RESEARCH ARTICLE

Farming and ranching through wildfire: Producers' critical role in fire risk management and emergency response

New research suggests that agricultural producers can play critical roles in wildfire risk management and response.

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Abstract

Wildfires increasingly threaten California's agricultural sector, posing serious risks to farming, ranching, and food systems. We conducted a survey of 505 California farmers and ranchers affected by wildfires between 2017 and 2023. Main findings show that wildfires' impacts on producers are extensive and range from mild to catastrophic, with both short and long-term repercussions, regardless of their exposure level. Producers play a central role in community emergency wildfire risk response and management by reducing fuel loads, creating defensible space, and leveraging their fire management expertise for themselves and their neighbors. Many producers lack a robust financial safety net, particularly among vulnerable populations, which points to the need to increase access to recovery resources, including insurance and disaster assistance programs. We find an urgent need for policy reforms, improved support, targeted extension programs, and integrated coordination mechanisms. Producers are our overlooked allies in building widespread wildfire resilience. Enhanced collaborative efforts among producers, fire professionals, and agricultural support organizations are thus imperative to co-create and implement strategies that ensure the long-term sustainability and economic viability of California's agricultural communities.

Wildfires are one of the most significant threats to California's food and farming systems. That threat is far-reaching: California's agricultural production is critical not only to the state's economy, it also provides a great diversity of crops and livestock to our national and global food supply. Fire plays key roles in shaping and managing ecosystems, including supporting food production. However, a changing climate and more than a century of fire suppression have significantly altered historic fire regimes, resulting in more frequent and extreme wildfire events (Keeley and Syphard 2021). Today's rapid increases in the size, longevity, and intensity of wildfires pose an unprecedented risk to agricultural producers and food systems both in California and globally.

These high-intensity megafires threaten the quality of life, safety, and livelihoods of producers. They threaten infrastructure, crops (Dillis et al. 2022; Zakowski et al. 2023), and livestock (O'Hara et al. 2021). Additionally, wildfires lead to closed markets during evacuations, power outages, smoke-related illnesses, and post-traumatic stress. In 2020, ash and toxic smoke engulfed millions of acres of farmland and



Cattle grazing in Plumas County a year after a wildfire. Livestock producers (50%) reported reduced access to or quality of pasture and feed as a result of wildfire on their operations. *Photo:* Tracy Schohr.

rangelands across the western United States, impacting farmworkers and agricultural operations, even in regions typically considered well outside traditional wildfire danger zones. The threat of high-intensity wildfires is potentially catastrophic to agricultural communities, especially those already struggling economically.

Given the immediate danger that large, high-intensity wildfires present to agricultural communities and our food system, understanding effective mitigation and recovery strategies is crucial. While previous studies have explored the impacts of wildfires on producers (Dillis et al. 2022; O'Hara et al. 2021; Zakowski et al. 2023), limited research exists on how diverse agricultural producers — spanning irrigated croplands to livestock-grazed rangelands — are responding to these threats, a critical gap given California's varied and extensive agricultural landscape. Our study aimed to assess (1) the impact of wildfires on agricultural producers; (2) producers' roles in community wildfire preparedness, risk management, and response; and (3) challenges and strategies for wildfire recovery across California's diverse agricultural production systems. To meet these objectives, we conducted a statewide online survey of 505 California agricultural producers affected by wildfires between 2017 and 2023. This comprehensive approach allowed us to examine challenges faced by producers and explore potential solutions for addressing wildfires across diverse agricultural landscapes, providing insights into producers' roles in both individual and community-level wildfire adaptation.



Masked farm workers continue harvesting after days of smoke and ash from a nearby wildfire. *Photo*: Elizabeth Kaiser, Singing Frogs Farm.

Producers surveyed

Between April and August 2023, we administered a 34-question, cross-sectional survey to California agricultural producers impacted by wildfires in the previous seven years (between 2017 and 2023). Participants had to be owners, operators, or decision-makers of farms or ranches. To be impacted by wildfires, respondents had to have experienced: fire on or near their operations' property; a wildfire evacuation order; wildfire-induced power outages; and/or smoke, ash, or poor air quality due to wildfires. The survey had three sections: wildfire exposure and impacts, wildfire disaster response and recovery, and operation background and producer demographics (see online technical appendix). After the survey was developed, validity was established by a panel of experts. Before distribution, the survey was pilot-tested with 18 producers selected randomly from the sampling frame. Pilot test results were analyzed to identify and address any ambiguities, inconsistencies, and technical issues in the final survey.

The survey was developed on Qualtrics and distributed online to a sampling frame of 19,518 producers compiled from three sources. First, we obtained contacts from DTN's FarmMarketID (FMID), as recommended by Ulrich-Schad et al. (2022). However, in California, FMID generally underrepresents ranchers and diversified, organic, and beginning producers (Joe Lopp, DTN, personal communication). To address these gaps, we thus added California Certified Organic Farmers (CCOF)'s list, Community Alliance with Family Farmers, and Farmer Campus lists of producers who participated in wildfire programs. We also distributed the survey via the California Cattlemen's Association e-newsletter and through UC Cooperative Extension county advisors.

To incentivize participation, respondents were offered a $20 gift card and the opportunity to enter a lottery for eight $200 prizes. To ensure data integrity, a rigorous cleaning process was implemented including removing incomplete, non-consenting, and insincere responses as documented in Pinzón et al. (2024); a total of 505 valid responses were retained for analysis. Since the number of producers impacted by wildfires in California has not been documented, we aimed for a sample size of over 384 survey responses to achieve a representative sample size for California's 63,134 operations (NASS 2024), producing a 95% confidence level with a 5% margin of error (Ary et al. 2019).

Results were analyzed using descriptive statistics on Google Sheets (Pinzón, Koundinya, Dowling, et al. 2024), available at https://bit.ly/Fires-Ag-Data. Comparisons between groups were conducted using chi-square tests, with *P*-values calculated to determine statistical significance at a predetermined level of $P < 0.05$. The technical appendix includes sample size and *P*-values for

TABLE 1. Production and demographic characteristics of 505 survey respondents

Respondent characteristics	%	*n*
Production		
Only crops	70%	352
Only livestock	13%	65
Crops and livestock	17%	88
Organic or ecologically based practices	43%	202
All crops		440
Fruits and nuts	41%	181
Grapes	38%	165
Vegetables	25%	109
Animal feed crops	15%	65
Flowers	13%	57
Berries	9%	41
All livestock		153
Cattle (non-dairy)	59%	90
Small ruminants (sheep or goats)	31%	47
Poultry	28%	43
Bees	12%	18
Dairy cows	7%	11
Demographics		
Years farming		
Established producers (>20 years)	52%	244
Beginning producers (<10 years)	23%	110
Average annual gross farm sales		
Below $250,000	66%	300
Above $500,000	22%	103
Socioeconomic		
Limited resource	12%	56
Socially disadvantaged*	10%	45

* Self-identified as belonging to a group that has been historically subject to prejudice.



FIG. 1. Map of 505 survey respondents' operations that were impacted by wildfires in California between 2017 and 2023.

all comparison groups. All subsequent comparisons reported are statistically significant.

Producer profiles

The California producers surveyed (n = 505; fig. 1) represent a wide range of agricultural systems, from irrigated croplands to livestock-grazed rangelands. Fire behavior and outcomes vary significantly with land use, so each system presents unique wildfire risks and challenges. Our goal was to broadly survey producers affected by wildfires across diverse systems to capture general patterns of wildfire impacts and responses. Producer production and demographic characteristics, which highlight this diversity, are detailed in table 1.

Impacts of wildfire exposure

Producers faced a range of threat exposures from wildfire, each with varying degrees of severity in potential impacts (fig. 2). Those with fire directly on or near their operation (70%) experienced the most severe impacts (fig. 2), while those further away only dealt with less severe impacts like exposure to smoke and ash (20%). Producers experienced wildfires an average of two out of the last six years. Twenty-six percent had also experienced wildfires before 2017 and 17% before 2000.

Wildfires disrupted operations and impacted producers, regardless of exposure type. The majority of producers reported business disruptions (>88%) and human health impacts (>81%) (fig. 3). In comparison, those with wildfire on their operation reported greater impacts, including infrastructure damage (85%) and the inability to access their property from over a week (55%) to over a month (10%).

Overall, wildfires had significant negative impacts on producers (fig. 4). Most producers (71%) reported negative impacts on their mental and emotional well-being, and a majority (57%) reported negative impacts on their physical health. Most indicated that wildfires negatively impacted their ability to compensate themselves. This was evident as 64% of producers with labor shortages (n = 287) reported they needed to work extra hours to compensate for the shortfall. Some producers

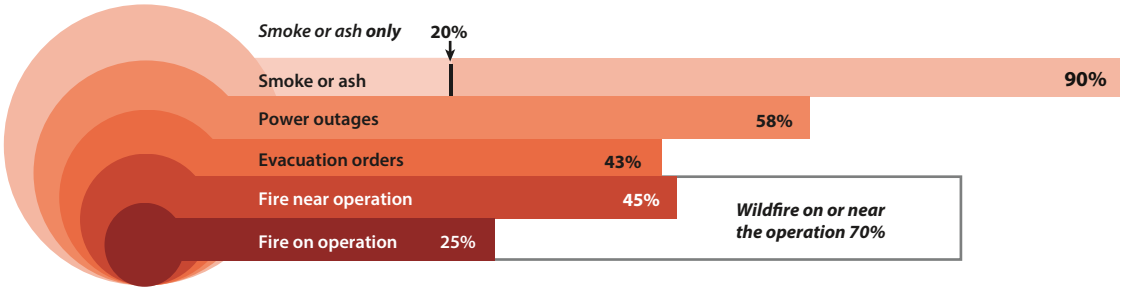


FIG. 2. Types of wildfire exposures faced by producers. Each type has differing levels of severity and potential impacts (n = 505). Note: Darker red denotes increased severity and potential impacts.

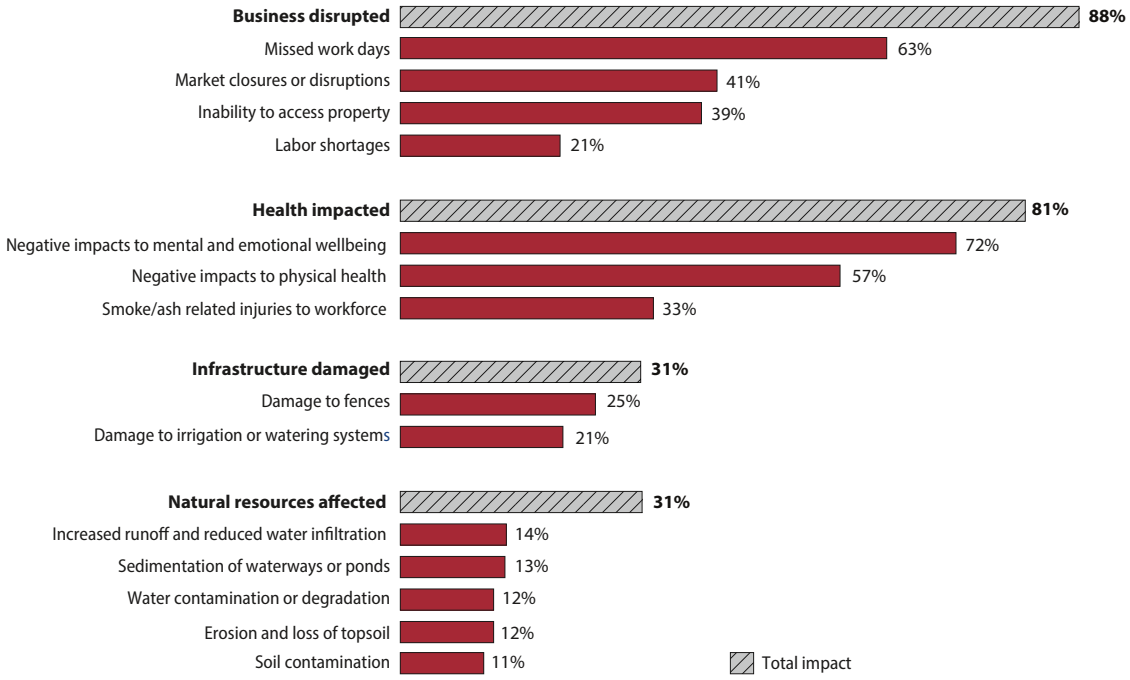


FIG. 3. Reported wildfire impacts on operations and producers, including business, health, infrastructure, and the environment (n = 439).

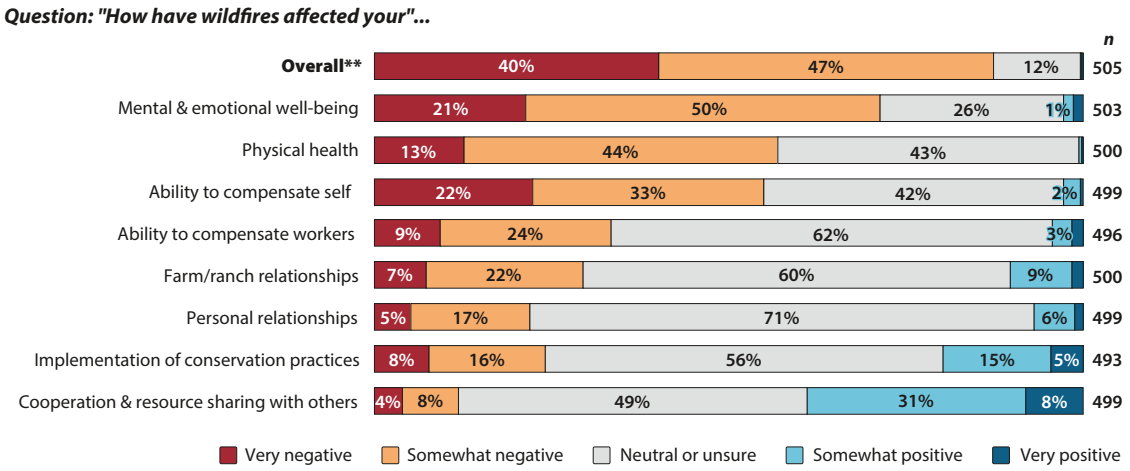


FIG. 4. How wildfires affected producers' health, relationships, cooperation, and practices. ** *Overall was determined by the proportion of respondents who selected "somewhat negative" or "very negative" in at least one of the eight respective categories in response to the question "How have wildfires affected your"...*

endured months of relentless work, leading to exhaustion as documented by open-ended responses. One beneficial outcome of the wildfires was an increase in cooperation and resource sharing in over one-third of producers (39%), suggesting a possible rise in community solidarity and mutual aid.

The survey revealed that 59% of producers (n = 497) experienced significant damage or losses in at least one of six categories (fig. 5), while 16% reported devastating damage in at least one category. The extent of devastation varied depending on the type of wildfire exposure. Among those with wildfire spreading onto their operation, 87% reported significant losses, with 43% experiencing devastation. However, significant losses were still reported among those with less severe exposure types: 33% of producers who experienced power outages or smoke and 30% of those who only experienced smoke or ash noted significant losses in at least one category. Notably, two producers reported devastation by smoke and ash alone and two by power outages, with one noting they shut down and left farming due to a power outage. Thus, even indirect wildfire impacts can be devastating.



Brassicas typically survive overnight frost, but in this instance, a thick layer of wildfire smoke blocked the sun's ultraviolet rays, preventing them from thawing. As a result, crops remained frozen well into the day, leading to widespread losses. *Photo*: Katie Brimm.

Impacts on crops and livestock

Wildfires severely impact crops and livestock. Of the 268 farmers who reported crop losses, most were due to ash damage (46%), inability to work (35%), to harvest (34%), or to irrigate (18%). Direct fire exposure scorched, singed, and desiccated crops (17%), affecting long-term productivity, and contamination led to a loss of marketable crops (20%). Farmers specifically reported decreased crop yields (56%), reduced growth or maturation (45%), and compromised flavor or taste quality (44%). Furthermore, 20% of crop losses continued for more than one season for farmers with fire on their operation. Producers also reported some positive effects, including increased pollinator activity (30%) and flowering or fruiting (26%), though recurrent fires can negate these potential benefits (Carbone et al. 2024).

Livestock producers (n = 146) reported negative impacts on animal health and production, including prolonged smoke exposure (62%), reduced access to or quality of pasture and feed (50%), and the need to evacuate livestock (32%). Wildfire reduces the number of livestock a rancher can support due to forage losses that last multiple years (Davy and Dykier 2017). While evacuations can safeguard animals during wildfire events, they can also contribute to animal stress and health issues (O'Hara et al. 2021). Thus, potentially as a result of smoke, feed loss, and additional movement, 42% of ranchers saw a reduction in the productivity of their livestock including (but not limited to) reduced weight gain (30%) and lower conception rates (12%). Additionally, livestock health was impacted in 27% of operations, including smoke-induced pneumonia (23%), deaths (16%), and injuries that healed later

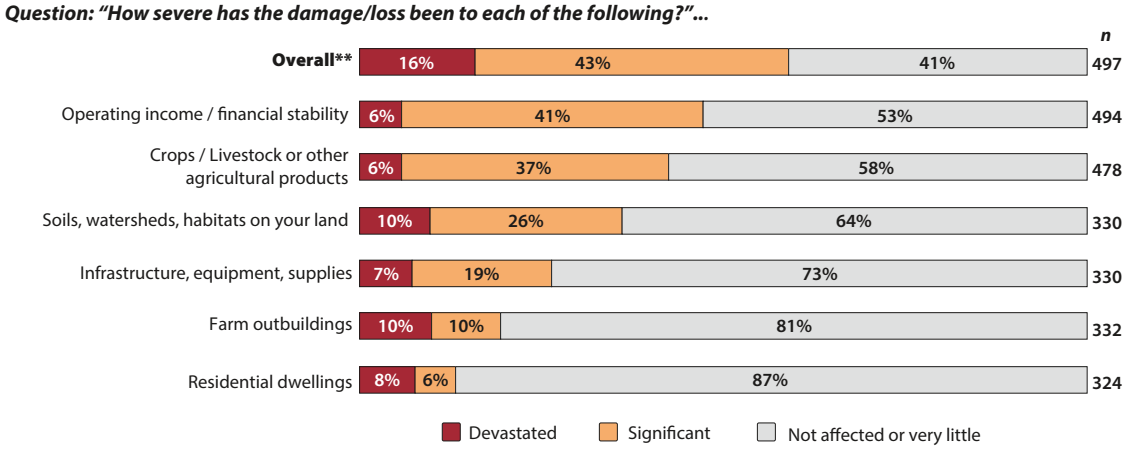


FIG. 5. Severity of damages and losses due to wildfires. ** *Overall was determined by the number that selected "significant" or "devastated" in at least one of the six respective categories in response to the question "How severe has the damage/loss been to each of the following?".*



Evacuating cattle. Livestock producers reported negative impacts on animal health and production, including prolonged smoke exposure (62%) and the need to evacuate livestock (32%). *Photo*: Tracy Schohr.

(5%). Lastly, beekeepers (n = 18) reported a loss of forage (21%), loss of hives (14%), and bee death or illness (12%). These findings highlight the wide-ranging impacts of wildfires on agricultural productivity, affecting livestock, crops, and the pollinators that sustain them. Given these impacts, understanding producers' wildfire response and risk management strategies is essential.

Frontline response and risk management

The survey highlighted that, beyond making their operations less vulnerable to wildfire through risk management practices, producers play pivotal roles in supporting emergency responders and protecting their local communities. More than three-quarters of producers (77%) near wildfires provided direct support to their neighbors and emergency responders (n = 303), and this percentage was even higher (91%) for the subset of producers who experienced fire on their operation (n = 128). This assistance included creating firebreaks and defending properties directly (47%); sharing local knowledge (38%) such as access routes and past fire behavior; providing water for firefighting (36%); providing evacuation support to people, animals, and crops (37%); and donating supplies (28%). Even those who only experienced smoke and ash supported their community's emergency response efforts in large numbers (41%).

When faced with an approaching wildfire, most producers reported staying and protecting their property at least once. About two-thirds of producers (65%) sheltered in place or actively defended their property. Of those who evacuated their premises, 75% returned as soon as possible to assess and mitigate any damage. To minimize damage, 45% of producers had to harvest or distribute crops and relocate livestock or equipment as the fire was approaching.

Producers' resource needs and investments reflect the reality that they were responding to help their community in times of wildfire and providing support to prevent wildfires. They depend on essential resources to prepare and respond to wildfires (fig. 6). However, significant unmet needs remain, with producers most desiring water systems (18%) and water storage (16%) as well as emergency passes (e.g., Ag Pass) (17%) to return to property under evacuation orders. Importantly, producers expressed the need for more of the resources they most relied on, especially generators, watering systems, water storage, and machinery. As a result, producers reported preparing for future wildfires by investing in off-grid systems such as generators and solar panels (48%), water storage (44%), evacuation planning (31%), crew training (19%), and community preparedness group participation (19%). These preparedness measures help ensure human safety and livestock care during wildfires and that operations can continue or quickly resume after a wildfire event.

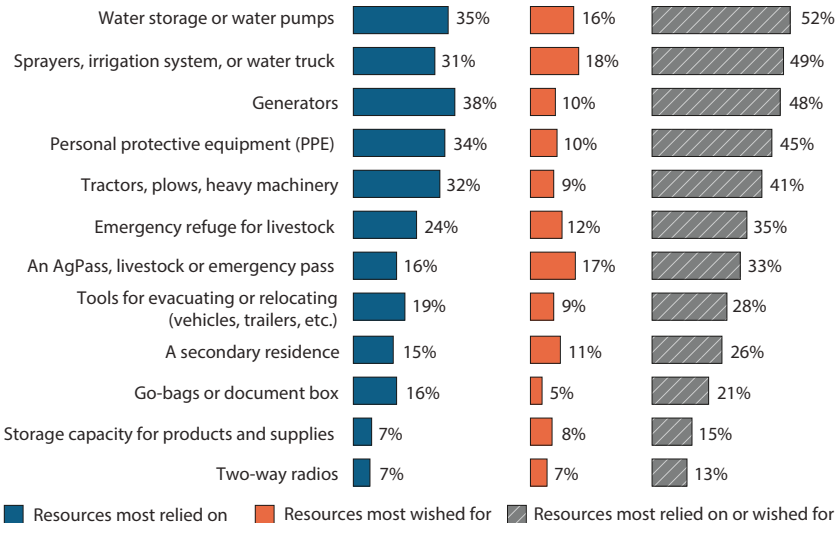


FIG. 6. Resources producers most relied on and wished for during the wildfire (n = 440).

Defensible space, fuel load

Beyond responding to the immediate threats of wildfires, producers used a range of strategies to mitigate

wildfire risks on their own and neighboring properties. A major focus among surveyed producers was creating defensible space around buildings and infrastructure, an action taken by 72% of producers. This included enhancing building resistance to wildfires (24%) and establishing firebreaks (24%). Fuel load management was also a common strategy, with 68% of producers actively managing fuel loads through forest thinning (45%), grazing (29%), or prescribed burning (17%). Notably, the majority of producers (81%; $n = 162$) who expressed concerns about fuel loads on neighboring properties actively manage their own fuel loads.

Experienced fire managers

Further enhancing their ability to manage risks, fire management experience was common among producers. Seventy-two percent of 488 reported having some form of fire management experience, including practicing pile burning (61%) and prescribed burning (22%). Additionally, 22% had received fire suppression training, and 10% had experience working as firefighters. This experience can equip producers with valuable skills to effectively handle wildfire threats and contribute to community-wide response efforts. Livestock producers, in particular, are at the forefront of these efforts.

Ranchers lead the way

Ranchers were statistically significantly more likely to participate in wildfire risk management and response than other producers. Small-ruminant ranchers of sheep and goats were particularly engaged in fuel load management, with 94% using methods such as grazing (77%), thinning (72%), or beneficial burning (34%). Historically, when regulations allowed in the 1950s, California ranchers burned more than 200,000 acres annually (Biswell 1999). Today, we find that in our study 81% of all livestock producers and 95% of multispecies ranchers, in particular, have experience with fire management. Notably, cattle ranchers stood out, with 17% indicating that they are firefighters, more than any other type of producer. Moreover, producers with livestock were most likely to assist neighbors and emergency responders during wildfires, with ranchers providing the most assistance (89%), considerably higher than all other producers (65%). Nonetheless, the substantial role of all producers in wildfire risk management underlines the need to evaluate their sources of recovery and resilience.

Bouncing back: Recovery and resilience

Producers are committed to recovering from wildfires despite considerable challenges. Adaptation efforts are widespread, with 53% making significant changes to reduce wildfire risks (fig. 7). Additionally, 47% reported strengthened community networks, echoing the importance of community support and cooperation in overcoming wildfire impacts. Despite the hurdles, many producers remain optimistic: 69% are confident about managing wildfire threats, 58% believe their operation can bounce back, and only 21% believe they may not recover. This reflects "resilience" in the community, which can be broadly defined as the ability to recover after a disaster. However, a significant proportion of socially disadvantaged (39%), immigrant (38%), and limited-resource (35%) producers believed they might not recover, highlighting their vulnerability compared to other producers.

For the most part, surveyed producers were dedicated to continuing; 65% have not contemplated stopping farming or ranching due to the wildfire impacts they experienced. However, producers who have stopped are underrepresented in our study, and other studies have shown that wildfires can profoundly impact the continuity of farming operations (Petersen-Rockney 2022). While more research is needed to quantify the number of agricultural operations lost to wildfires, our research shows that 65% ($n = 13$) of those who stopped farming/ranching did so at least in part due to wildfires. Additionally, 22% of those still active have considered stopping, and 34% knew someone who had shut down due to wildfire. Limited-resource,

Continuity in agriculture amidst wildfires can be reinforced through strong relationships and institutional support, such as technical assistance and recovery resources.

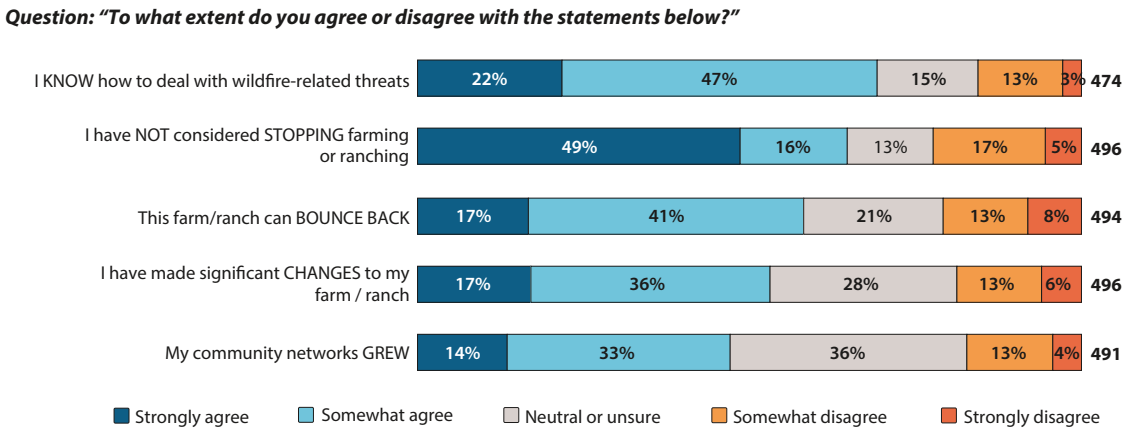


FIG. 7. Producers' confidence and adaptation levels in response to wildfire impacts..

first-generation, and beginning producers were up to three times more likely to consider stopping farming or ranching than their counterparts, a statistically significant difference. Continuity in agriculture amidst wildfires can be reinforced through strong relationships and institutional support, such as technical assistance and recovery resources.

Relationships: Base of resilience

Support from personal and institutional relationships was vital during and after the wildfire. Personal relationships, particularly with family, friends, farm and ranch crew, and neighbors, were most helpful to producers (86%) (fig. 8), which highlights the role of community and social networks in recovery efforts.

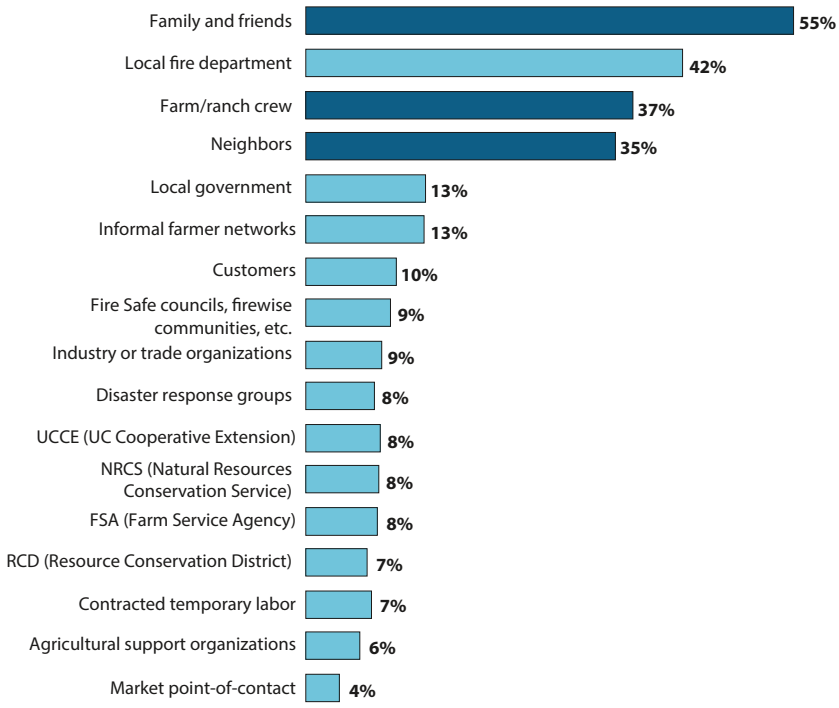


FIG. 8. Individuals and organizations identified by producers as most helpful to the farm or ranch during and after the wildfire (n = 470). Personal networks are highlighted in dark blue.

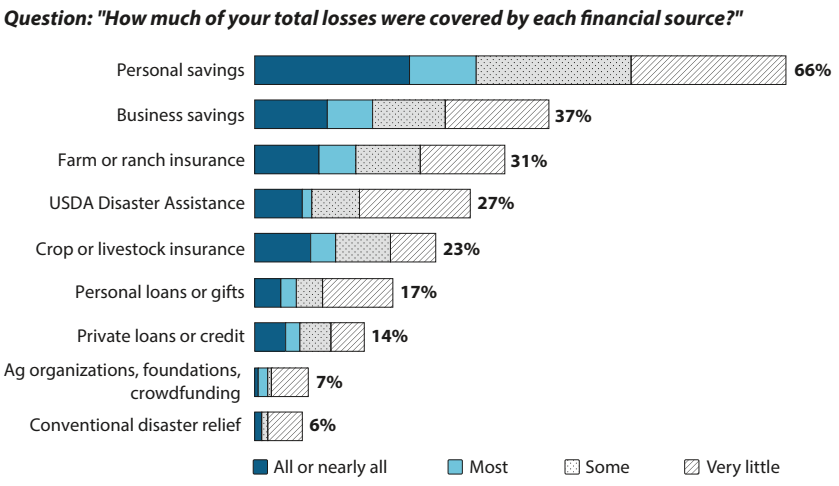


FIG. 9. Financial recovery sources utilized by producers significantly impacted by wildfires (n = 252).

Institutional support also played a role in aiding producers during wildfire recovery. Local fire departments and Cal Fire were highly regarded for their assistance and 19% of producers identified at least one agricultural support agency, such as University of California Cooperative Extension (UCCE), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), USDA Farm Service Agency (FSA), or Resource Conservation Districts (RCD), as most helpful. No single agency stood out as a significant source of wildfire assistance among producers, but those with wildfires on their operation were nearly twice as likely to use FSA, NRCS, or RCD support than other producers. Support from agricultural agencies was nearly twice as likely for experienced producers and 1.4 times more likely for multigenerational producers than for their beginner and first-generation counterparts, suggesting the importance of awareness of and long-term relationships with agencies (Munden-Dixon et al. 2018). Furthermore, direct marketing and limited-resource producers were more likely to depend on personal networks — including customers, peers, and family — rather than agricultural support agencies. Partnering with local community and alternative food networks could help agricultural agencies broaden their reach and strengthen connections with direct marketing and newly establishing producers.

A limited safety net

As a whole, producers relied on various financial recovery sources, mostly leaning on personal savings (fig. 9). Among 252 producers with significant losses (fig. 5), one-third relied on one source, another third on two to four sources, and the rest on more than five. No single source covered more than half the losses for most producers (table 2). Despite overall low utilization (fig. 9), crop/livestock insurance often provided higher loss coverage than other non-savings sources.

Reliance on insurance among producers was notably limited. Sixty percent of producers with significant losses did not use federal crop/livestock insurance or private farm/ranch insurance. The reasons for limited insurance usage included not having federally subsidized crop/livestock insurance (62%) or private farm/ranch insurance (32%), decisions to not submit claims (29%), and types of damage not being covered (21%). Among those without crop/livestock insurance, 45% indicated high costs, 23% reported unavailability for their commodities, 15% indicated a lack of interest, and 15% lack of awareness.

Similarly, USDA disaster assistance programs, including those under FSA, NRCS, USDA Risk Management Agency (RMA), and USDA Rural Development (RD), were less relied on, with 73% of producers with significant losses not utilizing these

TABLE 2. Percentage of producers reporting coverage of significant losses by a specific financial recovery source, and the percentage of losses covered by that source

Financial recovery source	*n*	Coverage	
		More than half (50%–100%)	All or nearly all (80%–100%)
Business savings	91	31%	13%
Crop or livestock insurance	54	28%	9%
Personal savings	158	27%	13%
Farm or ranch insurance	72	26%	7%
Ag organizations, foundations, crowdfunding	17	24%	6%
Private loans or credit	33	18%	0%
Personal loans or gifts	42	14%	0%
Conventional disaster relief	14	7%	7%
USDA Disaster Assistance	65	6%	0%

programs. The primary reasons cited for low utilization were lack of awareness (42%), ineligibility (40%), and cumbersome application processes (23%).

Several groups, including socially disadvantaged, beginning, limited-resource, direct marketing, and first-generation producers were statistically significantly less likely to use insurance or disaster assistance programs compared to all producers. A similar trend, though less pronounced, was observed among organic or ecological farmers, those with annual sales under $250,000, or those managing fewer than 50 acres.

Assistance is urgently needed

This study provides a broad examination of wildfire impacts on California's diverse agricultural producers. Through a statewide survey, we found that large, high-intensity wildfires have extensive and potentially devastating effects on producers, both short and long-term. Immediate disruptions included crop and livestock losses, lack of property access, injuries, and stress. Long-term consequences involved trauma, infrastructure damage, loss of perennial crops and forage, and degradation of essential natural resources. These realities expose the high costs of farming and ranching in wildfire-prone regions and emphasize where support is most urgently needed.

We also documented how agricultural producers can play critical roles in wildfire risk management and response. By supporting emergency response (91%), creating defensible space (72%), reducing fuel loads (68%), and leveraging fire management expertise (72%), producers help mitigate wildfire impacts beyond their operations. Survey results revealed the vast majority (81%) of producers concerned about surrounding fuel loads actively manage their own fuels. However, since fire behavior disregards property boundaries, managing fuel loads on one property alone is often insufficient if neighboring lands remain unmanaged. With 43% of all producers concerned about neighboring fuel loads, these findings highlight the need for cross-boundary cooperation among landowners to effectively mitigate wildfire risks. Wildfires represent a collective action problem, where the actions or inactions of one landowner can impact the fire risk for an entire area. Effective risk mitigation, therefore, requires coordinated strategies across multiple land ownerships and jurisdictions within a fireshed (Wollstein and Johnson 2023). Agricultural producers, with their fire management experience and expertise, are well-positioned to play key roles in building community, regional, and statewide wildfire resilience.

Our findings reveal that to recover, most producers rely primarily on personal relationships (86%) and personal savings (66%), rather than on agricultural support agencies (19%), disaster assistance programs (27%), crop or livestock insurance (23%) — a sustainability concern that is especially pressing for newly establishing, direct-marketing and socially disadvantaged producers who are much less likely to rely on institutional support and face higher



Fencing destroyed by wildfire. Survey respondents reported wildfire impacts on operations, including damage to fences (25%). *Photo*: Tracy Schohr.

risks of not recovering after a wildfire or of leaving farming altogether.

Our study's findings point towards an urgent need for initiatives to support all California producers and ensure equitable access to recovery resources amidst increasing wildfire threats. Without such support, we risk losing producers vital to our local communities and food systems.

The results from our survey suggest that effective wildfire risk management in agriculture requires improved outreach for and education about existing recovery programs, enhanced flexibility and usability of insurance and assistance programs, and greater technical support for navigating these resources. Given the diversity of producers and the varying impacts of wildfire, a one-size-fits-all approach is inadequate, highlighting the need for tailored support programs.

Although our study focused on producers' experiences, the findings suggest that effective wildfire risk management in agriculture could be achieved through a multifaceted approach. To strengthen community resilience, policymakers and natural resource professionals can work with agricultural communities to develop solutions that ensure agricultural operations remain sustainable in the long term. Cross-sector partnerships are needed to facilitate farmer- and rancher-led wildfire solutions and expand agricultural community networks. Key areas for government collaboration include providing financial resources for local wildfire mitigation groups, such as prescribed burn associations and fire safe councils, to address collective action challenges; addressing liability insurance needs for prescribed fire; and streamlining regulations that currently slow down coordinated fuel management efforts (CalCAN 2023). Local efforts like county Ag Pass programs and prescribed burn associations show the potential of local partnerships, yet they require sustained support through funding, streamlined regulations, and improved access to resources. Enhancing representation of agricultural voices in state-level wildfire planning will further integrate producers into emergency response efforts and wildfire mitigation strategies. By fostering these partnerships, we can ensure that agricultural producers are better supported as key players in building wildfire resilience.

One thing is certain: California faces a future that includes fire, and that reality is already here. By understanding the myriad ways that producers are harmed and how they help neighbors recover, we can begin to tangibly value them as pivotal parts of the solution and allies in building broadscale wildfire resilience. Policymakers, natural resource professionals, agricultural producers, and support organizations must work together to co-develop and implement wildfire mitigation strategies to safeguard the long-term sustainability and economic viability of agricultural communities and the wildfire resilience of California. CA

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