

Day 1 – Tuesday, October 23, 2012:

Welcome and Introductions: Ms. Tanya Foerster & Mr. Jaroy Moore

Ms. Foerster and Mr. Jaroy Moore made the class feel welcome. Even though their introduction was short and did not speak long, they were helpful in our tour, with questions, and with lunch while at the Texas Tech campus. Ms. Foerster was with the class for our whole duration while in Lubbock. She did a great job in making sure the class had what it needed and was taken care of.

Overview of South Plains Agriculture: Mr. Mark Brown

Mr. Brown did a great job in showing the current make up and condition of South Plains Agriculture, as well as informing about the history of the region and agriculture there. His power point presentation gave vital agricultural information for the region such as: Ogallala Aquifer as the water source, 3,000' to 4,000' elevation, 185 to 220 day growing season, 18.5" to 19.5" annual rain fall, economic impact of area agriculture to Texas economy, major commodities produced being cotton, fed beef, milk, sorghum, corn, wheat, peanuts, alfalfa, & grapes, and the economic effects of each commodity.

Plains Cotton Growers: Mr. Steve Verett

PCG is a non-profit organization composed of cotton producers that primarily advocates for cotton producers at every level of government. Mr. Verett shared some interesting information including: cotton is the number 1 cash crop in Texas, in the high plains 45% of ac are dry land and 55% of ac are irrigated as compared to the entire state being 65% dry land and 35% being irrigated, and the high plains produce 67% of cotton in Texas. Mr. Verett is passionate about what he does and who he represents and he is was an asset to our session.

Texas Corn Producers Board: Ms. Anjie Martin

I learned a lot about corn production in Texas from Ms. Martin. I did not know that Texas is the 12th leading corn producing state in the U.S. I was shocked to find out that 60% of the corn produced in Texas is north of Amarillo. That shows that there are numerous corn acres with state high yields in that area. 96% of corn produced in Texas is used for livestock feed which is not a surprise due to our large cattle numbers in the state and our high number of cattle on feed in the high plains. Ms. Martin also made mention to the new Grain Indemnity Fund that helps mitigate the risk of grain elevators closing down.

Texas Peanut Producers Board: Ms. Anjie Martin

Ms. Martin provided another very informative presentation on peanut production in Texas. Texas is the second largest peanut producing state behind Georgia. Gaines County is the largest peanut producing county in the entire U.S. The Texas Peanut Producers Board does research, promotion, and education only, and they are funded by receiving \$2 out of every ton of peanuts sold in Texas.

National Sorghum Producers: Mr. Tim Lust

The National Sorghum Producers represents sorghum growers through-out the entire U.S. in legislative and regulatory matters. The NSP also provides educational materials to sorghum producers in order help them increase their profitability. It was interesting to find out that the high plains of Texas produces 90% of the U.S. sorghum seed and 65% of sorghum seed used in the whole world.

Legislative Issues: Mr. Tom Sell

I feel that it is very important for our TALL class to hear from lobbyists involved in representing agriculture to Congress and other government agencies. They are the true voice and advocate of agriculture. Mr. Sell has an interesting background being a former Deputy Chief of Staff for the House Committee on Agriculture and now a lawyer. He is an advocate of the Southwest Council of Agribusiness. He said that the three keys of advocacy of the agricultural industry are: education, involvement, and sticking together. I agree because American Agriculture will greatly suffer and possibly lose government support if the general public does not understand agriculture and how important it is to our society. People in the Ag industry must support the industry and stay involved with whatever they can, and we must all stick together and cooperate with one another. If we are divided are cause will not be stood for, and we could be over-ran by groups with other interests.

TTU Animal Science Building “Research in Animal Agriculture”: Dr. Leslie Thompson & Dr. Sam Jackson

It was neat to see the Animal Science building at Texas Tech. They have classrooms prepared for all types of study, lab work, freezers, meat processing, food preparation, etc. Dr. Thompson has 26 years of experience at Texas Tech which enhanced our tour due to her knowledge of what all has and is going on there. We had a really good conversation with one of the researchers there who is developing a beef grading system for New Zealand. The quality grading system New Zealand wants will be much more specific than the grading system the USDA uses. There is currently no quality grading system in New Zealand and all beef is just sold as beef, so consumers will have to be educated on the system once it is in place. She also informed us that all beef in New Zealand is tracked through a national tracking system through-out the animal’s entire life and even after the meat cuts have been processed from that animal.

Lubbock Cotton Classing Office: Mr. Kenny Day

The purpose of classing cotton is to facilitate interstate and foreign commerce by providing official quality determinations that aid in marketing. The USDA achieves this by inspecting, identifying, and certifying product quality. Since I finance a lot of cotton in West Texas, this tour was important to me. Cotton quality and it’s relation to the loan price is talked about quite a bit and I now have a much better idea of how that process works and the effects of having low quality cotton. Mr. Day informed our class that the price of cotton can vary about \$.30/lb depending on the quality. That is important for me to know.

Monsanto Mega Site: Mr. Eric Best

The technology that Monsanto uses is very impressive. Everything from their planting and harvesting equipment designed for research purposes to their labs and plant biology technology that can chip a seed, read the DNA in the embryo to see what characteristics that particular seed has and what it will produce, and clean the instrument to prevent cross contamination when picking up the next seed all in .6 of a second, and the machine does it on 80 seeds at a time. Monsanto also has the Integrated Farming System (IFS) which takes images of a field to see stressed crop areas within a field and then allows treatment to be applied where needed using GPS. Mr. Best also mentioned that Monsanto made a goal to double crop yields by 2030 without using additional inputs. He said if we have been impressed with technological advances that have come around in crop science over the past 15 years then just see what happens in the next 5 years.

Lubbock Social, Reception, and Dinner

The Reception provided a great opportunity for TALL XIII to network with TALL alumni, TALL sponsors, and other Texas Tech staff. I feel opportunities to network, like the reception provides, is critically important to the TALL experience and education. I am encouraged by the interest that the people attending the reception show in agriculture, leadership, education, and each other. Most people involved in the agriculture industry, be it production or education, have similar core values and a sense of family. That sense and idea of sticking together was heavily emphasized through-out the session. PCG were very thoughtful in hosting me to dinner. I enjoyed my conversation with PCG employees as well as the other TALL classmates present along with Dr. Hussey.

Day 2 – Wednesday, October 24, 2012:

Lubbock Cotton Growers Co-op Gin: Mr. Jerry Butnam

This gin is state-of-the-art and high capacity ginning an average of 70,000 bales per year. The gin was built in 2009 so everything is new and latest technology. I've been through gins before but not one like this. I think touring a gin and seeing the process of how cotton gets from the field, gets the seed separated from the lint, and then put into a bale which is a tradable commodity is very important to the cotton industry and our TALL session. Besides ginning cotton, the gin is a collection point in the process i.e.: the USDA classing office gets their cotton from the gin, PCG gets its payments from the gin, all producers have to use a gin so the gin serves multiple purposes due to it being the one place all cotton must go through.

Drip Irrigation Cotton Field: Mr. Burt Heinrich

This was a great stop for our session. Mr. Heinrich told us in detail about drip irrigation i.e.: how much it costs to put in which is from \$800 to \$1,200 per acre, the increased yields it produces which for him is around 3 to 4 bales per acre, how it is put in the ground which on his place is in between every other row, how deep it is put in which his is about 12", how the plumbing works from the intake, metering, filtering, cleanout, etc. But in addition to talking about drip irrigation he talked a lot about farming, water issues, and his passion for supporting American grown cotton.

TTU Fiber & Biopolymer Research Institute (FBRI): Dr. Dean Ethridge

This facility has all of the equipment used to take cotton from a bale to putting it on a spool in the form of string. At FBRI they research, test, and evaluate natural and man-made fibers, they produce and evaluate yarns and fabrics, and they dye, finish, and treat yarn and fabric. Length, strength, and fineness are the three characteristics that define its quality. Dr. Ethridge said that increasing the maturity of cotton is the best way to improve its quality. Depending on the year, some farmers have to defoliate their crop to prepare it for harvest. This defoliation process stops the plant from growing and opens its bolls. All this takes place before the cotton has reached its natural growing and maturing process so the quality will suffer some. About 10% of the cotton used at FBRI does not have the quality required, so this 10% of low quality costs money. I do not think enough farmers understand the significance of cotton quality for the final product because I foresee that quality will be a larger factor of marketing cotton in the future.

American Museum of Agriculture/ Bayer Crop Science: Mr. Mike Gilbert

The museum is new and only phase one of the complex is complete now. It is a great facility that will preserve the history and the tools that have been so vital to American Agriculture through-out the years. Mr. Gilbert covered the different areas that Bayer Crop Science is involved in some of their goals. He is proud of his company and its contribution to agriculture.

Water Issues and Agriculture: Mr. Carmon McCain

The High Plains Underground Water Conservation District No. 1 serves across 16 counties in the southern high plains. Citizens through-out the district are represented by a network of 85 officials. The goal of the district is to provide orderly development and wise use of the groundwater in order to maintain the rights of the land owners to that water. Water shortage in the Ogallala Aquifer is a major issue in the High Plains, and landowners need to come together and present conservation practices that will maintain the aquifer and keep the government from coming in a regulating. The district is an entity to facilitate the coming together of land owners. Mr. McCain said that groundwater is expected to decline 30% by 2060. He also mentioned that there is a global systemic water failure.

Halfway Texas A&M AgriLife Research Center: Dr. Jim Bordovsky

Dr. Bordovsky is involved in research to discover ways to improve crop production with less water. He has already developed irrigation equipment that reduces evaporation. His research there in Halfway includes the timing of irrigation and methods of irrigation on different crops and then seeing the yield results. This research is very applicable to farmers in the High Plains today and even more for the future. This was a great stop in our session.

Spandet Dairy: Ms. Ilona Schilderink

The dairy is very large and new, state-of-the-art technology. The Schildernik's milk about 3,000 cows which calls for large scale facility such as: a carousel, stalls, calf crates, heifer feeding pens, dry cow pens, feed bins, and surrounding farm land to grow some crops and disperse nutrients back into the ground. The Schildernik's have rapidly grown a dairy operation starting off very small and going from like 500 to 900 and then to 3,000 head. This operation takes several employees. It was a great tour where we saw how the cows get milked, where sick cows go, where cows go to calve, where heifers are, how calves are kept, how cows are fed, etc.

Water Conservation and Sustainability: Mr. Rick Kellison

The Texas Alliance for Water Conservation has a mission to conserve water by identifying agricultural practices and technologies that when integrated will reduce depletion of ground water while maintaining agricultural production. The alliance is a collaboration of producers, data collection technologies, industries, universities, and government agencies. Mr. Kellison has a great perspective as a farmer and conservationist. The important thing he emphasized is that in order for farmers to maintain free access to the Ogallala Aquifer they must show the world that they are conserving it the best way possible. This takes cooperation and unity amongst producers. If this does not happen the Ogallala will eventually go dry, agriculture production will drastically change which will also change the economy of the High Plains, and water use will probably become highly regulated by the government.

Day 3 – Thursday, October 25, 2012:

White Energy Ethanol Plant: Mr. Dick Holland

Ethanol has been a major item in the U.S. over the last few years, the government has required a certain amount of it be put into gas, the government has alleviated financial pressure on ethanol plants, many plants have been built and many have since been shut down, the increase in ethanol production has caused crop prices to increase which crop producers like and the livestock industry hates, etc. Mr. Holland addressed questions and concerns but he did not always give his opinion. It was beneficial to see how ethanol is made but it was more beneficial to discuss how much grain and water gets used through the facility, where grain comes from, where does the DDG go, how much does the DDG cost, etc. Our energy demand is high and increasing. It takes a lot of inputs to make ethanol and most of those inputs could be used elsewhere but as Mr. Holland said our energy demand is high and increasing and it will take all ethanol production, petroleum production, wind, and nuclear energy to provide adequate energy for the future. He also informed the class that it is cheaper to ship corn than DDG and that is why putting an ethanol plant in a location where DDG is used makes sense.

Caviness Beef Packing Plant: Mr. Terry Caviness

Caviness Beef Packers, LTD started in 1962 and has remained family owned and operated which employs over 400 people. They are currently open 6 days a week and process 1,600 head per day of mainly cull cows. The new facility was built in 2005 and is the most modern, state-of-the-art, green-field beef project built to date. Mr. Caviness said the biggest threat they face is food born contamination and the second biggest threat is the lower cow numbers in Texas due to the current droughts. Caviness has cattle buyers all over Texas and 8 other states. I thought this was the most interesting tour of the entire session. Coming from a beef background it is good to see and understand where the commodity you produce will end up and what it is used for.

Advanta US: Mr. Chick Childress

Advanta is a company that sells grain sorghum seed. 80% of the seed that they sell is grown in the Texas panhandle. That area is a good location to grow grain sorghum due to the warm days and cool nights. Grain sorghum was discovered in India in the 1700s, it then went to Africa, and then to the U.S. Advanta focusses their research on three primary areas: inputs, bioenergy, and market expansion. They are capable of producing 8,000 bags of seed per eight hour shift and they have capacity to store 50 million pounds of bulk seed. They informed us that sweet sorghum is used in ethanol production.

Mc 6 Cattle Feeders: Mr. Warren White

Mc 6 feeds conventionally raised cattle as well as naturally raised cattle. Naturally raised cattle cannot be treated with antibiotics, ionophores, hormones, or animal byproducts. Mc 6 treats them with clostridium and IBR, but they use vitamin B and C to doctor them. Mc 6 checks all naturally raised cattle for implants in their ears and they feed them to 1,300 to 1,400 lbs which is higher than the 1,250 lbs for most conventionally raised cattle. Naturally raised feeder cattle are purchased with a \$50 premium over conventionally raised cattle. Compared to conventionally raised cattle, naturally raised cattle's cost of gain is about 20% higher, their average daily gain is about 20% less, and they are required to have 250 square feet of space per head with shade and windbreaks. About 94% of naturally raised cattle grade Choice compared to 70% of conventionally raised grading Choice. A naturally raised 750 lb steer would be fed about 160 days compared to a conventionally raised 750 lb steer being fed about 140 days. Naturally raised cattle get fed about 30 lbs of feed per day. Back-grounding naturally raised cattle is very important because they will get sick in a feed yard if they are not straightened out.

Vega Wind Farm: Judge Donnie Allred

It was neat to see the wind turbines in the process of being installed. From a distance you do not realize how big each piece of a turbine is. With the high and increasing energy needs it will take wind energy along with every other kind of energy production available to supply our needs. Having wind farms installed can and have helped out communities like Vega that do not have much industry and profit potential. The wind turbines can be installed and the land can still be used for agriculture production which gives to forms of income.

Effects of Windmills on Wildlife: Mr. Ken Clearley

Mr. Clearley informed the class that the wind turbines do not really affect any birds or wildlife in the Texas Panhandle. He mentioned it could have an impact on a flight pattern some birds may have flying through the area but it is not a major issue.

Pacific Cheese: Mr. Douglas Pederson

With all of the dairies in the panhandle it makes perfect sense to put a cheese plant there, even though a lot of the milk produced there may be shipped to a different location. The coop that a dairy markets through will dispatch milk trucks to different locations depending on how long the milk can stay in the truck, outdoor temperature, order size, etc. Mr. Pederson told our class that it takes 10 lbs of milk to produce 1 lb of cheese. The plant processes a lot of cheese from a 700 lb block of cheese. They will take the big block and keep cutting it down into the size block they want or shred it.

Amarillo Social, Reception, and Dinner

The American Quarter Horse Hall of Fame and Museum is a great venue for the Amarillo TALL reception. I wish we would have had a better chance to look around the museum but I did get to see a couple of rooms. I felt like the Amarillo reception was predominately made up of TALL alumni which made the setting slightly more laid back and comfortable. It was another great opportunity to network. Shelly Heinrich and I were hosted to dinner by Eric Turpen from Clift Land Brokers. He was very hospitable and provided a very fine dinner. Eric works with Bryan Clift so Shelly and I tried to talk Eric into applying for the next TALL class.

Day 4 – Friday, October 26, 2012:

High Plains Food Bank: Mr. Broc Carter

The High Plains Food Bank is a non-profit organization that collects and distributes donated food. They collect the food in their warehouse and then distribute it to other more local entities that then get it to individuals in need. They cover over 30,000 square miles in the Texas Panhandle. They distribute over 650,000 lbs of food each month on average. 69,500 people in the area live near or below the poverty level and as much as 70% of their income goes toward housing expenses and medicine. Mr. Carter informed our class that 69% of students in Amarillo schools are on free lunches, and that 1 out of 6 adults and 1 out of 4 kids in the area are in threat of hunger. 90% of their funding comes from individuals, grants, and corporations, and the other 10% comes from FEMA. They are now part of the Disaster Relief Plan due to their ability to mobilize food to locations.

Timber Creek Veterinary Clinic “Technology Enhancement in Animal Breeding”: Dr. Gregg Veneklassen

Dr. Veneklassen is very active, experienced, and enthusiastic in animal cloning. According to Dr. Veneklassen, cloned animals have all of the exact traits that the donor animal had including physical makeup, personality, athletic ability, color, etc. This makes sense since the cloned animal has the exact DNA makeup of the donor animal. Cloning enables breeders to get offspring out of geldings, injured animals, or animals that have died. Cloning takes guess work out of breeding by knowing exactly the genetic makeup of an animal. Dr. Veneklassen also works in genetic engineering. Genetic engineering is finding certain genetic traits that result in a certain characteristic in an animal such as a large ribeye area, and then ensuring that genetic trait is in an embryo. All of the cloning and genetic engineering has potential of increasing animal and meat production all the while increasing the efficiency of inputs into those animals. This could have great economic impacts. This increase in efficiency of resources will be necessary to agriculture in the future to feed and clothe a growing population with fewer resources.

Pork Production in Texas: Mr. Ken Horton

Not knowing much about pork production, this was a great presentation. It takes 6.5 months from a pig’s birth to harvest them. Most hogs are harvested at 280 to 290 lbs. Most hog production in the U.S. is in the Midwest primarily in Iowa. Guymon, Oklahoma has a swine processing plant that processes 19,000 hogs per day. Humidity is hard on pigs. These factors make the top of the Texas Panhandle a great location for swine production. Hog operations in these counties pay more in taxes and employ more people than other industries in these counties. Perryton has the largest hog operation in Texas known as Texas Farm. Texas is about the 15th largest pork producing state producing about 1.4% of total U.S. production. 35% to 40% of hogs grown in Texas are finished out in the Midwest. In the U.S. there is a decrease in the number of hog operations and breeding herds, but there is an increase in litters per sow, pounds of lean pork per head, and pigs saved per litter which has resulted in greater efficiency, more production, and more exports. The U.S. is the lowest cost pork producer in the world, so 27% of pork produced is exported. Water usage by hog facilities has gotten much more efficient by going from using 12 to 15 gallons of water per sow per day to now using 6.8 gallons of water per sow per day.

200/12 Irrigation Project – Growing 200 Bu Corn on 12” of Water: Mr. Harold Grall

The 200/12 Irrigation Project is an effort to produce 200 bushels of corn in the Texas Panhandle using only 12 inches of irrigated water. Mr. Grall believes this is an achievable goal, and being a corn farmer himself he strives to achieve this every year. The weather has not cooperated very well in the last few years due to drought but Mr. Grall thinks he would yield 200 bushels per acre on a typical year. It is important to conserve water in the Ogallala Aquifer and produce more agriculture products with fewer resources which is the goal of the 200/12 Irrigation Project.

Water Issues in the Texas Panhandle: Representative Four Price

Water is a precious resource that is diminishing in the Ogallala Aquifer and it has to be conserved. About 80% to 90% of the water used from the Ogallala Aquifer is used by agricultural irrigation. Demand for agriculture commodities will continue to grow; the population of Texas is projected to be 46 million by year 2060. So it is important to produce more agriculture products with fewer resources. The State of Texas is encouraging water conservation but it is also encouraging population growth. Urban areas continue to grow more rapidly than rural areas and urban areas will have more votes and more representation in the government. If urban areas ever feel a competition for water with rural areas, rural areas could have water restrictions placed on them which can be detrimental to agriculture production and the rural economy. Rep. Price also informed the class that some water is being desalinated from the aquifer that is deeper than the Ogallala in efforts to irrigate with it.

Exploration and Production of Oil and Gas in Texas: Mr. Wayne Hughes

This is a great subject to discuss. The oil and gas industry in Texas has been a major part of the Texas economy and it has had a heavy impact on agriculture in Texas due to gas and oil wells being drilled on agricultural land. The gas and oil income has sustained a lot of agricultural operations in Texas that otherwise would have shut down. Mr. Hughes informed the class that the oil and gas industry accounts for 20% of the money spent in Texas. Mr. Hughes also mentioned the rising costs of drilling oil wells in the Texas Panhandle due to wildlife issues, leases, etc. He said the average cost of an oil well in the northeast panhandle of Texas costs about \$4 million no matter if it produces anything or not.