Providing Socially Disadvantaged Farmers with the Knowledge, Techniques and Practices to Survive and Thrive in the U.S. Agricultural System

Final Report to UC SAREP

Agreement No. SA21-5569-14

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Project location: Santa Cruz, Monterey, San Benito and Santa Clara counties
Proposal category: Applied Research
Priority Area: Supporting new and beginning socially-disadvantaged Latinx farmers
Commodities: None
Grant amount: $10,000
I. Goals & Objectives

#1. **Socially disadvantaged farmers will learn and implement principles and practices of regenerative and sustainable agriculture, about technologies that can increase farm productivity and incomes, and about practices for protecting and the natural resource base on their farms.**

- Instruct workshop participants in the principles of sustainable and regenerative agriculture
- Provide direct access to and practice with agricultural technologies for small farms
- Offer opportunities and ongoing support for hands-on pilot application on farm research plots

#2. **Socially disadvantaged farmers will be provided with access to knowledge, techniques and skills needed to navigate the bureaucratic and competitive U.S. agricultural system.**

- Instruct farmers in the skills and knowledge required to manage their farms
- Work with farmers to develop social media and branding to increase visibility
- Teach farmers about marketing and distribution systems and facilitate access to supportive distributors
- Assist farmers in successfully navigating the U.S. agricultural production and distribution system

#3: **Develop multilingual printed and digital resources targeted to socially disadvantaged farmers and communities for widespread distribution.**

- Develop short multilingual (initially Spanish-English) how-to guides for specific techniques and best practices
- Develop resources for farmers, in print, on-line, for smart phones and in the field.
- Create an on-going, widely accessible program of workshops, training and hands-on learning at learning site.

Laura Murphy, Monterey RCD, presenting on Cover Crops at Whiskey Hill Farms (Photo by Ronnie Lipschutz, 11/20/23)
II. Summary

This project seeks to provide new and beginning socially disadvantaged Latina/o farmers in Santa Clara, Santa Cruz, San Benito and Monterey Counties with a series of six workshops focused on regenerative agriculture and techniques as well as small-scale technologies practices that can increase productivity, extend the growing season, protect and conserve natural resources and improve marketing and distribution. The workshops combine classroom and discussion style presentations, hands-on experiential activities and participatory action research. Participating farmers received stipends to compensate for lost work time and travel expenses.

2022-2023 was the second year in which these workshops were offered, at Whiskey Hill Farms in Watsonville, California and two other locations in San Benito and Santa Clara counties. Twenty new, beginning and experienced Latina/o farmers—both women and men, many of whom do not speak English—participated. Dual simultaneous Spanish-English bilingual translation was offered at each meeting. In addition to UC SAREP support, additional funding was received from National Institute of Food and Agriculture, U.S. Department of Agriculture (for 2022-23; #) and the California Department of Food and Agriculture (for 2022-2024).

The research produced primarily sociological results (planting and best practices research was disrupted by severe storms and flooding in January and March of 2023).

- For socially disadvantaged farmers, much practical knowledge comes from historical praxis in specific environments, passed from peer to peer and generation to generation (Mayo, 2020). Some of these are common to all farmers; others may arise from lack of knowledge and skills (e.g., bookkeeping), mismatch between practice and local conditions, lack of connection to dominant agricultural social and professional resources and networks, bureaucracy and record-keeping (Lipschutz, 2022).
- Existing agriculture education pedagogy and resources tend to reflect the particular disciplinary expertise and experience of their creators, as well as cultural and social factors specific to their assumed audiences.
- Classroom-style presentations accompanied by written materials are suboptimal methods of instruction; real-time trusted group interactions, visual demonstrations and hands on application better support peer-to-peer exchange and learning.
- Printed and digital resources are not the preferred means of communication and learning among Latinx farmers. They do not have the time or language to read relatively detailed documents (many rely on their children to take care of technical and administrative issues).

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season, protect and conserve natural resources and improve marketing and distribution. The workshops combined classroom style presentations, hands-on experiential activities and participatory action research. Farms received stipends to compensate for lost work time.

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The research produced primarily sociological results (planting for research was disrupted by the Winter 2023 storms).

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- Existing agriculture education pedagogy and resources tend to reflect the particular disciplinary expertise and experience of their creators, as well as cultural and social factors specific to their assumed audiences.
- Classroom-style presentations accompanied by written materials are suboptimal methods of instruction; visual demonstrations and hands on application better support peer-to-peer exchange and learning.
- Printed and digital resources are not the preferred means of communication and learning among Latinx farmers. They do not have the time or language to read relatively detailed documents (and many rely on their children to take care of IT issues).

For the future, we recommend support of projects such as this one that provide direct experiential applications of concepts, practices and tools. This might best be accomplished through targeted, low- or no-cost technical assistance programs that match specialized and trusted consultants with individual farmers to address their specific needs.

The original workshop schedule was significantly disrupted by the storms and flood events throughout Winter 2023, which severely impacted most of the workshop participants’ farms. For two months, SSRF diverted its attention to raising funds for storm impact recovery grants for the participants, receiving support from private
III. Background

Latinx owned-and operated small farms operate face serious economic and social challenges to survival, especially where management and operating skills are concerned. The majority of Latinx farmers rent and farm small tracts of land, have very limited access to capital and experience significant language, bureaucratic and infrastructure barriers to success in the U.S. agricultural system (Ostrom, Cha & Flores, 2010). Many were farmers in Mexico and points south and became farmworkers after migrating to the United States. Some learned their craft at ALBA (The Agriculture and Land Based Training Association in Salinas, California); others rely on experience in their native countries and peer networks and assistance here in California (Calo, 2018).

Reaching out to Latinx farmers is not straightforward. They are weakly socialized into the U.S. agricultural system (Calo, 2018). They operate in a trust-based milieu rather than a purely competitive one. They have to navigate both the nearby social networks of extended families and neighbors and the remote bureaucratic market system of the U.S. agricultural system (Garcia-Pabón & Marcia Ostrom, 2015). For disadvantaged farmers, much practical knowledge comes from historical praxis in specific environments, passed from peer to peer and generation to generation (Mayo, 2020). Small farmers, whether immigrants or not, face a set of market-based obstacles to success: limited capital, low resilience in the event of crop failure, poor or no credit, high levels of competition as specific crops ripen simultaneously, low remuneration rates from distributors, high costs of energy, water, labor and other inputs, low revenues and profits, and more. Some of these are common to all farmers; others may arise from lack of knowledge and skills (e.g., bookkeeping), mismatch between practice and local conditions, bureaucracy and record-keeping.
IV. Specific results

**Objective #1: Workshop instruction**

The following topics and applications were addressed during the workshops:

- Walking analysis of one participant’s farm for analysis of site-specific environmental conditions (e.g. soil composition, irrigation, topography, geography).
- Description and field demonstration of regenerative agriculture techniques, such as no-till/low-till practices, field contouring and leveling, water conservation via low-cost sensors and smart irrigation systems, cover crops (including distribution of cover crop seeds).
- Soil tests for individual farms, accompanied by presentations on and demonstrations of soil fertility, quality, composition and microbiomes.
- Composting practicum at Whiskey Hill Farms, and design and construction of a sensor-monitored model aerated compost pile.
- Demonstration and installation of low-cost soil moisture/irrigation control systems developed by a Santa Cruz startup at several farms.
- Demonstration of multiple small-scale technologies and specialized, high-value crops.
- Assembly of a hoop house kit on a participant farm for use by workshop participants and future workshops.

Dave Blume talking about soil quality and fertility at Filemon Regalado’s Farm in Hollister, CA (photo by Ronnie Lipschutz, 10/23/22)
<table>
<thead>
<tr>
<th>Workshop topic, time location</th>
<th>Morning session</th>
<th>Afternoon session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 23, 2022: Introduction to Regenerative Agriculture, Filemon Regalado’s Farm, Hollister</td>
<td>Farm walkabout Presentation on regenerative agriculture</td>
<td>Soil practicum</td>
</tr>
<tr>
<td>Nov. 20, 2022: Regenerating Ag Resources on Small Farms, Whiskey Hill Farms (WHF)</td>
<td>Whiskey Hill Farm Tour Soil biology &amp; communities Soil testing analysis &amp; results</td>
<td>Cover crops &amp; soil fertility Programs for cover crops</td>
</tr>
<tr>
<td>Dec. 18, 2022: Practicing Regenerative Ag, WHF</td>
<td>Identifying farmers’ needs Cover crop demonstration</td>
<td>Composting practicum</td>
</tr>
<tr>
<td>February 26, 2023: Technology Day, WHF</td>
<td>Technologies for productivity</td>
<td>Land leveling &amp; labor-saving technologies</td>
</tr>
<tr>
<td>April 2, 2023: Disaster Recovery, Aromas Grange</td>
<td>Discussion of storm impacts Listening session with representative of Congressmember Zoe Lofgren</td>
<td>Discussion of present needs to restart farming Discussion of organizational options</td>
</tr>
<tr>
<td>May 7, 2023: Getting Organized, Aromas Grange</td>
<td></td>
<td>Presentation on ag coops Discussion of organizational options</td>
</tr>
<tr>
<td>May 21 &amp; 28, 2023: Assembling a Hoop House, Three Feathers Farm</td>
<td>Assembly of hoop house Installation of moisture sensors</td>
<td>Assembly of hoop house Discussion of public grant programs</td>
</tr>
</tbody>
</table>

Disruptions to original plan by winter storms resulted in elimination of “farming as a business” from the original schedule. Several participants report implementation of practices learned through the workshops.

**Objective #2: Accessing and navigating the U.S. Agricultural System**

Participants are generally aware of public funding opportunities from USDA, CDFA and WSARE. A few have received loans to support investments and operations; one or two have received funding from the WSARE Farmer/Rancher Research and Education Program. For the most part, however, they lack the language, skills and time—and often the qualifications—to apply for support from public agencies.

The farmers also have high discount rates: money now is more useful than money in six or 12 months. Most of the emergency relief funds offered by national and state programs will not arrive until after the 2023 growing season and sometimes funding for weather-related damages lag one or two years (for example, USDA funding is available for damages suffered during 2020-21, while CDFA is still offering drought relief funds for farmers).

We have found that providing presentations and printed and digital materials on accessing these resources is not very helpful. Most are not available in Spanish or any other non-English language format). Each farm and farmer’s situations are different, requiring individually targeted applications and proposals. Agency advice and help are limited and agents are not always bilingual. In order to succeed, farmers must work closely with experienced grant writers to prepare applications that meet funder requirements.
We believe that if public agencies are committed to serving socially disadvantaged and non-English speaking farmers (small, new and beginning), they must also be prepared to provide materials in translation, targeted assistance from bilingual agents and funding to pay bilingual grant writers.

One potential track to increasing these farmers’ access to public resources is through agricultural cooperatives, which could coordinate crop planning, tool sharing, aggregation, marketing, distribution and other needs. There are few such coops in California for non-English speaking farmers, although one (9 Organic Farms Co-op at https://www.9organicfarmscoop.com/) is being organized in Monterey, Santa Cruz and San Benito counties. As noted above, SSRF sponsored one meeting in which workshop participants discussed a coop, and heard from one of the 9 Organic Farms organizers, and has offered to provide funding if the participants wish to meet more regularly in the coming months.

**Objective #3: Produce bilingual curricular and instructional materials**

Meeting this objective has proven more difficult than expected. Direct feedback from participants revealed that existing agricultural extension resources and programs are often not accessible acceptable, or culturally relevant.

There is a vast quantity of instructional and visual material available on the internet but only limited availability in Spanish, even from Spain and Latin America. For the most part, that which is available is translated directly from English materials, which do not reflect or incorporate the particular experience and conditions of socially disadvantaged farmers. The creators of the English-language materials assume that farmers can read and are IT-literate, have the capital to invest in improvements and are even college-educated. As noted above, workshop participants took the printed
Spanish-language materials we offered but we have no idea whether those materials were even read by the farmers (a question to ask them).

We have videotaped most of the workshops, presentations and activities from the past two years (150-200 hours), which may be helpful to instructors, but we have not begun to edit those materials into viewable form. Our goal is to produce a series five minute “how to do” videos for smartphones focused on activities rather than theories. We also plan to produce short, single page and screen, visually oriented “how-to-do” publications, also easily accessed by smartphone.

IV. Dissemination of findings

1. Local news articles


2. Web sites


3. Presentations


4. Research articles & Reports


5. Video Resources

Forthcoming

V. Benefits/impacts on agriculture and/or food systems

Workshop participants have expressed their intention to implement some of what they have learned in our program and are interested in returning to 2023-24 workshop
series. As of this writing, only one participant has reported deploying tools and techniques learned in the series (although we anticipate that he will become an instructor for the 2023-24 series). We intend to continue working with these farmers, and to enlist a new cadre, to begin applying regenerative agriculture practices and will be collecting data from those who do so.

There is considerable interest in supporting socially-disadvantaged, minority operators of small farms in California but very little infrastructure through which to provide such support. So far as we have been able to determine, there are no other programs or projects similar to this one in California (and possible the United States). There are organizations that provide instruction and assistance to Spanish speakers—ALBA, Kitchen Table Advisors, California Farm Bureau, Community Alliance for Family Farmers—but these are either focused on finance and business or basic skills for new farmers. Our project seeks to be more comprehensive even though this is proving difficult.

This project has highlighted the potential of technical assistance programs that specifically address the needs of socially disadvantaged, non-English speaking producers across California. We propose development of a pilot targeted, bilingual technical assistance program specifically for Latino/a farmers on California’s central coast, with a specific focus the practices of regenerative agriculture and the TA tools, needs, tools and opportunities to successfully operate and manage their farms.

The proposed program and TA center would include the following:
1. Participatory research with farmers on the specific needs, knowledge and skills required to operate successfully in the highly competitive U.S. agricultural sector;
2. A program of bilingual and culturally responsive education, training and application workshops, incorporating emerging social and technological needs;
3. A physical and virtual “Drop-in Farming Center” at which agricultural educators, extension agents and others can hold weekly “office hours” to meet and work with farmers to address individual needs;
4. Coordination with a group of on-call ag professionals who will work with farmers on legal matters, application forms, grant proposals, financial and other documents;
5. Regularly scheduled community gatherings and events;
6. Support for creation of agricultural co-ops.

VI. Impact on target audience

There were 20 participants in the 2022-23 workshop series, representing 17 farms in the four targeted counties. The participants have also passed on what they have learned to families, friends and associates and other farmers, so we believe the target audience to have been larger. Demographic data are presented in the table below (N = 16):
<table>
<thead>
<tr>
<th>Gender</th>
<th># of persons</th>
<th>Ethnicity</th>
<th># of persons</th>
<th>Race</th>
<th># of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man/Boy</td>
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<td>Hispanic/Latino</td>
<td>16</td>
<td>American Indian/Alaska Native</td>
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<td></td>
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<td></td>
<td></td>
<td>Prefer not to state</td>
<td></td>
</tr>
</tbody>
</table>

Responses to farmer survey of workshops (May 28, 2023)

1. Which part of this workshop do you think has been most effective?
   - Compost
   - Construction of hoophouse/tunnel
   - The friendship we developed
   - The collaboration among other farmers in the construction of the hoophouse/tunnel
   - All workshops were important and helpful
   - The financial assistance provide by SSRF was what keep me and other owners of small farms stay at float.
   - SSRF’s staff are individuals with wide-range of experience and knowledge which is beneficial to all of us.
   - Everything was beneficial
   - I liked everything taught at the workshops. I learned in every single workshop, knowledge use either for my personal life or for my farm
   - Regenerative agriculture as there are thousands of micro-organisms living in the soil
   - Nutrients in the soil, compost, and the construction of the tunnel/hoophouse

2. Were there any topics or presentations that were NOT helpful to you? Please share those here.
   - I would like to learn more about hyproponics in agriculture
   - Marketing
   - Pests
   - Grants
   - Irrigation system
• Everything was good

3. Do you have any suggestions for future projects, topics, or speakers we could invite to speak at these workshops?
• More about sales and finances
• I would like to learn more about how to grow vegetables in water
• Marketing, coolers, cooperatives, Business development
• Invite professional/individuals who know about how to grow various crops
• Explore more about water systems that can help save water
• Pest control
• Land
• The importance of a hoophouse/tunnel and what we can grow in it
• Productive crops that have a market
• Programs that support organics agriculture

VI. References


Ostrom, Marcia, Bee Cha & Malaquias Flores. “Creating access to land grant resources for multicultural and disadvantaged farmers,” *Journal of Agriculture, Food Systems, and Community Development* 1, #1 (August 2010): 89-105.