

# TALL XVIII

Session #6 California

Narratives

**James Dangelmayr**  
**TALL XVIII**  
**Session 6 – Tall California Session**  
**September 11-14, 2023**

**Monday 9/11/23**

*California Department of Food and Agriculture*

Our first visit of the session was to the California Department of Food and Agriculture. There we met with Christine Birdsong, the undersecretary for the department, as well as some of her staff members. Undersecretary Birdsong shared with us that California is the 5<sup>th</sup> largest supplier of agriculture products in the world. Along with that, we also discussed some of the various initiatives that the department is pursuing. One of these being Climate Smart Agriculture, which the state defines as “putting sustainability first when it comes to efficiently managing agricultural production equipped to meet a growing human population.” Within Climate Smart Agriculture, the department is focusing on healthy soils, water efficiency, dairy digesters, alternative manure management, and farmer technical assistance.

An interesting take away from this meeting, which was brought up regarding California’s Prop 12, was that California’s process for introducing statutes and constitutional changes allow ideas to come directly from the voters. A collection of enough signatures will get the initiative on the ballot. Whereas in Texas, constitutional amendments must be referred to the voters by the legislature.

*California Farm Bureau Federation*

Our next stop was the California Farm Bureau Federation’s offices in Sacramento. There we met with a host of individuals, both within Farm Bureau, as well as with state producer organizations. In terms of agriculture products represented, California Farm Bureau is the most diverse state Farm Bureau in the country. Their job and the jobs of the state producer organizations are to work with a wide swath of farmers, combining their different goals in order to approach state government with a cohesive and united plan. The politics of California state government are well known to be extremely democrat. Democrats control both chambers of government with supermajorities. Given this reality, state organizations must be nimble in their approaches. I think

the insights we heard here about labor, environment, and water showed that they have adjusted their approach to operate most appropriately to the current political environment.

### *Nuss Farms*

Nuss Farms is a family farming operation located in the Central Valley. It is operated by a father and two sons. We met with one son, Tim Nuss, who took us around the farm to look at tomatoes, jalapenos, bell peppers, and garlic. The family grows a wide variety of crops that they select each year based off of what the many vegetable contracts are going to pay. These planting decisions are very in-depth as they must decide between multiple crops, with different growing seasons and different labor requirements. Though all farmers rotate crops, this system is much more management intensive than a corn/soybean or corn/wheat rotation. Brothers Tim and Tyler also host the Modern Acre podcast that covers new and exciting technology in agriculture.

### **Tuesday 9/12/23**

### *Lodi Farming*

Lodi Farming is a third-generation family farm located southeast of Lodi, California. It is owned and operated by Jeff Colombini. The farm produces apples, cherries, nuts, olives, and grapes, and depending on the yearly economics, other crops will be mixed in. At over 500 acres of apples, Lodi Farming is one of the largest apple growers in the state. Lodi Farming's location is beneficial as it sits at the opening of the mountain range, which leads out into the San Francisco Bay and ocean. This geographic feature allows cool ocean air to circulate through and cool off nights in the farmland surrounding Lodi. As economics have changed, Lodi Farming has decreased their wine grape production and has put more focus into growing olives for olive oil.

### *Pearl Crop*

Pearl Crop is owned and operated by third generation international crop trader Ulash Turkhan. The company trades nut crops domestically and internationally. Their primary crop focus is almonds. They do business with over 50 countries. The two biggest buyers of their US almonds are Turkey and Germany. With 80% of the world's almonds grown in California and upwards of 60% of the crop being exported, it makes sense for the company to be headquartered there. Alongside exporting, they also process nuts into protein powders, prepared snacks, butters, and

more. Pearl Crop's success is in their partnership with local farmers. They understand their struggles and goals, which allows them to work alongside them in order to make the entire supply chain as profitable as an environment for all involved.

### *Mapes Ranch*

Mapes Ranch has been operating in Stanislaus County since 1923. The current operator is Bill Lyons, who with the other members of the Lyons family, owns the ranch. Operations on the ranch span roughly 10,000 acres. 7,000 acres are in crop production, which range from alfalfa, almonds, grapes, melons, row crops, small grains, tomatoes and more. The remaining 3,000 acres are in pasture. The use of the pasture and crop residue from the farmed acreage allows the ranch to run around 2,500 head of cattle.

The ranch sits on top of good groundwater, which will be more important going forward as California's SGMA (Sustainable Groundwater Management Act) rule goes into effect. This rule will greatly limit access to water for producers in the southern and western parts of the Central Valley where water tends to be less abundant. Some farms are expected to go from four-acre feet of water down to one-acre feet of water because of this ruling!

### **Wednesday 9/13/23**

### *California Almond Board*

Representing the state's largest grown crop, the California Almond Board is an important institution for California agriculture. With an annual budget of \$80,000,000 and 58 employees, the board's job is to expand the market for almonds by opening new countries to export, providing new research into almonds, and making the production process more sustainable. The organization represents over 7,600 farmers, 160 hullers/shellers, and 101 handlers. This network is responsible for growing 80% of the world's almond supply! Recently, almond prices have experienced a large decline. With this in mind, the board's current overarching goal is to continue to expand the number of countries available for export of California almonds.

### *Hilmar Cheese*

Hilmar Cheese was founded in the 1980s by local California dairymen. At the time, they realized that the milk from their Jersey cows could fetch a premium if there was an outlet that

would process it into cheeses and other products. Since then, they have expanded outside of that original plant, with one in Dalhart, Texas and another in the process of being built in Dodge City, Kansas. You will not see their product in stores, though if it is there it is labeled under other brands. Lots of other brands, given that Hilmar supplies over ¼ of American style cheeses (Colby, Colby-Jack, Pepper Jack, Monterrey Jack, Cheddar, and more) in the US. On top of producing cheese and related by-products, the Hilmar Cheese Company works to introduce young students to agriculture. Each year, over 17,000 students visit the Hilmar California plant.

### *Vander Woude Dairy*

Simon Vander Woude operates his family dairy outside of Hanford, California. The dairy contains around 4,000 head of cattle, located on three dairies. Unique to any dairy operation that I have seen, this dairy has a methane digester built into it. It collects the liquid manure that is flushed out of the dairy and gathers it into a chamber where the methane gas is then filtered off. It is sent to a plant where it is ultimately refined into a product that is similar to natural gas.

While also at the Simon Vander Dairy, we got to engage with Mr. Chase Hurley, who is the managing director of the San Luis Canal Company. He stayed with us throughout the day to explain the water situation facing California farmers and how the canal company is looking to build a new project in order to help farmers in the district navigate the tightening water supply. Water from this new canal project will come from northern areas of the state that contain excess water. It will be shipped south and then be sold to area farmers who are in more need of it than their northern neighbors.

### *Robson Farms*

At Robson Farms, we got to experience a pistachio sorting system. The system sorts and dries nuts from harvesting. This enterprise not only dries the nuts harvested from Robson Farms but also takes in the nuts of surrounding farms. In peak drying season, the facility will utilize 7,000 to 9,000 gallons of propane each day.

### *Wylie Farms & MyLand*

Utilizing an algae based nutrient system to improve soil health is the novel approach being taken by Wylie Farms. They are utilizing a technology system developed by agriculture company

MyLand. The system in use on Wylie Farms cultivates algae that is specific to the farm's soil profile. These algae are then put into the soil through the farm's irrigation systems. This natural product improves the soil health by increasing available microbes, nutrients, and organic matter. The presence of these improves plant growth and profitability. Due to the benefits of the algae system, Wylie Farms' organic acreage actually has a lower cost of production than their conventional acreage. As California becomes stricter on available chemicals and as water availability becomes inadequate, new technology like this from MyLand will be crucial in maintaining agriculture productivity.

### *HMC Farms*

Headquartered out of the Central Valley, HMC Farms is an international fruit grower with farms located throughout North and South America. Their primary focus is on table grapes, peaches, plums, nectarines, summerwhites, and plumcots. Growing stone fruits is a high-risk capital-intensive business that is challenging to manage. Some fruits have production costs that can reach upwards of \$30,000 per acre. HMC has continued to navigate and thrive in this business by being proactive in the latest research and methodologies of farming. They have worked with companies to utilize drones and automated harvesting tools. HMC is also experimenting with the high-density planting of trees. The goal is to make an orchard that is more accessible to automations in pruning, picking, and other processes. Though more expense is accrued upfront, it is expected that the costs savings from yearly operation will be far greater than the initial capital outlay.

### *Reception & Dinner*

Our hosts for the evening reception were Western Agriculture Processors Association, California Cotton Ginners and Growers Association, California Fresh Fruit Association, and the Fresno County Farm Bureau. All were gracious in hosting us that evening, and each group was very knowledgeable in their respective fields. Agriculture is behind the eight ball in California, with a majority of the state's legislature members either being ignorant of agriculture or against it entirely. This makes producer organizations vital for farmers as they act as a liaison between them and the state.

**Thursday 9/14/23**

*J.D. Heiskell & Co.*

J.D. Heiskell & Co. was founded in 1886, and since then, they have remained focused on their core business of being successful grain traders and merchandisers. They have grown immensely since their beginning and are now a national company, with locations throughout the United States and employing over 600 individuals. Through this growth, the company keeps a major focus on California, servicing the dairymen of the state. These dairymen utilize the fiber products produced by the state's nut industry and grain brought in from the Midwest as feed sources. Both products are brokered, shipped, and processed by J.D. Heiskell & Co.

Like many of the businesses that we met with while in the state, some of J.D. Heiskell's biggest business concerns stem from complying with regulations put upon them by the state. A particular issue for J.D. Heiskell is the lack of trucking capacity currently in the state. This is the result of regulations regarding independent haulers in concerns to their employment status. Going forward, the situation is expected to get even tighter as the state tries to shift its entire trucking fleet to electric.

*Western Milling*

Western Milling is a diversified milling operation with a focus on retail feeds. They process a variety of feeds for their own brands and for other companies. They produce over 1,700 unique products. Some of the companies that they mill products for are Chewy, Walmart, and even multiple zoos. Yet, with all this business in retail feed, Western Millings biggest clients continue to be dairymen. Eighty-five percent of sales and feed volume is to dairies. As the dairies have moved across the state throughout time, so too has Western Milling. The state's production originated in the south, along the coast, then moved inward to Artesia, Ontario, and other Chino Valley locations, and finally to its current location in the Central Valley. Western Milling has been along for the entire journey, working to service this essential client.

*Kings Canyon National Park*

The afternoon was spent in Kings Canyon National Park. The park opened in 1890, originally under the name of General Grant National Park. This is a unique place in the world as

it is one of the few places where the giant Sequoia trees grow. These trees can stand for over 3,000 years and have been admired by countless generations for their size and beauty. The General Grant Tree located within the park is the second biggest tree in the world in terms of its total wood volume. While at the park, we learned that management of the land has evolved overtime. Fire, once extinguished at all costs, is now being used to help manage the forest floor and to create a more natural environment that existed prior to permanent human settlement in the area.

### *Lassotovitch Ranch*

Running cattle in the foothills of the Sierras poses a challenge that is not something many of us in Texas deal with year in and year out, and that is fire. It is quite common for some areas of these mountains to be in an uncontrolled burn each year. With many ranches running on large government allotments, with little infrastructure, a fire can be devastating. The cattle, by the nature of these allotments, may be scattered miles apart so that when a fast-moving fire approaches, the limited road access may make it near impossible to get them moved from danger's way. This concern is in part why Pete Lassotovitch is so involved with the Sierra Resource Conservation District. He knows that it's imperative that this landscape be managed correctly and that when a fire does break out, it's important that its affects be mitigated properly. Due to historic drought and the increasing interface of wilderness and human habitation, three of the state's five largest wildfires have happened in the last ten years.

### *Conclusion*

California is one of the most agriculturally diverse places in the world. Over 400 crops are grown in the state. California is unique in that it almost solely supplies the US with its domestic production of many vegetables and fruits. The state is even more important globally for some crops, like almonds, with 80% of the world's supply coming from California. Yet, even with this Garden of Eden type growing environment, farmers in the state must deal with government legislatures and bureaucrats that are hostile to agriculture through both intention and misunderstanding. Most of the state government representatives come from large urban centers, and the consensus is that agriculture is a bygone industry with little potential or importance to the general populace. This callous attitude has strained farmers in the state and unless changes are made, will continue to do so for the foreseen time. Yet, with all the challenges, California continues to be a powerhouse of agriculture and, in my opinion, will for generations to come.



**Tillery Sims**

**TALL Cohort XVIII**

**Session 6, California**

### **Navigating California's Water Conundrum: A Comprehensive Examination**

California's agricultural industry, often regarded as the "nation's breadbasket," is a complex ecosystem that provides food for millions and fuels a multi-billion-dollar economy. However, beneath the abundant harvests lies a formidable challenge—the management of water resources. The XVII Cohort of the TALL Program embarked on a journey through California's Central Valley, engaging with leaders across the agricultural spectrum. This essay delves deep into the intricate web of water management, exploring its history, the complexities of water rights, the impact of regulations on farming practices, and the evolving landscape of agricultural water use in the face of a changing climate.

According to the Public Policy Institute of California, irrigated crops underpin California's agricultural dominance. California's agriculture sector produces over 400 commodities, generates over \$50 billion in annual revenue, and employs over 420,000 people. The majority of the farm revenue is derived from irrigated crops. The San Joaquin Valley accounts for 54% of the state's irrigated farmland, the Sacramento Valley (21%), the North, Central, and South coasts (9%), and the southeast desert region (6%)."

Surface water and groundwater are both utilized for agriculture purposes." In recent decades, reductions in surface water—a result of drier conditions and ongoing increases in environmental regulations—have prompted more groundwater use. This shift in use prompted more water regulation through the 2014 Sustainable Groundwater Management Act (SGMA).

California's crop mix is diverse, but there has been a shift in acreage towards perennials. While the total irrigated acreage has remained relatively stable since the 1980s, rapid growth in perennial fruit and nut crops, particularly almonds, is due to the potential for high returns. This has created a decline in field crops like cotton. The percentage of irrigated acreage occupied by perennials increased from 22% in 2000 to 46% in 2018. Vegetables and berries also generate relatively high returns and revenues per unit of water and land. Feed crops, including alfalfa, pasture, and corn silage, cover a quarter of acreage and 27% of farm water use. Although the revenue share from these crops is small (5%), they support the state's large livestock industry.

The Public Policy Institute of California reports that farms in California use approximately 40% of the state's water on average. Despite little change in total farmed

acreage or water used, the value gained from agricultural water use continues to rise, largely due to the shift towards perennial crops.

## **The Historical Context of California's Water System**

California's interconnected water system is a marvel, serving over 30 million people and irrigating more than 5.6 million acres of farmland. It manages an astonishing 40 million acre-feet of water annually, making it the world's largest, most productive, and potentially most contentious water system. This "sprawling network caters to the needs of more than 27 million people and 750,000 acres of farmland," underlining its pivotal role in the state's economy and livelihoods.

The roots of California's water rights date back to its statehood in 1850. The system initially adopted riparian rights, granting landowners adjacent to waterways the exclusive right to use the water naturally flowing in the stream—a right tied inseparably to the land itself. In 1851, the appropriative right system emerged, allowing water users to "appropriate" water based on the timing of their claim. The California Supreme Court has reinforced the primacy of riparian rights holders in diverting water over appropriative water rights holders. The Water Commission Act of 1914 marked a milestone, formalizing the permitting process for surface water use and laying the foundation for the agency that would later evolve into the State Water Board. In a historic move in 2014, California began regulating groundwater for the first time, adding yet another layer of regulation to water management in California.

## **Navigating the Complex World of Water Rights**

In California, farmers rely on three primary water rights systems: riparian and appropriative rights for surface water and compliance with the Sustainable Groundwater Management Act (SGMA) for groundwater.

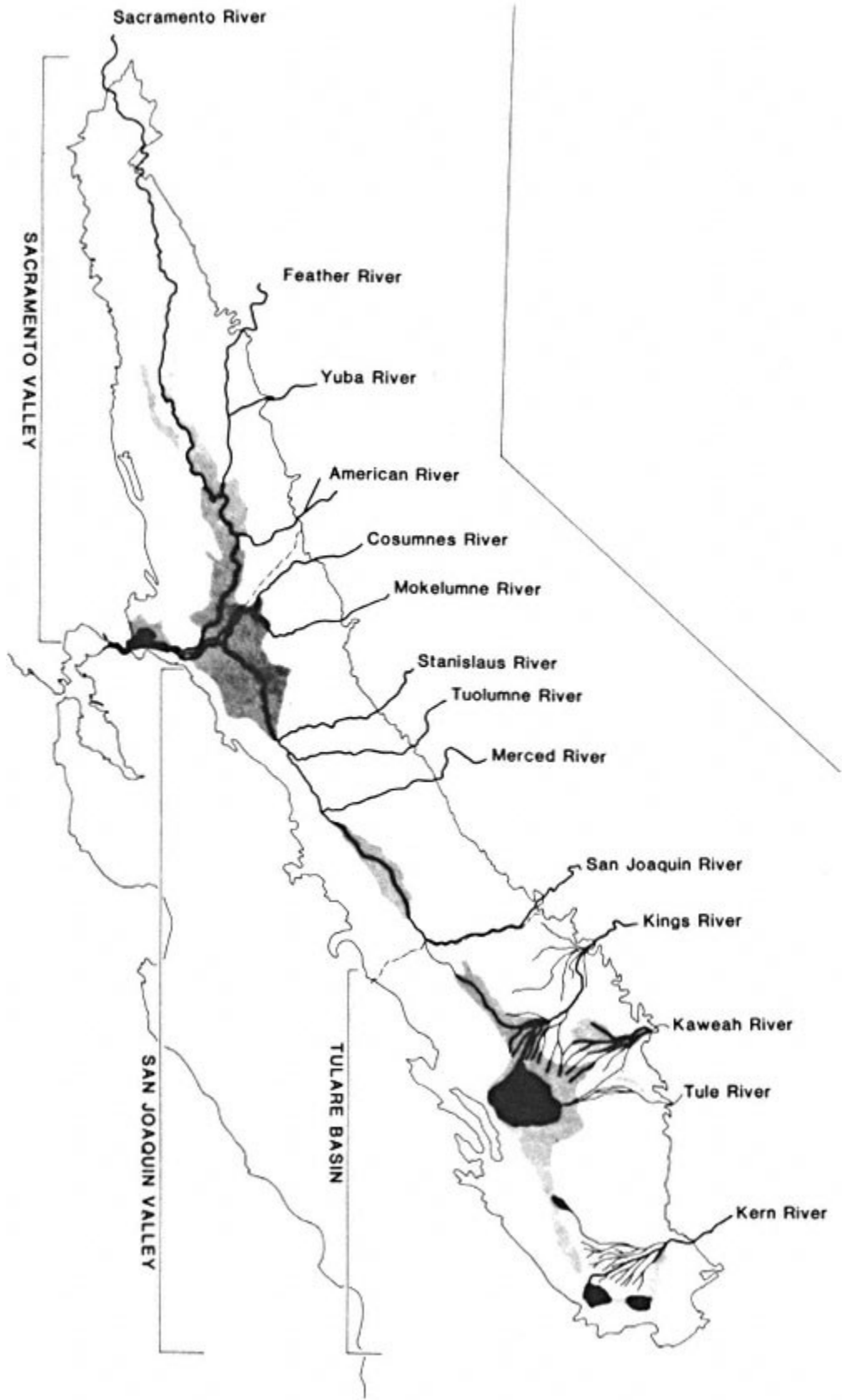
Riparian rights grant landowners access to water naturally flowing in the stream, devoid of permits or government approval. However, these rights are confined to the water within the watershed, prohibiting diversion to storage or use outside the watershed.

Conversely, SGMA mandates sustainability measures for groundwater use, aiming for compliance by the early 2040s. This regulation will reduce farm water use, especially in critically overdrafted basins. Efforts to augment supply, such as groundwater recharge and flexible water trading rules, are being explored to mitigate the economic impacts. Some estimate the full impact of these regulations to reduce farm acres by up to 80%.

Appropriative water rights in California are a type of water right that allows surface water to be diverted at one point and used beneficially at a separate point. An appropriative right is based on physical control, beneficial use, and, if initiated after 1914, on a permit or license. "Surface water may have attached appropriative rights that exist in excess of superior riparian claims and to groundwater. They depend upon continued use and may be lost by non-use. Appropriative rights may be sold or transferred.

"Unlike riparian rights, long-term storage of water is considered an acceptable exercise of an appropriative right." This system of appropriative rights dates back to the Gold Rush when miners diverted water from its source, often for hydraulic or placer mining.

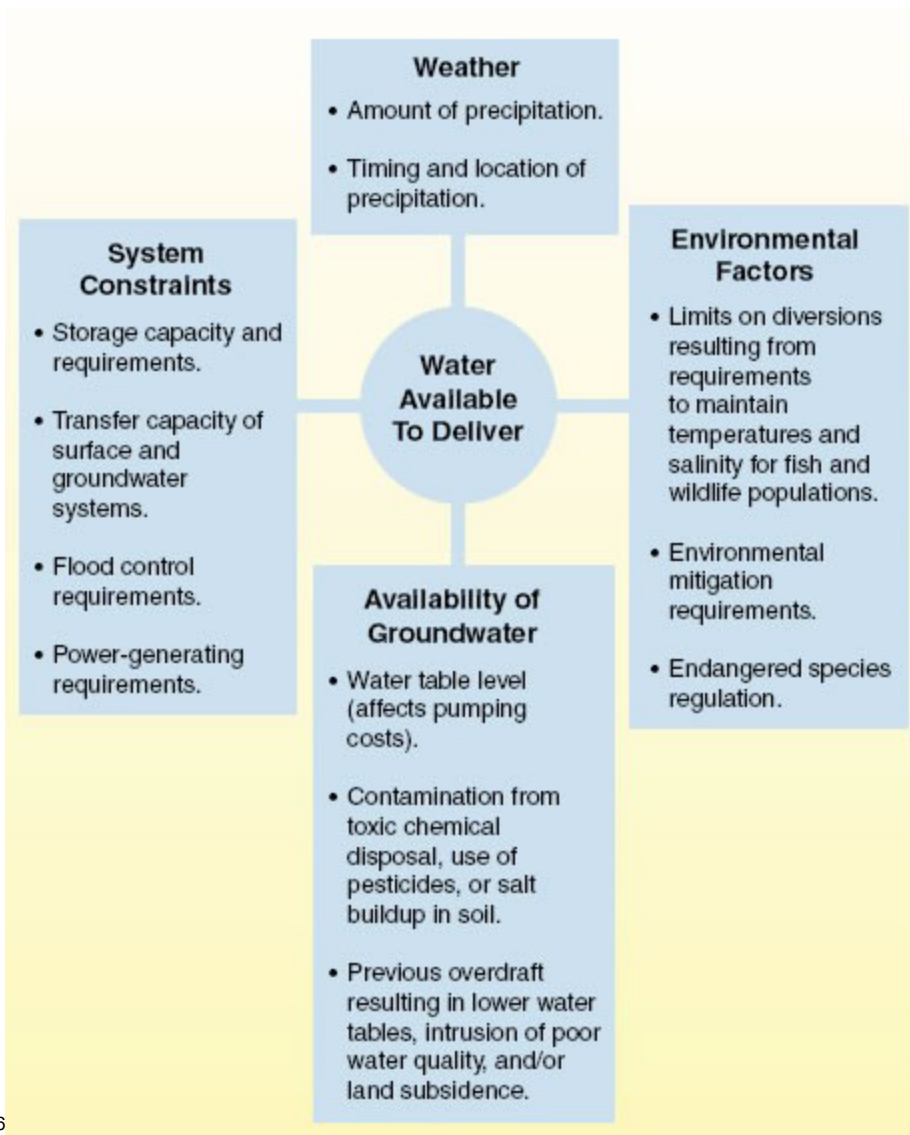
When one applies to appropriate water, the application must specify where the water will be used, period of diversion, purpose for which the water will be used, and point and type of diversion. The date of first appropriation and the estimated size of the completed project are also critical to establishing an appropriator's seniority on the stream and the volume of water to which the right applies. When insufficient water is in a stream to meet all the claims, the most recent claim is the first to reduce its diversion.



## The Additional Complexity of Allocation and Allowable Use

California water allocation refers to the process of distributing available water resources to various users and purposes within the state. In California, water allocation is a complex and highly regulated system.

California relies on a variety of water sources, including rivers, reservoirs, groundwater, and imported water from other states and regions. These sources are managed and allocated to different users based on a combination of legal rights, historical use, and regulatory policies.

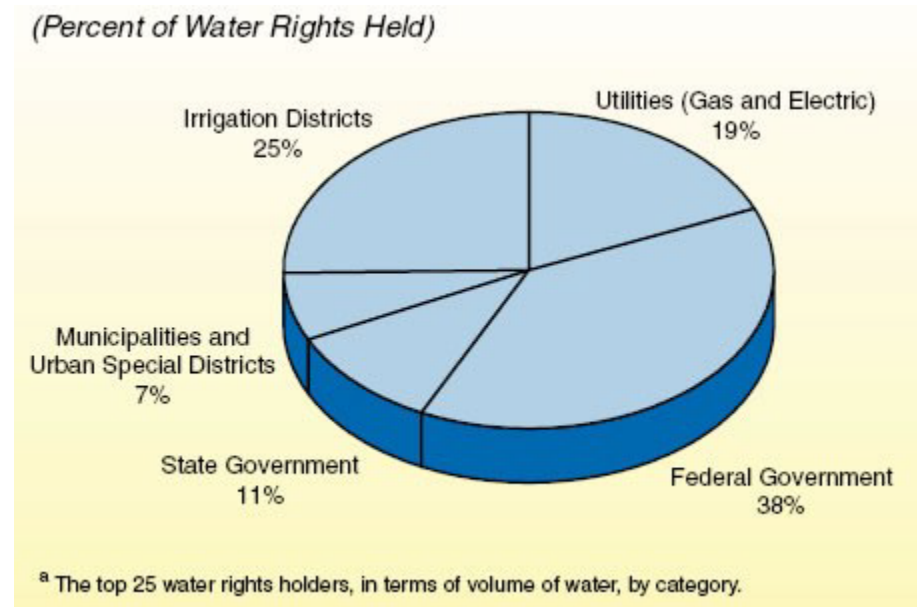


A system of prior appropriation governs water rights in California, often referred to as “first in time, first in right.” Those who have established water rights earlier have priority in accessing water during times of scarcity.

In addition to agricultural and urban uses, water allocation also takes into account environmental considerations. Protecting the state’s ecosystems, including rivers, wetlands, and wildlife habitats, is a priority.

California's primary mechanisms for allocating surface water are the State Water Project (SWP) and the Central Valley Project (CVP). Twenty-nine public water suppliers receive water from Northern California rivers through the SWP. Approximately 70% of the water is utilized in industry and urban areas in Southern California and the San Francisco Bay Area. The remaining 30% is used for agriculture in the Central Valley. Allocations are updated monthly as snowpack and runoff information is assessed, with a final allocation typically determined in May or June.

Environmental policy plays a substantial role in water usage in California. Approximately 50% of the state’s water is allocated to environmental purposes, comprising protected rivers, instream ecosystem use, water quality maintenance for agriculture and cities, and wetlands within wildlife preserves. These allocations further reduce the water available for other uses.



During periods of drought, State agencies impose restrictions on water usage for different sectors, including agriculture, to ensure that water resources are conserved and available for essential uses. Changes in the climate have led to more frequent droughts and more severe floods, resulting in a cycle of abundance and scarcity.

California also has a system of markets for buying and selling water rights, allowing for more flexibility in water allocation. These markets can help users respond to changing conditions and shifting demands.

Disputes over water allocation are common in California. They are typically resolved through a combination of legal processes, negotiations, and regulatory decisions.

Groundwater basins contribute approximately 41% toward the State's total water supply during an average year and up to 60% or more during dry years. Groundwater allocations may take various forms, including acreage, crop-based volumes, or historical pumping. In addition to the regular allocation, the state sends additional water to regions for groundwater recharge and added reservoir supplies.

For farms possessing appropriative water rights, the maximum allowable utilization is 4,500 gallons per day for immediate consumption or 10 acre-feet per year for storage in a pond or reservoir. Each farming season, the volume of water available for agricultural use hinges on various factors, encompassing the farm's water rights classification and the prevailing state water conditions. While farms are allocated a specific volume of water, they must await directives from regulatory authorities annually to determine the percentage of their allocation that can be utilized.

It's important to note that water allocation in California is a dynamic and evolving process influenced by multiple factors, such as changes in climate conditions, population growth, and shifts in agricultural practices. The allocation of water resources in the state is a topic of ongoing debate and policy development.

### **The Future of Water Conservation**

The allocation of roughly 50% of California's water resources for environmental purposes significantly impacts the available water supply for humanity. While prioritizing environmental conservation and preservation is crucial, an excessive emphasis on these objectives can inadvertently hinder human well-being.

Designating a substantial portion of water for environmental purposes reduces water availability for other sectors, notably agriculture and urban areas. During drought or water scarcity, this decreased water supply presents challenges for farmers and communities dependent on agriculture for sustenance and economic prosperity.

Agriculture is a cornerstone of California's economy. When water resources become constrained due to environmental allocations, farmers face limitations on their water usage, resulting in diminished crop yields and escalated production costs. These adverse effects on profitability reverberate throughout rural economies, impacting every

facet of society in these regions. Consumers, in turn, experience the economic repercussions of water scarcity through higher grocery bills, potentially affecting their access to affordable, nutritious food.

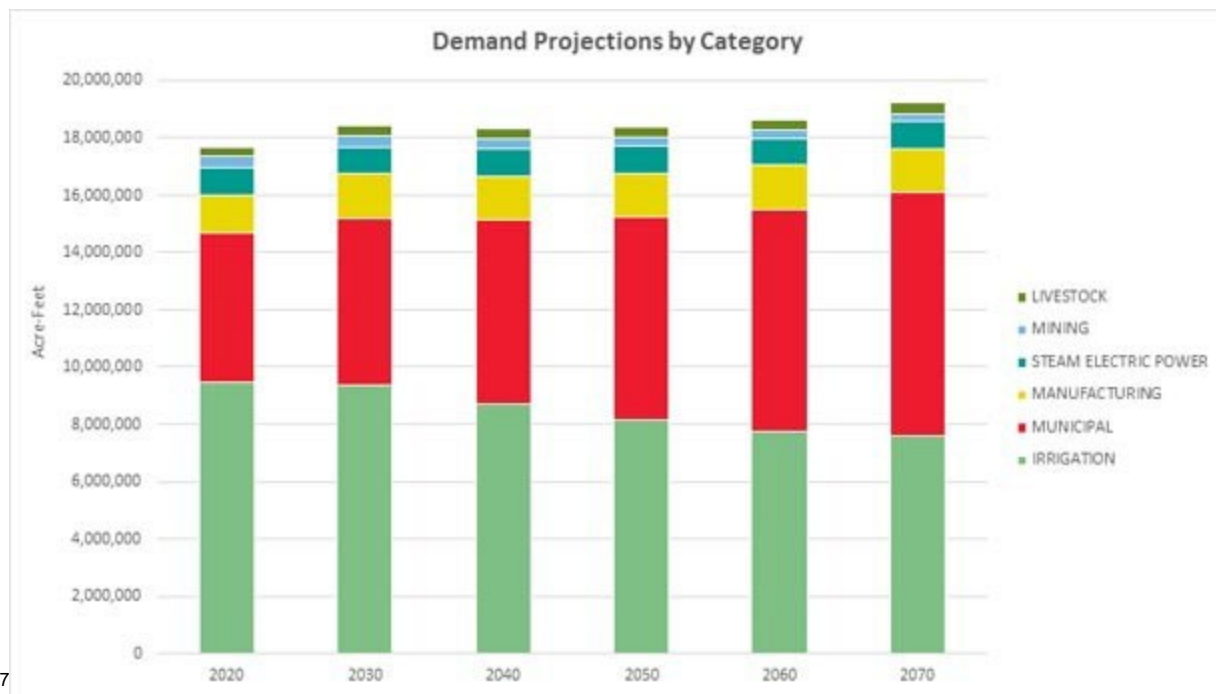
Restrictions on food production in this “breadbasket” state will inevitably impact the entire nation. Moreover, the global community stands to lose access to several crops with limited geographical production, including almonds, a vital component of many cultures worldwide.

An illustration of the unforeseen repercussions stemming from excessive environmental regulations can be observed in policies that prevent the use of controlled burns and forest management practices. This policy has resulted in the devastation of extensive tracts of land within the Sierra Nevada region. Additionally, these regulations have placed in harm's way the iconic sequoia trees, which hold immense significance within California's natural heritage and ecosystem. Although there is now a shift in the direction of these policies, it may be too late to avert further harm.

Acknowledging that solutions exclusively centered on environmental concerns while offering short-term benefits can ultimately impede human well-being is imperative. In the long term, an excessive focus on environmental preservation may disempower humanity, making it challenging for individuals and communities to meet their basic needs. When people are compelled to prioritize immediate survival and livelihoods, they often have limited time and resources to consider their environmental impact. Achieving a sustainable balance between human flourishing and environmental conservation necessitates a thoughtful and balanced approach that takes into account both short-term and long-term considerations.



## Texas Water Policies and Looming Crisis



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Texas, too, faces an impending water crisis. Aging infrastructure, rapid population growth, droughts, dwindling water supplies, and the demands of agriculture and industry exacerbate the crisis. The state must prioritize water conservation, modernize infrastructure, diversify water sources through innovations like desalination and recycling, and update policies for equitable allocation to address these challenges. Collaboration and public awareness are crucial in addressing this multifaceted issue, and proactive measures are needed to ensure a sustainable future that meets the needs of its growing population while safeguarding the environment.

Water scarcity is a pressing concern, demanding a balanced approach to regulations that stimulate economic growth while protecting the environment from an extraction mentality. Achieving this balance involves strategies promoting thriving businesses, community well-being, and the preservation of natural ecosystems.

Sacrifices will be necessary to secure our water future, but they must be fairly distributed across society and industries. Collaborative efforts, equitable distribution of responsibilities, and innovative solutions are vital to addressing Texas' impending water challenges fostering a sustainable and prosperous future that harmonizes human needs, environmental preservation, and economic growth.

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**TALL XVIII**

**Session 6 – California**

**September 10 – 15, 2023**

The only part of California I had visited before this trip was the tiny sliver of South Lake Tahoe that sits on the California – Nevada border. A weekend getaway to a ski town did not reveal much about the agricultural profile of our nation’s most populous state, so I was glad to get a firsthand look at this powerhouse of production. Our California session exposed us to many types of specialty crop production, various challenges with natural resources, and seemingly endless layers of government. While California and Texas differ in much of their agricultural production, I found that the farmers and ranchers had the same desire to produce a quality product while caring for their land and their communities.

Our session began in Sacramento with a meeting with the California Department of Food and Agriculture. We met with Undersecretary Christine Birdsong and key program staff who shared the following facts with us:

- The state is the 5<sup>th</sup> largest food and fiber producer in the world.
- California grows over 400 specialty crops.
- 80% of California farms are 100 acres or less.

According to Undersecretary Birdsong, California agriculture struggles with climate extremes, an aging population, a labor shortage, and a burdensome regulatory framework. The department aims to help alleviate some of these challenges by emphasizing a circular economy and a total food system perspective that prioritizes resiliency. One of the first topics we asked the department staff about was Proposition 12 that created new standards for pork production. Since we don’t have the voter proposition system in Texas, it fascinated me to learn that even though the department thought this proposal would be detrimental to producers and consumers, they have no choice but to design and enforce the standards. While voter participation seems like an admirable activity, California’s method has basically allowed it to enforce its own standards on the rest of the country, which creates an obvious imbalance of power among states.

I also appreciated learning about California's road station system. California does an excellent job protecting its agricultural production from biosecurity concerns through a series of 16 stations that have been in operation for over 100 years. At these stations, officers inspect all commercial vehicles and most private vehicles that come into the state for harmful invasive pests and diseases. Texas, which has many more points and methods of entry for these threats, lags far behind California in our road station infrastructure. Thankfully, the Texas Department of Agriculture recently received approximately \$7 million from the legislature to bolster our biosecurity position. Though it's normally taboo to advocate following California's lead, it's in the best interest of Texas agriculture to use their robust road station system as a guide.

The department also introduced us to California's county ag department structure, where every single county has its own miniature department and commissioner that has some delegated regulatory authority. Throughout the session, our group regularly debated the merits of and asked producers about their thoughts on this system. It intrigued us because it's hard to imagine 254 mini-TDAs, but it seems like it works for California as I don't recall any producers or industry people voicing concern.

Our day in Sacramento continued with a trip to the California Farm Bureau Federation (CFBF). We heard from CFBF Administrator Jim Houston, who passionately discussed the position of agriculture in California. Whereas Texas politics are generally very friendly toward agricultural interests, California seems to be the opposite. CFBF is unique in that it has its own research organization that seeks to quantify the environmental contributions of California agriculture. We were honored to hear from House Agriculture Committee Chairwoman Esmerelda Soria. Though new to the position, Rep. Soria was obviously passionate about her role and eager to lean on expertise within the agriculture industry. We also heard from the California Tomato Growers Association which represents growers of 1/4 of the world's supply of processed tomatoes and negotiates with processors for uniform prices. Next, we heard from the COO of Farm Labor Operating Services, which helps agricultural employers navigate the regulatory framework and litigious environment of hiring agricultural labor. Our last speaker was the CFBF Director of Government Affairs. As a fellow GR professional, I appreciated hearing about their priorities and methods for advancing them in a sometimes-hostile legislative environment.

Our day concluded with our first look at some specialty crops at Nuss Farms. Not only did we get to see garlic being grown (a first for most of us), but we also found out that the sons and co-operators are the hosts of the Modern Acre, a well-respected agriculture podcast. Day two was also filled with specialty crops. We started off at Lodi Farms, which had me singing “Lodi” by Creedence Clearwater Revival the whole time. Mr. Columbini talked to us about the unique pricing structures for the crops he grows, which includes apples, walnuts, and cherries, and we got to walk through one of the apple orchards. I can confidently say that the apples he encouraged us to pick off the trees were some of the best ones we had ever tasted! Next, we went to Pearl Crop, an innovative nut processing company run by Ulash Turkhan. I enjoyed seeing the multi-step process that almonds take from growing on the tree to ending up in a bowl in front of me! Pearl Crop was an impressive facility, and it’s evident that Mr. Turkhan has big ideas and the business acumen to accomplish them.

Next, we went to Mapes Ranch where we met Bill Lyons, the previous Secretary of Agriculture for California. Mr. Lyons shared with us about the importance of environmental stewardship and his experience with the political system of California. On his ranch, we got our first glimpse of the irrigation canals that run throughout the state. Mapes Ranch, unlike many other ranches, is in a very fortunate position with their water rights which enables the Lyons family to take an active role in wetland conservation. That evening, we were treated to a lovely reception hosted by Mr. Lyons where we got to hear about the California Ag Leadership Program.

Day three began with breakfast at the Almond Board of California. At this point, we had seen so many almond or “ahmand” orchards that we knew many of the facts about their production. However, the Almond Board did an excellent job of presenting the information in a way that appeals to the consumer. Some of the things we learned about almonds included:

- California grows 80% of the world’s almonds.
- Almond growers have substantially reduced the amount of water required to grow a pound of almonds in the last two decades.
- Almonds trees actually grow three things: the nuts we eat, the hulls that are used for livestock feed, and the shells that are used for livestock bedding.

Next, we visited Hilmar Cheese which processes and co-packs cheese for many of the nation's leading brands. Hilmar was founded in 1984 by dairymen with Jersey cows that believed they could get a premium for the high solids milk their cows produced. It was evident that the company values maintaining the connection to the farmers and educating the consumers on the quality of the product. After Hilmar, we headed to Vander Woude Dairy. We learned how many California dairy farms make use of their waste via a methane digester; the methane digester traps methane like a balloon and refines it for reuse as fuel. I'll never forget standing on top of the digester and bouncing around – probably not that safe, but certainly fun!

Our specialty crop tour continued at Robson and Wylie Farms, both of which grow pistachios with regenerative practices that emphasize soil health. For most of our journey through California, we were accompanied by Jonah (a previous TALL alum) and his new coworker Jeff, both of whom worked for a soil company called MyLand. After hearing hints about it throughout the week, we were finally able to see MyLand in action at Wylie Farms. MyLand uses the unique biotic profile of the land to develop a microalgae soil amendment that substantially improves a crop's ability to absorb the appropriate nutrients and efficiently use water. I am eager to see the expansion of MyLand's technology into Texas, especially in areas that struggle with loss of topsoil. Next, we headed to HMC farms where we learned all about stone fruit production and ate bags upon bags of delicious table grapes. The owner, Mr. McClarty, illuminated for us the challenges of being a stone fruit grower in California. He told us that it can't just be a business venture planned out on Excel; you must have your heart and soul in it, or you'll fail. He shared with us how his farm is using innovative technology like drones and AI to combat labor issues.

Our day ended with a dinner at the Western Agricultural Processors Association. This dinner was wonderful because we got to hear from so many young leaders in California agriculture. From farmers to industry professionals, they all shared their opinions on the challenges facing agriculture in their state. Their first-hand experiences really drove home the messages on water, labor, regulations, and politics that we'd been hearing from others throughout the week. Safe to say, the layers of government in California are truly astounding. Each time someone would mention another regulatory body they had to deal with, the collective thought was “wait, there's ANOTHER agency?”

The final day of the session began with tours of the J.D. Heiskell and Western Milling feed mills. At J.D. Heiskell, we learned about how California's rail system is very territorial and uncooperative, which creates supply chain challenges for people moving feed products in and out of the state. At Western Milling, we got to see a more niche side of the industry with their pet food production. We all thought it was comical to see the bag that was clearly marked with a fighting rooster on it that was denoted as "specialty poultry" feed. It's illegal to fight these specialty poultry, but apparently perfectly legal to sell feed for them.

Our day continued with what became a 3.5-hour pilgrimage to see the Sequoia trees. After winding up the most direct route, our bus was denied entry because it was too long to make some of the hairpin turns that would take us to the trees. Instead of cutting our losses, we pushed back our dinner time and opted for a two-hour detour to the other entrance of the park. If we thought the first road was winding, our plan b was downright precarious. Dr. Jim frequently referenced his infamous India mountain bus ride for comparison when we were making 180 degree turns and trying to pass cars on a one lane ranch road carved into a cliff with no railings. Finally, we made it up to the park alive thanks to our amazing driver, and the potential of death that we endured was worth it. I couldn't comprehend that trees could be so big or so old until I was standing right in front of them. Seeing the Sequoias was one of those moments that makes you feel so grateful to exist in a world with something so majestic.

After trekking back down the mountain, we closed out our session at the Lassotovich Ranch. We heard from Mr. Lassotovich about his work with the Sierra Resource Conservation District and how the district mitigates and responds to wildfires and other natural disasters. As the sun set over the Sierra Nevada range, it was easy to understand why California farmers and ranchers persevere even in the midst of the roadblocks they face around almost every corner.

Our California trip was very enlightening. While the Mediterranean climate means that agricultural production looks very different in California compared to Texas, there were many similarities in the attitudes of farmers and the challenges they face. In both states, some land has an overabundance of water and other land has almost none. In both places, the urban centers fail to fully grasp the value of the agricultural sector and the rural communities. Nevertheless, farmers and ranchers care deeply about their land and want to produce the best product they can.



**Jessup Clayton Yeaman -#26**

**TALL XVIII**

**Session 6- California**

**September 10- 17th, 2023**

Our Cohort's 6<sup>th</sup> Session was held in mid-September 2023, and was focused in the Central Valley of California. This was a fantastic session, and our cohort had a great time learning about California ag policy, ag production in the state, and the challenges they face.

I have addressed our activities for the session below in the order of our schedule:

### **California Department of Food and Agriculture**

We started our session at the California Department of Food and Agriculture in Sacramento. Undersecretary of Agriculture Christine Birdsong spoke to our cohort and about the challenges and opportunities facing California Agriculture. According to Mrs. Birdsong, the Central Valley is the fruit and vegetable basket for our country and is a major economic driver for their state. They have only 4% of farms in the U.S. but are the 5th largest ag producer in the world. They grow over 400 different specialty crops. 14 of those are only raised in California. They are the largest ag exporter in the country. Organics play a big role here. 36% of all organic farming in the US is done here. Their cash sales of Ag were \$51 billion in 2022. 80% of their farms are 100 acres or less. They have 24 million acres of ag land. About 25% of all land in the state. Water is an issue, as is average age of farmers, price of land, and pests (because it rarely freezes). Regulatory environment is also a challenge. It is very expensive to comply. She mentioned they have an incentive program called climate smart farming. California is the #1 state for dairy. They are working on a regulatory alignment project, which will streamline, but not necessarily reduce regulations. She devoted some time to Prop 12- a requirement on pork and poultry producers for humane treatment. She also mentioned they have 16 border inspection stations and have had them for over 100 years. At the stations they are looking for for plants, pests, and disease that could harm ag in the state. Another item of note was that every county has their own ag department that is funded by local taxes and some state money. They trap insects around ports trying to keep invasive pests out. Labor: they depend heavily on H2A. They are a grain deficit state. They import 90% of the grain they use.

### **California Farm Bureau Offices**

We arrived at the beautiful California Farm Bureau state office and first heard from Mr. Jim Houston, leader of the California Farm Bureau Federation. He discussed the challenges of

representing agriculture in the state. He feels that him operating as a Republican in a Democrat dominated state gives him some unique perspectives into how policies and politics work. He said that many opposition groups utilize fear mongering to sway public opinion, especially related to climate change issues. He addressed the carbon sequestration programs that California has and their failure in his eyes. He said the financial motives for many of the carbon capture programs and environmental programs are tainted. He is trying to use science and common-sense counter arguments for some of the non sensical regulations and programs that are inefficient or backwards. He wants the carbon sequestration potential for each plant to be listed on its tag at nurseries for example to make people more aware that plants remove carbon from the air... and farming takes a lot of carbon out! He says that any law or regulation related to climate change needs to address the fact that people still need to eat. They have 38 million people in California. If they all need 2,000 calories a day, we need to keep farming, and efficiently. Growing the food for those people in California is easily the most environmentally friendly option.

Next, we had the pleasure of hearing from Assemblymember Esmerelda Soria, Chair of the Agriculture Committee in their state legislature. She gave us an Agriculture Policy Briefing and discussion of the agricultural impact on the State of California. She addressed the recent flooding issues the state has had and the impacts it has had on ag in the state. She said they produce over 400 different crops, and that many politicians in the state forgot how big Ag is in the state. She works hard to educate her more urban colleagues as often as she can. Their top three commodities are dairy, grapes, and almonds. They had ag exports of \$23 billion last year. Their climate and water are some of the reasons they are so successful. They have a big issue with immigration, they need more workers, but legally. Another issue is labor cost and regulation. Their minimum wage is high, and rules related to overtime hours are complex. Their farm worker population is aging along with the farmers themselves. They are seeing many tech advances in agriculture, so they are promoting an ag tech initiative to train and teach people to use it. Water is another big issue. Drought and regulation have limited it as source of irrigation and daily human consumption. They have a big need for investment in infrastructure for water retention on good years. She was asked about their state's huge deficit and how the intended to handle that going forward. Her answer focused on increasing revenue through more business growth in the state.

After lunch, Mike Montna, President/CEO of the California Tomato Growers Association spoke to us. He said the association has about 250 growers that produce about 12.5 million tons of tomatoes. In years past, prices were \$84/ton, last year it was \$130/ton. It is a rotation crop, that usually is followed by pima cotton and sunflowers. They negotiate the price of their tomatoes for their members with the processors. They have 11 processors that they deal with. Prices have jumped nearly 50% in the last few years due to drought and inflation. In 2022 they

grew 70% of their crop on well water. They require 2.5-3-acre foot of water to grow a crop. Almonds take 4-acre foot. Water is the limiting factor for them, not acres. They start harvest July 1<sup>st</sup> and go through the 2<sup>nd</sup> week of October. They contract so many tons per week of a certain variety. They supply about 25% of the world's processed tomatoes. 75% of what they sell is in tomato paste. The regulatory climate is a challenge for them as well. There is competition from solar, and urban encroachment.

Bryan Little, Chief Operating Officer for Farm Employee Labor Services discussed the labor situation in the state. His organization helps farmers navigate the stringent requirements for labor in the state. He said California has many laws and regs that other states do not, and ag often suffers because of that. He gave an example of a proposed bill that would allow striking workers in California to be paid unemployment. Their labor code is 1100 pages long. Organized labor plays a huge role in their state government. Many legislatures think every work should be able to be in a union. Trial lawyers are constantly suing employers, often over frivolous things, and they often just want to settle and get paid quickly. They workers rarely end up with much money, but the lawyers do. Their labor force is shrinking. Everything that can be automated is going that direction. They have onerous overtime requirements starting in 2024 which will make farm labor even less feasible.

Amrith Gunasekara, California Bountiful Foundation Executive Director, was our next speaker. The foundation is a 501c3 that is the science and research arm of the CFB. They have multiple grants out currently for different projects. They build partnerships with various growing associations and other organizations to further education and advocate for agriculture. Their research aims to show the ecological and economic benefits of agriculture. He discussed how many facts are manipulated related to ag and water use especially. He said misinformation from environmental groups is blatant and widely distributed, and unfortunately the state government also misleads people.

Chris Reardon, Director of Governmental Affairs for California Farm Bureau, was our last speaker at this stop. Every single statewide government office is currently held by Democrats. He has worked for both Democrats and Republicans. He said the state has seen a mass exodus of population due to its tax and policy structures. They have seen some positive movement from the state's politicians as of late for a change, which has been a breath of fresh air. He said they pushed several bills this year and opposed a huge number of others.

## **Nuss Farms**

Our last stop for the day was Nuss Farms, located in the San Joaquin Valley near Lodi. The farm is a 5<sup>th</sup> generation family operation. We had the pleasure of touring the farm, with Tim Nuss, VP of Operations leading the way. They grow a wide variety of specialty crops including garlic,

tomatoes, cucumbers, corn, and various peppers that they distribute across the nation. One of their largest customers is the Subway restaurant chain. The family rotates crops often and they are now moving into regenerative agricultural practices. Their farm is watered by canal water and utilizes flood irrigation as well as drip tape depending on the crop. Their farm is approximately 1200 acres in size and is all irrigated.

## **Tuesday-**

### **Lodi Farms**

Our stop to initiate our second day was the very impressive Lodi Farm's headquarters. President of Lodi Farms, Jeff Colombini was great host. Their operation is quite large, and diverse. He explained pricing and the harvest process for many of the crops they grow, which included cherries, apples, walnuts, olives, and almonds. The amount of water these crops require was tremendous. Walnuts require 4-acre foot of water a year. Almonds and apples require around 3-acre foot. Cherries require 2.5-acre foot and olives were the lowest requirement at 1 acre foot. They irrigate apples and olives with surface water but the cherries they only use well water to avoid contaminates. The harvest process for the crops has become more and more mechanized over the years to be more efficient and avoid worker comp claims. He said labor laws are a challenge for their industry. They have about 100 full time employees, and up to 300 seasonal workers during harvests. We were given a driving tour of the farm and were able to walk through some of the orchards, and even ate some of the apples while we talked about the various crops!

### **Pearl Crop**

Our next stop was in Stockton, at the main Pearl Crop headquarters and almond processing facility. President of the family company, Ulash Turkhan, spoke to us at length about the history of the business which was founded in 2007 and their various food brands and lines of products that they have grown into at this point. The company is very impressive, and the almond handling facility was very interesting to see, with millions of dollars of machinery and technology in use. Pearl Crop distributes almonds to 45 countries. Their processing facility wastes nothing; even the hulls, dust and membranes are turned in to livestock feed or other byproducts. Pearl Crop offers dedicated facilities for every production need. They produce or offer: high protein powder, cold pressing, retail packaging, in shell, raw, pasteurization, dry roasting, oil roasting, dicing, slicing, mixed nuts, nut butter, meal, flour, and oil. To produce all the many products they contract with over 300 growers each year.

### **Mapes Ranch**

Our last stop for the day was the beautiful Mapes Ranch near Modesto. The ranch is owned by a family entity of which Mr. Bill Lyons is the CEO and main owner. Bill is a former Secretary of Agriculture for the State of California and was a fantastic speaker and host. He gave us a tour of

the ranch and showed us many of their crops and production practices in real time. The main ranch is 3,500 acres, but they operate over 10,000 acres. They have an incredible amount of water and irrigate all their land. They have well water, canal water, and water from three different rivers. They are one of the most water rich operations in the state according to Mr. Lyons. They produce high quality angus cattle from a 2,500 head herd that are run on hundreds of flood irrigated paddocks that are flooded every 10 days. They also grow corn, walnuts, and almonds among other crops. Conservation has been a big part of their ranch and their family's history as well. They have implemented many production practices to make them more efficient and environmentally friendly. For example, they use cannery by-products and spread them on their fields. They essentially get conservation credit for this, and the by-products make their soil better. Another example was they utilize peach pits as dirt road and turn row topping to reduce dust. The time spent seeing the various crops was fantastic as we were able to ask countless questions about their production practices. Mr. Lyons was also kind enough to sponsor a reception in Modesto after the tour which we enjoyed a great deal.

## **Wednesday-**

### **Almond Board of California**

We started our 3<sup>rd</sup> day at the headquarters for the Almond Board of California in Modesto. Richard Waycott, their President & CEO spoke with us at length about the makeup of the board and how it functions. They have 58 full time employees. They have their headquarters in Modesto, and also have offices in four other countries. Their budget this year is slightly over \$80 million dollars. Most of that is used for global market development. There are 1.63 million acres of almonds in CA. The trees last 25-30 years. They contribute \$9.2 Billion to the state's GDP. Almonds are California's top agricultural export. They are responsible for 110,000 jobs in the state. There are 7,600 growers and 101 handlers in the state. California has 100% of U.S. production and 80% of worldwide production. The Mediterranean climate is perfect for the trees. There are still lots of small operations in the state. Nearly 70% of almond farms are 100 acres or less. 91% are family farms. Almonds have been trending up in terms of planted acres in the state while many more traditional crops have been trending down. They had one of their largest crops ever during covid when the supply chain backups happened. This caused some downward price pressure while their cost to grow has increased. We were also given a rundown of their industry services, which includes: quality/safety; reporting compliance and assessments; crop forecast and surveys; industry programs management; industry support. They have a global technical and regulatory affairs department as well.

## **Hilmar Cheese**

As we began to make our way South from Modesto to Fresno, we went to Hilmar Cheese. Hilmar Cheese was founded by 12 jersey cow farmers in the 1980's. To this day 11 of those 12 are still owners. Hilmar Cheese is a wholesale cheese manufacturer. They ship the whey protein and lactose byproducts overseas primarily where it is included in a myriad of products. The cheese plant has a huge water retention system. Since milk is 87% water, they use the water from the milk for nearly everything they need water for. Even their final wastewater at the end of all processing is used to irrigate corn. They test every single tanker of milk for antibiotics. Their various cheeses are made into massive 640 lb blocks that must be wheeled around on carts on tracks like miniature trains during the production process.

## **Vander Woude Dairy**

We visited the Vander Woude Family Dairy and the owner, Simon Vander Woude, gave us an overview of their operation. The facility we visited was very well kept and attractive. They had 3,200 cows at that particular facility, and 2,600 at the other two. Simon was a very charismatic and passionate about agriculture, despite the challenges the dairy industry faces, especially in California. One very unique thing we saw at this stop was a hub and spoke methane digestion program that utilizes the methane given off by their lagoons or retention ponds and turns it into a product they can sell.

## **Robson Farms**

This was our first stop where we saw pistachios. Mr. Brad Robson, the owner, showed us his orchards and his huller. His operation is the 4<sup>th</sup> largest organic pistachio farm in the world. He said that pistachios are somewhat of a forever crop. The trees produce indefinitely after year 7. The trees we saw were planted in 1983, but he said it's not unheard of to see 100-year-old trees. They were all on dual drip line. Brad said it cost him \$600-\$700 an acre foot for well water for the trees and he uses 2,300-acre foot a year. Surface water is cheaper for him but has some issues with stopping up his drip tape because it has contaminants. During harvest, his huller runs for 17 days straight, and he uses 7,000 gallons of propane a day on the dryers.

## **Wylie Farms**

Justin Wylie, owner, hosted us on his 3,500-acre family farm. His operation is very forward thinking and focuses on regenerative farming practices and is certified organic. They primarily grow pistachios and pomegranates. He spoke to us at length about his management of soil health and returning life to soil. He said that their industry can no longer outgrow or out yield their issues, they have to make things better and cheaper, because their cost of inputs are too much.

## **HMC Farms**

Harold McClarty, owner of HMC Farms, hosted us in his massive processing and export facility and main headquarters in Kingsburg. He said California grows 70% of the peaches in the U.S.. The state grows nearly all of the table grapes in the country as well. The recent Hurricane Hillary wiped out about half of the grapes for the year, resulting in over a half a billion dollars of losses in grapes alone. HMC is a family farm and is privately owned. They have operations in Mexico, Peru, Chile, and California. Their California operation is 6,000 acres. They grow many types of table grapes, plumsicles, nectarines, plums, plumcots and peaches, some organically. They ship 200,000 boxes of product a week. They employ 2,500 folks in California. They have moved to high density planting which results in 670 trees per acre. It is incredibly expensive to put in these types of crops. Land in the area sells for \$30K-\$40K an acre and they buy land every year. Automation in their packing house has been implemented a good deal.

## **Fresno Reception**

That evening we were hosted by the Western Agricultural Processors Association, California Cotton Ginners and Growers Association, California Fresh Fruit Association, and Fresno County Farm Bureau. They provided us a wonderful meal and had representatives from their Association as well as several local producers give us an overview of the Ag in the area. Their speakers did a great job of delving into specific issues and how they affect local producers. They touched on many areas, but focused on the issues of water, labor, and regulations.

## **Thursday-**

### **J.D. Heiskell & Co.**

The last day of the trip began with a stop at J.D. Heiskell & Co. at their impressive Guernsey Plant. We were greeted at the plant entrance by Matt Creighton, one of their strategists and their California Fibers trader. The company is privately owned and has been since 1886. They are the third largest mover of finished feed in the U.S. and have facilities from Maine to California and have over 500 employees full time employees. They primarily serve the dairy industry. The large commodity handling facility we visited is located on a rail line and is in the center of one of the largest concentrations of dairy cows in the world. They ship 2600 tons of feed a day to the surrounding dairies. Gluten, corn, ddgs, and canola, are the main products they handle. They have the largest grain bins in North America at a nearby facility. They buy from processors and producers and then sell directly to customers. They sell 95% of their product as straight commodities, and only mix 5% into feed. Matt said that with the railroad strike during Covid they had to euthanize millions of chickens in CA because they were going to starve. They almost had to start that on dairy cows. The facility moves 1.4 million tons of feed a year. Corn is their #1 product and Canola is #2. They can unload a rail car of corn in 8 minutes. They were putting up a new bin that will have a 24,000 ton capacity or over 857,000 bu. Matt

indicated that burdensome regulation was their biggest challenge. He gave the following examples: You can't build a new dairy in California currently by law. AB 5 was a regulation that made it illegal to be an independent contractor if you did a certain amount of business with a company. Essentially this made truckers be employees not contractors and they must now be offered all kinds of benefits. This lost 25-30% of their freight capacity due to higher cost. By 2035 they also must have all electric locomotives in California. There is zero tech to support that currently in existence. The prototypes they have seen are 4 times the cost of a normal locomotive, and don't really work.

### **Western Milling**

Western Milling is the largest non-integrated feed mill in the U.S. The company has been privately held since 1935. They mill, blend, manufacturer, and sell an extraordinary variety of ag products from planting seeds and fertilizer to finished feeds for all kinds of animals. The company has over 900 employees, \$1.5 billion in sales, and merchandise 5.3 million tons of grain a year. Dairy makes up 85% of their sales volume, and they sell a tremendous amount of commercial feed. They also produce companion animal feed and even make feed products for zoo animals. We had the privilege of hearing from their company president, a merchandizer, plant manager, and a dairy nutritionist. The nutritionist gave a great lesson on the history of the dairy industry in the state and described how the dairies once were concentrated around Los Angeles, then moved inland to Chico, then moved North to the central part of the valley each time they moved, they consolidated and grew larger. We were given a tour of one of their massive warehouses, and their facility was very impressive!

### **Big Stump – Giant Sequoias**

After lunch, we headed west into the Sierra Nevada mountains to the Sequoia and Kings Canyon National Parks. The Sequoia Trees were amazing and an absolute highlight of the trip! Tina Rolfsema, Chair of the Oak to Timberline Firesafe Council and retired Sequoia Kings Canyon National Park Ranger, joined us and gave us a wonder tour. She imparted many facts about the giant trees. She said that many of the trees are 3,000 years old or more. She pointed out infant trees which look much different than the mature trees, they are conical in shape and have many lower branches. At 500 years of age, the trees are considered mature. At 1,000 years, they begin to call them Monarch Trees. At this point they lose most of their lower limbs and the extreme tops of the trees die as they can't get enough nutrients at the extreme height. She said that baby sequoias only germinate after a fire. Many of the trees are scarred from fires and she said that fires typically are set every 20 or so years to clear around the trees and start new growth. The beauty of the stop was unmatched and being in the presence of such an amazing part of nature was very humbling!



## **Lassotovitch Ranch**

Our final stop of the session was a beautiful working ranch in the foothills. We stopped here on the way back from the mountains. Owner, Pete Lassotovitch, was a gracious host and we had wonderful supper in a large yard under shade trees as the sun set. Pete runs red angus cattle and has some citrus trees and farming production. He gave us some insight into ranching in his location. He only receives 10 inches of rain a year on average. He has thousands of dead trees on his ranch from a decade of severe drought. In 2023 the drought has finally broken and he has abundant grass and water for change. However, this comes with danger, as they constantly face the threat of wildfires which have decimated their ranch in the past. It was great to hear from a producer on the cow/calf side of things in such a different environment.

## **Summary**

Our time in California was fantastic. I really enjoyed all the stops Dr. Jim set up for us. Learning about production of tree nuts, dairy operation, tomatoes, apples, stone fruit, and table grapes were some of the things that we touched on. A recurring theme from each of our hosts seemed to be the major challenge they face from their own state government. Despite having abundant resources and some of the most ideal climate in the world, they are constantly threatened and hampered by over-regulation and overreach. While they understand the need to be more efficient and are very environmentally focused, each still indicated that doing business in their state was a huge challenge. California is a beautiful state, with wonderful resources, but to me it was a cautionary tale everywhere we went to educate your politicians and the general public or food production in our entire country will suffer and that cost be passed down to all consumers.