkins add value to his farm because cattle eat pumpkins and that calves can gain an average of two pounds a day when turned onto a pumpkin patch. What resonated most

about this tour was Kelly's enthusiasm and passion for his farm. His joy was infectious and we left there with extra pumpkins and appreciation for the uncomplicated farming that Kettner Pumpkins has mastered.

Tour Ag Aviation

We next took a short trip to Ag Aviation, which was established in 1976 and is a one-stop-shop for agricultural aviation and seeding and crop spraying services. The owner Fred Locke, is passionate about flying (he soloed his first plane and fourteen) and has found a niche that combines his family tradition of flying into a career serving commodity producers.

Stonegate Farms Dairy & High Plains Underground Conservation District

Our next Muleshoe stop was Stonegate Farms Dairy, where we met one of the owners, Joe Osterkamp. Joe provided a quick tour of the dairy explaining that he is currently milking over 3,000 head two times a day while raising all replacement animals for the operation. He briefly mentioned that weather, labor, and public perception are a few of the challenges Stonegate farms must address. He graciously invited us into his home where his super-wife, Camille, had converted their home into a banquet facility. We dined on delicious pulled pork sandwiches and heard from Jason Coleman with the High Plains Underground Conservation District (HPWD).

Jason explained that the HPWD was created in 1951 and its mission is to conserve, preserve, protect, prevent waste, and recharge the aquifers of the district. He provided legislative background and explained how the HPWD is navigating the complex and ambiguous statutory framework. He also provided an overview of the HPWD rules and programs that are designed to meet statutory requirements and encourage conservation and awareness.

Tour and Overview of Bamert Seed & US Representative Randy Neugebauer

We loaded the bus and headed to an Aggie owned and operated seed farm, Bamert Seed. On our bus tour of the facility we learned the farm has been family owned since 1951 and now offers over 50 varieties and species of native grasses, wildflowers, forbs, and legumes which are destined for all types of reclamation and re-vegetation projects. We learned that approximately 90% of the seed Bamert sales is produced on Bamert farms. Before departing the bus we had the honor of hearing from Congressman Randy Neugebauer, who spoke briefly about his role in D.C. and a few of his initiatives. We then exited the bus and observed where Bamert seeds are cleaned, sorted and packaged into seeds.

South Plains Compost and Cargill Cattle Feeders

Back on the bus, we headed to Cargill Cattle Feeders, and for time saving we took a drive-by tour of South Plains Compost (SPC) on the way. Our classmate, Steven Akers,

explained that South Plains Compost, Inc. contracts with area producers. In fact, Steven showed us one of the South Plains Compost facilities and equipment on Cargill property which allows the company to efficiently utilize the material from Cargill Cattle Feeders. In addition to the cattle manure compost, SPC, produces a variety of other composts that include material such as cotton burrs and chicken manure.

While we were visiting Cargill's property we had the opportunity to take a driving tour of Cargill Cattle Feeders where we were introduced to Cattle and Yard Manager, Meredith McGowan, and Feed Manager, Nathan Reeves. We learned that the facility has a capacity of 60,000 head and that each pen can hold 260 head each. The end weight goal for the cattle is 725 pounds. The operation feeds 1.4 million pounds of feed each day, which is 130,000 pounds every 30 minutes. For carcasses, the goal is that 50% of the cattle carcasses grade choice. Cargill Cattle Feeders employs 45 employees who oversee and manage the operation and considers safety of its employees the number one priority.

Sweet Bran-Bovina

Our next stop was Cargill's Sweet Bran-Bovina feed production facility where Sweet Bran and Ramp is produced. Our host and Bovine Production Team Lead, Ethan Peterson, shared that Sweet Bran is a product that drives consistent and greater energy intake for cattle and, being a green-colored product, an unintended benefit is the ability of producers to immediately identify an animal not consuming the product based on the color of its' muzzle.

An unmeasurable benefit of TALL is that the program is a travelling conference that allows members to not just hear about agriculture but also see it in motion. At Sweet-Bran, we had another one of those seeing is believing moments when we observed the rail receiving and delivery system. After our classmate, Leah Wilkinson, hit the start button, we observed a rail car that was resting on the tracks, be lifted, twisted, turned upside down and emptied without being disconnected from the others cars. That was one of the many highlights of visiting Sweet-Bran and learning the efficiency in which the facility is ran to ensure the continuity of feeding cattle across the nation.

Wilbur-Ellis

Departing Cargill Cattle Feeders, we headed to Wilbur-Ellis in Hereford, Texas. At Wilbur-Ellis we sat on the back of a flat-bed truck, enjoyed a hamburger and some cold beverages and learned about "The Impact of Ag on Deaf Smith County, and the Impact of Deaf Smith County on the State of Texas" from County Extension Agent, Mr. Rich Auckerman. We also had an impromptu tour of Wilbur-Ellis chemical and fertilizer

facility. It was a beautiful evening spent under the North Texas stars meeting and hearing from local and surrounding area agriculture leaders.

West Texas A&M University

On Thursday, we started our day with a stop at West Texas A&M University (WTAMU). At WTAMU, we were welcomed by Dr. Don Topliff, the Dean of the College of Agriculture, Science and Engineering. The enthusiasm and pride Dr. Topliff held for his university and staff was evident in the way he quickly turned the table over to Dr. Ty Lawrence. Dr. Lawrence identified and was part of the team that cloned after-death prime, yield grade 1, steer and cow carcasses. Prime, yield grade 1 is the highest grade and most sought after animal in the beef industry. Dr. Lawrence provided an overview of the project and let us know that in March of 2015, the success of that project can start to be evaluated when offspring of the clones can be evaluated to determine if they are in fact similar in quality to the high-grade carcasses from which they originated.

While at WTAMU, we were honored with the opportunity to hear from Representative Four Price, who spoke about the upcoming legislative session and went into detail about how water is a Panhandle and state issue and identified this as one of the many issues he planned to tackle during the 2015 legislative session.

We next heard from a friend and colleague, Brandon Gunn, with the Texas Pork Producers Association who gave us an overview of the swine industry and TPPA organization. Brandon also explained that the past year has been a challenging year for the pork industry because of the outbreak of the PED virus that is estimated to have killed more than eight million hogs. Despite this challenge, Brandon explained innovative approaches the association is taking to increase the consumption of pork. One that caught my attention was cooking presentations and events such as "swine and wine".

Our last speaker was Shandi Leavitt who is a WTAMU student that participated in the Texas/Poland Young Farmer Exchange Program and shared pictures and stories of her time in Poland.

Timber Creek Veterinary Hospital/Viagen: Gregg Veneklasen

After leaving WTAMU, we visited Timber Creek Veterinary Hospital and met Dr. Gregg Veneklasen and learned about the nearly-unbelievable work he is accomplishing in reproduction and cloning. We toured his facility where we saw clones of champion racing, bucking and jumping horses. We observed first-hand what a person can accomplish when he continues to ask questions and pushes the envelope of his expertise.

We heard how certain genes could be "turned off". We also heard first-hand how Dr. Veneklasen worked to clone some of the first "after-death" clones. Included in this list of

accomplishments, are two formerly prime carcasses that, because of “after-death” cloning, are now live animals known as Alpha and Gamma. I am looking forward to the day that I see more of Dr. Veneklasen’s work in action, especially the WTAMU partnership to produce prime beef from the offspring of Alpha and Gamma.

Tour Xcel Energy

After leaving Dr. Veneklasen clinic, we visited Xcel Energy, a major US electricity and natural gas company with regulated operations in eight Western and Midwestern states. Xcel Energy provides a variety of energy related products and services to more than three million customers. For several years, Xcel Energy has been the nation’s number one power provider because its service area overlays some of the best wind-producing regions. After hearing about traditional energy sources and more innovative energy approaches, my group toured the facility under guidance and expertise of the market manager, Chris Dierker.

High Plains Food Bank

After lunch, we visited the High Plains Food Bank (HPFB) where we heard from Broc Carter, who is the Director of Communications. HPFB is a non-profit organization that collects and distributes donated, surplus food to agencies in the Texas Panhandle that covers over 30,000 square miles. HPFB distributes on average over 650,000 pounds of food each month. In addition to the traditional donations, we toured the garden where fresh vegetables are cultivated to help those in need and also demonstrates how to grow food in your backyard. We also observed HPFB’s Kid’s Café where 1,000 meals are sent to various locations around Amarillo. During the tour, I was surprised to learn that summer is the time of year when HPFB and other food banks are in most need for donations.

Round Table Discussion – Senator Cornyn

After our visit to HPFB, we travelled to Western Equipment where we had the opportunity to meet Senator John Cornyn and also observe a round table discussion between the Senator and local and state agricultural leaders representing all facets of the agriculture industry. It was an honor to observe the exchange and hear first-hand how labor costs, immigration, transportation costs are all concerns and issues affecting animal and plant producers across the state.

Sharyland Update

After the round table discussion, we heard an update from Sherry Kunka regarding Sharyland, Utilities, LP CREZ lines. Sharyland is a public utilities company that was approved to build transmission lines to carry energy generated for the Texas Panhandle and South Plains wind to Dallas, Austin, San Antonio and other major markets. The project is part of the Competitive Renewable Energy Zone (CREZ) process and

Sharlyand was selected by the Texas Public Utility Commission to construct the CREZ facilities in the region.

Tour Caviness Beef Packers

Our first stop Friday morning was a tour of Caviness Beef Packers. Caviness was formed in 1962 and is now ran by second and third generations of the family. One of those family members, Trevor Caviness, guided us through the most modern, state-of-the-art harvest facility. The new facility is the largest harvest facility in Texas and now includes rendering and hide operations. We learned that a majority of the hides are sent to Asian markets for use in the automobile industry.

We also learned that Caviness highest priority is food safety. As we toured the facility, Trevor pointed out the number of tests and inspections conducted by Caviness that exceed the government mandated testing. He also showed us the computerized program that guides the entire process from live cattle receiving to final boxed product shipment. At one point in the tour, he stopped to show us where products are x-rayed which is just another step if verifying the safety and quality of Caviness meat products.

After the tour, we had the opportunity to meet and have a question and answer session with Trevor, his father, Terry and his brother Reagan. The team openly fielded every question thrown their way. This included questions regarding cattle procurement, food safety, employment issues, and animal identification and welfare. We also learned during this process about Caviness' efforts to add value and how their products are marketed nationally, internationally and even have a significant amount of product that is used for ground beef in USDA's federal school lunch program.

Tour Scott Seed

After leaving Caviness, we travelled to and ended our Lubbock/Amarillo session with a tour and presentation at Scott Seed in Hereford, Texas. Here we met and heard from owners, Coby and Chad Kriegshauser, and Plant Biologist, Chuck Cielencki. Scott Seed Company is a family owned business that was started in 1946 that produces seeds at its nurseries in Texas and Cost Rica. They grow varieties of sorghum, hybrid forages, millets, small grains and hard red winter wheat, rye and tricale. The company releases new hybrids each year and ship their seeds worldwide. After hearing about the company and handling some of the sorghum varieties, we toured the facility where we observed seeds being cleaned, sorted and packaged all under one roof.

While at Scott Seed, we enjoyed some wonderful BBQ, beans and potato salad. The North Texas hospitality cannot be beat.

Overall Impression:

The Lubbock/Amarillo Session was titled “Producers, Production, Progress” and after visiting the communities, hearing from the producers and observing the commitment to agriculture it is easy to see why. Agriculture is not just a way of life in this region, it is the sustaining thread for many of the communities in the area. Because agriculture plays such a critical role, the progress that has been made in resource and land use is not a mere convenience or coincidence. It is necessary to support the local economies and, as such, communities welcome, encourage and support, through private and public partnerships, remarkable plant and animal research and development.

Thank you to all the producers, speakers, supporters and sponsors that welcomed us into their homes, farms, ranches and communities. We have a lot to be proud of in Texas, and Texas Panhandle and High Plains Agriculture is one of the things that can top that list.