

Amanda Dyer (#4)
TALL Class XII – Session #2
Amarillo & Lubbock Areas
Oct. 26-29, 2010

Over the years, some of the most hard working and friendliest people I have met are from the Panhandle so I was really looking forward to this trip. It came as no surprise, that we were met with the kind, generous hospitality I had expected on this trip.

Tuesday Oct. 26, 2010
Texas Tech Animal Science Department

**Welcome – Clint Robinson, Capital Farm Credit President and Miles Dabovich,
Agrilife Extension Agent**

Upon arriving at the Texas Tech campus, we were welcomed by Clint Robinson, TALL Class VIII. Clint provided us with a comprehensive overview of our South Plains trip and we were fortunate enough to have him accompany us until Wednesday evening. Clint did an incredible job of directing our group and organizing the various stops and accommodations. The class is so grateful for the tireless effort Clint put into making our South Plains trip such a success.

Next we were welcomed by Miles Dabovich who serves as a Texas Agrilife Extension Agent on the South Plains. He gave us a brief overview of the extension on the plains and provided us with information on the cotton industry, so that we would be prepared for the sessions that followed.

Ag in the Bag – Tanya Foerster

The session officially began with our own Tanya Foerster, who has dedicated much of her time and resources to the Texas Agrilife Extension Service in Lubbock. Tanya has been instrumental in the development and success of the Ag in the Bag program held on the Texas Tech Animal Science campus. The Ag in the Bag is an agricultural education program directed at 4th graders in the area. It is held at Texas Tech's Animal Science campus. They have had ~1,500 students attend the program over the past three years. The goal is to educate these young people on the importance of agriculture and make them aware of where their food and clothing is derived. This is especially important in this day and age as the rural communities get smaller and it is harder for this generation to reach back and touch the farm. This program serves as a great model for others to duplicate and implement throughout the state.

CEA Agriculture – Mark Brown

Mr. Brown was up next to give us an overview of the South Plains agriculture sector. I learned many interesting facts that I had not known prior to that day. For instance, there is evidence of prehistoric human inhabitation of the area 12,000 years ago. Zebulon Pike was one of the first explorers to discover the area. The area was seen as a wasteland until

the windmill was developed after 1900 and farming began to develop in the area. Much of the area's water is supplied by the Ogallala aquifer and the 20,000 playa lakes. Water rights and preservation is becoming a big concern in the area and was a concern we heard throughout the trip.

Tour of Animal Science Department & Meat Lab

Dr. Jackson gave us a tour of the Animal Science Department next. The new facility was built in 2004. Tech is known for the quality of students in their animal science department. Tech has won the last three livestock judging contests and has banners throughout the building showcasing the various judging competition wins. The Texas Tech meat lab places its focus on a palatable, quality product. They focus on managing genetics and looking at the total picture. The department has a cutting facility and a fabrication area. They market some of their meat under Red River Meats. Products include bacon, sausage (including blueberry flavored) and steaks. One of the outlets for these products is Cowamungus, the retail store located in the animal science building. Cowamungus serves as a lunch gathering spot for students and provides a place for students and non students to purchase quality meat products as well as ice cream and custard.

High Plains Cotton - Steve Verrett

Mr. Verrett gave us an overview of Plains Cotton Growers. It is a voluntary non -profit organization that serves as a watchdog and promoter for cotton producers. It provides services in the area of communication, education, advocacy and individual attention (i.e. crop insurance & government directed programs). Plains Cotton Growers serves as a regional organization within the national cotton council. The organization contributes ~\$100,000 every year toward international promotion. Funds are also applied toward research. Support comes from participating gins; they have a voluntary dues structure. In 2009, they collected on 91% of the cotton grown in the area, which speaks volumes of just how valuable the organization is to the cotton supply chain. Each member gin pays 25 cents per bale. The organization has a budget of \$750-\$800K to work with each year.

Mr. Verrett also gave us some interesting facts about the industry. The high plains area supplies about 69% of the total Texas cotton production and 25% of the U.S. cotton production. In 2010, they saw their largest cotton crop ever of 8.8 million bushels.

As a commodity trader, it has been interesting to watch the wild ride in cotton prices. I asked Mr. Verrett to comment on whether he felt these prices were warranted and what he attributed to the massive move. He did not feel that the move was entirely warranted but there are supply and demand fundamentals that are pushing prices higher. There have been reduced plantings in the U.S. since 2007 and reduced planting around the world. During this time of reduction in plantings, China and India have seen a large increase in demand due to the growth of their middle class and the GDP growth in those countries of 8-9%. As I write this several days later, cotton continues to climb higher. It has been helpful to me to put the fundamental data given by Mr. Verrett with the technical data we observe in the office.

Texas Corn Producers Board – David Gibson

Mr. Gibson spoke to us next about the Texas Corn Producers Board which oversees the checkoff program for corn. It was started in 1980 and strictly represents growers. \$0.05 per bushel goes to the checkoff program. The corn industry is a \$1.2 billion industry to the Texas economy. Texas ranks 12th in U.S. corn production and produces about 255 million bushels per year. The state average is 125 bushels per acre, but the high plains sees 200-240 bushels per acre. About 90% of Texas corn is used for feed and Texas is actually a corn importer. Mr. Gibson maintained that the corn carryover has remained constant even in the wake of increased Ethanol usage. A key issue facing the corn industry right now is the increase in mycotoxins. Mr. Gibson pointed out that Texas is more regulated than any other state in the area of mycotoxins and extensive research is being conducted on the subject. It is estimated that aflatoxin accounts for \$200 million in losses each year for the corn industry, so there is incentive to see these molds reduced. Like many producers throughout the state, corn producers are also dealing with state water issues. Research is being conducted on drought resistant corn. Corn production has actually doubled over the past 20 years and this is expected to increase going forward with the advent of new technology and improvements in selection, all while using less precious resources.

National Sorghum Producers, Lindsay Kennedy & Texas Grain Sorghum Producers, Morgan Newsom

Lindsay from the National Sorghum Check-off then talked to us about a crop I personally did not know much about. The Sorghum check-off is monitored by the USDA. Texas used to have its own checkoff until the national checkoff was formed. Twenty five percent of the dollars sent to national comes back to Texas. Six tenths of one percent of the net sales of sorghum goes to the checkoff. The checkoff aids producers through research, promotion and education. Texas is the #2 producer (Kansas is #1). Sorghum is gaining interest in the consumer sector because it is gluten free. An increase in the discovery of gluten sensitivity or gluten intolerance (Celiac Disease) in the population has led many people to look for a wheat flour substitute in sorghum. Sorghum is used in many gluten free baking flours and snack products. Morgan, from the Texas Grain Sorghum Producers also spoke to us about the work she is doing in producer relations for the crop. Some of the information that they are targeting is that sorghum is drought tolerant, much more so than corn. The protein content is very similar to corn and is being used more and more in feed rations. It will be interesting to see how this crop gains more popularity going forward as corn and wheat prices increase and more people choose to go gluten free.

Texas Peanut Producers Board – Shelly Nut

Shelly Nut gave us a great brief overview of the peanut industry, another industry I was not very well versed on. One hundred and sixty thousand acres of Texas soil are dedicated to the peanut industry. In many areas, peanuts are rotated with cotton to put

nitrogen back into the soil. There are four varieties of peanuts: Virginia, Runner, Spanish and Valencia. Texas is the only state that can grow all four. Peanut butter comes from the Runner peanut. Texas is the #2 producer behind Georgia.

Southwest Council of Agribusiness – Jimmy Clark

The Southwest Council of Agribusiness is a marriage of various agribusiness sectors. It is made up of 14 different non-profits and ~100 members. Its mission is to promote strong agriculture policy. Agriculture's share of federal spending is one half of one percent. Of this 52% goes to food stamps, 21% to child nutrition, 7% to conservation, 10% to commodity programs, 6% to commodity insurance and 4% to other. Over 40% of the Agricultural Committee is made up of members representing food and nutrition. In 1790 farmers made up 90% of the workforce, in 1900 it was 41%, in 2009, it was less than 3%. Clearly the agriculture sector has a quieter voice than it used to and I think we have all seen the effects of this over the years. Now more than ever, it is important that we have organizations such as the Southwest Council of Agribusiness to build awareness and be up to speed on key issues in Washington. Mr. Clark encouraged us to check out www.farmpolicyfacts.org, which targets members of congress and their staff. It is a valuable resource that has a policy library summarizing each section of the farm bill and it also has links to more resources and farm policy.

USDA Cropping Systems Research Lab – Dr. John Burke & Dr. Paxton Payton

We were able to spend some very interesting time with Dr. Burke and Dr. Payton in the research lab. They spoke to us about some of the headway they are making in developing more drought resistant crops and discovering optimum growth conditions. The science behind all of it was truly mind boggling. They have spent countless hours perfecting their research and are working with farmers in the area to test these new crops and growing methods. With the water concerns in the Panhandle, this type of research could be instrumental in solving some of the water usage issues.

American Cotton Growers (Denim Mill) – Larry Lundberg, Michael Sierra, Chip Higgins, John Johnson

I can't think of a better transition from a cotton gin than to a denim mill. American Cotton Growers is a farmer owned textile mill. It has 25,000 stockholders and 8-10,000 active farmers. It is the largest cotton handler in the U.S. The mill has the capacity to make 24-26 million pairs of jeans / yr. They have their own brand of jeans that can be purchased at safedenim.com. About a year ago they purchased an operation in Guatemala that manufactures high fashion jeans for brands such as Abercrombie, Hollister, Guess and Lucky. We learned that there are actually only about 2 pounds of cotton used in each pair of jeans, which amounts to ~\$2.00/ pair. After our overview in the meeting room, we were split into groups and given a tour of the mill. It was fascinating to see the entire process from start to finish. We began in the area that had the actual bales of cotton and then were able to walk through every step of the process until the denim was on large spools ready to be shipped where the jeans would actually

be constructed. This was an eye opening tour and it was encouraging to see a farmer owned and operated company providing so many jobs throughout the community and ultimately sending their product throughout the world.

Cotton Gin - Dan & Linda Taylor

Bayer Crop Science - Mike Gilbert

We were ushered out of the hotel bright and early on Wednesday to head to Ropesville, TX. We were greeted by Mr. Dan Taylor, by far the most passionate cotton farmer I have ever met. So passionate in fact that he has his very own cotton museum complete with equipment that dates back to the 1800s. The museum sits just adjacent to his house and captures much of the history of this important crop. It was a one of a kind opportunity to get to hear Mr. Taylor talk about the various pieces and their history. It was interesting to hear that when he was younger he said he wasn't going to have anything to do with farming or cotton, but alas he came back to his roots and just recently won the Distinguished Farmer Award. After visiting the museum, we were then fed a mouthwatering chuckwagon breakfast so kindly prepared by our lovely hosts.

While we ate, we were able to hear from Mike Gilbert of Bayer Crop Science. Bayer Crop Science started in 1999 in Lubbock because of the area's poor quality and yields of the cotton crop. Bayer sells three brands of cotton seed around the world. Within 10 years, Bayer became the number one seed business by share globally. Yields in the area have doubled. China requests the Fibermax brand by name. The company has seen tremendous growth and continues to make advancements. They are currently working on a gene for drought resistance which should increase their market share even more.

We tore ourselves from the breakfast tables to go visit the Taylor's state of the art cotton gin just down the road. The cotton gin was an impressive operation. We were told that 2 machines can now do what it used to take 500 people to do. The gin runs 24 hours a day, 7 days a week. They have two twelve hour shifts and even have living quarters at the gin for their employees. The cotton is in the gin less than 1 minute from the time it enters. Each part of the plant is used. The cotton seed is mainly sold for feed (70% crude protein). The "trash" is used in paper, mattresses, upholstery and printed money and some is sold to composts. The gin's busiest season is from October to January. The gin has grown from small beginnings of processing 1,600 bales to now processing 160,000 bales. The High Plains area has surpassed any other growing area in the U.S. Six million bales come from the High Plains area out of the 18 million bales in the U.S.

I feel fortunate to have had the opportunity to see the Taylor's operation. I think we all can take back some valuable lessons from this particular visit. First of all passion is important, which I think we all have. But along with being passionate about the industry, we must be open to changing along with technology (as Dan and his wife have illustrated over the years) and run our operations as efficiently as possible.

Legacy Dairy – Brent & Brandon Bouma

Next we had the opportunity to visit a family run dairy in Plainview. Legacy Dairies is owned and managed by the Bouma family. They have been in the dairy business for several years and have their management practices down to an art. We were welcomed at the main office where we were able to try a new product that is being introduced to the market called Honey Milk. The Honey Milk product is served in 12oz plastic bottles and comes in chocolate, vanilla, honey & coffee flavors. It is marketed toward athletes and is sweetened with honey rather than sugar or other processed sweeteners. They are currently working to get the product in stores, but until then orders are being taken online at www.honymilk.com.

Next we were taken to the milking facility. Cows walk into the facility in a single file line and are tracked by collars with an rfd tag at the milking stalls. Through those tags, Legacy can keep track of how much each cow milks every day and can monitor for any changes in output. There are 160 stalls. Legacy milks about 900 cows/hr or 6,000 cows/day. Cows are milked 2-3 times/day. Each cow produces about 74 pounds of milk per day on average. The milk is sent through pipes to a lower level and is cooled down to 34-35 degrees in less than a minute. The trucks hauling the milk do not actually have a cooling mechanism but are insulated and the temperature only drops 1 degree every 24 hours.

Legacy takes precautions to make sure that the cows are calm and treated well. If an employee is caught yelling at or abusing a cow, they are fired on the spot. Having had an in depth look at the operation, I can honestly say that the cows were content (evidenced by their cud chewing) and well cared for. If a cow does come up sick, they are taken to the infirmary wing, where they are treated with antibiotics if necessary. This milk never enters the supply chain, but is instead pasteurized and given to the newborn calves to fulfill their colostrum requirements. Fifteen to twenty cows calve per day. Calves are taken off the dam right away and are given colostrum. There are 900 hutches on site (much like very oversized dog houses with a fenced area outside attached) that house the calves for 70 days. They are fed milk with 15% solids and are given free choice grain and water.

The dairy also has a commodity barn on site where they mix feed. They have software that formulates rations for optimum production for the various groups of cows. They have their feeding practices down to a science and having the mixing components on site helps streamline and make the entire process more efficient.

I think anyone that takes issues with dairies and questions their practices should make a visit to Legacy Dairies. I think it would put any misconceived notions and fears at rest. The cattle were well treated, were in an incredibly clean, quiet facility and had plenty of pen space, food and water. During a time when many dairies are struggling because of price volatility, Legacy has had top of the line management at the helm and has done an impressive job of weathering the storm and setting a standard throughout the industry.

Dinner – Mark Marley, Production Plus**Texas Alliance for Groundwater Conservation – Rick Kellison**

Mr. Marley is a big supporter of the TALL program and was kind enough to have all of us over to his house for a wonderful fajita dinner. We were wowed by the hospitality, and those of us that used to show cattle may have actually drooled more over the banners and trophies displayed from recent livestock shows than the food. Mr. Marley has shown that he strives to be the best at what he does whether it be his business or his family's ag projects. He is a testament of hard work, dedication and passion and has built up a successful business over the years. We are grateful for the opportunity we had to visit his home.

After dinner, Mr. Kellison spoke to us about groundwater conservation. Mr. Kellison is the project director for the Texas Alliance for Groundwater Conservation. The project is demonstrating irrigation delivery systems on 26 farms and ranches. Results so far have shown a reduction in water usage and an increase in production. The research being done shows promise and more and more work will be done in this area as it is rapidly becoming a bigger concern.

Thursday, October 28, 2010**White Energy Ethanol Plant****Mr. Dick Holland, Quality Distiller Grains**

Mr. Holland of Quality Distiller Grains gave us a tour of White Energy Ethanol Plant. The facility produces 108 million gallons of ethanol per year. The plant grinds 100,000 bushels of grain per day. Corn for the plant is brought over by trains from the Midwest. The corn belongs to Archer Daniels Midland until the corn goes into the grain tank at which point, White Energy takes ownership of the grain. Each bushel of corn amounts to 1/3 ethanol, 1/3 byproduct and 1/3 CO₂. The plant operates 24 hours a day, 7 days a week and is run by 40 employees. They produce 200 proof ethanol. They must then blend 3-5% low grade gasoline in order for the alcohol tax to go away. For the distillers grain, 33% dry matter is the goal and 31% protein on a dry matter basis. The distillers grain has 10-11% fat. Eighty five percent of the product is sold on a delivered basis. The plant uses 15% sorghum and milo. The vast majority of the ethanol produced at White Energy goes to California. This was an interesting visit given the recent spike in corn prices and news surrounding the increase in Ethanol requirements to 15%. Mr. Holland diplomatically answered questions from the livestock producers and left the group with the message that like it or not, Ethanol is here to stay and we need to adapt our practices rather than try to shoot holes in the process.

Caviness Packing – Hereford, TX – Terry, Trevor & Reagan Caviness

We were fortunate enough to have Mr. Terry Caviness and his two sons, Trevor and Reagan speak to our group as well as provide us with a tour of their impressive facility. Caviness packing was started by Terry's father in 1962. Caviness Packing has developed a niche market in the area of harvesting dairy cows and beef cows & bulls. Most of the

beef cows harvested are 8-13 years old, the dairy cows are 5-6 years old and the bulls are 5-7 years old. They harvest six days a week--1,500 head per day on average (180 per hour)-- and receive cattle 24 hours / 7 days a week. They purchase cattle from within a 500 mile radius including NM, AZ, CO, WY, UT, AR, OK & TX. More than half of the cattle are purchased directly from the ranch; the remainder are purchased from livestock auctions. The facility they currently occupy was built 5 years ago after the family made a decision to expand the size of their operation. This new facility includes a fabrication plant, and just within the past year a hide curing and rendering division was added. They also have a ground beef plant in Amarillo where 1 millions pounds of beef per week goes to federal school lunch program. Some of Caviness' buyers include McDonalds, Arby's, Taco Bell, Burger King, In & Out Burger and Cysco. A good part of the beef cuts from the Caviness plant go to Hispanic & Asian markets. Because most of the cattle are purchased directly from ranches, they are naturally grassfed and Caviness is able to capitalize on this by marketing some of their beef through a grassfed beef label.

Food safety is what drives their operation. Caviness employs 650 people of which 45 are solely dedicated to quality assurance to ensure the safety of the beef. They perform about 100 tests per day to test for microorganisms and there are 5 interventions within the process to kill any pathogens that may exist.

They stress the importance of animal welfare to their suppliers as well as to their employees. The facility is designed to minimize stress of the cattle and suppliers are docked if there are any substantial bruises on the animals.

In addition to the responsibility they show in food safety and the humane treatment of the cattle harvested in the plant, Caviness also takes special care to be a good steward of the environment and utilize any byproducts. The water in the plant is sent to lagoons and then used to water farmland through center pivot sprinklers. The cattle byproducts are sent to the rendering plant where they are processed to be used in pet food and various other products. The majority of the hides are sent to Asian markets for further processing and use in the production of leather goods.

One of main issues facing Caviness right now is the legislation currently proposed by the Grain Inspection Packers & Stockyards Association (GIPSA). They explained that the proposed GIPSA legislation would eliminate a packer's ability to package their own product or capture a premium on niche marketed cattle such as Certified Angus Beef. Several producers have spent years perfecting their genetics to provide consumers with a product they desire and this would basically put everyone on the same playing field treating beef as a true commodity and ignoring any value added through various breeding, feeding and marketing programs.

Visiting the Caviness plant gave me increased confidence in the safety of our Nation's beef supply. The Caviness family has built an empire in this niche market through hard work and determination and by staying above reproach when it comes to food safety issues.

Economic Development Corporation lunch, Sheila Quirk

Sheila Quirk, Executive Director of the Hereford Economic Development Corporation, was a sponsor and speaker at our lunch in Hereford. Sheila is responsible for economic development in Deaf Smith County and works directly with the Hereford ISD and Amarillo College on job training opportunities and programs to grow a workforce within their own population. Two challenges she mentioned in the area where rural population growth decline and location. However, she believes that with the wind and solar power ventures, Hereford can become the alternative energy capitol of the world. Sheila has worked on numerous community building projects in the area and has been instrumental in the funding of various projects in Hereford. I think we were all humbled by the amount of work she has put into her community and are thankful that we now have a veteran resource to contact for help in establishing similar programs in our own community.

Champion Feeders – Kevin Buse

The feedlot has six owners who are involved in the operating decisions. The majority of their cattle are forward bought and sent to Safeway. They are a custom feeder and employ 50 people; they try to have .7 people per 1,000 head of cattle. They grow their own sorghum silage and feed it in the ration. It was easy to observe that this feedlot is a world class operation by the quality of the cattle and the cleanliness of the pens. One of the most interesting parts about the trip was when Buse told us about the cattle that come over from the Parker Ranch in Hawaii. The cattle are flown into LAX on a 747 and then trucked to Champion Feeders.

Buse also brought up the GIPSA rule and defined it as an attack on value added marketing. One quote he used was “It took this yearling 20 months to make this ribeye and 20 mins for you to screw it up.” He talked with conviction about how people in this industry have researched the consumer, figured out what they want and have catered to their needs; as such they are paid a premium and GIPSA is trying to destroy any competitive advantage a company has regardless of whether a consumer perceives value or not. It is truly an important time for cattle producers to speak up on this issue because it has the potential to completely change the industry... and according to most people it is not for the better.

Wildorado Wind Farm – Judge Donnie Allred

We had the honor of having Judge Allred of Oldham county guide our drive-by tour of the Wildorado Wind Farm, the largest producing windfarm in the nation. The area we drove through held a 160 watt wind farm; it generates enough electricity to furnish 20,000 homes. Each fan is 150 feet long. It is 280 meters to the top. The top part is about the size of a bus. Each base requires 300 yards of cement. Judge Allred actually encouraged us to get out of the bus and hear how quiet the generators were, and they were indeed not loud at all. He mentioned that some people in the area were concerned that it would cut down on the deer population; as irony would have it, 2 massive bucks ran past the bus just a couple of minutes later. The windfarm has been a great tax

structure for the county and has contributed considerably to community improvement. The tax value for each turbine is \$1.5 million. This was a great tour and really gave me a more informed view of the industry and made me want to do further research on the projects and transmission lines as it is becoming a prominent industry in Texas.

Country Barn Restaurant – Chris Virden

The owner of Country Barn Restaurant, Chris Virden, was nice enough to show us around his historic restaurant. The restaurant has been in operation since 1962. The building we were in was built in 2005 and Chris took over the restaurant in 2007. The restaurant has 112 employees. Country Barn serves Bonsmara Natural Beef. The Bonsmara Beef Company claims that their beef is more tender than commodity choice and select as well as upper 2/3 choice angus beef based on studies conducted. In a ribeye study, the Bonsmara 8oz ribeye had 48 calories and a USDA choice ribeye had 169 calories. The steaks sell well at the restaurant and he is helping the breed gain recognition. We weren't able to try the steaks, but we were given a tour of the kitchen where they are prepared. I have a renewed respect for restaurant owners; it is a full time job 7 days a week, but Country Barn does it right.

Reception – AQHA Museum

The AQHA museum provided a beautiful backdrop for the reception in Amarillo, which was well attended by many sponsors and alumni. Dr. Galen Chandler, Regional Program Director of the Texas Agrilife Extension Service gave the group a warm welcome and opening remarks. Following Dr. Chandler, Mr. Jim Bret Campbell, Senior Director of Marketing & Publication at AQHA welcomed the evening's attendees. The class really enjoyed the opportunity to visit with the wonderful sponsors and alumni of the area.

Friday, October 29, 2010 – Amarillo, TX

Pacific Cheese Tour – Charlie Horning

Charlie Horning, Manager of Pacific Cheese, led our tour on Friday morning. The facility shreds and ships 1 million pounds of cheese per year. Right now they employ 68 people but are expecting to go to 150 people when they get another line running. Some of their clients include Taco Bell, Pizza Hut, Jack in the Box & Carl's Jr. The trucks carrying the cheese are kept at 35 degrees and carry \$55,000 worth of cheese in each truck load. With the talk of unemployment throughout the economy it was encouraging to see a successful operation that plans to expand and add new jobs in the next year.

West Texas A&M Business Incubator Center – David Terry

The business incubator is housed in a 31,000 square foot building and is set up to help entrepreneurs grow and develop their ideas. They currently work with 26 companies. They use a coach approach. The incubator does not actually provide any of the capital; the company must have capital backing before they can work with the incubator staff.

They don't currently take equity in the companies, but they are considering it through a convertible debt structure. The Economic Development Corporation provides funding through an Enterprize Challenge Grant. To date they have funded 46 companies. I found this presentation fascinating. I love hearing business success stories and I like the idea of a company developed to push these companies along. I think it is a great resource for the Panhandle area and will become a more well known concept in that area as they continue to assist viable ventures.

Childhood Obesity – Dr. Sharon Robinson

Dr. Robinson spoke to us about the alarming rate of childhood obesity and what is being done about it. It is estimated that 1 in 3 children is over weight. Dr. Robinson listed some of the points that are being stressed with parents and children. Children are being encouraged to consume 5 or more fruits and vegetables each day. Sugar beverages should be limited and television should be limited to 2 hours per day. Children should be active a minimum of one hour each day. Parents are encouraged to prepare more meals at home and to eat that the table as a family at least 5 to 6 times per week. Children should have a healthy breakfast each day. Parents are told not to make their children eat if they are not hungry as this promotes bad eating habits later in life. Dr. Robinson told us that studies have been done that show that children may have to be exposed to a food 10-12 times before they like it, so keep offering healthy options. Changes have and continue to be made to the food pyramid and school lunches are becoming healthier, but it is still an uphill battle to try to reach the parents and children that already have bad eating habits. Children should at least be eating healthy at schools and it is encouraging that strides are being made to improve the healthy choices while kids are away from home.

Harrington Regional Medical Center – Dr. Mike Callahan

Dr. Callahan spoke to us about the challenges rural areas are facing in maintaining strong rural health service. Only three percent of medical students plan to practice in rural communities and this has left many rural areas without the proper assistance they need. Dr. Callahan stressed that medical schools should make it a higher priority to accept students that want to go back to a rural area after finishing their schooling. As most of the TALL class either comes from or currently resides in a rural area, this is something we can relate to. Sooner or later more will have to be done to get good people in these smaller areas.

Texas Pork Producers – Ken Horton

Kip Thompson and I were fortunate enough to have Ken as our dinner host the previous evening. Ken is a big supporter of the TALL program and is also a big supporter of youth involved in swine projects. It was a privilege to hear him talk about the technological advances in the pork industry and to hear about the programs they have implemented with the youth to ensure strong leadership going forward in the industry.

Texas is the number 15 pig producer in the U.S. Ken spoke to us about some of the trends in the industry: there has been a decrease in the number of hog operations and a decrease in the breeding herd, yet increased litters per sow and increased pounds of lean pork per head. There has been an increase in the pigs saved per litter (not as many are crushed by sows or die from sunburn or fire ants). Exports have gone up dramatically in recent years, much of that due to China's demand increase during the 2008 Olympics. The pork industry is currently facing several of the same issues the cattle industry is facing. The biggest challenges are feed costs, labor availability, transportation costs, public policy and public perception. Unfortunately these issues are not going to go away but hog producers can feel confident that the current leadership at the Texas Pork Producers Association will be doing everything they can to protect the industry and ensure that it remains on the cutting edge of technology and management practices.

Panhandle Groundwater Conservation District – Mr. C.E. Williams

Groundwater sustainability was a concern we heard voiced over and over during our 4 day trip. It seemed fitting that our last meeting was with the Panhandle Groundwater Conservation District's General Manager. The Panhandle Groundwater Conservation District serves to develop and implement water conservation strategies throughout several counties in the panhandle. The district contains two of the major aquifers, the Ogallala and the Seymour, whose levels have been declining at an alarming rate over recent years. PGCD offers educational programs and services to get the message out about saving water. Additionally they monitor and measure water usage and levels throughout the area. Texas faces a real threat when it comes to water supply and it is imperative that the population start to conserve and monitor this precious resource so that it will be available for future generations.

Summary

I can honestly say that I was thoroughly impressed with every stop we made. The panhandle has diverse set of agricultural entities that have set standards around the world in production and management methods. The science and technology that is coming out of the panhandle area is truly mind boggling. It was fascinating to hear about the changes that have taken place just within the past 10 years and to hear about the products and processes that are currently being researched. I think the panhandle can attribute this progress and success to the passion and perseverance of its agriculturalists in the area. It was such a privilege to get to see so many successful family run operations, and to see and hear the determination and excitement all of our speakers and sponsors exhibited about their particular part of the industry.

Marsha Moss (#14)
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October 26, 2010 - Tuesday

Ag-in-the-Bag Program

Tanya Forester is a Class XII member and is also a proud participant in the Lubbock Chamber of Commerce-Ag Committee. Tanya explained how the Ag Committee developed this program for students around the Lubbock area. This program is similar to others that I have heard about throughout the state, but have not been fortunate to see the program in action. The class took a tour around the eight different stations, which educates over 1,500 students each year about agriculture. I especially liked seeing the demonstrations. One such demonstration was showing how water erosion occurs on different soil types. This is an excellent program that stresses the importance of agriculture and where their food comes from.

Session 2/Lubbock Welcome & Introductions

The TALL XII class was welcomed by Mr. Clint Robinson, Miles Dabovich and Mark Brown. Each gave their introductions to the South Plains of Texas. Both Mr. Robinson and Dabovich were the two key planners for the Lubbock tours. They both spent lots of time working to ensure the Lubbock program was a success. Mr. Brown gave a quick presentation about the history of the area and explained that many early explorers had basically determined the area uninhabitable until early 1800 when farming and ranching began in the region. The agriculture impact from this area in 2009 was \$3.67 billion, which accounts for approximately 20% of the statewide figures. It was interesting to also see that the 34% of the total Ag value was classified as "all other" (agriculture related businesses).

TTU Animal Science Building Tour – "Research in Animal Agriculture"

Ms. Leslie Thompson, along with Dr. Sam Jackson, gave the class a tour of their Animal and Food Sciences building. Dr. Thompson briefly discussed the growth in the department to approximately 400 undergraduate students, which she somewhat attributes to the new building. The tour consisted of the research/laboratory facilities, meat processing area and classrooms. The building provides undergraduate and graduate students with the necessary research facilities to work on important projects that can change agriculture. The department is known for excellence in the collegiate judging competitions and in various fields of research. As a graduate of the Animal and Food Sciences program, I was extremely proud of the new facility and might I say even jealous of the current students.

Commodity Organization Presentations

This group of presentations showed exactly how important commodities are to the Southern and High Plains of Texas. Cotton production on the High Plains accounts for approximately 68% of the cotton grown, 25% of the US production and 4% of the world's production. Another important commodity grown in Texas is corn. Corn production contributes \$1.2 billion to the Texas economy, with 90% of the corn in Texas being used for livestock production. Sorghum and peanuts are also two other commodities that account for a majority of the production in the region. Texas is the second largest producer of both sorghum and peanuts. Each commodity group indicated how their programs were working hard on the research front to ensure their commodity's sustainability with issues such as current/future water needs, disease resistance, and cold and drought tolerances. As our trip progressed, many class members from other regions were very impressed with the production in this region.

"Legislative Issues" – Southwest Council of AgriBusiness

Mr. Jimmy Clark spoke to the class about the Southwest Council of AgriBusiness. He explained that basically the council is a "marriage" of agriculture businesses, commodity and farmer interests that are merged together to create a united voice for agriculture. Agriculture's share in the federal spending is only ½ of 1%, of which 70% is food and nutrition. Mr. Clark further indicated that in 1790 farmers made up 90% of the workforce, in 1900 it decreased to 41% and most recently in 2009 made up only 3% of the workforce. Those figures alone indicate that agriculture is losing ground and stresses the importance of this TALL program to get the positive message out about agriculture. I was extremely intrigued by the two websites that were developed to target the national media to give them accurate facts about agriculture. (www.farmpolicyfacts.org and www.thehandthatfeedsus.org)

Overview/Tour of the USDA Cropping Systems Lab

Dr. John Burke provided us a quick overview of their research laboratory. The mission of the Cropping Systems Research Laboratory is to develop a fundamental, long-range research programs in plant stress and germplasm development, wind erosion, water conservation, cotton production/processing and livestock issues. From the title of the lab, I expected only work with crops. That was not true, they also provide research in air quality issues related to agricultural operations and processes in enhancing animal well-being, immunocompetence and performance. During one tour, Dr. Payton discussed his hands on approach with local farmers. Farmers have graciously allowed Dr. Payton to research different irrigation and stress situations. It was refreshing to hear that his primary goal was to make the research work under field conditions. That will allow farmers to utilize the research and apply it to their operations. Our second tour was provided by Dr. Burke. He discussed the irrigation scheduling technology, which USDA holds a patent, and how producers determine irrigation based on their crops needs are a particular given time. I was very impressed with the current research projects and believe their research can be used in the future.

Reception at Merket Alumni Center – Texas Tech University

A reception was held in our honor to welcome the TALL XII Class to the Lubbock area. I was excited to be at my old stomping ground once again. I am a proud graduate of Texas Tech University and enjoyed seeing some familiar faces in fellow classmates and professors. During the program, Dr. Gordon Davis was our Master of Ceremonies. Dr. Davis is a very generous supporter of the Texas Tech College of Agricultural Sciences and Natural Resources. He is a true advocate for agriculture. Dr. John Burns and Chancellor Kent Hance provided a warm welcome and encouraging remarks about the TALL program and the importance of agriculture. I was excited to see that Chancellor Hance recognized the importance of agriculture and the role it plays at Texas Tech University.

October 27, 2010 - Wednesday

Cotton Ginning History and Tour of Buster's Gin

Our morning started at Dan and Linda Taylor's Farm near Ropesville. Mr. Taylor provided the TALL class a tour of his antique tractors and museum. The museum is an insight into Mr. Taylor's love for cotton production and ginning business. There is a lifetime of history in one barn. Many items had very unique stories about how they were obtained or restored. After our tour, the Taylor's along with the Lions Club served us an authentic chuck wagon breakfast.

During breakfast, Mr. Mike Gilbert spoke briefly about Bayer CropScience. Mr. Gilbert discussed his impressive role in how Bayer CropScience developed their cottonseed business in a short ten year period to become #1 in Texas and #2 in the world. He explained their research enabled the producers to double yields and improve quality.

Our next stop was to Buster's Gin for a tour and presentation. The presentation consisted of a video that was made by Mr. Taylor to describe cotton production and the ginning process. As a comparison, in 1947 the gin produced 2,900 bales and in 2005 produced over 101,000 bales. Mr. Taylor explained that back in 1969 there were around 380 gins, but over the years the number of gins has drastically declined. Dan and Linda explained that their business have grown over the years by providing the ever important customer service and of course a quality product. Both are very active in cotton and other agricultural related organizations. The Taylor's have dedicated their lives to agriculture. I hope to someday return and spend some time at the museum.

Tour of the American Cotton Growers Denim Mill

I lived in Lubbock over six years and have never had the privilege to go to the denim mill. The Denim Mill is the largest mill in the US, the only farmer owned textile mill and the largest handler of US cotton. The goal of the denim mill is to provide a value added processing to the member's cotton. The facility produces approximately 730,000 yards a week and approximately 26 million jeans annually.

The class was split up and given a tour. The mill was an intriguing process that runs 24/7 with the assistance of 560 employees. I was amazed to learn earlier in the week from Plains Cotton Growers, that the average pair of blue jeans contains only two pounds of cotton. The annual cotton use at this mill is around 130,000 bales (500 lbs). I have a new appreciation for my jeans and will look forward to checking the codes at the stores to see if the denim is from Littlefield, Texas.

Legacy Farms Dairy

I have been working for this facility for numerous years. It is a first-class operation with a family that is truly dedicated to dairy industry. Brandon and Brent Bouma provided the class a tour of their operation. Brent indicated that they milk approximately 6,000 of Holstein cows either two or three times per day. Milk production at this facility is 74 lbs per cow. He explained how this Texas region provides preferable climate conditions, such as low rainfall and mild temperatures, and the necessary farmland for feedstuff for their dairy operation.

Mark Marley – Owner, Production Plus & Rick Kellison – Project Director, Texas Alliance for Groundwater Conservation

Mr. Marley and crew graciously hosted the TALL class for a wonder dinner. As owner of Production Plus, Mr. Marley has a seed business that developed Brown Mid Rib varieties that offer higher digestibilities and palatability. The company specializes in protein and fiber silages and forages for grazing. His proven varieties show to increase usable feed, decrease lignin and have around a 17% increase in utilization.

Mr. Rick Kellison is the project director for Texas Alliance for Water Conservation at Texas Tech University. This is a long-term demonstration project that monitors over 20 Floyd and Hale County producers that have a range of crops, irrigation needs and livestock operations. The project goal is to work on growing practices and technologies that allow the producers to remain profitable and conserve water. I look forward to seeing Mr. Kellison's updated information which was due out this November.

October 28, 2010 - Thursday

Tour of White Energy Ethanol Plant

Dick Holland, Manager of Business Development for Quality Distiller's Grains, LLC provided us a tour of the ethanol plant. The plant processes 100,000 bushels of grain per day, which is primarily corn but can be up to 30% milo. Production per bushel equates to 1/3 fuel ethanol, 1/3 feed (wet or dried distillers grains) and 1/3 carbon dioxide. The plant production consists of 2.8 gallons of ethanol per hour, 80-85 truckloads of distiller's grain and 8-10 truckloads of liquid by-products. The plant is a series of vats and recovery systems that are

centrally operated by a main control room. The plant also has an in-house lab to provide quality assurance and control, which allows the plant to produce a consistent product for the ethanol and feed businesses.

Quality Distiller's Grain is a separate business that markets the ethanol feed coproducts. QDG's business primarily consists of feedyard and dairy facilities that utilize the distillers grain as a feedstuff in rations. The feed business has maximized the plant production, with a daily need of 185 loads. The wet distillers grain (WDG) is 31% crude protein and 11%. The "wet cake" product is a 35% dry matter, which does not allow the producers to store the product in an effective manner. Therefore, QDG provides around 85% on a delivery basis. The plant also utilizes a drying system to create a dried distillers grain (DDG), which is where the moisture is removed to extend the shelf life. The DDG is used as a high-protein feedstuff in feedyard and dairy rations.

Mr. Holland allowed the TALL class to discuss some issues relating to ethanol production. The discussion mainly revolved around where the industry was going and how politics might change the growth of the ethanol business. So much has been said in the media concerning ethanol production; it was interesting to hear a pro ethanol viewpoint.

Caviness Beef Packing Plant

Approximately 5 years ago, the Caviness family opened a new state of the art packing plant to support their growing business. In 1962, Terry's father started processing cows and bulls in Hereford. Today, the plant harvests 1,500 head per day and employees 650. The harvest consists of around 10% bulls, ½ direct buy at local auctions and 1/3 dairy cattle. Caviness Beef works a 500-mile radius from the plant by buying from local auction facilities and private farm/ranches. Palo Duro Meat Processing is located in Amarillo and further processes the harvested meat to produce over 1 million pounds of ground beef per week. This plant is active in the school lunch program which requires approximately 140,000 lbs of beef per day. It was no surprise that the #1 issue at the plant relates to food safety and quality assurance. The plant has a staff of 45 dedicated to providing a safe and wholesome product for consumers.

Economic Development – Challenges and Opportunities

During lunch in Hereford, Shelia Quirk provided the class with some insight into economic development in a rural setting. Hereford is a town that is entrenched in cattle and agriculture with a value that exceeded \$550 million in 2009 and 50% of the private sector employment; however, Shelia indicated that many other diverse businesses exist. During the last few years, Hereford has seen growth from the ethanol industry and wind energy sectors. In addition, the towns working hard to provide education opportunities by opening campuses for Amarillo College and West Texas A&M and adequate health care with a construction of a new hospital/clinic. I was intrigued to see that as head of the economic development, Shelia must know about all industries that might potentially affect the Hereford Area. She does an outstanding job promoting Hereford and Deaf Smith County.

Champion Feeders

After lunch the class headed to see Kevin Buse, manager at Champion Feeders. The class enjoyed seeing Kevin once again after meeting him in College Station during Session #1. Champion Feeders has one main goal and that is to produce the safest beef in the world. The feedyard services provided are feeder cattle procurement, risk management and marketing alternatives. Kevin was asked what were three challenges that he faced on a daily basis. Those were identified as people/employees, volatile markets and environmental issues. Kevin works hard daily to control his inputs and reduce/manage risk.

Wind Farm Tour with Judge Donnie Allred

The class took a drive through tour of the wind farm with Judge Allred. Oldham County has a population of only 2,185 people; therefore, economic development is not growing. The county has aggressively pursued the

wind energy sector. The wind farm north and east of Vega consists of a 160 megawatt farm with over 12 miles of windmills. The farm is valued as a \$200 million investment and has doubled Oldham County's tax base. The wind farm is considered the largest in the nation. Judge Allred was very knowledgeable in how the wind farm operated and what specifically the farm generated in terms of production. Approximately 2.3 megawatts of electricity is generated in a 24-hour period from 70 total turbines.

Country Barn Tour

Our afternoon tour ended at the Country Barn restaurant in Amarillo. The restaurant was purchased by Mr. Chapman and Mr. Virden in 2007. The specialty steakhouse has approximately 18,000 square feet of dining area of which contains eight private dining rooms, one time capacity of 750 people and a staff of 112. The signature steak is Bonsmara natural beef, which is raised by GR Chapman on a local ranch. Bonsmara beef utilized at Country Barn is naturally raised, naturally tender, naturally flavorful and naturally quality assured. A ribeye study was performed at Texas A&M that indicated that nutritive value of the Bonsmara natural beef is lower in fat grams, calories from fat and saturated fat grams than a USDA choice ribeye or chicken breast with skin. This group has found a value added niche for their product that seems to be working very well.

Social and Reception at the American Quarter Horse Museum

Once again the class was welcomed by many TALL alumni and supporters. I live in Amarillo and fail to take advantage of the fascinating museum. It provides a beautiful setting for people to gather and socialize during various events and the staff is always providing a warm welcome. The social event was attended by many sponsors, dinner hosts and elected officials. The elected officials spoke on the importance of agriculture in this region and their home districts. Upon completion, class members once again went with dinner hosts to various restaurants around town. I really do enjoy this dinner setting and feel at ease with the carefully selected hosts. I went to dinner with the Brenda Holland, wholesale account manager, and David Chapman, with environmental services, from Xcel Energy. Dinner allows for the classmates to talk a little "shop" and get to know more about why sponsors, such as Xcel, choose to support the TALL program.

October 29, 2010 - Friday

Pacific Cheese Tour

By living in Amarillo, I knew of the economic development group bringing in Pacific Cheese several years ago. I have not been given the opportunity to tour this plant and was excited to do so. The family-owned business started in Haywood, California. They provide commodity cheeses, specialty cheeses and international imports. The plant in Amarillo has only one line of shredding at this time, but can build out to four lines and employ around 150. The current plant capacity is about 1 million pounds per week of shredded cheese with it primarily for the food service industry. Around 70% of the cheese used at this plant is supplied by Hilmar Cheese in Dalhart, TX. The manager explained that their primary customer (60%) in this plant was Taco Bell. An impressive part of the operation was the quality assurance and food safety program at the plant. The plant has a dedicated lab onsite to provide the necessary testing. Also the equipment is completely taken apart and cleaned, down to the bolts, on a daily basis. On the day of our tour, Taco Bell was coming to make their own inspection of the facility. This is a business that strives for consistency and a reliable product to provide to their trusted business partners.

West Texas A&M Business Incubator Center – “Business Development in the Texas Panhandle”

What a neat program to support the local economies. In the past, I have had business ideas but fell short due to my lack of “what to do next”. The Incubator Center solves that problem for startup companies. The center is an economic development organization that assists in creating jobs for new or expanding businesses. As I researched their website, I was interested in seeing that they put on seminars on a regular basis for existing business owners to get further education about key issues. As a business in the program, you must have a good

idea and the financial backing to get started. The center provides coaching and office/warehouse space for the business to get started. The monthly charges are \$250 plus \$6 per square foot of building/production area space. This nominal fee allows businesses to startup and build in growth. The center has fostered over 45 companies of the last five years that have employed over 300 in the area. This center is a true success story with over 75% of the businesses still in operation.

Dr. Mike Callahan, Harrington Regional Medical Center – “Maintaining Strong Rural Health Services in the Region”

Dr. Callahan gave a brief discussion on rural health care. With the predominance of self employed people in the rural communities, health care is unavailable. The class had discussions on how the medical field was working to get doctors into rural areas by providing financial assistance to pay for educational cost in return for the doctors dedicating a specified number of years in that community. I believe the class could have spent a great deal of time with Dr. Callahan on the Obama care plan, but with time constraints the subject was only touched on. I know many rural agricultural families that are unable to afford the health care premiums; therefore, make the decision to take their chances. This is a real issue facing agriculture.

Dr. Sharon Robinson – “Childhood Obesity: What’s the Big Deal and What’s Being Done”

This presentation was very interesting. Dr. Robinson discussed the future changes that were being made to the food pyramid. The guidelines included prevention, structured weight management, comprehensive multidisciplinary intervention and tertiary care intervention. Just a few items that struck me were to decrease the TV viewing (includes anything on a screen) to less than two hours per day, eat at the home table at least 5-6 times per week and involve the entire family in lifestyle changes to ensure success. Also an interesting note was to allow children to self regulate meals to avoid overeating and expose a child to an item at least 10-12 times before drawing a conclusion that a child does not like a particular food. The website dedicated to this work is www.MyPyramid.gov. In looking over the site, I noticed several items that would be helpful on a personal basis such as the myfood-a-pedia, personalized plans and menu planners.

Mr. Ken Horton – “Pork Production in Texas”

Mr. Horton, a proud supporter of the TALL program, spoke to the class about the pork industry in Texas. With time constraints, the class did not get the privilege to tour any facilities. The trend in pork production is a decreased number of hog operations, decreased breeding herd, increased litters per sow and pounds of lean pork per head. A large concentration of pigs is located in the north part of the Texas Panhandle, Oklahoma Panhandle, southwestern Kansas and southeastern Colorado. Seaboard Foods has a plant centrally located in Guymon, OK that harvests around 17,000 head per day. In Texas, there were 1.4 million head of pigs in 2009 with a gross market value of over \$160 million. The export market for pork is high with approximately 20% of the product produced being exported. The top export market in 2008 was Japan.

I really did not think about this before, but another large industry in Texas is the youth swine projects. Mr. Horton explained that their membership is primarily made up of breeders that sell over 80,000 show pigs on an annual basis. I was surprised that the market value of the show pigs from Texas breeders exceeds \$20 million annually.

Mr. C.E. Williams, General Manager-Panhandle Groundwater Conservation District – “Water Issues in the Texas Panhandle”

Water is such a grave commodity in this region. This region has several aquifers, but primarily the Ogallala, is the main source of underground water that enables the agriculture communities to survive. The main income sources in the region revolve around beef cattle production, commodity crops and petroleum production. All these industries depend on this water source for survival. The groundwater conservation districts were formed many years ago to develop, promote and implement water conservation and protect water resources.

Mr. Williams touched on the importance of water in the region and discussed the desired future conditions (DFC) for aquifers in his district. Desired future conditions were established by an approach to groundwater planning and management by the Texas Legislature in 2005. By 2010, districts were to consider groundwater availability models and other management data to establish conditions for their given areas. His district has set a DFC of 50/50, which means having 50% of groundwater available in 50 years (2048). Other areas within his district to the east have an 80/50 DFC. The DFCs are goals that a district strives for through different management practices and programs.

Conclusion

As the week came to an end, I once again was amazed by the amount of knowledge I gained in four short days. I also believe that the class became closer as we all get to know each other. In many instances above, I described that I live in Amarillo and have not been able to tour and hear from some of these individuals. Session #2 was well planned and each class member walked away with a better understanding of the importance that agriculture plays in this region.



Cassie Schulte, Ph.D.
TALL XII – Session 2 Narrative
Panhandle and South Plains
October 26 – 29, 2010

October 26, 2010

Getting to spend our second session in the Panhandle and South Plains was quite a treat for me, since this area is where I was born and raised. We started our trip off at the new Animal Science and Food Technology building. Since I went to graduate school in the ASFT Department, I felt right at home. Our session kicked off with a welcome from Mr. Clint Robinson and Mr. Miles Dabovich, whom I would later learned spent a lot of time and effort planning our trip in the South Plains portion of the week and who did an excellent job.

One of our first presentations was from one of our very own class members, Mrs. Tanya Foerster. Tanya shared with us the great work that the members of the Lubbock Chamber Ag Committee, along with Texas Tech, Southwest Dairy Farmers, NRCS, Farm Bureau and other agriculture groups are doing in terms of youth education. The Ag in the Bag program is an annual program this group puts together that is targeted at 4th grade students. Over a 3 day period, over 1500 students will come through the exhibit and be exposed to many areas of agriculture that most have never seen before. These 4th graders have a chance to see live animals, and be exposed to goats/sheep, food science, cotton, beef, water, corn, peanuts, sorghum, wheat, and dairy through exhibits and help of many volunteers. Hearing Tanya talk about this program and seeing the kids participating in it has sparked some inspiration for me to get involved with similar events in Amarillo/Canyon/Hereford, something I have been wanting to do for some time.

Mr. Mark Brown followed the Ag in the Bag discussion and gave the group an excellent presentation highlighted the agriculture industry on the South Plains. Even though I grew up around the area there was a lot of information that I learned from the presentation. He started off with a brief history of the area and the fact that remains of ancient animals such as the wooly mammoth, and human life over 12,000 years old have been discovered. His talk was a real eye opener in terms of presenting information about agriculture's economic impact on the state of Texas and the fact that 8 of the top ten counties with highest economic impact are located in the Panhandle and South Plains region. Likewise, all 10 top counties in cotton production, 10 of the top 11 counties in cattle and calves, and 7 of the top 10 counties in milk cows are located in the Panhandle and South Plains region. That is huge!

The next session was quite a treat. Dr. Leslie Thompson and Dr. Sam Jackson from the Department of Animal Science and Food Technology gave the group an overview of the department and a tour of the new facility. Being an alumnus of the department, I was very proud of all the great things they have going on. The facilities they have for teaching students, as well as for research are first class. The success they have had with judging teams, obtaining competitive grants for research, and producing

high quality research data is a true testament to the quality of the department. I am very proud of my Texas Tech diploma!

The next session was full of a lot of information in a very short period of time! We got to hear from all the commodity groups in the area. One take away I learned from this session is that cotton is king on the South Plains, but there are many other row crops that are important too, such as corn, sorghum and peanuts. Steve Verrett shared cotton information with the group. Plains Cotton Growers is a group that is non-checkoff, and provides cotton growers with Service (in for the form of communication, advocacy, etc.), Legislation (both state and national), Promotion (editorial, Cotton Council International, Cotton Inc., and National Cotton Council), and Research (breeding, disease resistance, systems, etc.). Cotton production continues to increase on the South Plains and so has the quality of the cotton grown here. The cotton produced in the region is second in quality only to the cotton grown in the San Joaquin Valley, and the differences are hard to measure. Cotton's biggest competitor is synthetic material, but in a growing world population, the outlook for cotton looks very promising. Mr. David Gibson from the Texas Corn Producers (a check-off funded group) also shared with us how important corn is to Texas, the South Plains, and Panhandle. In fact, corn contributes about \$1.2 billion to the Texas economy every year. Texas is 12th in U.S. corn production with 2.2 million acres planted and 2 million acres harvested. Some of the main issues the state faces in terms on corn production are water, mycotoxins, lack of grain storage, and crop insurance programs. David gave us a website www.texaspricecheck.com that talks about food prices, what share of the retail prices farmers actually make, and what farmer's input costs have done over the last several years. It is a neat website and one that we should all share with more consumers. Lindsay Kennedy and Morgan Newsom did a nice job of talking about the sorghum industry in Texas both from the check-off standpoint and the Texas Grain Sorghum perspective. The sorghum check-off is a relatively new as it started in 2008. The check-off dollars are aimed at making sorghum more competitive through research, market development and education. Research is focusing on way that sorghum can be more profitable to producers in terms of developing cold tolerance traits, further improving and communicating drought tolerance, and new food uses. 80% of U.S. sorghum exports come from Texas! Nonetheless, sorghum has a little work to do to add profitability to their crop and incentive for farmers to grow it. There were 3 million acres of sorghum planted in Texas in 2008 and only 1.9 million were planted in 2010, showing that farmers are making decision to grow other crops (typically cotton) instead. Shelly Nutt, from the Texas Peanut Producers Board shared information with the group about one of my favorite snacks! It's hard to beat fresh roasted peanuts. Texas is number 2 in U.S. peanut product with approximately 160,000 acres planted annually. The majority of research funded by the Texas Peanut Producers Board is focused on breeding traits such as drought tolerance, disease control, cold tolerance and yield performance. Mr. Jimmy Clark introduced the group to an organization whose goal is to unite commodity groups, agricultural business and financial institutions so that they are one very LOUD voice to the state and federal lawmakers. Southwest Council of Agribusiness is working for agriculture on behalf of the agricultural industry in Texas and the great Southwest region which includes Colorado, New Mexico, Oklahoma, and Kansas. Did you know that agriculture's share of the federal spending is only ½ of 1%? Also, only 10% of funding from the farm bill goes to farm programs, whereas, over 70% goes to food and nutrition programs such as food stamps.

These are reason enough to inspire anyone involved in agriculture to support a group like SWCA and their efforts. Mr. Clark shared two excellent websites with the group www.farmpolicyfacts.org and www.thehandthatfeedsus.org. These sites have great information on them and I have share "The Hand that Feeds Us" site with my friends on Facebook as a place where those both outside and within agriculture can go to see stories from real farmers, get a feel for farm input costs and also for how much money is passed back from the retail price to the farmer.

After our talks from the commodity groups, we had a little change of pace and had a chance to hear from some very smart scientists at the USDA Cropping Systems Lab. Dr. John Burke and Dr. Paxton Payton showed us around their labs and updated on some of their research that relates to enhancement of plant resistance to water deficit and thermal stress and development of sorghum varieties that are better suited to the South Plains climate. Both researchers are working with farmers in the area to conduct in the field studies, along with their lab research. It was refreshing to hear their passion for helping farmers in the area deal with some of the challenges they face, particularly as it relates to water shortages.

After a day filled with a ton of great information, it was topped off with a first class reception at the Texas Tech Merket Alumni Center. The atmosphere was great and there was a really nice turnout. Dr. Gordon Davis, Dr. John Burns, and Chancellor Hance all did great jobs of addressing the group. It is great to see the support the TALL program has from individuals such as these men, but also all of the local ag leaders that came and joined us at the reception. Dinner was excellent too. I was taken by David Gibson (TX Corn Producers Board) and Quina Terry (NRCS), and we were able to join up with quite a crew, including class other class members and representatives from the Texas Peanut Board and from Plains Cotton Growers. The meal was delicious and the company was outstanding.

October 27, 2010

Wednesday morning we had quite a treat. We were hosted for a chuck wagon breakfast at Dan and Linda Taylor's farm. They have an amazing place that I can only dream of having a place like it someday. They have a whole barn that is basically a cotton industry museum and anyone involved in the cotton industry would feel like they had died and gone to heaven after walking through the doors. It is a wonderful collection that will bring happiness to many in the years to come. After indulging in a huge breakfast, complete with bacon, sausage, biscuits and gravy I knew the day would be a great one! It was so generous of Mr. and Mrs. Taylor to host us and for their friend from the Ropesville Lion's Club to help them out with the cooking. Mr. Taylor has quite a list of achievements including being one of the only agriculture students being selected twice as an Outstanding Alumni at Texas Tech and also being selected as a 2010 American Farmer Award recipient at the National FFA convention. He should be an inspiration to ag leaders everywhere.

We also had quite a treat for a morning speaker, Mike Gilbreath with Bayer Crop Science visited with us about the evolution and growth of their cotton business in a very short time span. FiberMax is the technology and trade name for the seed that they sell and they essentially started out with the

germplasm from Australia and 10 years later they have built a business that is #1 in the U.S. in terms of planted acres. The cotton division of Bayer started in Lubbock as they felt they could bring something to the area in terms of quality and yield that other companies were not trying to do. One of the newest technologies they are working on is bioengineering a cotton plant that would produce cotton with positive charge that would allow for much easier update of dye than cotton today.

After learning about some of the new cotton technology, we had the chance to tour Buster's Gin. This was quite an experience for me as I had never been in a gin before. The operation was top notch, running 24 hours/day for 5 months of the year and the other 7 months being completely taken apart from top to bottom and repaired to do it all again next year. Mr. and Mrs. Taylor have ran a business that employees like to work at, in fact they have one employee that has been with them for 34 years! Every year Buster's Gin has worked to increase customers by providing superior service. They will help customers with marketing questions, crop insurance and other areas that affect their business, and by providing these services have gained customer loyalty.

American Cotton Growers Denim Mill was our next stop for the day. What an awesome process to see! We basically have come full circle on the cotton industry, learning about the crop itself, seeing a gin and now getting to see a product made from cotton. John Johnson and Chip Higgins did a fantastic job along with their other co-workers in explaining their system and showing us around the mill. American Cotton Growers Denim Mill is the only producer owned textile mill in the U.S. and it is the largest handler of U.S. cotton. The plant was built in 1976 for \$40 mil and was sold to Plains Cotton Cooperative Association in 1987 for \$120 mil, adding quite a boost to the local community. The plant produces about 36 mil linear yards of denim every year, which is enough to make about 26 mil pair of jeans! A year and a half ago Plains Cotton Cooperative Association purchased a jean manufacturing plant in Guatemala where they make 150,000 pairs of jean every week, for companies like Abercrombie & Fitch, GAP, Guess, etc. The Denim Mill also sells its' fabric to Levi and Wrangler. Being the largest denim mill in the U.S. they are always striving to maintain quality and creativity when it comes to producing what their end user wants. This is a great asset to the local community and South Plains region, employing about 550 workers. This was one of the stops I enjoyed most, simply because I had never seen anything like it. It is amazing that I grew up in the Panhandle and really didn't even know that this plant existed, and certainly did not realize the scope that it covered.

Down the road in Plainview, our next stop was Legacy Farms Dairy. It was neat for me to visit Legacy Dairy as a member of TALL, as I have worked with them as a customer for several years. While I have been to the dairy multiple times, I had an opportunity to see much more of the dairy on this trip than before. The Bouma's do an excellent job of raising high producing, healthy dairy cows. Every day their dairy produces about 45,000 gallons of milk. While at the dairy the group had a chance to taste HoneyMilk, a new product that is being marketed by one of the dairy cooperatives in the area. I was glad that others had a chance to be exposed to this product, as I have been drinking one for breakfast every morning for about a month and a half. Milk, It Does a Body Good!

After leaving the dairy we headed to Mr. Mark Marley's place for an excellent fajita dinner and a good presentation by Rick Kellison as well. The Marley's have a fabulous place for entertaining and have the whole room decorated with awards that have been won by members of their family in livestock shows or cutting horse contests. It is quite a collection! In addition to the success they have had in the show ring, Mr. Marley has also been successful with his business, Production Plus Seeds. His company focuses on developing superior hybrids of brown midrib sorghum which are more digestible for ruminant animals. Rick Kellison is doing some fantastic research on groundwater conservation. It was pertinent to have a talk about the research they are doing with drip irrigation and other conservation techniques since multiple speakers we had previously on this trip all focused on water shortage being one of the largest agricultural issues in the area.

October 28, 2010

We started Thursday off with a trip to Hereford. I have to admit, I was pretty proud to show off my hometown and some of the great agricultural businesses that are part of the community. The only bad thing is we didn't have two more days to spend in Hereford to show off even more of what we have to offer.

White Energy ethanol plant was our first stop and Dick Holland with Quality Distillers Grain did an outstanding job on this tour and visiting about some issues that are somewhat controversial. Because I worked for over 3 years with QDG, there wasn't a whole lot new that I learned on the tour, but it was neat to take a step back and be able to look at the company from the outside. There were a lot of growing pains over the last 3 years, but it is reassuring to see some of the changes that have taken place and how far the White Energy/QDG relationship has grown over that time period. While ethanol production is a hot topic, it is an industry that the U.S. government, at least for the time being, has decided we are going to have, and thankfully the town of Hereford and the Panhandle region are getting to benefit from the economic stimulus that these plants provide in the communities.

Caviness Packing plant was the next stop down the road. Wow, what an operation they have built! Over the last 5 years they have built one of the only new packing plants in the U.S. and continue to add segments to their business with fabrication and a hide plant. It was a great treat to hear how this family owned and operated business is growing and flourishing and now has had 3 generations actively involved in that success. With the building of the new facility Caviness Packing, is now the largest cow kill plant in Texas. They are highly focused on quality and safety and this is evidenced by the number of routine tests they conduct on their products to ensure they are safe for consumers to eat. While a lot of the product from the plant goes into ground beef products, they are also working on some branded beef programs and sell quite a lot of meat and steaks to food service and lower end chain restaurants

For lunch we were treated to barbecue at Quirk's Feed A Lot, that was sponsored by Happy State Bank. Happy State Bank was started in the Panhandle and is one of the fastest growing banks in the region. While they are relatively new to Hereford, it is sure good to have them. Sheila Quirk from the Hereford Economic Development Corporation visited with the group about challenges and opportunities for

growth in rural communities and I believe she showed that with the right attitude and tons of stamina there are really a ton of opportunities. Sheila demonstrated how Hereford is willing to look at almost any type of opportunity that will help the community grow. Deaf Smith County in 2009 had agricultural cash receipts of \$501.5 mil, generating county and state level impacts of \$747.4 mil and \$993.0 mil. With these receipts the county ranks #1 in the state of Texas and 16th in the U.S. Ag-related jobs account for over ½ of all private-sector employment in the county with additional ag-related jobs in the public-sector and with farm and ranch owners. One of the newest businesses Hereford is working hard to recruit deals with wind energy transmission lines. Deaf Smith County is already the location for one of two substations in the Panhandle and now they are negotiating the actual paths of these transmission lines. With strong advocates like Sheila working for the community there is no doubt that it will continue to grow and prosper.

The next stop gave the group a little taste of why Hereford is named the Beef Capital of the World. With more than 1 mil fed cattle within a 50 mile radius of Hereford, Champion Feeders was a perfect place to represent the cattle feeding industry. This 35,000 head feedyard has a sister yard about 30 miles away with a feeding capacity of 25,000 head. Kevin Buse, the yard manager and a partner too, showed us around the yard highlighting the mill, pens, feed bunks, and lagoons for waste water management. Since Kevin had joined TALL XII on our first trip in College Station as a representative from TCFA, it was great to have him back to the group and able to "show-off" his operation. The cattle at Champion Feeders are high quality and Kevin works hard to market them into branded beef programs which help add to the bottom line for his customers and for the yard.

After leaving the feedyard we had a chance to see a little scenery on our drive to Vega and the wind farm at Wildorado. Judge Allred jumped on the bus with us and discussed with the group what a blessing the wind farm had been for the city of Vega and Oldham County in terms of tax base. It basically has doubled the tax base! These windmills are absolutely enormous and awesome to see up close. One of the most interesting facts learned is that these windmills are actually monitored and can be controlled from a control center in Holland.

Back in Amarillo, we made a quick stop at the Country Barn restaurant to hear about their special Bonsmara beef, the product they advertise to have less than half the fat content of a USDA Choice ribeye, as well as less cholesterol. This restaurant has built a very successful business in the area and it was interesting to see the actual connection of the farm to the plate. After the success they have had at this location with the Bonsmara beef, they are currently testing in some other markets to help increase demand.

The reception at the AQHA museum was fantastic. The snacks were great and the museum never ceases to impress. It was an honor that Senator Kel Seliger and State Representative Warren Chisum attended the event and took the time to show their support of the TALL program. I had the pleasure of going to dinner with Josh Winegarner from TCFA and Amber Brady from the class. We had a great time visiting and catching up and had an absolutely delicious dinner at BL Bistro one of my favorite restaurants in town!

October 29, 2010

After a long week, we started Friday off is a tour of Pacific Cheese. The plant opened in 2008 and essentially takes large blocks of cheese and grates it for use in food service and retail. One of the largest customers of the plant is Taco Bell and they just happened to also be visiting that day. Regardless of the pressure I am sure Charlie Horning was feeling in anticipation of Taco Bell coming later that day, he did an excellent job of showing us around. The quality control standards are very high and the main goal of the plant is to hit targets that their customers have specified. The plant has a storage capacity for 80 mil lbs of cheese and plans to double their production line capacity in the next year. After visiting a dairy and because we have a couple of dairymen and women in our class I think this tour was a great fit to see a little bit different side of the dairy industry.

After wrapping up at the cheese plant we headed to the West Texas A&M Business Incubator Center for the rest of the morning. We were greeted by Mr. David Terry who is the director of the center. What a cool place. The incubator was formed in 2001 with \$1.5 mil funding from the Texas legislature. The goal of the center is to take viable new businesses and help them hatch into full grown successful businesses. After two years they try to have businesses out on their own and looking at national average numbers, 87% of businesses from incubator centers end up making successful businesses.

The next session was a panel on childhood obesity and rural health. Dr. Sharon Robinson addressed the childhood obesity segment, something that is a serious problem in the U.S. today. I was shocked to learn that 17% of all children are obese and 70% will be as adults! Educators, dieticians and physicians are working closely together to help prevent this problem through education and intervention programs. Dr. Robinson had many great pointers for parents to use when making food decisions for their children, which I plan to, keep handy for the future when I have children of my own. Dr. Michael Callahan from the Herrington Regional Medical Center visited with us about rural health care. One of the major issues rural areas face is that self-employment numbers are very high (actually have grown 240% in the recent years) and because of this health insurance is usually not very good. Additionally, health care providers are in very short demand. Only 35 of medical students today plan to practice in rural areas, making it hard for people in rural areas to have trained professionals near them. Rural areas also tend to have an aging population, are more apt to have higher incidence of illness, have a shortage of preventative care facilities, typically have more obesity problems, and have limited emergency medical services. One of the goals of the Texas Tech Medical School is to start training students from rural areas that want to stay in rural areas and they plan to have a full medical school in Amarillo within 10 years. Obamacare is another serious issue that Dr. Callahan says will be detrimental to rural health populations. While there are many obstacles to overcome it is encouraging that schools like Texas Tech realize the problem and are trying to find solutions.

Mr. Ken Horton with the Texas Pork Producers Association was next on the agenda. He is a terrific speaker and really able to keep the crowd involved. Texas has about 1.4 mil head of hogs annually, which contributes about \$161 mil market value into the economy. While there was some initial opposition to the swine industry when it was first getting started in the Panhandle, today the

communities that have swine production facilities are very glad to have them and have not suffered from any of the supposed environmental and odor issues that others warned them about. Nonetheless, the pork industry, like all ag industries has issues they have to deal with. Feed costs have continued to rise, transportation costs have risen and labor costs have increased and in some instances it is hard to find labor period. The swine industry is fighting the "Big Ag" battle, and will continue to have environmental pressures to sustain. While the commercial swine industry is a strong industry in the state, swine production for FFA and 4H projects is BIG business.. There are over 35,000 swine projects each year and over 80,000 pigs are sold by Texas breeders annually. In fact the market value of show pigs to Texas breeders exceeds \$20 mil annually and that doesn't even count all the ancillary dollars that are spent on feed, hotel rooms, travel, and supplies in the state of Texas. I got my first taste of agriculture by showing a pig, so I know the value of participating in these types of projects and am thankful for the opportunities available through FFA and 4H.

Our Panhandle/South Plains meeting was finished up with a talk from Mr. C.E. Williams from the Panhandle Groundwater Conservation District. I think if there was one take-away message from the trip it is the fact that water is the biggest concern as we look into the future, not only in agriculture, but also in providing enough water for the growing world population to consume. It was fitting to wrap up with this discussion and it is nice to know that there has been planning and a concerted effort placed toward conserving this very precious resource. With goals in place to maintain 50% of the aquifer level over a 50 year time period it is a start to finding a solution that will work, however, I think it is important for agricultural producers to realize that there are a lot of things that will have to change over time.

After finishing up the week in this region my head was swimming with all the new information I had been exposed to and as I write this narrative it continues to feel the same. It was a great experience to get to share my little part of the world with the group and also learn new things myself.