

Sandra Choate, #5

TALL XIV

Session 2 – Lubbock/ Amarillo

October 14-17, 2014

TALL Session 2 – Lubbock/Amarillo – South and High Plains – Production, Producers, Progress...

As you can see from my title this session had many names and was officially referred to as Production, Producers and Progress; however, I saw a new theme during our exploration of the Panhandle of Texas....Cooperation, Collaboration and Diversification.

Day 1 -- Tuesday October 14th

South Plains Agriculture

PYCO Oil Mill

Robert Lacy, Senior VP Marketing

The PYCO Oil Mill is a wonderful operation with which to begin our session by bringing my chosen theme into perspective from the beginning. Producing so many by-products from the “waste” of the cotton industry truly shows the cooperation, collaboration and diversification in the south and high plains area. Although I was aware that cotton seed meal is used as a protein source for the animal industry, it was interesting to learn that utilizing CSM in a dairy ration adds butterfat to the milk. The use of liners to make gunpowder and touch screens as well as the benefits of cottonseed oil in cooking was new and interesting information for me. PYCO makes an enormous economic impact on the cotton industry and the Lubbock area; further showing the benefit of cooperation, collaboration and diversification in the agricultural.

Drip Irrigation Cotton and Monsanto

Burt and Eric Heinrich – producers

Burt and Eric Heinrich have an impressive operation utilizing both drip and pivot irrigations systems making them the perfect pair for us to visit to learn about the cotton production in the South Plains. Cooperation, collaboration and diversification were evident as they worked closely with Monsanto and Diversified Sub-Surface Irrigation Systems, Inc to make the most of their operation. The Heinrich’s forward thinking attitude allowed them to make the management decision to utilize drip irrigation, which following the lofty initial installation investment for the infrastructure is more cost effective than pivot irrigation.

Eric Best, Monsanto Agronomists

In West Texas water is the limiting factor in the production of any commodity. This is the statement that stuck with me throughout Eric’s presentation. The fact that 55% of west Texas is irrigated and the most efficient of that is irrigated with tape was another impressive fact. Eric’s expertise in the biotechnology of producing cotton, corn, and sorghum was evident as he discussed with us the fact that genetic engineering will be necessary to overtake the chemistry of production as resistance to pesticides is becoming rampant. He summarized the challenges of production as being water, weeds and bugs – a very simple statement with a huge impact on agriculture. Luckily we have companies like Monsanto and people like Eric to cooperate and support producers to insure they are successful and profitable.

Lubbock Cotton Growers Coop Gin Tour

Jerry Burton, General Manager

Jerry’s insight into the post production process of ginning the cotton was eye-opening. I have toured a conventional gin in the past but this high capacity gin was amazing. Tripling the production from 30 bales/hour to 100 bales/hour makes an astounding difference in the marketing of the cotton by processing the cotton in the same year it was raised. The choice to upgrade the gin was a management decision of the board and it has proven to be a good one. Jerry also touched on the use of Fiber Max cotton and how that has not only increased the staple quality of the cotton but also

reduced the pounds of seed/bale – reducing one of the costs of ginning. Again cooperation and collaboration were touched on when Jerry referred to the selling of burs to local livestock producers, milling of the cotton seed and selling the remainder of the byproducts to companies such as South Plains Compost.

Llano Estacado Winery

Mike Laughlin

I toured Llano years ago, it was actually my first winery to ever tour – although there were not a lot of changes that I noticed this tour was just as exciting, allowing me the opportunity to compare it to other wineries I have since toured. The history of Llano is perhaps the most interesting aspect of the tour with the story of it being started by Dr. Reed and Dr. MacPhearson of Texas Tech University after finding a vineyard on the campus and producing wine in the basement of the Chemistry building. It is also impressive that they can process approximately 20 tons of grapes in about an hour and a half preparing them to take the first step to producing the 150,000 case of wine produced in 2013. I am also impressed by the fact that they are the 2nd largest winery in Texas.

Fiber and Biopolymer Research Institute

Dean Ethridge, Research Professor and Managing Director

Again, I have toured this facility in the past and again I was impressed with the development of technology within the past 10 years. Much has changed in the past few years – the focus is now more technical than I remember in the past. Perhaps the most interesting was the advancement of the cellulose maturation of the cotton fiber which if I understood correctly was a result of a partnership with Bayer Crop Science – again cooperation, collaboration and diversification in the cotton industry. It was wonderful to meet a gentleman so devoted to the industry and passionate about the research for which his institute is responsible.

Texas Tech University

Welcome and Introductions: Tanya Foerster, Director of Advertising Capital Farm Credit/TALL XII

The Lubbock Area TALL Alumni did an amazing job of organizing our session and stay. Tanya did an equally amazing job in making us feel welcome. I know there are many new experiences to come with TALL but I do not think we will feel more welcome and loved than we did in during this Panhandle experience.

Overview of Tech Animal Science “Research In Animal Agriculture”: Dr. Michael Orth, Chair and Professor

Dr. Orth is doing an outstanding job leading Texas Tech Animal Science as they move forward with research and education in an ever challenging world. His leadership in adopting the department motto: *Discovering Solutions, Empowering Student and Serving Society* shows his dedication to supporting the cooperation, collaboration and diversification that we observed in the production, producers and progress throughout our Lubbock/Amarillo area and session.

Overview of South Plains Agriculture: Mark Brown, Texas A&M AgriLife Extension Agent, Lubbock County

Mark is obviously very proud of the county he represents and assists. The heritage and history he presented was inspiring and the current production statistics were impressive. The South Plains of Texas stands out in agriculture because we have professional such as Mr. Brown prepared to direct and support the producers to get the most out of their resources, including land and water – both priceless commodities to be respected and conserved.

Commodity Organization Presentations – again cooperation, collaboration, and diversification of production, producers and progress in Texas Agriculture was evident as these commodity leaders spoke to our group.

Plains Cotton Growers: Steve Verett, Executive Vice President

Mr. Verett painted an impressive picture of the cotton industry as the most highly produced agriculture commodity in the south plains. The simple fact that the number of acres of cotton has declined but the number of bales produced continues to increase makes a huge statement about the cooperation, collaboration and diversification of the industry to make the most of the resources available. The Plains Cotton Growers has played an important part in making that happen.

Texas Corn Producers Board: Angie Martin, Industry Relations

Angie does a wonderful job of getting the information out to the corn producers of Texas. Being a former Agriculture Science teacher I thought it was great that Angie made the comment that corn is grown throughout the state of Texas – as the FFA recognizes it as the crop that represents the unity of agriculture the United State as it is grown in every state. A few facts caught my attention – most of the corn grown in Texas is north of Amarillo due to it being a high water usage crop – and the majority of the corn grown in Texas us used for livestock feed. The reference to GMO's, the Farm Bill and water research demonstrate the extended knowledge the TCPB passes on to its members and encourages them to pass on the general public; which as Angie pointed out must be the primary focus of our educational programs.

National Sorghum Producers: Tim Lust, Chief Executive Officer

It was interesting to learn through the commodity presentations which groups had a checf-off and which did not, and which were mandatory and which were voluntary. Also it was interesting to learn in what situations check-off money can and cannot be used. Mr. Lust was very informative in this area. He also did a great job of explaining the benefits of having two organizations representing one industry and how they can and do work together for the sorghum growers. Again based on the genetic advancements and working together to improve the industry there are fewer acres of sorghum being planted yet more bushels harvested...advancements through research that are acted upon based on cooperation, collaboration and diversification in the production process.

Texas Peanut Producers Board: Shelly Nutt, Executive Director

Although short, sweet and to the point Shelly did great job summarizing the peanut industry in Texas. It is a small commodity compared to cotton, corn and sorghum but it definitely has its place in the agricultural industry in Texas. Even though it is a high water usage crop; there is great benefit in rotating leguminous peanuts on your fields to increase the natural nitrogen levels. I did learn that Texas is primarily known for its Valencia peanut production; these are the ones we like to eat at the ballpark!

Tour of Texas Tech Animal Science Building and Facilities: Dr. Leslie Thompson

Dr. Leslie Thompson did an amazing job with our tour of the research facilities in Tech's Animal science department. The facility appears to be utilized to the fullest extent as every lab we entered had someone working and the equipment was state of the art as well. Tech appears to be a top notch research institution and based on Dr. Thompson's narrative on the tour the faculty is in place to fully utilize the space and paraphernalia. Perhaps the most exciting part of our tour was getting the see Fearless Champion; the Masked Rider's current mount. I love that Tech is so protective of their mascot – he is a beautiful and amazingly well-mannered horse.

Lubbock Cotton Classing Office

Gerald Talkmitt, Area Assistant Director USDA Classing Office

The Lubbock Cotton classing office is one of 4 USDA classing stations in Texas and 10 in the United States. This office will receive between 48,000 and 55,000 cotton samples per day. These samples arrive in a USDA bag with a sample pulled from either side of each bale produced and ginned; an electronic tracking system is in place to track the sample and the bale for classing purposes. Mr. Talkmitt was proud of the fact that his office usually stays “caught up” with their samples and never gets over 3 days behind. As the samples arrive at the classing office, they are first regulated to the standard temperature and humidity for classing – this takes approximately 8-10 minutes. The sample then moves to the HVI, high volume instrument, for the initial classing process. The process is completed manually and the results are available immediately to the producer via the USDA Cotton classing facility data base. Cotton is classed based on fiber length, length uniformity, fiber strength, micronaire, color, trash, leaf, and extraneous matter. This is the end of a very high tech process for one of the oldest agricultural commodities – amazing!

The TALL XIV Lubbock Social was an amazing event. The Bayer Museum of Agriculture is a beautiful venue. During the social hour I was able to visit with quite a few of Lubbock residents and it is obvious that they are all equally proud of the heritage and economic value that agriculture brings to the South Plains. It was a true privilege to be included in a program honoring Dan and Linda Taylor. I have served on boards with Dan in the past and I know his love for agriculture and his dedication to the industry.

Day 2 Wednesday October 15th

South Plains Agriculture Continued

Diamond Ethanol Plant

Chuck Fryer, Manager and Matt Duler, Grain Merchandiser

Chuck was our tour guide on this adventure and he was a great one! The production of Ethanol fermentation of the mash to produce alcohol, which of course is reliant on the reaction of yeast; one of my favorite comments Chuck made was “If the yeast are happy then Chuck is happy.” The Diamond Ethanol Plant uses mostly milo to produce their fuel. This is a choice made by the management. The production of Ethanol requires lots of water; however very little fresh water is used at this location. Grey water from Levelland is used to run the plant and is supplied through a 7 mile pipeline. Wet Distiller’s Grain, WDG, a bi-product of the process, is sold as a source of livestock feed. All the Ethanol produced at this plant is trucked out – they do not use the rail system. Again cooperation with the grain industry, collaboration with Levelland for grey water and diversification in selling the by-products are evident in this industry.

Kettner Pumpkin Patch

Kelly Kettner, Owner/TALL XIII

The Kettner Pumpkin Patch was a joy to see. The pumpkin fields were colorful and vast. I was amazed with the number of pumpkins left in the field that had been picked but I guess we all do want the “perfect pumpkin” to carve into a spooky jack-o-lantern or gut to make the perfect pumpkin pie. The challenges of this niche market included expensive seed, a need for expensive fungicide, dry air conditions, well timed water (but not a lot of it), a need to rotate your fields, extreme selection with shape, size and condition, as well as a very short marketing season – if you do not ship your pumpkin a week before Halloween, normally you will not ship it. This year the rain came at the beginning of harvest so the season was shortened and now the pumpkins tend to have mold from sitting on the wet ground. So why would a farmer chose to grow pumpkins – the niche market brings a premium price if the timing is right. Pumpkins are a

great diversification in the larger scheme of farming in the south plains. Kelly has a mere 120 acres in pumpkins of his 4000 that he farms but he makes a good profit from this relatively small field.

Ag Aviation, Inc.

Fred Locker, Owner

The use of airplanes to apply chemicals is nothing new to the agriculture industry – especially in the Panhandle, but Ag Aviation is unique in that they are also the supplier of the chemical and employ an agronomist to consult customers on how best to treat their crops. At Ag Aviation they have seen many changes in the industry. The planes they fly now are Air Tractor 802 which hauls 800 gallons of chemical as compared to the 100 gallon chemical tanks on the planes when the company began. The use of GPS to navigate fields is much more efficient than having spotters at either end of a field directing the pilot from the ground. Finally the “softness” of the chemicals allows for more selective application and less collateral damage due to drift.

Stonegate Farms

Joe Osterkamp, Owner/TALL XIII

Stonegate Farms was an impressive and well-managed dairy operation, efficiently milking approximately 3000 head of mostly Holstein cattle twice daily with only 23 employees, plus family. The process of mixing and delivering feed at a rate of 51 pounds of dry matter per day per cow is an enormous task requiring great management. Again cooperation and collaboration are evident in the management process as some of the feed products are purchased from area farmers and who in turn are allowed to collect manure from the pens to use as fertilizer. All cows are artificially inseminated with sexed semen and calves are removed from the cow immediately. Bull calves are sold and heifer calves are sent to a local calf ranch and raised out for replacement heifers. The pens are sorted by lactation – all management decisions are made in the best interest of the health and well being of the cattle while maintaining profitability.

High Plains Underground Water District

Jason Coleman, General Manager, HPWD

The High Plain Water District was created in 1951 to conserve, preserve, protect, prevent waste and recharge the aquifer of the district. With the water issues facing our county today – the establishment of this organization showed the foresight of the people of the high plains and their ability to address current issues from past experience. There has been much legislation since the inception of HPWD and that legislation has required changes be made in the management of the water in the area. Realistically there was too much information provided on the issue of water management to summarize in this brief but a very informative website was provided at www.hpwd.org and I encourage you to visit.

Cargill Cattle Feeders

Meredith McGowan, Cattle and Yard Manager

Nathan Reeves, Feed Manager

Meredith and Nathan provided a wealth of information in a very short time. They rattled off facts and figures like they were song lyrics. Cargill has an impressive system and the management is obviously working. According to our tour guides the facility is rated for 60,000 head but usually has approximately 55,000. They ship between 1300 and 3000 per week. Cargill takes full ownership of all cattle in the lot so that they can rotate pens and cattle as necessary to keep uniformity. The normal in-weight has been about 725 pounds but within the last few months that has dropped to approximately 600 pounds causing them to have to feed for additional days. The facility has had to become a grower yard to get the fat cattle out. They mix approximately 1.4 million pounds of feed per day. Their goal being to feed 800,000 pounds in 3 hours – that’s 12000 pounds every 30 minutes between 6am and 9 am. They are feeding sorghum

silage this year. They feed a medicated starter ration called RAMP, produced by Sweet Bran, to their incoming cattle. Handling cattle is a major training issue which is monitored constantly. Cargill is a participant in the beef cattle assurance program.

Sweet Bran – Bovina

Matt Meland, Bovina Sweet Bran Facility manager

Ethan Peterson, Bovina Production Team Lead

Shay Smith, Bovina Production Supervisor

Jessica Zaharia, Feed Specialist

Mike Williams, Bovina Sweet Bran Maintenance & Reliability Lead

This was an amazing tour – the most impressive part was dumping of the train car without detaching it from the train. Sweet Bran is a high moisture cattle feed that corn gluten based and is produced through a wet milling process. The feed is produced primarily to be shipped and used in bulk; however, enough is bagged and stored to provide feed if there is a breakdown at the plant. Ramp; the medicated starter ration fed at the neighboring Cargill Feed yard is also produced at this plant. A bright yellow color is added to identify it as a medicated feed but that has proven to be a benefit to know that cattle are eating the ration.

South Plains Compost

Steven Akers

The composting procedure is used to clean the pens at the feed yard and utilize the manure for compost. The feed yard must provide the land for the compost. Approximately 75,000 tons of manure is collected each year and is composted down to about a third. Cotton burs are also utilized in the process and the composting is started with a liquid containing the microorganism.

Impact of Ag on Deaf Smith County and the Impact of Deaf Smith County Ag on the State of Texas

Rick Aukerman, Texas A&M AgriLife Extension Agent – Ag and Natural Resources, Deaf Smith County

Mr. Aukerman's presentation on the impact of agriculture in Deaf Smith County was amazing. Again his pride in his county was evident in his presentation and was definitely justified by the numbers he presented.

Day 3 October 16th

Amarillo Session

West Texas A&M Speaker Panel

Don Topliff, PhD -- Dean of College of Agriculture, Science and Engineering

Dean Hawkins, PhD -- Head Department of Agriculture

Dr. Topliff's breakdown of the enrollment at West Texas A&M University showed that the college and department are growing. This growth is attributed to the outstanding faculty working to not only upgrade the educational aspect of the college but actively seeking research and development opportunities that expose the student to outstanding experience to prepare them for the world beyond WT.

Tye Lawrence, PhD – Head of Beef Carcass Research Center

Dr. Lawrence briefed the class on a project that WT is working on in cooperation with an individual and ViaGen to produce a Prime One beef animal via cloning from a carcass. This project is a collaboration with private individuals and

industry players to advance the beef production industry. The researchers located the ideal carcass and collected cells from said carcass to produce a live animal through a cloning process. This is the first time to their knowledge that a live animal has been produced from a carcass – especially an aged carcass. Alpha was the first production; Gamma and 2 Betas followed. All are currently being fed out and constant testing is being done to see if they are the beginning of a new breed.

Representative Four Price, Texas House of Representatives – District 87

Of course, Representative Price updated the group on the most pressing issue facing our state....water and water policy. Focusing mainly on the implementation of House Bill 4 aka Proposition 6; discussing the importance of monitoring how the Water District Boards utilize funds and making adjustments to those plans as needed. The issues addressed in and affected by this legislation include water reuse in rural areas, aquifer storage and recovery systems, desalination of water for public use, and the EPA clean water act. Rep. Price did mention a water development tax incentive that may be in our future.

Brandon Gunn, Texas Pork Producers Association

Brandon did an excellent job of enlightening the class on the current pork market as well as the challenges facing the market. The Texas Pork Producers have launched numerous public relations programs to combat the negative publicity that the pork industry often faces. A strong consumer education program is the first line of defense; focusing on collaborating with the growing culinary industry to promote the use of pork in food service. Producer programs are the second focus; including the We Care program, Pork Quality Assurance, producer education programs and publicizing the positives with newsletters and magazine articles. A strong youth program of course is also a priority as educating and training the youth must be the first step in securing the future of any commodity. Finally, aggressively facing the public policy issue is the concluding focus. Planning for tomorrow but acting on today.

Shandi Leavitt, Texas/Poland Young Farmer Exchange Participant 2014 Program Experience

Once again, WOW! Shandi did an amazing job in highlighting the Texas/Poland Young Farmer Exchange Program. She is an outstanding young lady that took the opportunity of a lifetime and made the absolute most of it.

Timber Creek Veterinary Hospital/ViaGen

Gregg Veneklasen, DVM, Owner

The visit with Dr. Veneklasen shed a new light on the Beef Carcass Research Center's cloning project. Perhaps the most evident of those was the difference in the goal of the vet and the institute...whereas WT is looking to develop a new breed; Dr. V wants to identify the genetic traits so that feed programs can be individualized and all feeding programs can be more successful. In short, Dr. V would like to see an even smaller carbon footprint left on earth from the beef cattle industry and if a feed program can be developed utilizing more grass fed and finished beef, we can do just that. Dr. V has done some fascinating work with the forward thinking members of the horse industry and it was awe inspiring to see the results of that work in person in his clinic and the surrounding pens. Utilizing that progressive nature has allowed Dr. V to make great strides in genetic research. Although most of Dr. V's cloning research is done with the horse industry; I was perhaps most interested in his work in feral hog control utilizing single gene alterations to limit the lifespan of the hogs. This is the type of cooperation, collaboration and diversification you read about; it was great to see it in action in Canyon, Texas.

Xcel Energy

David Chapman, Analyst V, Environmental Policy and Services

The tour of Harrington Station of Xcel Energy was very informative and enjoyable. Harrington station is a low-sulfur coal powered plant that secures fuel from the Wyoming Powder River Basin which is shipped via railway. Unlike the majority of the state the Texas Panhandle is powered by the Eastern Grid, of which Harrington Station is an energy supplier. The three unit plant provides 1018 megawatts of energy annually at an extremely reasonable rate, leaving a relatively small foot print on the panhandle. Xcel cooperates with Amarillo to utilize recycled waste water as their coolant, in turn delivering their “waste water” to nearby farms for irrigation of crops and fields. . Xcel has explored wind and solar energy options but amazingly, the cost to produce via Harrington Station is more economical than the other two options at this time. Although I was raised in a town that was “put on the map” by a coal powered electrical plant, Harrington station was an interesting and informative tour.

High Plains Food Bank

Broc Carter, Director

The visit to the High Plains Food Bank was an eye opening experience. I am not sure if this is the rule for food banks or the exception but the programs that are in place in Amarillo are wonderful. The storage and distribution of the food was efficient and productive; serving 169 agencies in 29 counties to the tune of 7 million pounds of food per year. The combination of donations, purchasing and USDA contributions make the High Plains Food Bank a well rounded provider for the less fortunate in the area. Participation in programs such as GoTexan and Texans Feeding Texans allow the food bank to be successful and efficient. The garden and food production area was equally impressive. Producing your own food is a great skill to learn as well as supporting those not able to support themselves. Finally, the Kids Café Kitchen was amazing, producing 1000-1200 meals per day was the topping on the cake to make this the most impressive food bank in Texas.

Round Table Discussion

Senator John Cornyn, United States Senator for Texas

The round table discussion with Senator John Cornyn was a great experience. The people gathered around the table were as impressive and influential in the Agricultural community as Senator Cornyn himself; if not more. The political process is quite a mystery to me but I feel sure that as I progress through TALL I will get a better understanding and feel for the process.

Sharyland Update

Sherry Kunka, Consultant, Community Affairs, Sharyland Utilities, L.P.

Energy, its production and supply, will continue to be a great concern for our state and country for a lifetime. As our population grows and our supply of energy resources dwindles; we will have to find a way to continue to provide options. Sharyland is a South Texas company with its origins in Hildago County that is doing just that by acting on the CREZ (Competitive Renewable Energy Zone) process -- created to help encourage the development of wind generation in Texas by facilitating the construction of needed electrical transmission lines to the areas of the state determined to have superior wind resources. They see the potential in the Panhandle and South Plains and have developed 5 collection stations in the Panhandle as well as the transmission and distribution lines to deliver the electricity.

The TALL XIV Amarillo Reception was impressive as the previous. The beautiful American Quarter Horse Museum was as well a wonderful venue and the evening was amazing. I thoroughly enjoyed visiting with the Amarillo residents including many tall Alumni. Our dinner host took Rebecca and I to the Amarillo Club, which had an awe-inspiring view and amazing food.

Caviness Beef Packers

Terry and Trevor Caviness, Owners

The Caviness Beef Packing plant was an impressive operation. The sheer number of cattle processed daily in the plant is amazing, not to mention the efficiency with which this task is accomplished. The history of the company, starting from a small packing house in 1962 to processing over 1800 head per day in 2014 is astounding. There are too many facts and figures that blew my mind to mention them all – the number of pounds of beef provided to the USDA school lunch program, cuts provided to commercial food chains such as In and Out Burger, the testing and grading happening daily, not to mention the concern for the security of the plant. The management practices and issues that come up daily are astounding. The Caviness family has done an outstanding job in establishing and growing an amazing operation and will continue to be successful based on their values and knowledge.

Scott Seed

Coby and Chad Kriegshauser

Our tour at the Scott Seed Farm was a great way to conclude the week. I learned more about sorghum in this hour than I thought there was to learn. Perhaps the most impressive was that the sorghum industry and the popularity of sorghum is growing basically due to the fact that it is gluten free and can be utilized in a manner similar to wheat. I also learned that sorghum can be popped like pop corn, granted I learned this from Collin and not from the Kriegshauser brothers but still it was something about sorghum that I did not know. The fact that approximately 85% of the seed shipped around the world comes from the Texas Panhandle and that there a

Our session studying the production, producers and progress in the Texas Panhandle was amazing. As I write (and rewrite) this narrative I find myself looking up facts and figures to see if I perhaps jotted down the information incorrectly as the numbers seem too high to be correct; however, I find that I was correct and the numbers are impressive. I have also found many other impressive facts that were not mentioned during our session (or perhaps I just missed getting them documented). The producers in the plains of Texas have progressed in an amazing fashion over the years and I am proud to be a Texan where the agriculture industry is prospering as the values and principles that established our state and our industry are being upheld and honored.