

Tuesday, October 25, 2016: South Plains Agriculture

PYCO Oil Mill:

Our Lubbock/Amarillo trip began by visiting PYCO Oil Mill, a cottonseed processing facility in Lubbock. While there, Mr. Robert Lacy, Senior Vice President of Marketing for PYCO, introduced us to the world of cottonseed oil mills. We not only learned about the vast areas cottonseed oil is used, but we also learned that of the eight oil mills in the United States, PYCO is the largest in not only the country, but the world. PYCO produces approximately 800 million gallons of cottonseed oil per year.

In addition to their cottonseed oil manufacturing, PYCO is also involved in the short-line railroad business. PYCO purchased a short-line railroad in 2008 and currently serve 30 to 40 customers. PYCO made the decision to purchase the short-line railroad for stability purposes as the railroad is their “lifeline,” according to Mr. Lacy.

PYCO processes 400,000 tons of cottonseed per year, of which 200,000 tons were sold to dairy farms in 2015. It was interesting to note that the higher the oil content of the cottonseed, the more money for the farmer, and that the oil quantity/content of the seed has decreased with the use of GMOs, according to Mr. Lacy.

We also learned that cottonseed is a Title I product, making it eligible for POC under the Farm Bill. Mr. Lacy further discussed with us that within a bale of cotton there is approximately 650 pounds of cottonseed. He further detailed that the farmer’s cottonseed check will typically pay for the farmer’s ginning expenses, plus a possible profit margin, i.e., 30% of the value of the crop is found in the cottonseed.

Mr. Lacy further discussed with us the four products from cottonseed:

1. Cottonseed Oil;
2. Cottonseed Meal;
3. Hulls; and
4. Linters.

Throughout our discussions, Mr. Lacy discussed with us the fact that cottonseed oil contains no cholesterol and was the first vegetable oil used. One-third of the cottonseed value is derived from cottonseed meal, which is sold at 41% protein and used in livestock feed for beef, sheep and catfish and fertilizer. Cottonseed hulls are used for roughage in feeds, mud in oil well drilling and petroleum refining and plastics. Last, but certainly not least, cottonseed linters, the fibers removed from the seed, are used in both chemical and non-chemical methods. They are used for twine, bedding/cushioning, and since they are pure cellulose, sausage casing, finger nail polishes, electronics and computers, and the whole cottonseed is the key ingredient in dairy cattle feed for its high fiber, energy and protein.

Because of its numerous uses, the cottonseed is regulated by both the FDA and the EPA.

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

Heinrich Brothers Farms, Drip Irrigation Cotton Field and Monsanto Agronomist:

Following our visit to PYCO, we traveled to one of the Heinrich Brothers' drip irrigation cotton fields where we heard from Mr. Burt Heinrich, Co-Owner of Heinrich Brothers Farms, and Mr. Eric Best, an agronomist with Monsanto. While there, Mr. Heinrich discussed with us the various advantages of using drip irrigation for cotton production, some of which are the reduction in labor costs and the conservation of water. The particular field we visited had been under drip irrigation since 1999, and the tape has not had to be replaced yet. One key phrase Mr. Heinrich kept referring to was "more crop per drop." He further discussed with us that the tape emitter emits 0.16 gallons of water per hour, which results in 0.20 inches per day, and one inch of water every 5 days.

Mr. Heinrich discussed how he plows with the rows using stock cutters on front to cut the stalks when he plants, allowing him to keep cover on his field and reduce the amount of topsoil he loses from wind. The drip tape is planted 14 inches below the surface of the ground. Mr. Heinrich also uses compost on the surface of his fields and uses 80 inch rows.

Mr. Best further discussed with us the change in Monsanto's marketing strategy due to younger generations' use of social media, and Monsanto's need to hire younger people to "blog."

Lubbock Cotton Growers Co-op Gin Tour:

After our tour of the drip irrigation field, we traveled to the Lubbock Cotton Growers Co-op Gin, where he heard from Mr. Jerry Butman, General Manager of the gin. While there, we learned that the gin serves approximately 60 producers and ginned 85,064 bales in 2015. Mr. Butman further stated the gin is set to gin approximately 90,000 to 100,000 bales this year. During our stay in Lubbock we also noticed that many cotton fields have been using the round bale instead of the traditional cotton module. Mr. Butman explained to us that 3 ½ to 4 round bales equal one module, and the rise of their use over the module is becoming more popular because of the smaller size of equipment needed to produce a round bale. Mr. Butman further discussed with us some of the intricacies of a co-op such as the fact that 20% of the dividends are given back to the farms and 80% is credited in stock, with a minimum of 50% cash back then the remaining 30% in stock.

Fiber and Biopolymer Research Institute:

We next visited the Fiber and Biopolymer Research Institute and visited with Dr. Dean Ethridge, Managing Director of the Research Institute. Dr. Ethridge explained to us that the Research Institute was founded within the College of Engineering, but now is a free standing center that operates under the College of Plant and Soil Sciences. The Center is focused on the use value of cotton as an industrial material, making it distinct from any other ag commodity. The Center is focused on testing and improving the performance and product quality of the cotton. We learned that 95% of the global technologies for spinning are (1) ring spinning (which consists of approximately 70-75% of that 95%) and (2) open-ended rotary spinning (which consists of

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

approximately 20-25% of that 95%). A third technology used for spinning is air jet spinning, but Dr. Ethridge explained to us that this technology is only used for synthetic fibers and only comprises approximately 5% of the industry market.

We toured the Cotton Phonemics Lab, where Dr. Ethridge discussed with us how the HVI classes all United States cotton for both molecular and structural aspects of the cotton fibers. The Center conducts testing for both public breeders and genetic researchers. He further explained to us that the HVI machine could complete its test within 20 seconds and that test would determine the negotiated selling price of the cotton as a textile, industrial, raw material. The HVI measures both fineness and maturity; we further learned that fineness is a genetic component, whereas, maturity is an environmental component.

Dr. Ethridge stated the Center conducts approximately 100,000 tests before the season is over. The majority of the testing is for producers in Texas, however, the Center also conducts testing nationwide and for Israel and Brazil. Dr. Ethridge also gave us a tour of the Advanced Fiber Information System (AFIS), which is a 4 ½ minute test conducted for cottonseed companies to measure the single fibers for length, fineness, maturity, trash dust and fiber maturity and generates the frequency distribution for short fiber content.

TTU – Animal and Food Science Building:

After our tour of the Fiber and Biopolymer Research Institute, we traveled to Texas Tech University's Animal and Food Science Building where we had a wonderful lunch sponsored by Scott and Jane Piercy and Olam Cotton. Dr. Steve Frazee, Texas Tech University Interim Dean for the College of Agricultural Sciences and Natural Resources; Michael Clawson, Director of District 2 Texas Agrilife Extension, and Jaroy Moore, Resident Director of Research, Texas Agrilife Extension, gave welcoming remarks and general overviews of all areas of the agricultural industry in the South Plains.

Overview of South Plains Agriculture:

During our lunch, Mark Brown, Lubbock County Agrilife Extension Agent, gave us an excellent historical background of agriculture on the South Plains. One quote he had on a slide was of particular interest – one of the early explorers, Captain Randolph B. Marcy, stated in 1849, “[w]hen we were on the high table land, a view presented itself as boundless as the ocean. Not a tree, shrub, or any other object, either animate or inanimate, relieved the dreary monotony of the prospect. This is a land where no man, either savage or civilized permanently abides....a treeless, desolate waste of uninhabited solitude, which has always been, and must continue uninhabited forever.”

Mr. Brown also discussed the impact of agricultural production and agribusiness on the Texas economy South Plains agriculture had in 2015, with percentages based on total economic impact by minor category, for a total of \$46.6 billion:

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

- 1.5% vegetables;
- 0.9% fruits and nuts;
- 7.6% miscellaneous crops;
- 7.4% poultry;
- 7.2% milk;
- 36.7% beef;
- 1.9% other meat animals;
- 0.1% livestock products;
- 8.7% ag-related products;
- 3.3% food grains;
- 16.1% feed crops;
- 8.3% cotton; and
- 1.0% oil crops.

He further discussed the vast impact the South Plains has in the cotton, beef cattle, milk, sorghum, corn, wheat, peanut, alfalfa, pumpkin, watermelon and grape industry. He concluded that the future of South Plains agriculture will revolve around “food, feed, fiber and fuel.”

Commodity Organization Presentations:

Mr. Steve Verett, the Executive Vice President of Plains Cotton Growers, also spoke to us during lunch. He discussed with us how PCG is a voluntary organization which was founded in 1956. Their membership is gin-based, and they represent producers through legislation, research, promotion and services. He stated that the South Plains exports 75-80% of the cotton grown in the United States and that cotton is the number 1 cash crop in the State of Texas. He also noted that only approximately 18-20% of the cotton is abandoned in the High Plains area, harvesting approximately 82% of what is planted. He also discussed the difference in rain fed versus irrigated cotton production, with rain fed land producing 250 to 650 pounds of cotton per acre, whereas irrigated land produces 500 to 1500 pounds of cotton per acre. He concluded with the statistics that the High Plains cotton production produces 66% of Texas cotton production; 25% of the United States cotton production; and 3 to 4% of the world’s cotton production.

We also heard from Mr. Tom Sell, with Combest, Sell & Associates, during lunch. Mr. Sell is an attorney and lobbyist for several of the commodity organizations in the High Plains area. He discussed various aspects of federal ag policies and international trade. A frightening number he brought to light is the fact that there are 435 members of Congress, yet only approximately 70 of them have a significant tie to agriculture, yet it takes 218 votes to get anything passed. He concluded with the fact that in order to get anything passed, the ag community/industry must have coalitions.

Ms. Angie Martin, Industry Relations Manager of the Texas Corn Producers Board; Mr. Tim Lust, CEO of the National Sorghum Producers; and Hallie Burtram with the Texas Peanut Producers Board, also spoke to us during lunch. They all addressed the required checkoff and

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

voluntary membership of each organization, and the interrelationship each checkoff has with the association, focusing on how the associations must handle legislative affairs as checkoffs are prohibited from doing so through the Agricultural Code.

Tour of Animal Science Building – “Research in Animal Agriculture”:

Upon concluding lunch, Dr. Chance Brooks and Dr. Leslie Thompson gave us a tour of the Animal Science Building. I was in the group led by Dr. Thompson. It was so nice to visit my alma mater and reminisce with Dr. Thompson.

USDA – Agricultural Research Center:

After departing from the TTU Animal Science Building, we traveled to the USDA Agricultural Research Center, where Dr. John Burke gave us an overview of the Center. During our time there, he discussed with us the areas the Center focuses on:

1. Wind Erosion and Water Conservation;
2. Cotton Production and Processing;
3. Livestock Issues (temperament of animals and the effect on their immune system); and
4. Plant Stress and Germplasm Development.

We spend a large amount of time discussing the problems of the aphids that have destroyed the sorghum crop, and how the Center is working on developing a strain of the sorghum plant resistant to the aphid.

TALL Reception – Bayer Museum of Agriculture:

We concluded the day by attending the TALL reception sponsored by Brady and Hamilton, LLP, and the Texas Peanut Producers. The honoree for the evening was Barry Evans. We of course had to take a group picture in front of the mules at the Museum, which was quite entertaining in and of itself. It was wonderful to reconnect with some of my professors from my undergraduate studies and go to dinner with Koby and Elizabeth Reed, alumni and representative of Olam Cotton, and Allen and Tatum Schilling, with Back to Nature Compost.

Wednesday, October 26, 2016

Diamond Ethanol Plant:

We began Wednesday morning by traveling to the Diamond Ethanol Plant outside of Levelland. Mr. Chuck Fryar, the Plant Manager, gave us a tour of the plant, which was built in 2007. Mr. Fryar referred to the plant as a “diamond in the rough,” hence the name of the plant. The plant produces milo and corn ethanol, with the only variance between the two being the color, although milo ethanol is rougher on the equipment to produce the end product, according to Mr. Fryar.

Alicia D. Meinzer, #19
TALL XV
Session 2 – Lubbock/Amarillo
October 25 through October 28, 2016

The plant can product 124,000 gallons of ethanol every 2 hours, with production reaching 48 to 49 million gallons per year.

Most of the corn and milo is trucked in; however, some is brought in through rail. The plant is also 1 of 3 pellet production mills in the United States, and also makes liquid feed. The plant runs 24 hour per day; however, for a total of 2 weeks out of the year the plant shuts down for regular maintenance.

The pelleted feed produced at the plan is a dry pellet comprised of 100% natural product, with a 10% fat content. The ethanol produced at the plant contains 1% or less of water.

Muleshoe Animal Clinic and Vet Supply:

Following the ethanol plant, we boarded the bus and traveled to Muleshoe to visit the Muleshoe Vet Clinic, the Muleshoe Vet Supply and the Muleshoe Vet Lab, all founded by Dr. Steve Kennedy. Dr. Kennedy gave us a tour of the facilities and discussed with us the services provided. The vet clinic, supply store and lab serve the dairy, stocker, cow/calf, horse, show and small animal industries. The vet lab conducts many types of milk testing and pregnancy testing for these industries. One thing that Dr. Kennedy focused on was the fact that he has adapted to meet the needs of his community, and he credits his success to that adaptability.

Stonegate Farms Dairy

Following our tour with Dr. Kennedy, we visited Stonegate Farms Dairy, where Mr. Joe Osterkamp, owner and TALL XIII alumnus, gave us a tour. I had never been inside a dairy and found it fascinating to see the process and work that goes into the production of milk.

Lunch at Granddaddy's Restaurant and the High Plains Underground Water District:

Following our tour of Stonegate Farms Dairy, we traveled to Granddaddy's Restaurant in Muleshoe, where lunch was sponsored by Mr. Osterkamp and the Dairy Industry Leaders. During lunch, Mr. Jason Coleman, General Manager of High Plains Underground Water District, spoke to us about the groundwater regulations in Texas through groundwater conservation districts, which are funded through county ad valorem taxes. These groundwater conservation districts provide services and guidance; they understand the resource and the reservoir within the district; and they study the aquifer. One downside Mr. Coleman spoke of of the use in groundwater conservation districts is the overlapping of boundary lines within certain districts and the conflicts that arise with this.

Bamert Seed:

Following lunch, we traveled to Bamert Seed, where Mr. Nick Bamert, Owner and TALL IV alumnus, along with our fellow TALL XV cohort, Brett Bamert, gave us a tour. I found their

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

operation fascinating, as one of the clauses included in any oil and gas lease and/or easement drafted in favor of the landowner will always include a provision discussing the replanting of natural grasses once construction/drilling is complete.

Burch Family Vineyards:

We next visited the Burch Family Vineyards owned by Keith and Brenna Burch. Mr. and Mrs. Burch gave us a wonderful tour of their vineyard and showed us the vast number of equipment Mr. Burch uses to operate the vineyard. We even got to taste some of the wine produced from grapes grown in their vineyard. I found it extremely interesting to note that it typically takes 5 years for a vineyard to produce a profit. Unfortunately, we did not get to stay as long as most of us would have liked, as we were running a little late and had to get back on the road.

Caviness Beef Packers Tour:

Following the tour of the vineyard, we traveled to Caviness Beef Packers, where Trevor Caviness spoke to us and gave us a tour of the facility. Eighty to 90% of the cattle slaughtered at Caviness Beef Packers are cows and bulls. The fed cattle slaughtered there are killed first to keep the fed cattle product and the cow/bull product separated. They slaughter approximately 1,600 head per day, and they send 100,000 samples per month for lab testing for anti-microbial properties.

Caviness Beef Packers provides products to a number of fast food chains, including McDonalds, Burger King, Taco Bell, Whataburger, Tyson and Cargill, and 95% of the hides of the animals slaughtered are sent to China for automobile leather. I wish we could have devoted more time to this location, as there was much more that could have been discussed here.

Sharyland Electrical Substation:

Following our tour of Caviness Beef Packers, we traveled to an electrical substation owned and operated by Sharyland Utilities. We were only able to spend a brief amount of time there, but learned that the substation is located with the arm of the CREZ. Discussions focused around the tax benefits wind farms provide counties through certain credits and how the State of Texas contributed to build the substation. The particular wind farm and substation we visited provides electricity for approximately 650,000 houses.

Scott Seed:

Following our visit to the Sharyland's electrical substation, we visited Scott Seed and heard from Coby and Chad Kriegshauser, the owners of Scott Seed. They graciously provided us with a wonderful hamburger dinner. While there we learned about the various projects Scott Seed is involved in, including the development of stronger seed resistant to numerous diseases and insects.

Thursday, October 27, 2016 – Amarillo Session

Timber Creek Vet Clinic:

Thursday morning began with a tour of Timber Creek Vet Clinic, led by the legendary Dr. Gregg Veneklasen. Throughout our discussions, Dr. Veneklasen kept reiterating that “clones are genetically identical NOT genetically modified.” We learned he has cloned cattle, horses, deer and pigs. Dr. Veneklasen focused on the efficiency of cloning – “[p]eople won’t eat clones, but we can use technology to increase efficiency in the cattle/beef industry.” He also brought to light that cloning does not create new defects – defect seen in clones are also seen in regular reproduction; however, cloning can help eradicate these defects.

Of particular interest to me were the discussions that focused on the cloning of horses and the lawsuit Dr. Veneklasen and Mr. Jason Abraham were involved in with AQHA centering around AQHA’s refusal to register cloned horses. Prior to meeting with Dr. Veneklasen, I was opposed to the registration of cloned horses and was very pleased, as were many in the equine industry, when the appellate court ruled in favor of AQHA’s refusal to register cloned horses. However, after hearing Dr. Veneklasen’s side of the story, my stance has changed somewhat. Timber Creek Vet Clinic stands Metallic Cat, a sire by the famous High Brow Cat. All Cat-line bred horses are prone to a disease called HERTA, which in the simplest explanation, causes the horse’s skin to fall off if it becomes hot or is subject to any type of friction, such as having a saddle or blanket on. All Cat-bred horses must be HERTA tested – some who themselves are negative carry the gene, and if they are bred will pass on the gene to the offspring, who may or may not be positive.

Dr. Veneklasen stated his and Mr. Abraham’s goal in cloning horses was to eradicate the HERTA gene. This would be huge in the equine industry, more particularly the cutting horse and reined cow horse industry, as the Cat-bred line of horses are predominantly cutting horses and/or reined cow horses. Dr. Veneklasen further stated that “single gene selection will kill us.” This was an eye-opening experience, and I could have stayed here the entire day listening to Dr. Veneklasen and learning more about what was scientifically available/achievable through the cloning process.

Nance Ranch:

While visiting with Dr. Veneklasen, he mentioned the developments he had made with Dr. Ty Lawrence and WTAMU by cloning a beef carcass. The reality of that statement did not hit me until we visited the Nance Ranch and heard from Dr. Lawrence. Nance ranch is a 2,300 acre university ranch located just outside of Canyon, Texas. There, and with the help of Dr. Veneklasen, they are involved in the “WT Prime One Cloning Project.” The project is responsible for cloning *two* beef carcasses based upon their quality and yield grading (both Prime 1).

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

I was unaware that it was scientifically possible to clone a hanging carcass. It still blows my mind that this can be done. But we saw the physical evidence and proof that it has been done. And they have bred the two clones to produce offspring. Wow – what an eye opener.

During our discussions Dr. Lawrence explained that in an embryo transfer situation, there is a 60% conception rate; whereas, in cloning there is only a 15% conception rate. He stated cloning is not an efficient process, but it is a “tool to capture genetics that would otherwise be lost.” I look forward to learning more about the developments led through Dr. Veneklasen’s and Dr. Lawrence’s efforts.

Xcel Energy:

We next traveled to the Xcel Energy coal plant (Harrington Station) where we ate lunch and toured the plant. During our lunch, which was sponsored by Xcel Energy, they discussed with us the interplay between coal produced energy and wind energy and how wind energy must be used first (because of certain contracts in place) then coal, then gas. They also discussed with us the difficulties this hierarchy produces as coal facilities are designed to operate 24 hours a day, 7 days a week. Nevertheless, they also stated that Xcel is the number one wind-user in the nation, driven by the fact that they receive energy tax credits for the use of wind.

I found it particularly interesting to note that the Harrington Station uses the City of Amarillo’s waste water to help power the plant (once it goes through a distilling process of course). Discussions focused around the fact that electricity is a semi-perishable commodity because it cannot be stored, and that a company has to be careful in being too heavily invested in one energy source due to several factors such as (1) natural gas is volatile in price, (2) coal has emission problems; and (3) wind brings with it issues arising with endangered species, birds, bats, etc. We further discussed the new arising energy sources – wind, solar, wave generators, and the use of water and hydrogen to operate turbines. The key takeaway was that the ability to store the energy once generated will be the key in the future.

WTAMU Classroom at Chase Building in Downtown Amarillo:

Following our visit to the Harrington Station, we raced to the hotel, freshened up and headed to the Chase Building in Downtown Amarillo, where we heard from Dr. Dean Hawkins, Dean and Professor at WTAMU College of Agriculture and Natural Sciences; Mr. Ross Wilson, President and CEO of the Texas Cattle Feeders Association; and Mr. Rodney Mosier, Executive Vice President of the Texas Wheat Producers Association.

Dr. Hawkins discussed with us again the economic impact of the Texas Panhandle within the ag industry – \$5.7 billion in ag receipts; \$1.7 billion in crops; and \$4.0 billion in livestock. Mr. Wilson discussed with us that 25-30% of the national fed beef cattle are fed in the Texas Panhandle, making it the largest cattle feeding region in the country. He further discussed with us the role Texas Cattle Feeders Association plays – to protect cattle feeders interests through legislative affairs, representation, marketing and communications information, and regional

Alicia D. Meinzer, #19

TALL XV

Session 2 – Lubbock/Amarillo

October 25 through October 28, 2016

liaisons, arbitration, seminars and meetings, research, insurance and safety, quality assurance and environmental services. Mr. Wilson also reiterated the economic impact feedyards have in the industry – \$5.7 billion spent annually by feedyards purchasing cattle; \$1.8 million per year spent in feed, which is brought in by rail from as far away as Minnesota, and trucked in as well. The area generates approximately \$8.5 billion in annual fed cattle sales and has a 6.8 million head capacity for packing, producing 2.5 billion pounds annually, and employing 8,100 employees.

Mr. Wilson further reiterated many of the same issues discussed throughout our Lubbock/Amarillo trip, including markets and their volatility; the Trans Pacific Partnership; China/market access/technologies/sustainability; antimicrobial resistances; animal care/health regulations; consumer attitudes/preferences/production technologies; dietary guidelines; groundwater rights; and sustainability. Mr. Wilson stated that the United States beef industry produces 20% of the world's beef, and he concluded with the fact that our growth curve is contingent upon beef export because 96% of the world's population lives outside of the United States.

Finally, we heard from Mr. Mosier who discussed both the Texas Wheat Producers Board and the Texas Wheat Producers Association, and the issues we heard from several of the commodity groups in Lubbock between the Board and the Association, and the responsibilities of each.

Amarillo Reception:

We concluded Thursday by attending the Amarillo reception, also in the Chase Towers, and going to dinner with our hosts from the area. I went to dinner with Mr. Norman Mullin, owner of Enviro-Ag, a company that conducts environmental quality assessments. Mr. Mullin stated his company conducted several inspections during the sale of the Waggoner Ranch; however, the majority of his business is focused on dairy operations.

Friday, October 28, 2016

Cargill Cattle Feeders:

Friday morning we visited Cargill Cattle Feeders in Bovina, Texas. Andrea Payan-Phipps, general manager of the feedyard, led our tour. The feedyard is comprised of five departments:

1. Human resources;
2. Accounting;
3. Processing;
4. Mill/feed; and
5. Yard.

At the time we visited, the yard held approximately 50,000 head of cattle, but Mrs. Payan-Phipps stated they are permitted to hold 60,000 head, and the average per year is 56,000 head. During

Alicia D. Meinzer, #19
TALL XV
Session 2 – Lubbock/Amarillo
October 25 through October 28, 2016

our time there, Mrs. Payan-Phipps discussed with us their feeding procedure, medication procedure, EPA requirements for runoff, employee retention, and dust and fly control.

South Plains Compost:

Following our tour of the feedyard, we traveled to the nearby South Plains Compost. The compost serves as a subcontractor for the feedyard and provides pen cleaning services to the feedyard, then sells the compost materials to local farmers. The compost location we visited services three feedyards in the Amarillo area, and fourteen feedyards total.

Mr. Steven Akers spoke to us about the process of applying water (infused with microorganisms) and turning the compost to keep it hot enough to kill the weeds before the compost is spread on the field. According to Mr. Akers, the compost is not certified organic, but is safe for organic use. The typical application requires 3 tons of compost per acre, at \$75 per acre.

Sweet Bran:

Our Lubbock/Amarillo trip concluded with a tour of the Sweet Bran facility in Bovina. They discussed with us the process of bringing the corn in from Nebraska and Iowa, through rail and trucks. This facility ships 7,700 tons of product per day and provide feed for 1.4 million beef cattle and 150,000 dairy cattle. Their service range is approximately 70-80 miles.

They concluded the tour with an overview of Sweet Bran's customer retention philosophy:

1. The employees know the product (consistency by design);
2. The customer knows it will be there (the customer doesn't have to worry about not getting the feed);
3. The company eliminates sources of frustration;
4. The company is easy to do business with;
5. The customer does not see or feel the company's problems; and
6. The company's personnel care (through responsibility and a sense of ownership in the company).

The Lubbock/Amarillo trip was a fast-passed tour of the ag industry within the Texas Panhandle. The Texas Panhandle is so diverse and complex I feel we could have spent a month there and still not covered every aspect of the ag industry as it relates to the Texas Panhandle, but I feel everyone involved in planning our trip did an excellent job in giving us a broad overview of the vast arrays of the ag industry within the Texas Panhandle. Thank you for all of your hard work.