

University of California
Sustainable Agriculture Research and Education Program (UC SAREP)
2021-2022 Sustainable Agriculture and Food Systems Competitive Grants Program



Grant Report
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Building ranching and rangeland resilience among beginning and first-generation ranchers

Principal Investigator:

Leslie Roche; Associate Cooperative Extension Specialist in Rangeland Management UC Cooperative Extension/UC Davis
Phone: 530.902.2547 e-mail: lmroche@ucdavis.edu

Co-Investigators: Dan Macon, Placer-Nevada-Sutter-Yuba UCCE; Tracy Schohr, Plumas Sierra-Butte UCCE; Morgan Doran, Capitol Corridor UCCE; David Lewis, Marin-Napa UCCE; Fadzayi Mashiri, Merced-Mariposa UCCE; Rebecca Ozeran, Fresno-Madera UCCE; Carolyn Whitesell, San Mateo-San Francisco UCCE; Grace Woodmansee, Siskiyou UCCE; Amanda Crump, UCD Dept of Plant Sciences; Roselle Busch, UCCE, UCD School of Vet Med; Gabriele Maier, UCCE, UCD School of Vet Med; Alda Pires, UCCE, UCD School of Vet Med; Tapan Pathak, UCCE, UCM; Kasey DeAtley, California State University, Chico

Collaborators: Ed Anchoroguy, CA Wool Growers Association; Billy Gatlin, CA Cattlemen's Association; and Sri Sethuratnam, Center for Land-Based Learning

Location of project: California – Statewide

Proposal Category: Planning Grant

Priority Area: Beginning and first-generation ranchers

Commodities addressed: livestock grazing and working rangelands

Grant Amount: \$6,988

Objectives

Goal 1: Develop a research, outreach, and extension framework aimed at supporting beginning, first-generation, and other socially disadvantaged ranchers across California in building ranching and rangeland resilience to environmental, economic, and social shocks and stressors.

Objective 1.1: Assemble an interdisciplinary team of scientists, community leaders, and agricultural support organizations to identify key research, outreach, and extension needs to address critical management and policy gaps for the target audience.

Objective 1.2: Collaboratively design a research, outreach, and extension program with key stakeholders.

Goal 2: Secure funding for longer-term research, outreach, and extension to support beginning, first-generation, and other socially disadvantaged ranchers.

Objective 2.1: Leverage Goal 1 outcomes to develop integrated research, outreach, and extension proposals targeted for national and regional funding programs.

Objective 2.2: Develop supporting materials to support grant development.

Summary (500 words or less)

Environmental, economic, and social shocks and stressors can disproportionately impact limited resource (e.g., beginning and first-generation) and socially disadvantaged farmers and ranchers (Munden-Dixon and Roche 2020). There has been limited research with first-generation farmers and ranchers, who are typically younger, manage smaller operations, more often women, and more racially and ethnically diverse than established, multi-generational producers (Munden-Dixon and Roche *unpublished data*). These first-generation ranchers are often generalized as beginning farmers under many programs; however, recent work has shown this new generation is significantly less connected to support organizations, has less access to information sources, and has a more limited management toolbox than established, multi-generational producers (Munden-Dixon et al. 2019; Roche 2016). This planning grant addressed UC SAREP's Priority Area of supporting California's underserved beginning and first-generation ranchers with sustainable livestock management, ranch economic sustainability, and social resilience.

Through this planning grant, we assembled an interdisciplinary team of scientists and community and organizational leaders to identify key research and extension strategies to support California's beginning, first-generation, and other socially disadvantaged ranchers. Our team identified research, outreach, and extension needs and gaps as well as identified strategic priorities for creating beginning and first-generation rancher programs. Working with livestock producers and industry leaders, we also incorporated individual stakeholder needs assessments to ensure future goals and objectives addressed a diversity of livestock grazing operation structures, ownerships, and scales for beginning, first-generation, and other socially disadvantaged ranchers. Several of the identified strategies are currently being incorporated into extension and research activities by UC Cooperative Extension Advisors and Specialists across California. Project team members have expanded educational webinars and online videos to better connect with a diverse audience of livestock grazing producers. In 2022, two comprehensive webinar series provided

multiple opportunities for a diversity of stakeholders to access animal health, land management, and ranch economics tools ([Cattle Health Webinar Series](#) and [Working Rangelands Wednesdays](#) [ongoing]).

Importantly, this planning grant catalyzed new and successful collaborations to secure funding for longer-term research, outreach, and extension to support beginning, first-generation, and other socially disadvantaged ranchers. First, the identified strategic priorities were leveraged by project team members (lead by PI Schohr; \$120K) to secure regional funding to support small ruminants and targeted grazing operators as well as support sustainable meat supply chains and direct-market ranching operations (lead by PI Woodmansee; \$29K). Second, this planning grant provided critical momentum and support for a recently awarded USDA National Institute for Food and Agriculture grant (lead by PI Pathak; \$1.5M) to support socially disadvantaged farmers and ranchers by providing technical capacity and delivery of science-based information. The newly funded project will leverage outcomes of this planning grant to target programming for underserved and underrepresented groups, including beginning, first-generation, and other socially disadvantaged ranchers across California

Specific Results and Dissemination of Findings

Goal 1: Objectives 1.1 and 1.2:

The project team hosted a series of team planning meetings and stakeholder meetings to identify key research, outreach, and extension needs. Through these efforts, we synthesized a set of strategic priorities to support California’s ranchers of all scales with environmentally sustainable and regenerative livestock management, ranch economic sustainability, and social resilience:

- ❑ **Curriculum:** Launch a *Building Ranching and Rangeland Resilience* curriculum similar to [UCCE Ranch Water Quality Planning Series](#), to promote self-guided learning. This modular, online educational series will provide on-demand access for first-generation and beginning ranchers. UCCE Advisors and technical service providers could adapt modules to participant needs and experiences, as well as tailor content to specific geographic areas with regional considerations. The planning team also discussed incorporating bilingual outreach and education products to broaden reach.

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| Module 1: Overview and Getting Started | |
| Sustainability and resilience indicators and metrics overview | Ranch management planning and overview of assessing current resource conditions |
| <i>Participant Activity – Ranch mapping, inventory and assessments, and setting goals</i> | |

Module 2: Resource Management Planning for Sustainability Goals

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| <p><u>Land Resources:</u> Sustaining working ranches – agricultural & conservation goals</p> | <p><u>Air & Greenhouse Gas Emissions:</u> What we know</p> | <p><u>Water Resources:</u> Best practices to maintain and enhance water resources</p> | <p><u>Grazing management:</u> Principles and strategies to achieve goals</p> | <p><u>Planning, goal Setting, and Adaptation:</u> Coping with and adapting to drought</p> |
| <p><i>Participant Activity – Grazing resource and drought management planning</i></p> | | | | |

Module 3: Animal Efficiency, Yield, Health and Well-Being and Employee Health and Well-Being

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| <p><u>Animal Efficiency & Yield:</u> Optimizing animal productivity</p> | <p><u>Animal Health & Well-Being:</u> Beef Quality Assurance, Sheep Safety and Quality Assurance, and antimicrobial stewardship</p> | <p><u>Employee Health & Well-Being:</u> Handling livestock and safety training</p> |
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- ❑ **Small Ruminant (e.g. goats, sheep) Productivity and Profitability:** Develop research, extension, and education activities in support of small ruminant production and management, including focal topics on targeted grazing, business management, animal health, and drought resiliency.
- ❑ **Public Lands Grazing:** Facilitate use of sustainable adaptive grazing on public lands (local, state, and federal) as a management tool to promote rangeland health. Work with public resource agencies to support land management that is adaptive, context-specific, outcome-based, and inclusive (e.g., supporting new permittees among first-generation and beginning ranchers).
- ❑ **Survey:** Secure funding to launch a comprehensive survey of California livestock producers, with specific targeting of first-generation and beginning ranchers to build upon previous efforts, including the 2011 California Cattlemen Survey and 2016 Rancher Drought Survey (Roche et al. 2015; Macon et al. 2016).
- ❑ **Multi-Faceted Extension:** Support a diversity of educational forums, with targeted extension to beginning and first-generation ranchers and land managers. This includes webinars, fact sheets, hands-on trainings, and field tours with specific marketing to first-generation and beginning ranchers.
- ❑ **Peer Network Development:** Foster the development of non-competitive and confidential peer group with both first-generation and experienced ranchers. Identify funding to support peer-group activities and discussion that will provide an opportunity to exchange ideas on topics from finance/business to animal health and land management.

Goal 2: Objectives 2.1 and 2.2:

Project team members developed new and successful collaborations to secure funding for longer-term research, outreach, and extension to support beginning, first-generation, and other socially disadvantaged ranchers. Our team, working with additional partners as well, developed supporting outreach and extension plans and draft curriculum for grant development. Leveraging these materials, project team members lead by PI Schohr (\$120K secured new funding (\$120K; Hrdy Fund for UCCE Research) to support small ruminants and targeted grazing operators, which include a high proportion of young and beginning ranchers, in ranch economics, business planning, and rangeland ecological health. Additionally, PI Woodmansee and planning grant team members secured funding (\$29; Hrdy Fund for UCCE Research) to support sustainable meat supply chains and direct-market ranching operations.

This planning grant also provided critical support for a recently awarded USDA National Institute for Food and Agriculture grant (lead by PI Pathak; \$1.5M) to support socially disadvantaged farmers and ranchers by providing technical capacity and delivery of science-based information. The newly funded project will leverage outcomes of this planning grant to target programming for underserved and underrepresented groups. We will conduct broader needs assessments and climate-smart agricultural trainings with the California ranching and rangeland management community, including beginning, first-generation, and other socially disadvantaged ranchers. Key components of this next effort are to understand producer perceptions of climate change-related threats, as well as build capacity for technical assistance providers to advance climate-smart agriculture research and delivery of science-based information. Our planning project team identified regional points-of-contact across UCCE to co-host a series of producer workshops and technical service provider trainings, as well as lead local outreach and communications.

Our project team will continue to build on this momentum to support ongoing extension and research efforts that promote building ranching and rangeland resilience among beginning and first-generation ranchers. Team members are committed to incorporating project findings into individual activities and continuing to pursue collaborative funding opportunities to meet the identified strategic priorities. Lastly, team members are transitioning to work on grants that were outcomes of the SAREP planning grant and collaborating with partners such as California Cattlemen's Association, California Wool Growers Association, and Center for Land-Based Learning to better support beginning, first-generation and other socially disadvantaged ranchers.

Dissemination of Findings

This planning grant established a team of scientists and community groups to develop a research and extension program to support beginning and first-generation ranchers in building resilience to environmental, economic, and social shocks and stressors. Findings from this collaboration have been shared with livestock and natural resources Cooperative Extension Advisors. This planning grant also provided important momentum for a successfully awarded USDA National Institute for Food and Agriculture grant (lead by PI Pathak; \$1.5M). This new and continuing work will support first generation, beginning, and socially disadvantaged farmers and ranchers in multifaceted ways. Key components of this work will be to work with both producers and technical service providers to advance climate-smart agriculture research and delivery of

science-based information, as well as provide Extension service-learning internships (“Externships”) and education opportunities for undergraduate students.

Benefits/Impacts on Agriculture and/or Food Systems

The identified strategic priorities provides a framework for future UC Extension outreach focused on traditionally underserved sectors of the ranching community, specifically targeting beginning and first-generation ranchers spanning a diversity of backgrounds, cultures, and identities. Until very recently, there has been limited research and focused outreach with this target audience. The project has already translated to three grants that are underway to further support the core objectives of the planning grant. The outcomes of these grants and items identified in the strategic priorities will translate into adoption of best management practices and enhanced skillsets of beginning and first-generation ranchers in building resilience to environmental, economic, and social shocks.

Impact on Target Audience

Given this was a planning grant, this section is not applicable at this time.

Literature Cited

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