On November 18, 2020, the Assembly Committee on Agriculture held an informational hearing to explore the impacts wildfires have had on California agriculture over the past five years. The Committee heard from 11 panelists, including representatives of relevant state agencies, academic experts, industry leaders, and worker advocates, who described the scope of recent wildfires in California, their high-level economic impacts, how individual farming operations were affected, impacts on the hardest hit regions, commodities, worker populations, and—finally—agricultural based wildfire mitigation efforts and opportunities.

I. Hearing Agenda

Panel 1: Overview of the Impact of Wildfires on California Agriculture

- Chief Nick Schuler, Acting Deputy Director for Communications, CalFire
- Professor Dan Sumner, Director for the University of California Agricultural Issues Center
- Kevin Masuhara, Deputy Secretary of Administration and Finance, California Department of Food and Agriculture

Panel 2: Wildfire Impacts on Farms, Farmworkers, and Farmland

- Jamie Johansson, President, California Farm Bureau
- Eddie Campos, No Boundaries Farm
- Dave Daley, Rancher, California Cattlemen Association
- Karissa Kruse, President, Sonoma County Winegrowers
- Cole Mazariegos-Anastassiou, Brisa de Año Ranch
- Arnulfo Solorio, Director, Napa Valley Farmworker Foundation
Panel 3: Agricultural-based Wildfire Mitigation

- Dan Macon, County Director, UC Cooperative Extension – Placer-Nevada
- Kara Heckert, California Regional Director for American Farmland Trust

II. Summary of Hearing

Overview of the Impact of Wildfires on California Agriculture

Wildfires in California are continuing to increase in frequency and intensity, resulting in loss of life and damage to property, infrastructure, and ecosystems. In 2020 alone, wildfires burned more than 4.2 million acres. Six of the 10 largest recorded fires in California’s history happened this year (August Complex, Mendocino Complex, SCU Lightning Complex, Creek, LNU Lightning Complex, and North Complex). Also in 2020, there were more wildfires in closer proximity to agricultural lands (Ag lands). While much of the Ag land in the Central Valley has seen a limited impact, the Coastal ranges and foothill communities on the edge of the Sierras have seen greater impact, especially for vineyards and grazing lands throughout the State. Altogether, the impact of recent wildfires on California’s agriculture has been catastrophic and unprecedented.

Chief Schuler stated, “Without a doubt, this year had been one of the most damaging and destructive in our states history. So far, we have had 92,000 wildfires throughout the state that have collectively burned more than 4.2 million acres, destroyed over 9300 structures and killed 33 people including three first responders. ... Beginning on August 15, California experienced 14,000 dry lightning strikes over several days across central and northern California resulting in 900 fires. The magnitude at which these fires burned was unprecedented and devastated communities across Californian. At the peak of the fires, over 19,000 firefighter were battling wildfire throughout California, with many of these fires occurring in areas previously devastated by fire, like Napa County.”

Estimates on the full economic impact of wildfires on agriculture for the 2020 fire season are still uncertain. Dr. Dan Sumner estimated that the 2017 fires in Napa and Sonoma damaged about 500 acres of vineyards and prevented the harvest of about 2,000 acres of winegrapes. This caused an estimated $75 million in economic loss, but that number does not account for the loss of buildings used for agriculture proposes. We have not received all the data of farm damage due to the 2020 wildfires. However, based on the location of many of these fires, there is likely to be a bigger impact on Ag lands compared to 2017-18.

Dr. Sumner, of the University of California Agricultural Issues Center, explained, “Farm economic losses from the 2020 fires have been different for several reasons. First, major fires occurred as early as August which is prime harvest season and even before harvest for many
crops. Thus, the potential agricultural losses exceeded the 2017 and 2018 fires. That also means farmworkers had major potential losses in missing jobs during harvest. Second, the 2020 fires have been more widespread covering agricultural regions throughout the state from the far south to the far north and from west to east. The North Coast areas have been hit again and this time more wineries were affected directly and the fires occurred when more winegrapes were vulnerable to smoke taint. The aggregate assessments for recent fires remains incomplete. Assessing farms and other agricultural damage is complex and hard to separate from other losses in commercial and manufacturing business. It is important to gather the needed data on a fire-by-fire basis and aggregate that information to have an objective data-based estimate of farm and broader agricultural losses from California wildfires.”

Deputy Secretary Masuhara of the California Department of Food and Agriculture discussed the use of state fairgrounds for emergency services during wildfire season. There are 54 statutory District Agriculture Associations (DAA), of which 52 are active and 41 operate on state-owned lands. They hold various activities on their sites, such as fairs, day care operations, fundraising, and commercial events.

In 2020, fairgrounds were used as large animal shelters, evacuation sites for people, and emergency response centers. Fifty fairgrounds were activated for some form of emergency response due to the 2020 wildfire season. Furthermore, the total number of days activated combined was 978 for fairgrounds. To put this into perspective, from 2008 to 2018 more than 51 different fairgrounds were used as fire camps and evacuation centers for people and animals in at least 164 separate incidents lasting over 1,742 calendar days.

Wildfire Impact on Farms, Farmworkers, and Farmland

Jamie Johansson, President of the California Farm Bureau Federation gave an overview of damages, both physical and financial, to farming operations throughout California, with an emphasis on wine regions and grazing lands. Mr. Johansson illustrated the level of damage with the following examples:

- Sonoma County farmers have submitted 1,500 applications for help with damages since 2017.
- Crop losses due to smoke and ash from the LNU Lightning Complex fire alone are estimated to be in the hundreds of millions of dollars.
- One farm experienced $2 million in damages from the 2019 Maria Fire after a public safety power shutoff prevented it from irrigating its trees ahead of time.
- Nearly 70% of farmers in a survey reported a lack of available N-95 masks for workers this year.
• Insurance premiums have jumped from $8,000 to $36,000 for some agricultural policyholders, while others lost coverage completely.

• California’s FAIR Plan, the fire insurer of last resort for millions of California businesses and homeowners, does not insure California’s farms or ranches.

Eddie Campos of No Boundaries Farm spoke about the loss of most of his farming operations due to the Valley Fire. The Valley Fire burned 16,390 acres in San Diego County in September 2020. The No Boundaries Farm, which had just started hemp production, lost $450,000 in crops and another $1.25 million in damage to buildings, land, and equipment. Mr. Campos reiterated the lack of availability of fire insurance, especially through the California FAIR Plan, for small and new farmers who face disasters.

Dave Daley, a fifth-generation commercial cattle producer from Butte County, talked about losing close to 400 cattle due to the North Complex fire. The size and speed of the North Complex fire, which burned 75,000 acres in its first 12 hours, caused major devastation to his ranching operation. Beyond his personal loss, Mr. Daley expressed concern for loss of area wildlife habitat, timber operations, and wildfire pollution runoff that may affect the water supply at the Oroville Dam. Mr. Daley stated that over the past 50 years, California has limited prescribed burns and grazing on state and federal lands, both of which reduce wildfire fuel. He suggested that California must look at ways to increase the use of prescribed burns and grazing in a practical and safe manner while limiting liability issues.

Sonoma County Winegrape Growers President Karissa Kruse discussed the wildfires of 2017-18 and 2020 and their impact on winegrape growers. Kruse focused on smoke damage to crops and the impact of the Glass fire, which was another fire that hit just as harvest began in September 2020. She called for faster testing of damaged crops. "We had so much unpredictability in what was harvested and whether those grapes would actually be made into wine, just because we couldn't get good test results back in time… Crops got left on the vine because wineries didn't want to take that risk, so that's a financial impact to farmers and farmworkers." Kruse also spoke of the impacts on long-term and seasonal farmworkers due to the wildfires, from loss of housing to lost wages.

Cole Mazariegos-Anastassiou of Brisa de Año Ranch in Pescadero proposed that farmers and ranchers should be allowed to cross into evacuation zones, either to relocate imperiled animals, help with the firefighting effort by creating firebreaks, or providing water for use by firefighters. Mazariegos-Anastassiou stated Brisa de Año and its neighboring farms ended up on their own during the CZU Lightning Complex fire. With much of the local fire services pushed to their limits, and given the need to defend the city of Santa Cruz, Mazariegos-Anastassiou said it was understandable, but frustrating, to be left to defend their farms themselves. "We need to have
a system that includes farmers and ranchers in the fire preparation, active response, and restoration process....In rural communities like ours, it's essential because, as we saw on this particular fire, there just wasn't enough resources. We need to think about how to include other members of our community, to be able to protect our own communities in the face of these fires."

Arnulfo Solorio, Director of the Napa Valley Farmworker Foundation (NVFF), discussed the impacts to farmworkers due to the recent wildfires. Mr. Solorio estimated that farmworkers lost an average of $5,500 in wages due to the Glass fire. That is roughly $50 million in lost wages for Napa farmworkers alone. While the NVFF helped distribute 25,000 N-95 masks, expanded training and information on wildfire safety, and developed a grant program to give $1,500 disaster relief payment to Napa farmworkers, Mr. Solorio said this was not enough. Mr. Solorio asked that the Legislature look at ways to provide financial and housing assistance to farmworkers impacted with the many disasters this year and asked for help to gain greater access to N-95 masks for both wildfire and COVID protection.

Agricultural-based Wildfire Mitigation

Dan Macon, with UC Cooperative Extension, discussed the opportunity for expanded, targeted grazing to reduce wildfire fuel. Targeted grazing using sheep, goats, or cattle is being used increasingly to manage vegetation in a variety of settings. Targeted grazing can reduce or modify fine fuels and ladder fuels to reduce wildfire danger in many environments. Indeed, targeted grazing and prescribed fire are the only fuel treatment methods that actually remove fuel. Typically, targeted grazing is a cost-effective vegetation management alternative even where other options are ineffective. Targeted grazing can be especially cost effective on landscapes that are too steep, rocky, or remote for conventional vegetation management, such as mowing or chemical treatment, or in the urban-wildland interface where burning is not an option. Mr. Macon stated that if California wants to expand targeted grazing, it will require more training, financial incentives, and people willing to become grazing operators. He identified some funds for wildfire fuel reduction in current CalFire programs, but he stressed more funding is needed.

Kara Heckert, the California Regional Director for American Farmland Trust, explained how farmland preservation can mitigate wildfires. Agricultural lands are well suited to act as firebreaks, especially irrigated lands or lands that have implemented fire precaution programs. There were many incidents in this past year where fire was slowed by or went around certain types of Ag land. California should look, therefore, to expand existing Ag land preservation or to incentivize Ag landowners to adopt practices that help slow the spread of wildfire.
III. **Policy Considerations**

(1) **Fire Insurance for Agriculture**: Many of the panelists touched upon the issue of increasing fire insurance rates, of being denied fire insurance from standard insurance avenues, and the lack of insurance from the California FAIR Plan for farms. Without insurance, many lenders will not extend credit to farmers.

Mr. Johansson said insurance premiums have, in some cases, quadrupled or worse for some policyholders, and others lost coverage completely. The California FAIR Plan, he said, should cover farming and ranching infrastructure just like any other commercial business in the state. He declared that resolving the issue is a Farm Bureau priority. Under current law, the California FAIR Plan does not cover farm risk.

Notably, the panelists mentioned that they are not looking for the California FAIR Plan to cover crop losses. Rather, they would like the plan to cover commercial buildings and equipment like it does for other businesses in California.

Policy ideas:

- This issue could be looked at administratively, with the California Department of Insurance clarifying the meaning of farm risk in current law.
- This issue could be worked on by legislation, in coordination with the Legislature's insurance committees, to allow for the insurance of farm buildings by the CA FAIR Plan.

(2) **N-95 Masks, Personal Protective Equipment (PPE), and on-farm wildfire safety**: The availability of N-95 masks, PPE, and PPE training was a concern raised repeatedly during the hearing. The combination of the COVID pandemic, new wildfire smoke regulations for outdoor workers, and the unprecedented number of wildfires together put enormous strain on the availability of PPE for farmworkers this fire season. Many farmers who had stocked up on N-95 masks for the 2020 wildfire season to comply with the new smoke regulation either donated masks to first responders early in the pandemic or used up their supply for COVID protection. Farmers and Farmworkers were left to scramble to find adequate PPE when wildfire season started.

As the wildfires proliferated and expanded across the state, these limited PPE supplies were stretched to the brink. Panelists stated the lack of N-95 masks had them petitioning Cal/OSHA to allow for other types of masks that did not provide the same level of protection. It was also mentioned that there is a need for additional training relating to wildfire and smoke risk for farmworkers. It will be a while before the COVID pandemic fades; after it does, California will still be faced with wildfire and smoke concerns and the need for a robust and steady supply of PPE.
Policy ideas:

- **Create a stock-pile of PPE** to ensure there is an adequate supply for farmworkers during fire season. This supply could be provided free or at a discounted rate to farms, farmworker organizations, or other trusted community organization.

- **Review of current wildfire/smoke safety training** for farmworkers and see what should be improved, including availability in accessible language(s), ease of understanding handouts and graphics, etc.

- **AB 73 (R. Rivas), the Farmworker Wildfire Smoke Protections Act**, introduced following the hearing, will establish a dedicated stockpile of N95 respirators for agricultural use, provide for Cal/OSHA enforcement strike teams during wildfire season, and mandate wildfire smoke training for agricultural workers. Portions of the bill were developed from this informational hearing.

(3) Expanded Grazing on Public Lands: Panelists and public comments discussed the value of target grazing and ways to improve access to grazing to remove wildfire fuel in a cost effective way.

Policy ideas:

- **Grazing for fuels-management on state/county/municipal lands.** Recent research from UCCE San Benito demonstrates that livestock grazing is an effective wildfire prevention and mitigation tool, as livestock grazing reduces the size, spread, and severity of fires. While limited livestock grazing occurs on some California Department of Fish and Wildlife lands and within the State Parks system, grazing could be more broadly utilized on these public lands.
  - A significant barrier to increased grazing on state lands is the lack of infrastructure (e.g. fencing, water developments). This hurdle could be tackled by earmarking state grant funds for infrastructure development or simply by providing for long-term grazing leases of state lands (e.g. 20 years), ensuring that ranchers who invest in such infrastructure themselves can reap the benefits of that infrastructure.

- **Incentivizing targeted grazing with wildfire fuel reduction funds or other funding sources.** As targeted grazing is a service that will help mitigate wildfire, especially in areas where prescribed burns are not practical, the state could work to provide incentives to encourage targeted grazing.

(4) Expanded Prescribed Burns: Mr. Daley discussed issues related to forest management and prescribed burns to reduce wildfire fuel. The Assembly Committee on Natural Resources held an informational hearing on this topic on November 9, 2020.
Policy ideas:

- **Adopt a gross negligence liability standard for prescribed fires.** Burn bosses report that liability concern, and attendant insurability concern, are the single greatest disincentive to conducting controlled burns. California could adopt a gross negligence standard akin to that adopted by the State of Nevada.

- **Reduce the frequency of ‘no-burn’ decisions by air pollution control districts and air quality management districts as they relate to prescribed burns.** CalFire and private burn bosses frequently expend significant resources in planning controlled burns only to have air districts issue a ‘no-burn’ decision on the day of the planned burn due to health concerns relating to prescribed fire smoke. However, small-scale controlled burns produce much less air pollution than large scale wildfire, and emerging science demonstrates that controlled burns have far fewer health impacts than wildfires of similar size. Given that prescribed fires can reduce the incidence of far-more-harmful wildfires, policy could be implemented to reduce the invocation of ‘no-burn’ determinations for prescribed fires.

- **Exempt certain prescribed fire activities from CEQA requirements or streamline CEQA requirements for those projects.**