

Kassidy Martin
#14
Session 5 – California

“Employment, Emigration, Environment”

Session 5 for the TALL class wrapped up in California giving me an eye-opening experience. I had the opportunity to learn about state politics, California agriculture, and issues facing California producers by visiting a wide array of locations in the Central California Valley.

Monday - October 21

Bayer

We started our session off with a visit to Bayer. They gave us a tour of the facility, but we also had some great discussion with researchers and project group leaders. Our biggest discussion was on the merger of Bayer and Monsanto. The group talked to us about how their work duties and processes have changed. Just like with any corporate change, the employees have had to learn to work together in an ever-changing environment.

California Department of Food and Agriculture

It was at the California Department of Food and Agriculture where we met Karen Ross who is the Secretary for the department. We talked about general California agriculture including dairy, citrus, and almonds – but it was here where I learned about initiatives, and let me just say that I was shocked. Any person in California can put together an initiative and get 660,000 signatures – then this initiative gets put onto the ballot without any legislative structure, review, or editing. After hearing this, I thought to myself - this is how California got so extreme. In a state of 4 million people, 660,000 people are only 16.5% of the population. California is not the only state to function with initiatives, but I think because of the size of the state, they are emphasized more and have a huge impact, especially when you consider the amount of agriculture that is produced in California. Voters can have a wild idea on animal or crop production without any education in the industry, and totally change the industry by one ballot item. I did some research on strange California initiatives and this was the most bizarre one I found: “2. SHOULD A POLICE OFFICER GET TO WALK HIS BEAT WITH A VENTRILOQUIST'S DUMMY?” Along with school vouchers, sales taxes and city charter revisions, voters in San Francisco will decide next Tuesday whether to allow a veteran police officer to walk his beat with a ventriloquist's dummy....Brendan O'Smarty, he of the laughing Irish eyes, whom Officer Geary picked out of a ventriloquist's catalogue after he was selected to work in a community policing program that encouraged officers to use 'creative and ingenious methods' to break down barriers between citizens and police. The hand-carved dummy cost \$1,750 because Officer Geary wouldn't hear of the \$700 molded particle board version.” (via @ClaraJeffery)-- *The New York Times*, October 30, 1993. I know this seems off topic – but it just shows how ideas that can seem outrageous and unapplicable to government affairs are put onto a ballot and can change laws.

California Farm Bureau

I really enjoyed the discussions we had at the California Farm Bureau Federation. Just like in Texas, the California Farm Bureau Federation represents farmers and ranchers of their state. With this group we talked about the dire water situation happening in California right now, including the

Sustainable Groundwater Management Act (SGMA). “SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.” The issue with this act is that farmers and ranchers will be drastically impacted because they will have new regulations on pumping water, while the rights of ownership are not changing. We have heard multiple reports throughout the week on how this will dramatically decrease the amount of acres in agricultural production. This will have a big play on the supply of ag products coming from California, especially almonds. This will not only affect the prices of food here in the states, but will also hurt the US economy with the export industry based on the amount of ag products that come from California

We also talked about Proposition 12 – which they call the egg bill. “This measure (Proposition 12) creates new minimum requirements on farmers to provide more space for egg-laying hens, breeding pigs, and calves raised for veal. These requirements, which apply to farm animals raised in California, would be phased in over the next several years.” The interesting part of this proposition is that it will be expected that all producers who send the products to California will abide by these rules as well. One of the discussion points we had within our group was who will police this in the other states, and will producers not in California abide? We talked about is the cost associated with this proposition and if the income provided of selling to California be outweighed. I asked if the general public has realized what the cost of their staple items, such as eggs in this example, will increase to? I think it is ironic that the same people who talk about food not being affordable and food deserts, are the same ones pushing these propositions that will make agriculture production more expensive and difficult, which in turn will make food costs more and be less available. I think we as Americans need to figure out, do we want readily available and affordable food, or do we want to have the fantasy world of agricultural production such as free range and cage free.

Dairy Institute of California

Going to California I knew that dairy was an important industry to California, but once there we learned that there are 9.4 million lactating dairy cows there. California is the leading dairy state followed by Wisconsin with 1.73 million lactating dairy cows. The Dairy Institute of California was founded in 1939 and acts as a trade association for the dairy industry. They work like commodity groups in Texas by promoting the dairy industry and working with government officials on legislative and regulatory matters. One thing we talked about with the Dairy Institute that I found interesting was the milk pool quota. This program started in 1969 and is a unique program to California. This quota programs pays \$1.70 per hundredweight to producers for Class 1 milk. These quotas can be sold to other dairy producers, so they are considered a liquid asset. However, in 2018 the program was put under new ownership when California went to a Federal Milk Marketing Order (FMMO). The USDA has allowed California to still provide this program as long as they find a way to fund it. According to milkbusiness.com “Under an agreement with USDA, the State of California maintains and regulates the quota program. To make quota payments, the state deducts \$12 million per month from California dairy farmer checks. It amounts to about 38¢/cwt (the exact amount is based on the amount of SNF a farmer sells each month). For the first time, the amount deducted is reported on each dairy farmer’s pay stub. Prior to the establishment of the Federal Order, CDFA made the deduction internally but did not report it to dairy farmers individually each month.” This was a really interesting program to listen

to – and I am still doing research to learn more. I am interested to see if this program is costing California producers or if it truly is providing a benefit to the California Dairy industry as a whole.

Humane Society of the United States

Mr. Scott Beckstead talked to our group about the mission and priorities of the Humane Society of the United States. I am not going to lie, this was hard to sit and listen to, as some of these ideas got extreme. Mr. Beckstead talked about his past of showing animals in the stock show industry. I was really surprised to know that he grew up in the production industry, but has still taken to these extremist concepts that the Humane Society promotes. I had a discussion with a fellow cohort on these ideas and we discussed that people have this fantasy of where their food comes from – but it does not seem they realize the cost of this fantasy. This cost not only includes a monetary price rise but supply will also be limited, which will only rise the prices more from a supply and demand concept. The legislative and regulatory priorities of the Humane Society include: Reform to the commodity checkoff programs, Support Country of Origin labeling, Strengthening organic rules for animal welfare, Oppose the right to farm measures, Oppose consolidation and monopolies of packers and processors, and support regulatory oversight of animal slaughter and processing. The really interesting part to me was their “5 Freedoms” that they strive to promote which is: Freedom from Hunger or Thirst, Freedom from Discomfort, Freedom from Pain, Freedom to express normal behavior, and Freedom from fear and distress. Our group talked to Mr. Beckstead that all producers strive to provide these things for their livestock. However the Humane Society takes these Freedoms to very extreme measures in my opinion, such as cage free chickens and especially removing sow crates from pork production. I honestly think the first time they see a sow lay on her piglets because she is not in a farrowing crate, they will re-think their thought process on this one

Lange Twins Vineyard and Winery

We had the opportunity to tour Lange Twins Winery. Lange Twins Vineyard and Winery is a 5th generation wine grape operation. In 2006, they opened their own winery to better craft their wines. We were also able to see their bottling line system. Adding this bottling system diversified their operation, by giving them another income source from bottling other vineyards wines. Mr. Lange talked to our group out how they are using solar energy to become a more sustainable operation and reduce their electric costs. This was all interesting, but the fascinating part came from discussing land prices in California. Lange Twins is in the Lodi Appellation industry, and Mr. Lange said that land there would go for \$30,000/acre without an established vineyard and \$40,000/acre with an established vineyard. He told us that in Napa Valley land would go for \$400,000/acre! From the ag lending perspective, I would like to see the cash flow from year to year and see how their farming operations are profitable. We also discussed the labor laws in California and how difficult it is for employers to maintain affordable labor. We talked about the heat law that requires shade with specific distances to the shade center and forced breaks, which he said the workers dislike more than the employers. We also talked about how in California it is fixing to go into effect that anything over 40 hours per week will be considered overtime pay. Labor has been something we have discussed with each session, but in California the labor situation is more extreme than anything else we have heard based on their state regulations.

Tuesday – October 22

Mapes Ranch with the Lyons Family

Mapes Ranch was started in 1923 outside of Modesto California. Mapes Ranch has 3,500 acre diversified farming and cattle operation producing almonds, wheat, tomatoes, alfalfa, corn, grapes, oats, barley, beans, forage mix, and melons adjacent to 3,000 acres of rangeland. Mr. Lyons who owns and runs the Mapes ranch gave us a tour of his operation and gave us a good lesson in almond farming. Mr. Lyons talked about the importance of honeybees to the almond process for pollination. He said that having enough honeybees is becoming an issue they are facing, and therefore he has found a way to diversify with a variety called Independent Almonds. He told us that this variety does not require honeybees to pollinate, however the Almond Board told us that they do require honeybees, just not as many as conventional almond varieties. The other benefit to the Independent Almond Variety is that Mr. Lyons was able to plant 900 trees per acre versus the normal 150 trees per acre. This variety has saved Mr. Lyons roughly \$400/acre. Mapes Ranch is also doing an industrial hemp pilot program for the first time. We were able to tour the hemp plot, however Mr. Lyons said this is his son's project and that he was not sure on cost figures at this time. He did know that the hemp had just been tested and it came back with zero percent HTC, which was a huge goal and achievement for the crop. Mr. Lyons also talked to us on the importance of being a conservationist especially with water. The Mapes Ranch has focused on drip irrigation making all irrigation as efficient as possible. The ranch has also placed importance on water control structures. One thing I noticed is that most of their water canals above ground were concrete, which prevents any water from being absorbed by the ground. The Mapes Ranch also places importance of wildlife conservation by having wetland and conservation easements to do their part in protecting endangered species.

Hilmar Cheese Processing Plant

Our visit to the Hilmar Cheese Processing Plant was special to me, because they had a plant in Dalhart where I used to live. Hilmar Cheese was started by twelve dairy families in 1984 who needed a local cheese plant for their dairy milk. Hilmar Cheese is very focused on sustainability, with their main focus being on recycling all resources, especially water. Most people do not recognize the name "Hilmar Cheese", because Hilmar sells their products straight to manufacturers to use, versus selling to grocery stores. Hilmar actually supplies dairy products to fifty countries! While we were there, we were able to watch the process of packaging up large blocks of pepperjack cheese. Hilmar Cheese also places high importance on quality products and food safety. The entire facility was impressively clean. I also appreciated the amount of effort that Hilmar puts into education. While we were there, we saw three different school groups. I think this shows that the entire ag sector, including processing facilities, have a job in educating the public on where their food comes from, and that is a safe and reliable source of food.

Lander Vet

Dr. Bob Cherenson welcomed our group to his vet clinic Lander Vet Clinic. The Lander Vet Clinic was founded in 1950 and specializes in dairy cattle including embryo transfer, artificial insemination, pregnancy testing, in vitro fertilization, and milk testing. Lander Vet Clinic is also a major site for veterinary student learning. Dr. Cherenson gave us a brief overview of agriculture in California, broken up by counties that he serves. He also talked about the importance of all veterinarians remembering their responsibilities, which not only include animal health but public health, along with educating the client and employees. We also talked about issues facing the veterinary medicine

industry, which included: high student debt, Millennials demanding flexible schedules, high suicide rates, stagnant wages, and competition. Dr. Cherenson talked about how “big box” vet practices in pet stores such as PetSmart, have given veterinarians the chance to have set schedules that they would not have in private practices, and many vets are choosing those companies to better align with their family time.

R.A.M Farms, Inc.

Ron Macedo welcomed us to R.A.M Farms, which is a pumpkin patch and corn maze during the fall time. R.A.M Farms is a great example of a producer finding a way to differentiate himself and find a more profitable option of crop production with smaller tracts of land. Mr. Macedo told us how he came up with the vision to take an empty lot on the outskirts of town to a community asset while staying in ag production. In the fall, Mr. Macedo makes the lot into a pumpkin patch, corn maze, and haunted house – and in the winter the lot goes to a skating rink and Christmas tree lot. We talked about this is a great way to educate the public on agriculture production, while giving the community a great asset to enjoy and use.

Turlock Irrigation District

Turlock Irrigation District was the first irrigation district formed in California in 1887. TID is a community owned, not for profit, irrigation water and electric utility. I was expecting for TID to talk to our group more about the groundwater issue at hand in California for irrigation purposes, but honestly they avoided the issue. Instead they talked more about the Tuolumne River Management Plan and conservation of the fish population.

Generation Growers

Roger and Deanna Van Klavern welcomed us to Generation Growers outside of Modesto California. Generation Growers, Inc was started in 1956 and the fourth and fifth generations are currently working the company. Generation Growers, Inc grows plants for garden centers all over Central California. We were able to tour the facility and see different plants that I have not seen such as lavender and a wide variety of citrus plants. Mr. Van Klavern talked to our group about the severity of diseases in citrus plants, especially citrus greening, and the measures that have been taken not only in California but also at their facility. All of the citrus plants are held in a separate green house. Before entering the citrus green house we had to go through a decontaminate room that had huge fans. These fans exhausted out any contaminants and are a precautionary measure to prevent the spread of pests and diseases to the citrus plants.

Wednesday - October 23

Almond Board of California

The Almond Board of California is like Texas Commodity Groups in the sense that they promote the California Almond product through marketing efforts, encouraging and educating producers on sustainability efforts, and representation of ag producers to elected officials. While visiting with the almond board we learned that California produces 100% of the United States commercial supply of almonds. We also learned that California Almond Producers are facing a huge issue regarding having enough honeybees in the United States to pollenate their crop. I enjoyed seeing the different

marketing directives the Almond Board takes internationally especially, in the beauty industry in South Korea – who knows almonds may be the secret nut to having young and beautiful skin!

Bowles Farming

Bowles Farming Company, Inc started in California in 1858 and they have 11,500 irrigated acres in the San Joaquin Valley. We learned how important water is to them, as 80% of their land is irrigated. Bowles Farms grow cotton, tomatoes, carrots, melons, wheat, corn, garlic, herbs, alfalfa, and trees. I was even able to see my first cilantro field while touring Bowles Farms. We also learned that California is the largest producer in the world of tomatoes and that the price of tomatoes is tied to the price of the tomato paste. The Bowles group talked to us how they have diversified themselves by growing certified Pima Cotton and working with Bed, Bath and Beyond for a specialized brand of guaranteed and traceable Pima Cotton. We then talked about the environmental side of farming in California. We learned that California producers face \$120/acre just in regulatory compliance. This flat out blew my mind! This price per acre includes water quality control, air quality, pesticide regulation, wildlife protection, waste regulations, and labor regulations. We were then able to tour the Bowles Farms – where much to my surprise the land looked similar to the Stamford area. However we learned that the price per acre in the Los Banos area was about \$14,000/acre, which is definitely not the case in Jones County! I am still trying to figure out how California producers are able to be profitable with the regulatory cost and land costs, before considering equipment, labor, or inputs. We learned that the Los Banos area can grow 40 plus crops and I noticed that there were smaller tracts of more specialized crops such as carrots and cilantro. It makes me think, are we as Central and even Panhandle Texans missing out on growing other crops that could be more profitable than corn, cotton, and wheat?

RPAC Almond Grower and Processor

RPAC was started in 1921 in Los Banos, California and has grown to become a full operation of production, processing, and marketing of almonds. Paul Parreira who is the current manager of RPAC showed us around the facility. We were able to see trucks be unloaded, hulling, shelling, and quality control testing and sorting of the almonds. The Parreria's also talked to us about their expansion of their hulling and shelling facility. It was obvious that the RPAC takes excellent care of their customers and does even better job marketing almonds to export markets, which has allowed them to become an elite company. I enjoyed seeing the almond processing along with also seeing how RPAC is and will remain a family owned company. We had the special treat of hearing from Mr. Paul Parreira's mom and dad. Mr. Parreria's son also talked to our group about his duties at the facility and how he plans to help the company grow.

California Fresh Fruit Association

Our supper Wednesday evening was with the California Fresh Fruit Association. The Texas TALL class introduced ourselves, and what we had found most interesting about California agriculture. We then had the opportunity to meet members of the Association and hear what their main issues facing California producers are. These issues were echoes of what we had heard throughout the week which included: immigration policies, increasing wage costs, water availability, SGMA (Groundwater Management Requirements), labor and labor regulations, water regulations, food safety compliance regulations, health care costs, and input costs. Items like labor availability, input costs, health care

costs, and immigration policies are issues being faced in all of agriculture. However, California has some issues that we as Texans do not face currently, and if we as an ag community do not educate our elected officials and the public, Texans could be facing these same regulations in the future.

Thursday – October 24

California Cotton Ginners and Growers Association

We started our last day in California with the California Cotton Ginners and Growers Association. Mr. Roger Isom invited a few local producers to talk with our group. They echoed the same issues we had heard throughout the week on labor, water, and regulations. By hearing these statements again, it was obvious that the laws and regulations in California are truly affecting farmers from a production standpoint. This will lead to other issues for Californians and America such as food items that come from California having a higher cost and less availability. It is a scary thought that a state with 40 million people could soon be facing unavailable or unaffordable food.

Water Institute at Fresno State

We had the opportunity to visit the Water Institute at Fresno State University. Again, the water issues in California, were echoed – especially water for agricultural use. The main item discussed was SGMA 2014, which states that all groundwater will be managed under new terms. This includes two major items: First is that there will be well registration and participation in groundwater sustainability agencies based on regional groundwater basins. The second is that groundwater plans will be designated to attain “sustainability” and avoid “undesirable results” such as subsidence, water quality impairment, unsustainable extraction or seawater intrusion. SGMA will drastically decrease the acres in agricultural production, due to the amount of irrigation water that is needed in this area. We learned that the Central California Valley typically receives 8-10 inches of rain, so irrigation water is imperative for crop production in this area.

Citrus Mutual

We were able to have lunch with Casey Creamer and his group at Citrus Mutual. Citrus Mutual is the only advocacy organization representing California citrus growers on the economic, regulatory, and political issues. They are a voluntary, non-profit trade association dedicated to enhancing the sustainability of the California citrus industry by advocating for fair policies, which allows for fair competition in the market place. They have roughly 2,500 members, which represent 75% of California’s 320,000 acres and a total industry of \$3.3 billion. Citrus Mutual has the mission to represent the California Citrus grower and share with members of the public, the legislature, regulatory agencies, and others how the citrus industry supports the California economy.

DairyLand Farms

Mr. William Van Beek welcomed us to his DairyLand Farms Dairy. Mr. Van Beek gave us a tour of his dairy and told our group that his milk goes to Land O’ Lakes. Throughout our session in California we talked about the dairy industry often. Dr. Bob Chersonson gave us a great summary of issues facing the dairy industry, which allowed us to have great discussions with Mr. Van Beek about. The

major issues facing the dairy industry today include the current prices of milk, challenges to the quota program in California, tariffs and competition in the export market, labor availability, costs especially of labor such as wages, health care, workers comp, regulations (which we have seen is a huge issue in California for agriculture as a sector), water, succession planning, old facilities that need improvements and urban pressure. Like other sectors of agriculture the dairy industry is doing new things to diversify and become more profitable. The dairy industry is relying heavily on technology to track the cattle, eliminate waste when feeding by being precise, technological advances and even robots for the milking process, as well as using technology for the breeding such as genomics, gender selected semen, in vitro fertilization, and embryo transfer. The dairy industry realizes that they must jump on the train of technological advances and continuing education to ensure the industry continues.

California Forestry Association

We had the opportunity to end our session with the California Forestry Association touring the Sequoia National Park. It was really interesting to learn how the environmentalists and the government have limited timber harvesting. This gives the idea of “saving the forests” but in reality this campaign is creating a major wildfire danger for the State of California. By limiting the timber harvesting, the California forests are denser than they should be and dead trees are left standing. All of this brush and dead matter is a fire waiting to happen. The trees have also grown taller than they should be, so they are in the power lines. This situation is the root cause for many of the California wild fires that we hear of – sparks come off the power lines and into the trees and brush that are in the lines. Then it spreads through these dense forests and spread literally “like wildfire”. A week after I got home, I read an article that was written by the New York Post talking about how “Californians have created their current apocalypse” which reiterates what the Forest Association talked about with our TALL group. The Forest Association has made it a goal of theirs to educate the government and citizens on the benefits of prescribed and controlled burns to reduce the fire risk in the future.

TALL XVI

Session 6 – California

Stephanie Bradley Fryer

Current California Agriculture Issues

Along each stop of our California Session there were several reoccurring issues that our speakers brought up to our cohort. These issues were regulations, water, labor, the urban/rural divide, diversification, and succession planning.

Regulations

Each stop emphasized the cost and red tape placed on them by regulations. California is probably one of the most highly regulated states, especially as it pertains to agriculture. This added work caused by meeting these regulations equates to many additional fees and paperwork for farmers. These regulations permeate throughout the other key issues seen in California.

Water

Water is essential for agriculture. In the desert like, arid conditions of the central valley, irrigation is paramount to growing the types of crops present in the area. Similar to Texas, there is a growing fight between water users. Most recently in California, farmers will be forced to significantly limit groundwater usage in upcoming years. This specific regulation will cause thousands of acres to be taken out of agriculture production.

Labor

Agricultural producers across the U.S. face labor issues. In California labor issues are increased by their own state's regulations. These regulations limit the number of hours workers can be in the field based on hours worked but also by temperatures. This results in lower paychecks for the workers and the possibility for lost crops for the owner.

Urban/Rural Divide

Similar to Texas, California has a distinct urban/rural divide. Since the population of the state lies in the urban areas like L.A. and the Bay Area, legislative control also lies there. The misunderstanding of agriculture can be seen by the massive ag and environmental regulations passed in the state. Many of our speakers told us to look at California's legislative landscape as a warning to what may be to come for our state.

Diversification

Gone are the days when a California farmer can really stick to just one single crop or industry. The producers who have managed to stay in business amidst increasing costs and regulations have done so by diversifying their operations. Dairy farmers also have almond orchards on their property. Cotton farmers also grow high value vegetable crops. This diversification allows the farmers to take advantage of many different, and many times higher value markets.

Succession Planning

In addition to diversification, succession planning has been key to keep ag operations intact in California. Succession planning is a hybrid between estate planning and business planning. In order for farm families to keep the farm going, it is essential to plan for the next generation through this process. With soaring land prices and tight margins, the need for succession planning was glaringly evident in California. The legacy farms still in place in the state today have instituted a comprehensive, dynamic successive plan to survive.

Highlighted stops during our California Tour

Monday, October 21

Bayer

Bayer's state of the art research facility was our first official stop on our California Tour. It was impressive to learn about the role of science and the ever changing roadmap to growing crops and taking care of the soil from this leader in the industry.

California Department of Food and Agriculture

It was a pleasure to visit with the Secretary of Agriculture in California, a farm girl herself, while we were in Sacramento. The California Department of Food and Agriculture has an important task balancing and enforcing the many regulations imposed on agriculture in the state while still working on programs that promote California agriculture.

California Farm Bureau

The California Farm Bureau has its work cut out for them as they advocate for California farmers and ranchers in a heavily regulated state. We discussed all the major issues listed above and their constant battle to defend ag producers in each of those arenas.

Dairy Institute of California/ Humane Society of the United States/ Deputy Chief Consultant California State Assembly, Victor Francovich

The Dairy Institute of California hosted us for a meeting with their leadership as well as other guests at their offices in Sacramento. We enjoyed an overview of the Dairy Institute and how it assists the industry in an everchanging environment. That was followed up with a presentation

from a representative from the Humane Society of the United States. While the representative had radically different views and values than most of our TALL group, it was good to sit across the table from someone with these viewpoints. Participating in these types of exchanges, no matter how uncomfortable, are essential for the future of agriculture. Finally, the Deputy Chief Consultant for the California Assembly spoke to the cohort. Victor Francovich has a unique role to analyze legislation and offer a bipartisan opinion of the bills that come across his desk. It was interesting to learn about this process in California.

Lange Twins

When in California, it's a must to do a wine tour. We were fortunate to go behind the scenes to look at a large scale wine manufacturer, Lange Twins. We saw huge vats working on the next batch of wine and a state of the art bottling line. The night was capped off with a special dinner in the tasting room. Lange Twins was another example of succession planning aiding in successful transition to future generations.

Tuesday, October 22

Mapes Ranch

Mapes Ranch was a multifaceted tour stop. Originally a cattle ranch, the Mapes Ranch has diversified to grow different tree crops including almonds and walnuts. In addition to raising cattle and tree crops that are traditional for the area, Mapes also had a field of hemp growing as part of a pilot program. The ranch's succession plan focused on diversification and expansion and their careful planning shows in their impressive program.

Hilmar Cheese

With dairies all around, we were bound to find cheese along our tour. Hilmar Cheese is a large cheese processing facility that also offers numerous tours to the public. I appreciated their openness and applaud their efforts to advocate for their industry.

Turlock Irrigation District

It is clear looking at the terrain in the Central Valley of California that if not for irrigation, agriculture would not be possible at the level it exists today. Turlock Irrigation District works with farmers, legislators, and the public to balance the demand for water in the area in one of the largest, most sophisticated irrigation districts in the nation, if not the world.

Generation Growers, Inc.

We enjoyed a nice evening on the patio dining with California Ag Leadership participants at Generation Growers. Generation Growers may have a small footprint on the map but the specialty items that come out of their greenhouses pack a punch.

Wednesday, October 23

Almond Board of California

Since almonds are a major player in the state, the Almond Board is extremely important to California farmers. The Almond Board has executed an impressive marketing campaign that has in no doubt increased the demand for the nut therefore strengthening the almond market both domestically and abroad.

Bowles Farming

Bowles Farming is a very large ag producer in California's Central Valley. Their operation is extremely high tech and grows numerous crops including Pima Cotton, tomatoes, and other vegetables. It was fascinating to learn about how they have transitioned through time through proper succession planning and diversification to be at the level they are at today.

RPAC Almond Grower and Processor

Almonds are huge cash crop of California. With all those almonds, it was impressive to see how the almonds make it from the shell to how we know them in the stores. We were able to walk through the shelling and sorting facilities at RPAC and witness just how it was done.

California Fresh Fruit Association/Citrus Mutual

Citrus is a large industry in the state of California. During our meetings with Citrus Mutual and the California Fresh Fruit Association, we discussed current issues facing citrus producers. One major issue is a disease carried by pests. Because of the huge number of citrus trees in backyards in urban areas, the citrus groups have had to take to the cities to help manage the disease in towns so that it doesn't affect the commercial farms.

Thursday, October 24

California Cotton Ginners and Growers Association

The California Cotton Ginners and Growers Association hosted us bright and early at their offices on the last day of our California tour. Cotton is a familiar crop for many of us in the TALL group so it was interesting to compare the issues cotton growers and ginners face in California to what we see in Texas. The most significant issues for this industry in California proved to be regulations, water, and labor. Also, the industry has become smaller due to farmers shifting to higher value crops as they diversify and limit their cotton acres to make room for those new crops.

Dairyland Farms

Dairy was king in California ag at one point. And, while it is still an important part of California's ag industry, it has evolved over time. Dairyland gave the group an opportunity to visit a large dairy operation that still operates as a dairy, but has also diversified to grow other crops like pistachios.

Sequoia National Park

Visiting the giant Sequoias of California are a bucket list sight for sure. The massive trees were awe inspiring and a highlight of the trip. I will also not soon forget taking a huge charter bus up, and back down, a snakey one lane road high in the mountains! Thank goodness for our expert driver, Jose!

DeLinda Hicklen #7
TALL XVI
Session 6 - California
October 21-24

"Employment, Emigration, Environment"

Monday, October 21

Bayer Biologics

A visit to the Bayer facility in West Sacramento started with one of the scientists who works there briefly explaining the kind of work they are doing in plant pest and disease control with microbes instead of chemical components. It was apparent from his talk that there is cutting-edge work being done in this group. Although I didn't fully understand some of it, I do understand the importance of tweaking natural plant defenses in a time when chemical application is increasingly under attack. He talked about the difficulty of "scaling-up" production of such products to the point they could be widely used and about how they identify which plant pests they want to work on next. It takes six to seven years to develop a marketable product, so they have to work far ahead and predict what the future may hold for plant disease. They keep about 170,000 microbial strains in their state-of-the-art storage facility for the use of the scientists. We then split into two groups for a tour of the facility. We could not enter any of the labs, but all of the labs had windows and many explanatory signs were in the hallway to help us understand what exactly they do in these labs. As a cotton farmer, I use Bayer products, and was glad to learn more about how they are trying to find more environmentally friendly methods of controlling plant pests and diseases.

California Department of Food and Agriculture

We had the opportunity to meet briefly with California Secretary of Agriculture Karen Ross. In California, this office is an appointed position, in contrast to Texas, where it is an elected position. Ms. Ross is originally from a farm family in Nebraska and previously worked at the USDA for former Chairman Vilsack. She clearly brings a wealth of experience and knowledge to the department and I enjoyed hearing her perspective on the current issues facing California agriculture. In a state with a very diverse economy, the \$50 billion in ag production just makes up 2% of the state's GDP. Although she mentioned a number of challenges - like lawmaking by proposition in California - water is the defining issue, in her opinion. The recently enacted Sustainable Water Balance Act will have major ramifications down the line for crop irrigation and agriculture's access to surface water. (This will be a recurring topic for the entire trip.) She talked about how the shift from row crops to permanent crops (like grapes and nut trees) has, in effect, hardened the water usage for those acres and how they will need to use more all-purpose acres, like rangeland, to get away from water-hungry crops. She touched on other issues, from labor laws and labor availability to hemp to food safety issues. We discussed the urban/rural divide and the geographic political divide in the state and how her department struggles to connect the two sectors with educational programs. A very good visit with a person with political power in California.

California Farm Bureau

Our visit and lunch at the CFB headquarters featured several speakers giving information about agriculture in the state. First up was our classmate John Van de Pol's brother-in-law, also named John, who works with the State Dept. of Water Resources in flood management. He talked briefly about their coordinated forecast

operations to improve gauging and forecasting to manage reservoir water and coordinate water releases from these reservoirs to avoid flooding and manage water access. Next up was CFB President Jamie Johanssen, a first generation farmer in Oroville who grows olives, citrus and a few other crops. He reminded us that California is the biggest ag producing state in the U.S. and four of the five highest producing ag counties in the U.S. are in the San Joaquin Valley - with Fresno County currently number one. He then talked about the political challenges they face in regards to water usage, labor and wage laws, animal treatment and chemical restrictions, like the glyphosate lawsuits in particular. He also mentioned a conversation he had with the Governor about what he thinks consumers really want from farmers - abundant, locally sourced, affordable food - and how the state intends to deliver that. Two other gentleman associated with CFB spoke briefly about governmental affairs concerns and animal welfare issues and state propositions.

Dairy Institute of California

Scott Beckstead, Humane Society of the United States

The Dairy Institute graciously hosted us in their offices and allowed two additional speakers to join us there, with the first being Mr. Beckstead. It's safe to say that we were all skeptical of HSUS' motives in meeting with us, but Mr. Beckstead was not antagonistic towards us and we actually share a common desire for animal welfare. What is interesting about these meetings with activist groups is that we share common goals for treatment of animals and the environment, but disagree sharply about how to reach those goals with common sense practices. For example, our view of Right to Farm laws is completely opposite to the Humane Society's view. We think RTF laws are needed to protect working farms from urban encroachment, but HSUS seems to think they are used to shield farms from scrutiny of farming and animal treatment practices. There is no doubt that it's important to have dialogue with such groups, so kudos to Dr. Jim for exposing us to such groups.

Next Rachel Kaldor with the Dairy Institute gave us an overview of California dairy processing. In particular, she talked about the transition of milk pricing from state to federal, and what effect that is having on their quota system. The quota system as it was served as a market of sorts where quota holders could use their quotas as collateral. The pricing transition has caused a steep decline in quota value, which may have unintended consequences for the quota holders. She also touched on the big changes in the dairy industry over the last 20-30 years - many more laws and regulations, the rise of co-ops, labor issues, lack of land and the general political climate against animal agriculture in their state.

Victor Francovich, a consultant to the Ag Committee for the California State Assembly (that's what they call their state legislature), spoke next about the make-up and issues facing the Assembly. According to him, the Ag Committee is relatively non-partisan, although it is almost a one-party Assembly anyway! California's Ag Committee does NOT oversee labor, water or pesticide regulation, so some of the hot button issues are in other committees' venue.

Lange Twins Winery

Aaron Lange, part of the family who owns Lange Twins, hosted us for a tour of their crushing facility and winery. They crush and tank their own grapes and also custom work. To my eyes, this seemed like a huge facility, but according to Mr. Lange, it is a medium-size winery. They have 7000 acres of their own grapes and handle many other acres of grapes as well. Our tour of their state-of-the-art wine bottling facility was impressive - they bottle wine for many other companies and can bottle 220 bottles per minute or 7000-9000 bottles per day. He talked

a bit about some of the challenges of operating in California, like the over \$100,000 per year in permit fees and struggling under the state labor laws that make getting a timely grape harvest done difficult. On the environmental front, they get about 50% of their power from solar, recycle process water for irrigation or habitat restoration and use by-products for compost. After the tour we enjoyed a nice dinner in Lange Twins Winery tasting room, sponsored by the California Ag Leadership Program (CALP). The CALP director, Shelly Hendricks, and a CALP alumnus, Deanna Van Klaveren, joined us for dinner and shared information about their leadership program and how it differs from TALL.

Tuesday, October 22

Mapes Ranch

Former California Secretary of Ag Bill Lyons narrated from the bus as we took a driving tour of his family's ranch. Founded by his great-uncle in 1923, the ranch now consists of about 10,000 acres in one location near Modesto and is up to the fourth generation of family owner/operators. They grow many different crops and nuts and run cattle. In what is perhaps unique among the farm we visited during this trip, Mapes Ranch has good water availability from nearby rivers, wells and a good allotment. However, Mr. Lyons is cognizant of the developing water crisis in the state and remains an ag advisor to the governor partly to be involved in deciding the future of irrigation water availability in the state. While the entire tour was impressive, we were perhaps most interested in seeing the hemp field they planted as part of a pilot project. This crop was about two weeks away from harvest when we visited and it was interesting to hear about the pros and cons of growing and dealing with the somewhat shady buyers he encountered.

Hilmar Cheese

Hilmar Cheese has built a beautiful visitors center at their plant to accommodate numerous field trips (18,000 kids per year!) and tour groups. This center features exhibits designed to educate visitors not only about how the plant operates, but also devotes lots of space to educate kids about agriculture and farming in general. Due to sanitary concerns, we weren't able to go inside the operating plant, but were able to see some aspects from the viewing windows and had a delicious lunch (featuring many cheese products, of course) near the children's exhibits and witnessed the fine work Hilmar is doing to advocate for agriculture. Fun fact, Hilmar has a sister plant in Dalhart, Texas!

Lander Veterinary Clinic

Dr. Robert Cherenson, a veterinarian at Lander since 1990, hosted us at this clinic that primarily treats dairy cattle. It was obvious from his presentation that this clinic leads the way for a number of dairy veterinary issues and is a major location for veterinary students' learning. He presented an astounding amount of information about his practice and animal medicine in California in general. Many genetic advances are taking place in animal practices, and this one is clearly at the forefront. Additionally, they work with dairy operators in incorporating digital technology into their herds and dairies, like rumination collars, heat detection systems, gender selected semen, robotic dairies so on. Dr. Cherenson also had much information about water use in the state - a common topic at every single place we visited all week.

R.A.M. Farms

Mr. Ron Macedo, owner of R.A.M. Farms, gave us a quick glimpse at his family's agri-tourism site in Turlock. The family has farmed in the area for years, but sought a way to diversify their income, so established this site 13

years ago. In the fall, they have a corn maze, haunted house and pumpkin patch, which features many different kinds of heirloom pumpkins and gourds. In winter, they put up an ice-skating rink and sell Christmas trees. They welcome over 2000 kids each year on field trips and several thousand other visitors. A few years ago, they began supplying pumpkins to Disneyland in Anaheim to use in seasonal displays. Fun fact, they also supply pumpkins to the Dallas Arboretum! Mr. Macedo talked to us about the challenges of operating in a town and in California. Like many other farmers, he has issues with the many laws, permits and regulations on the state, county and city level. The family also grows other crops, but this site takes up a lot of their time in fall and winter. We really enjoyed seeing the huge variety of pumpkins for sale and the whole set-up for visitors.

Turlock Irrigation District

Mr. Tou Her and Mr. Steve Boyd welcomed us to the irrigation district headquarters and did their best to educate us on the very complicated California water system. Much of the state depends on surface water from snow melt and it's storage and allotment is heavily contested. Turlock Irrigation District (TID) was set up by the state legislature and is governed by a 5-member board - and is not controlled by local, county or state agencies. As they explained it, TID's purpose is to act in behalf of farmers to receive water and allot it to member farmers. I already knew there were big differences in the way water is regulated in California versus Texas, but I had no idea how impossibly complicated it can be to build new reservoirs or other water catchment in California. TID has spent \$58 million over 9 years time attempting to re-license and Mr. Boyd believes they are still at least 5 years away! They run into all kinds of challenges, from environmental protection of certain fish or wildlife to managing the many agencies involved in approving re-licensing. When asked what they thought the future of agriculture in California would look like, both men thought it would face increasing pressure from the increasing population and the accompanying increase in water needs. It would take ten more pages to describe all the information they gave us, but suffice it to say they have a very challenging job with no clear answers.

Generation Growers

Roger and Deanna Van Klaveren were our hosts for a tour and dinner at Generation Growers, a family owned commercial plant nursery near Modesto. Although they grow a variety of things, it was particularly interesting for us to see the citrus nursery section, which has to be segregated from other parts in an attempt to quarantine the trees from the citrus greening disease affecting the industry. After walking through much of their nursery, they then treated us to dinner on their patio, with other local farmers and CALP alumni joining us.

Wednesday, October 23

Almond Board of California

Conveniently located on the top floor of our hotel complex, the Almond Board hosted us for a very informative session focusing on a crop most of us knew very little about. This organization is a checkoff/assessment program to market almonds worldwide. Mr. Daren Williams, Senior Director of the Board gave us a lot of information about the production and marketing of almonds. Almonds are a big business in California, with over 1.4 million acres devoted to them. It is the only almond producing state in the country and produces 85% of the entire world's almonds - with India being the top export market. Almond production brings 104,000 jobs to California and contributes \$11 billion to the state economy. Forecasted production for 2018/19 is 2.2 billion pounds of almonds. We heard about many related topics, from pollination to diseases to water usage. Dr. Jim asked them how other crop groups could use their example to increase exports and their answer was that their structure of having everything in one organization allowed them to watch global demands and respond accordingly. As I

heard at other points during the week, many acres that were formerly in cotton are being converted to almonds because of the much better market for them.

Bowles Farms

Mr. Cannon Michael, a sixth-generation member of the Bowles Farm family, hosted our visit to this huge farming enterprise. Founded by his German-immigrant great-great-grandfather and another gentleman, Bowles Farm at one point owned a million acres. Now at 11,500 acres, they grow a variety of crops, including alfalfa, cotton, tomatoes, pistachios, almonds and other specialty crops. They have senior water rights from San Joaquin and also get water from Lake Shasta and the Delta, so they are in better shape water-wise than other places. He pointed out that many of their cotton and alfalfa acres are moving to tomatoes and other crops. With the cotton acres they have left, they have formed a partnership with Costco to provide 100% Pima cotton for their bedding brand, using DNA testing to prove it's Pima. The process by which they are putting a biological "marker" on the Pima cotton at the gin so it can be verified 100% Pima all down the line was a fascinating discussion. Mr. Michael also touched on issues common to virtually every farmer we met all week - water, labor and regulations. We took a bus tour through part of their operation and finished with a quick visit to the San Luis Canal Co. office - their water district, where he is a board member. I could have spent several hours asking questions about their operation, it was fascinating.

RPAC Almond Grower & Processor

Paul Parreria was our host for a tour and discussion at RPAC. Paul is part of the fourth generation of family owner/operators of this farm and business. He told us a little about how the processing facility works and a little about almond marketing pools. RPAC will be doubling the size of their plant and tripling its line speed to increase their capacity. We also had the great pleasure of meeting his parents while we were at the office. It is always inspiring to me to see the successful family ag businesses all over the country! We were led on a tour of the plant and were able to see all the stages the almonds go through from entry in the shell all the way to graded and sized for sale.

California Fresh Fruit Association

Mr. Ian LeMay, President of the Association, welcomed us to a gathering at a Modesto restaurant where we enjoyed dinner and wine with local agribusiness people and more CALP alumni. Mr. LeMay told us a bit about the citrus industry in California and then we were able to visit during dinner with the other guests at our tables. It was a great chance to ask more in-depth questions of these local people and learn more about the issues and innovations taking place in the state. I had the opportunity to visit with Mr. Richard Machado, President and founder of Agrian, an ag software company that works with Nutrien ag fertilizer/chemical dealerships nationwide. As a Nutrien customer, I was interested in learning more about what they provide with their software.

Thursday, October 24

California Cotton Ginners and Growers Association

Mr. Roger Isom, director of this organization, hosted us in their offices and also invited two local farmers to speak with us. Mr. Don Cameron, farmer and Chairman of the CAFD Ag Board, told us about his farming operation and a whole lot about the SGMA laws and water issues in the state in regards to agriculture. As he and other people noted throughout the week, the prospect of losing half a million acres of farmland because of lack

of irrigation water will have huge effects on the local communities, but also on the "calorie count" deficit when this land is out of production. For example, he has computed that his farm produces enough food calories to feed 300,000 people for a year. What happens when he and many others can no longer farm?

Mr. Mike Kelly spoke next on behalf of the California Almond Growers Association (the Almond Board visited earlier deals with marketing, his association is related to growers). Once again, he had a lot to say about water and it's availability to farmers. He noted how almond production has migrated in the state from the Sacramento Valley down into the Tulare to Merced area and also moving from west to east because of more available water. He also talked in more detail about the (perhaps) unintended consequences of the stringent California labor laws and how they don't help the workers entirely in the end, because it has resulted in less hiring and shorter working hours which will in turn reduce overtime pay and overall income for the worker. Did there need to be protections in place for worker health and safety - of course! Have they gone too far - probably. The media frequently refers to the United Farm Workers union and their demands for reform, but in reality only 1% of farm workers are in the union, but UFW has the ear of the legislature. Mr. Kelly believes that California is slowly destroying one of its own best assets in agriculture.

Mr. Isom closed out our visit by explaining the function of the Cotton Ginners and Growers Asso. In an increasingly urban state, the cotton industry is shrinking drastically. Many factors are contributing to that decline - regulatory, water, labor and profitability. As noted earlier in my narrative, many cotton acres are converting to almonds because of the higher market. He gave us many statistics about the costs of growing and ginning cotton in the state - and in every case they were much higher than in Texas. The great number of regulations adds much cost and complication to operating gin plants. For example, their emission/pollution regulations are the most stringent for tractors and trucks than any other state - by 2023, tractors older than 2007 model will have to be replaced to meet emission standards. That means over 12,500 tractors will have to be replaced at prohibitive cost to the owners. The many environmental and energy initiatives being promoted in the state mean that they are fighting against overwhelming odds to keep agriculture in California, and one of the methods Mr. Isom uses is to reach out to state legislators to get them to visit farms and ag businesses as often as possible. One half of their state legislature comes from the area from LA south and has little connection to or knowledge of agriculture. Only 18 representatives come from the Central Valley where most of the agriculture in California is located. He believes they must connect the urban legislators with agriculture or it will all come to an end.

Water Institute - California State University, Fresno

We were welcomed by Dr. Michael Thomas, Associate Dean, with a few words praising the work of programs like CALP and TALL. Then Sarge Green with the Water Institute and Center for Irrigation Technology at Fresno State shared his knowledge about the complicated system of water projects in the state. Among the primary concerns is the state of the aging water infrastructure and the barriers put up preventing new infrastructure projects moving forward. Also of concern, the change from primarily snow melt to more liquid (rain) precipitation, which needs different water storage solutions than slowly melting snow. He talked some about the different possible solutions to some of the water problems, from alternate supplies (surface to ground), recharge strategies and sustainable yield. As we heard all week, water is THE major concern for agriculture going forward. This Institute is doing vital work in studying the possible solutions.

Citrus Mutual

Casey Creamer, President and CEO of Citrus Mutual, provided us lunch while he told us about the citrus industry in this area of the state. Tulare Co., where we were, is the biggest citrus producing county in the state. Because they have more senior water rights, they have fewer water concerns than other areas. In contrast to Florida citrus, which is primarily for juice, California citrus is grown for fresh market use. The high cost of water and state regulation compliance mean that they have to grow top quality premium product to get prices high enough to sustain profitability. He mentioned that their greatest competition in South America sells at much lower prices, but is grown under conditions that would not be allowed in California. In other words, we are back to the bane of agriculture in California - water, labor, regulations. His associate, Alyssa, talked about their efforts to monitor and control citrus diseases that are actually being spread from "backyard" trees in urban areas. For example, 60% of residents in the LA basin have backyard citrus trees. These people don't know anything about treating or quarantining citrus diseases, so they inadvertently contribute to the spread of these diseases. Ironically, their efforts to make contact with these urban residents to educate them about treatment and control of citrus disease may ultimately be the best way to get them in alliance with California agriculture. Our lunch was delicious, but the orange ice cream dessert was heavenly! Made locally from real oranges, it is worth a trip to Exeter, California, if you are ever nearby!

Mountain Home Demonstration State Forest

In my opinion, no trip to California could ever be complete without seeing some giant Sequoia trees. But instead of going to the National Park, we had the distinct treat of a personal tour from George Gentry with the California Forestry Association and Jim Kral with the California Department of Forestry and Fire Protection - two experts in the field. The Mountain Home forest shares a border with the National Park and is a fantastic sight to see. We traveled several miles up a road not particularly well suited for our 40 foot tour bus, but our intrepid driver got us up safely, and then back down in the dark! The two gentleman explained during the bus ride up how the forest land is managed differently by the federal versus state agencies and the implications of those differences in terms of fire danger. State forests harvest enough timber to pay for park operations and maintain the forest. Federal parks often don't harvest enough "trash" timber, which means they often lack funds to improve or adequately maintain the forest. You could see from the bus the difference in appearance of the forest when we crossed from one to the other. Sequoias are unique in that their cones stay on the tree for 25-30 years and only release seeds during fire. So they need fires and usually aren't harmed by surrounding fires. Many of the trees we saw appeared scorched from the prescribed fires that had burned around them, but were in fact still alive and healthy. There are 120 year old trees in this park, from 6-7 feet in diameter. The oldest known Sequoia is about 3000 years old, but most foresters agree that they haven't even found all the old Sequoias back in the forests where they grow. After the bus journey, we had about 30 minutes before sunset to hike up to one of the large trees and marvel at its size. Of course, we had to have a group picture in front of the tree too. It was a never to be forgotten evening in the company of these majestic trees. A big thank you to Mr. Gentry and Mr. Kral for giving up several hours of their time to share this world with us!

Closing Thoughts

Several speakers during this session told us that we were getting a glimpse into the future of Texas agriculture, that what was happening in California now would eventually make it to Texas. I believe that we do have an opportunity to see the negative effects of their political shift away from rural to urban and hopefully learn a few lessons about protecting our vital agriculture industry in Texas. Certainly, water will remain an issue in most, if

not all states in the country. We have very different water rights laws in Texas than in California, but the increasing urbanization of the Texas population will lead to disputes over water usage and we need to prepare our defense for that. Labor law reform and minimum wage laws are another issue we will share with California. We depend on migrant and legal alien labor in agriculture and need to observe the unintended consequences that have resulted from new labor laws in California. Agriculture has very different labor needs than other employer types and we have been successful in Texas in making exemptions in certain labor rules for agricultural employers - we need to protect those exemptions. The cost of doing business in California is skyrocketing due to the multiplying numbers of permits, fees and compliance costs of their regulations. In farming, our margins are already very thin due to market pressure - we will be able to continue farming if the static costs like these reach California levels in Texas.

On a positive note, just as on every other TALL trip I've been on, in California we continued to see a number of thriving family owned and operated businesses, some of multiple generations. That is an encouraging sign of continuity and a strike against the common refrain of "corporate ag". We also saw many signs of innovative approaches to solving problems in every sector - genetics, technology in action and science. We also saw many examples of farmers working to enhance and protect the natural environmental resources all around them. Agriculture continues to thrive in California, and I hope they will continue to do so.