What is SARE?

Since 1988, the Sustainable Agriculture Research & Education (SARE) program has been the go-to USDA grants and outreach program for farmers, ranchers, researchers and educators who want to develop innovations that improve farm profitability, protect water and land, and revitalize communities. To date, SARE has awarded over $311 million to more than 7,449 initiatives.

SARE is grassroots with far-reaching impact

Four regional councils of expert practitioners set priorities and make grants in every state and island protectorate.

SARE communicates results

SARE shares project results by requiring grantees to conduct outreach and grower engagement, and by maintaining an online library of practical publications, grantee-produced information products and other educational materials.

SARE: Advancing the Frontier of Sustainable Agriculture in...

California


Managing nitrogen (N) effectively helps farmers raise a high-quality crop, avoid wasting dollars and protect water quality. Yet in the highly productive Salinas Valley of Monterey County, many farmers who use organic practices lack complete information on effective N management. This is particularly true of beginning farmers and those who have a language barrier or otherwise have limited access to support services. Organic agriculture is booming in Monterey County: organic sales volume was $151 million in 2012. Ensuring that all organic growers have the best opportunity to succeed in a lucrative market was the motivation behind the Agriculture and Land-Based Training Association’s (ALBA) SARE grant.

ALBA collaborated with experienced farmers and Extension specialists to hold workshops on organic N management and on-farm research principles. It also provided in-depth, bilingual training and support to nine beginning farmers participating in its incubator program. ALBA’s grant allowed 500 growers and educators to benefit from workshops and publications focused on N management, and 91 percent of surveyed farmers reported adopting at least one new practice. By improving their knowledge on the subject and integrating new practices, the growers have positioned themselves for success.

For more information on this project, see sare.org/projects, and search for project number OW13-062.

SARE in California

www.sare.org/sare-in-your-state/california

$12,845,294 in total funding

209 grant projects (since 1988)

For a complete list of grant projects state by state, go to www.sare.org/state-summaries
SARE Grants in California

Total awards: 209 grants
- 61 Farmer/Rancher
- 34 Graduate Student
- 13 On Farm Research/Partnership
- 36 Professional Development Program
- 63 Research and Education
- 2 Research to Grass Roots

Total funding: $12,845,294
- $763,088 Farmer/Rancher
- $695,716 Graduate Student
- $634,140 On Farm Research/Partnership
- $2,345,551 Professional Development Program
- $8,320,099 Research and Education
- $86,700 Research to Grass Roots

Find a complete list of projects on page 3.

SARE's Impact

53 percent of producers report using a new production technique after reading a SARE publication.

79 percent of producers said they improved soil quality through their SARE project.

64 percent of producers said their SARE project helped them achieve higher sales.

Learn about local impacts at: western.sare.org/sare-in-your-state/california

Contact Your SARE State Coordinator

SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit western.sare.org/state-pages/california to learn more.

Sonja Brodt
University of California Sustainable Agriculture Research & Education Program
sbbrodt@ucdavis.edu

Jeffery Stackhouse
UCCE Livestock Advisor
(707) 445-7351
jwstackhouse@ucanr.edu

For detailed information on SARE projects, go to www.SARE.org

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA).

This report includes summaries of competitive grant programs only. Some competitive grant programs that are no longer offered may be included or excluded from the totals in this report depending on the grant program and SARE region.
California has been awarded $12,845,294 grants to support 201 projects, including but not limited to, 55 research and/or education projects, 36 professional development projects and 61 producer-led projects. California has also received additional SARE support through multi-state projects.

### RESEARCH AND EDUCATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| SW20-912  | Use of Almond Hull and Shell as Organic Matter Amendments in Advanced Orchard Management                                                       | $349,807     | Dr.Sat Darshan Khalsa University of California Davis  
Dr.Patrick Brown University of California Davis  
Dr.Amelie Gaudin University of California, Davis |
| SW20-913  | Effective Management of Thousand Cankers Disease of Walnut through Disruption of Insect Vector Behavior                                        | $349,770     | Dr.Richard Bostock University of California  
Dr.Daniel Kluepfel USDA - ARS, Crops Pathology and Genetics Research Unit  
Dr.Steven Seybold USDA Forest Service |
| SW20-919  | Biointensive no-till farming in California: farmer-driven research and education on soil health, water efficiency and economic resiliency    | $251,036     | Dr.Timothy Bowles University of California Berkeley  
Amanda Hodson University of California, Davis  
Dr.Paul Rogé MESA, Inc. |
| SW19-902  | Potential Economic and Nitrogen Benefits of Fababean as a Double Purpose Cash and Cover Crop in Northern California                           | $348,772     | Dr.Hossein Zakeri California State University- Chico |
| SW19-908  | Quantifying the effects of rangeland conversion on ecosystem functions: Linking land use systems to enhance farm profitability              | $349,327     | Fadzayi Elizabeth Mashiri University of California |
| SW18-063  | Quantifying the frequency and effects of secondary exposure to rodenticides in barn owls                                                   | $249,546     | Dr.Joshua Hull UC Davis |
| SW17-060  | UAS (Unmanned Aerial System)-guided releases of predatory mites for management of spider mites in strawberry                               | $249,878     | Dr.Elvira de Lange University of California Davis |
| SW14-011  | Farming for Native Bees                                                                                                                        | $247,649     | Dr.Gordon Frankie UC Berkeley |
| SW12-110  | The interaction of rangeland management and environmental conditions in regulating forage quality & quantity and other ecosystem services    | $265,414     | Valerie Eviner UC Davis |
| SW11-116  | Integrated rotation systems for soil borne disease, weed and fertility management in strawberry/vegetable production                        | $218,424     | Joji Muramoto University of California, Santa Cruz |
Control of Bacterial Wilt Disease of Ginger through an Integrated Pest Management Program

A San Joaquin Valley Quilt: Stitching Together a Region’s Prosperity, Nutrition and Sustainability

Sierra CRAFT

Developing regional distribution networks to enhance farmer prosperity: Retail value chains

Triple-cropping Dairy Forage Production Systems Through Conservation Tillage in California’s San Joaquin Valley

Using Nectar Cover Cropping in Vineyards for Sustainable Pest Management

Toward a Broader Vision of Sustainability: Social Equity in Sustainable Agriculture

Grazing Strategies to Control Medusahead in California

Alternaria Control Using Biocontrol Yeast in Organic Pistachio Production Systems

Smart Energy Management in Agriculture

Fresh, From Our Family to Yours: Direct Marketing Education for Producers

Farmland Tenure: A Tool Kit

Educational Workshops on Organic Dairy Management

Confirmation of Riparian Friendly Grazing Project Results and Development of Achievable, Site Specific Reference Conditions for Grazed Riparian Areas

Evaluation of the Effects of Vineyard Floor Management Practices on Soil Microbiology

Management of Vine Mealybugs in California’s San Joaquin Valley Through the Integration of Chemical and Biological Controls

Development and Dissemination of a Cowpea Cultivar for Cover Crops
<table>
<thead>
<tr>
<th>Project Code</th>
<th>Project Title</th>
<th>Budget</th>
<th>Principal Investigator</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW02-035</td>
<td>Control of Western Tarnished Plant Bug (WTPB) Lygus hesperus Knight in Organic Strawberry Production Systems Using Trap Crops and Tractor-mounted Vacuums</td>
<td>$31,280</td>
<td>Dr. Sean Swezey</td>
<td>Center for Agroecology and Sustainable Food System</td>
</tr>
<tr>
<td>SW01-044</td>
<td>Riparian Friendly Grazing Project</td>
<td>$24,714</td>
<td>Dr. Kenneth Tate</td>
<td>University of California Davis</td>
</tr>
<tr>
<td>SW01-057</td>
<td>Transition to Organic Vegetable Production by Large-Scale Conventional Farmers</td>
<td>$123,399</td>
<td>Louise Jackson</td>
<td>UC Davis</td>
</tr>
<tr>
<td>SW99-008</td>
<td>The Transition from Conventional to Low-Input or Organic Farming Systems: Soil Biology, Soil Chemistry, Soil Physics, Energy Utilization, Economics, and Risk</td>
<td>$153,962</td>
<td>Steven Temple</td>
<td>University of California</td>
</tr>
<tr>
<td>SW99-009</td>
<td>Rotations with Broccoli – A Sustainable Alternative to Soil Chemical Fumigants</td>
<td>$145,750</td>
<td>Krishna Subbarao</td>
<td>University of California, Davis</td>
</tr>
<tr>
<td>SW98-044</td>
<td>Cropping Systems for Intensive Desert Vegetable Production</td>
<td>$130,672</td>
<td>Charles Sanchez</td>
<td>University of Arizona</td>
</tr>
<tr>
<td>SW97-021</td>
<td>Reducing Insecticide Use on Celery Through Low Input Pest Management Strategies</td>
<td>$100,000</td>
<td>John T. Trumble</td>
<td>University of California, Department of Entomology</td>
</tr>
<tr>
<td>SW97-045</td>
<td>Decomposition and Nutrient Release Dynamics of Cover Crop Materials</td>
<td>$41,064</td>
<td>Dr. Jeff Mitchell</td>
<td>University of California, Davis</td>
</tr>
<tr>
<td>SW97-049</td>
<td>Development and Implementation of Trap Cropping Strategies for Control of Hemipteran Pests in Pistachio Orchards</td>
<td>$79,858</td>
<td>Kent Daane</td>
<td>Division of Insect Biology, UC Berkeley</td>
</tr>
<tr>
<td>SW96-016</td>
<td>Tillage Practices for Improving Nitrogen Cycling and Soil Quality</td>
<td>$102,000</td>
<td>Louise Jackson</td>
<td>UC Davis</td>
</tr>
<tr>
<td>SW96-021</td>
<td>Controlled Grazing on Foothill Rangelands</td>
<td>$40,750</td>
<td>Roger Ingram</td>
<td>University of California Cooperative Extension</td>
</tr>
<tr>
<td>SW96-012</td>
<td>The Transition from Conventional to Low-input or Organic Farming Systems: Soil Biology, Soil Chemistry, Soil Physics, Energy Utilization, Economics and Risk</td>
<td>$100,000</td>
<td>Steven Temple</td>
<td>University of California</td>
</tr>
<tr>
<td>SW95-012</td>
<td>A Cover Crop System for Sustainable Grape Production in California – Beyond the Transition Phase</td>
<td>$122,559</td>
<td>Frank G. Zalom</td>
<td>University of California</td>
</tr>
<tr>
<td>SW95-019</td>
<td>Development of a Farm-Wide System for Control of Many of the Principal Lepidopterous Pests of Grapes and Tree Fruits Based on Disruption of Premating Pheromone Communication Between Male and Female Moths</td>
<td>$120,770</td>
<td>Harry H. Shorey</td>
<td>University of California</td>
</tr>
<tr>
<td>SW95-024</td>
<td>Managing Soil Biota in Low-Input and Organic Farming Systems to Enhance Soil Fertility</td>
<td>$175,000</td>
<td>Kate Scow</td>
<td>University of California, Dept. of Land, Air, and Water Resources</td>
</tr>
</tbody>
</table>
### RESEARCH TO GRASS ROOTS GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| RGR20-006 | Building on Farmer Experience to Increase Cover Crops Adoption in Orchards and Vineyards | $74,594       | Dr. Sonja Brodt  
University of California Sustainable Agriculture Research & Education Program  
Lucas Patzek  
Napa County Resource Conservation District |
### Potter Valley Tribe’s Native Mushroom Cultivation from Waste Byproduct Substrate for Food Sovereignty

**Project #**: RGR20-010  
**SARE Support**: $12,106  
**Project Leaders**: Jade Swor, Potter Valley Tribe  
Salvador Rosales, Sr., Potter Valley Tribe  
Salvador Rosales, Jr., Potter Valley Tribe  
Gregg Young, Potter Valley Tribe

### Professional Development Program Grants

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDP20-009</td>
<td>Filling the Gap – Exposing Agricultural Professionals to New and Innovative Small-Farm Tools</td>
<td>$74,982</td>
<td>Rex Dufour, National Center for Appropriate Technology (NCAT)</td>
</tr>
</tbody>
</table>
| WCA21-001       | California Professional Development Program 2021-2023                         | $90,000      | Jeffrey Stackhouse, University of California Cooperative Extension  
Dr. Sonja Brodt, University of California Sustainable Agriculture Research and Ed |
| WPDP19-25       | Business of Farming (BoF) - Train the Trainer Program                         | $74,984      | Carolina Martinez, California Association for Micro Enterprise Opportunity  
Carla Holland, San Diego Small Business Development Center  
Andrew Seko, CAMEO                                                   |
| WPDP19-12       | From Classroom to the Field: Soil Health Bottom Line: Expanding Adoption of Healthy Soils Practices by Quantifying the Economic and Environmental Benefits to Growers | $75,000      | Kara Heckert, American Farmland Trust  
Anelkis Royce, American Farmland Trust  
Anelkis Royce, American Farmland Trust                                |
| EW18-024        | Organic Soil Health Education Resources for Agricultural Professionals in the Western Region | $74,138      | Brise Tencer, Organic Farming Research Foundation                             |
| EW17-012        | Growing California Agritourism Communities                                   | $73,010      | Dr. Gail Feenstra, UC SAREP/ASI                                               |
| EW17-014        | Building Knowledge of Cover Cropping Techniques for Increased Adoption Rates  | $52,172      | Trina Walley, East Stanislaus Resource Conservation District                |
| EW16-018        | Facilitating Food Safety for Small, Sustainable Farms                        | $55,000      | nathan harkleroad, ALBA  
Kaley Grimland, ALBA                                                   |
<p>| EW16-015        | Harmonizing Organic Standards and Food Safety Metrics                         | $74,970      | Dave Runsten, Community Alliance with Family Farmers                       |
| EW16-026        | Assessment of Soil Biology and Plant Available Nitrogen for Soil Health and Water Quality | $49,690      | Hunter Francis, CAFES Center for Sustainability                            |
| EW14-036        | Supporting Farmer Training Programs- in the Western States through Professional Development and Collaboration | $29,977      | nathan harkleroad, ALBA                                                  |
| EW13-008        | High Residue Farming in the Irrigated Far West                               | $26,400      | Andrew McGuire, Washington State University Extension                      |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Amount</th>
<th>Principal Investigator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW13-022</td>
<td>Development and training of a national spray application work group</td>
<td>$57,862</td>
<td>Gwen-Alyn Hoheisel Washington State University</td>
</tr>
<tr>
<td>EW13-025</td>
<td>Building Tools and Technical Capacity to Improve Irrigation and Nutrient Management on California's Central Coast</td>
<td>$39,564</td>
<td>Pamela Krone-Davis Monterey Bay Sanctuary Foundation</td>
</tr>
<tr>
<td>EW13-027</td>
<td>Application of Lessons Learned from NRCS Rangeland CEAP: A site-specific, Low Cost System for Medusahead Control</td>
<td>$68,469</td>
<td>Jeremy James University of California</td>
</tr>
<tr>
<td>EW12-017</td>
<td>Training Manuals and Professional Development Activities for Teaching Organic Farming and Marketing</td>
<td>$98,782</td>
<td>Dr. Daniel Press University of California Santa Cruz</td>
</tr>
<tr>
<td>EW12-033</td>
<td>FARMING STRATEGIES FOR COPING WITH CLIMATE CHANGE</td>
<td>$19,000</td>
<td>Renata Brillinger California Climate &amp; Agriculture Network</td>
</tr>
<tr>
<td>EW11-029</td>
<td>Cal Poly Professional Development Compost Training and Establishment of the Cal Poly Compost Project</td>
<td>$57,582</td>
<td>Hunter Francis CAFES Center for Sustainability</td>
</tr>
<tr>
<td>EW10-004</td>
<td>Capacity Building Workshops: Developing Regional Agritourism Networks for Agricultural Sustainability and Education</td>
<td>$59,558</td>
<td>Penny Leff UC Sustainable Agriculture Research and Education Program (UC SAREP)</td>
</tr>
<tr>
<td>EW10-005</td>
<td>Understanding the Climate Benefits of Sustainable Agriculture</td>
<td>$11,905</td>
<td>Jeanne Merrill CA Climate &amp; Agriculture Network (CalCAN) Renata Brillinger California Climate &amp; Agriculture Network</td>
</tr>
<tr>
<td>EW09-004</td>
<td>Ecology and Management of Grazing, An Online Course</td>
<td>$84,826</td>
<td>Melvin George University of California</td>
</tr>
<tr>
<td>EW04-012</td>
<td>Adding Value to Grassfed Beef Niche Marketing Efforts</td>
<td>$60,000</td>
<td>Cynthia Daley California State University, Chico</td>
</tr>
<tr>
<td>EW03-004</td>
<td>Field Course for Agricultural Professionals on the Common Goals and Strategies of USDA's National organic Standards and Resource Conservation Programs</td>
<td>$60,000</td>
<td>Rex Dufour National Center for Appropriate Technology (NCAT)</td>
</tr>
<tr>
<td>EW03-007</td>
<td>Extending Hedgerow Systems in California Agriculture</td>
<td>$60,000</td>
<td>Mark Cady Community Alliance with Family Farmers</td>
</tr>
<tr>
<td>EW02-005</td>
<td>Organic Farming Principles, Practices, and Materials: Resources for Western Region Extension and USDA Professionals</td>
<td>$101,907</td>
<td>Dr. Sean Swezey Center for Agroecology and Sustainable Food System David Chaney SAREP</td>
</tr>
<tr>
<td>EW01-010</td>
<td>Training and Education Outreach to NRCS and University of California CES staff to Convey Animal Nutrition</td>
<td>$81,950</td>
<td>Thomas Wehri CA Association Resource Conservation Districts</td>
</tr>
<tr>
<td>EW01-013</td>
<td>Promotion of Intergenerational Farm Transfers for Agricultural Sustainability and Farmland Production</td>
<td>$56,000</td>
<td>Steve Schwartz California FarmLink</td>
</tr>
<tr>
<td>EW00-012</td>
<td>Sharing Resources to Help Connect Farmers to Direct Marketing Niches</td>
<td>$96,578</td>
<td>David Chaney SAREP</td>
</tr>
</tbody>
</table>
EW98-001  Broadening the Audience: Providing Sustainable Agriculture Education for Pest Control Advisers and Agricultural Consultants in California and Oregon  
$80,100  David Chaney  
SAREP

EW97-002  Sustainable Range & Pasture Livestock & Dairy Production Training For Resource Professionals  
$29,000  Roger Ingram  
University of California Cooperative Extension

EW96-005  Multidisciplinary On-Site Training in Sustainable Agriculture Education  
$97,432  Steven Temple  
University of California

EW96-009  Sustainable Agriculture Curriculum Development Project for Extension Professionals in California’s San Joaquin Valley and Central Coast Regions  
$98,773  David Chaney  
SAREP

EW96-010  Sustainable Arid Land Grazing Systems: Training for Managers of Public Land and Reserves  
$29,000  William Olkowski  
Bio-Integral Resource Center (South)

EW96-011  Professional Training in Biologically Integrated Orchard Systems  
$155,940  Jill Klein  
Com. Alliance w/ Family Farmers/BIOS Training Prop. for SARE

EW95-015  A Consortium-Based Sustainable Agriculture Training Program (SATP) Curriculum Plan  
$20,000  Dr.Sean Swezey  
Center for Agroecology and Sustainable Food System

EW94-003  Multidisciplinary On-Site Training in Sustainable Agriculture Education  
$71,000  Steven Temple  
University of California

FARMER/RANCHER GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| FW20-364   | Adding value to grassfed cattle operations by restoring rangeland health with targeted grazing on California’s Central Coast | $19,673      | Elizabeth Reikowski  
Willow Creek Land and Cattle, LLC |
| FW20-365   | Mitigating on-farm toxins using fungi: a case study on two farms.             | $19,881      | Christopher Tchudi  
TurkeyTail Farm |
| FW19-346   | Grazing of annual brassicas to extend grazing season in summer-dry pastures in Northern California | $19,109      | Cody Wood  
Willamette Valley Lamb |
| FW19-355   | Drill-seeding blue oak acorns: a new method for restoration in California’s rangelands. | $19,920      | Alex Palmerlee  
Far View Ranch Inc. |
| FW18-027   | Farm-to-Glass: Performance Testing Different Varieties of Malting Barley      | $19,908      | Bob Adams  
Bob Adams |
| FW18-042   | Converting tree nut byproducts into gourmet mushrooms and mulches             | $19,952      | Charlie Long Chen  
Nature Prize LLC |
| FW18-044   | Examining the practical on-ranch application and benefits of low-stress herding and stockmanship techniques | $19,980      | Michael Williams  
Diamond W Cattle Company |
| FW17-054   | Honeybee Regeneration Project                                                  | $19,851      | Aidan Wing  
Aidan Wing |
**Sorrel Pesto: The Positive Implications of Sorrel as a Substitute for Basil in Pesto Production**

- **FW16-033**
- **$19,710**
- David Ceaser
- Green Skies Vertical Farm

**Sustainable Irrigation Demonstration Project: Demonstrating Irrigation Efficiency in California Winegrapes through Advanced Practices and Technologies**

- **FW16-034**
- **$19,180**
- Jason Melvin
- Zabala Vineyards

**Improving Water Use Efficiency in Conventional and Organic Almonds through Data Driven Irrigation**

- **FW16-036**
- **$19,878**
- Pat Ricchiuti
- P R Farms, Inc.

**High Desert High Tunnels**

- **FW15-029**
- **$5,183**
- Laurie Wayne
- Locavore Farms

**Vines And Ovines: Benefits of Target Grazing to Sheep and Vineyard Industries**

- **FW14-024**
- **$14,991**
- Jaime Irwin
- Kaos Sheep Outfit

**Use of Wood Ash as Soil Amendment on Annual Rangelands**

- **FW11-037**
- **$28,995**
- Mel Thompson
- Sierra Farms
- Glenn Nader
- University of California Cooperative Extension

**Woolgathering on the Farm**

- **FW10-037**
- **$7,165**
- Sophie Sheppard
- Woolgathering

**Vines and Ovines: Using Trained Sheep for Vineyard Floor Grazing**

- **FW08-315**
- **$29,193**
- Morgan Doran
- University of California

**Placer Ag Futures Project**

- **FW08-324**
- **$25,670**
- Bill Bennett
- High Sierra RC&D Council, Inc.
- Kay Joy Barge
- High Sierra Resource

**Creating and Marketing Value-Added Orchard Products**

- **FW08-030**
- **$15,000**
- Nicholas Salle
- Salle Orchards
- Billie Jean Salle
- Salle Orchards

**Sierra Nevada Small Farm Progress Days**

- **FW08-047**
- **$27,370**
- Dan Macon

**Restoring Plant Diversity and Soil Health in Napa and Sonoma Vineyards: scaling up an agroecologically based pest management strategy**

- **FW08-311**
- **$30,000**
- Houston Wilson
- UC Berkeley -- ESPM
- Miguel Altieri
- University of California, Berkeley

**Effects of Aleutian Geese on Humboldt County Pastures**

- **FW08-312**
- **$28,540**
- Alan Bower
- University of California Davis

**Farm Direct Distribution**

- **FW07-303**
- **$25,444**
- Brigitte Moran
- Marin Farmers Market Association

**Building on Organic Knowledge: On-Farm Transfer of a Trap Cropping Method to Control Lygus Bug in Conventional Strawberry Production**

- **FW07-311**
- **$14,864**
- Dr. Sean Sweezy
- Center for Agroecology and Sustainable Food System

**Management Challenges for Dairy Goat Sustainability**

- **FW07-324**
- **$15,360**
- Deborah Giraud
- University of California

**Conservation Tillage Forage Production in California’s San Joaquin Valley**

- **FW06-308**
- **$9,400**
- Dr. Jeff Mitchell
- University of California, Davis
<table>
<thead>
<tr>
<th>Project Code</th>
<th>Title</th>
<th>Funding</th>
<th>PI</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW06-304</td>
<td>Using Molasses as an Attractant for Concentrating Grazing on Medusahead</td>
<td>$3,479</td>
<td>Morgan Doran</td>
<td>University of California</td>
</tr>
<tr>
<td>FW05-020</td>
<td>Goats in the Chaparral</td>
<td>$19,990</td>
<td>Bill Burrows</td>
<td></td>
</tr>
<tr>
<td>FW05-026</td>
<td>Sustaining an Agricultural Region: Capay Valley Grown</td>
<td>$14,980</td>
<td>Judith Redmond</td>
<td>Full Belly Farm</td>
</tr>
<tr>
<td>FW05-030</td>
<td>Evaluation of abalone effluent for reclamation</td>
<td>$7,685</td>
<td>Douglas Bush</td>
<td>The Cultured Abalone</td>
</tr>
<tr>
<td>FW04-024</td>
<td>A pilot project for zero discharge farming</td>
<td>$3,250</td>
<td>Alan Haight</td>
<td>Riverhill Farm</td>
</tr>
<tr>
<td>FW04-028</td>
<td>Organic Vineyard/Orchard Weed and Grass Management Using Miniature Sheep</td>
<td>$7,472</td>
<td>Deborah Walton</td>
<td>Canvas Ranch</td>
</tr>
<tr>
<td>FW04-111</td>
<td>Marketing Locally Grown</td>
<td>$10,000</td>
<td>Mary Ann Vasconcellos</td>
<td></td>
</tr>
<tr>
<td>FW03-318</td>
<td>Conservation of Groundwater Resources in the Mojave High Desert Region through Producer Education of Irrigation Management</td>
<td>$6,285</td>
<td>Grant Poole</td>
<td>University of California Cooperative Extension</td>
</tr>
<tr>
<td>FW03-007</td>
<td>Integrated Pest Management and Sustainable Grape Production in Sonoma County</td>
<td>$13,000</td>
<td>Nick Frey</td>
<td>Sonoma County Grape Growers Assn.</td>
</tr>
<tr>
<td>FW03-009</td>
<td>Unconventional Conversion: Cultivating Sustainability in Citrus and Avocado Orchards</td>
<td>$7,500</td>
<td>Zachary Griffin</td>
<td></td>
</tr>
<tr>
<td>FW03-010</td>
<td>Increasing Adoption of Sustainable Practices in Central Coast Vineyards</td>
<td>$13,000</td>
<td>Kris Beal</td>
<td>Vineyard Team</td>
</tr>
<tr>
<td>FW03-013</td>
<td>Can Llamas Be an Effective Tool for Predator Control?</td>
<td>$6,500</td>
<td>Jill Hackett</td>
<td>Howe Creek Ranch</td>
</tr>
<tr>
<td>FW03-015</td>
<td>Pastured Pork: Economics of Intensive Grazing in the Western United States</td>
<td>$6,550</td>
<td>John Currey</td>
<td>CR Pigs</td>
</tr>
<tr>
<td>FW03-105</td>
<td>Bay Area Agricultural Cooperative</td>
<td>$13,000</td>
<td>John Lagier</td>
<td>Lagier Ranches</td>
</tr>
<tr>
<td>FW03-107</td>
<td>Marin Organics Cooperative Marketing Program</td>
<td>$13,500</td>
<td>Warren Weber</td>
<td>Star Route Farms</td>
</tr>
<tr>
<td>FW02-213</td>
<td>Establishing a Market for Sustainable Agricultural Products in Sierra Nevada Foothill Counties</td>
<td>$12,900</td>
<td>Ed Rich</td>
<td></td>
</tr>
<tr>
<td>FW02-211</td>
<td>Marin Organic’s Cooperative Marketing Outreach</td>
<td>$9,191</td>
<td>Warren Weber</td>
<td>Star Route Farms</td>
</tr>
<tr>
<td>FW01-089</td>
<td>Symphylans: A growing menace. A look into its detection, damage, and control in a small-scale Biointensive Community Supported Agriculture Project.</td>
<td>$6,270</td>
<td>Michelle Vesser</td>
<td>Small Farm / Specialty Crops</td>
</tr>
<tr>
<td>Grant Code</td>
<td>Project Title</td>
<td>Budget</td>
<td>PI Name</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------</td>
<td>--------------------------</td>
<td></td>
</tr>
<tr>
<td>FW00-008</td>
<td>Tracking Costs and Returns in a Transition to Grass-Based Dairying</td>
<td>$1,139</td>
<td>Dean Martin</td>
<td></td>
</tr>
<tr>
<td>FW00-010</td>
<td>Soil Solarization for Weed and Disease Control in Specialty Crops</td>
<td>$4,975</td>
<td>Mike Smith</td>
<td></td>
</tr>
<tr>
<td>FW00-021</td>
<td>Water Use of Wine Grapes in the Granitic Soils of the Fair Play Wine Region in the Sierra Foothills</td>
<td>$10,000</td>
<td>Brian Fitzpatrick</td>
<td></td>
</tr>
<tr>
<td>FW00-080</td>
<td>Moving From Selling Through Intermediaries to Direct Marketing Using Cause Related Marketing Strategy</td>
<td>$4,447</td>
<td>Maria Ines Catalan</td>
<td></td>
</tr>
<tr>
<td>FW00-210</td>
<td>Test Marketing Pasture Produced Artisan Cheeses</td>
<td>$7,910</td>
<td>Tim Pedrozo</td>
<td></td>
</tr>
<tr>
<td>FW00-299</td>
<td>Good Humus Produce Farm to School Project</td>
<td>$5,300</td>
<td>Annie Main</td>
<td></td>
</tr>
<tr>
<td>FW00-005</td>
<td>Production of Strawberry Plants using Sterile Soil Amendments</td>
<td>$5,000</td>
<td>Allen Albaugh</td>
<td></td>
</tr>
<tr>
<td>FW99-108</td>
<td>Central Coast Vineyard Team Positive Points System Evaluation and Education Program</td>
<td>$10,000</td>
<td>Dana Merrill</td>
<td></td>
</tr>
<tr>
<td>FW99-073</td>
<td>Converting Dairy Waste into More Usable Products through Vermiculture</td>
<td>$4,300</td>
<td>Charmaine Harris</td>
<td></td>
</tr>
<tr>
<td>FW98-009</td>
<td>Soil Solarization as a Methyl Bromide Alternative in Strawberries</td>
<td>$4,000</td>
<td>Touxia Thauxaochay</td>
<td></td>
</tr>
<tr>
<td>FW98-012</td>
<td>Solarization for Small Farm “Specialty Crops”</td>
<td>$4,000</td>
<td>Mike Smith</td>
<td></td>
</tr>
<tr>
<td>FW98-072</td>
<td>Goats as a Source of Weed and Brush Control in Forest Plantations</td>
<td>$5,000</td>
<td>Allen Albaugh</td>
<td></td>
</tr>
<tr>
<td>FW97-011</td>
<td>Feasibility of Soil Solarization for Strawberry Production on the Central Coast of California</td>
<td>$5,000</td>
<td>Larry Galper</td>
<td></td>
</tr>
<tr>
<td>FW97-012</td>
<td>Individual Confinement Rearing vs. Pasture-Based Group Rearing of Dairy Calves</td>
<td>$3,248</td>
<td>Jim Wackerman</td>
<td></td>
</tr>
<tr>
<td>FW97-016</td>
<td>Vermicomposting Demonstration Project</td>
<td>$5,000</td>
<td>Dave Renner Diamond Point Dairy</td>
<td></td>
</tr>
<tr>
<td>FW97-030</td>
<td>Pheromone Foggers for Pesticide Replacement</td>
<td>$5,000</td>
<td>Willis Thompson</td>
<td></td>
</tr>
<tr>
<td>FW96-053</td>
<td>Farming, Agriculture, and Resource Management for Sustainability (F.A.R.M.S.)</td>
<td>$5,000</td>
<td>Craig McNamara Sierra Orchards</td>
<td></td>
</tr>
<tr>
<td>FW95-089</td>
<td>Monitoring Program for Biologically Integrated Orchard Systems (BIOS) in Walnuts</td>
<td>$5,000</td>
<td>Liza Lewis Community Alliance with Family Farmers Foundation</td>
<td></td>
</tr>
<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td>--------------</td>
<td>-----------------</td>
<td></td>
</tr>
</tbody>
</table>
| GW20-213  | Linking Adaptive Rangeland Decision-Making and Vulnerability to Drought and Wildfire | $13,394 | Leslie Roche  
UC Davis  
Grace Woodmansee  
University of California, Davis, Department of Plant Sciences, UC Rangelands Lab  
Grace Woodmansee  
University of California, Davis, Department of Plant Sciences, UC Rangelands Lab |
| GW20-216  | Network analysis of organic seed systems: a systems-level analysis for resilience | $24,997 | Mark Lubell  
University of California, Davis  
Liza Wood  
University of California, Davis  
Jared Zystro  
Organic Seed Alliance  
Liza Wood  
University of California, Davis |
| GW20-203  | Grazing for change: Connecting soil health and ranch viability using adaptive multi-paddock grazing | $24,867 | Dr.Timothy Bowles  
University of California Berkeley  
Lynn Huntsinger, PhD  
University of California, Berkeley  
Paige Stanley  
University of California, Berkeley  
Paige Stanley  
University of California, Berkeley |
| GW20-207  | Cover crops to enhance control of leaffooted bug, Leptoglossus zonatus, in California tree nut crops | $24,796 | Houston Wilson  
University of California, Riverside  
Dr.Kent Daane  
University of California, Berkeley  
Rob Straser  
University of California, Riverside |
| GW20-209  | Testing efficacy of anaerobic soil disinfestation (ASD) in managing bacterial wilt disease of Hawaiian ginger, turmeric, and tomato crops | $25,000 | Tiffany Lowe-Power  
University of California, Davis  
Sharon Motomura-Wages  
University of Hawaii  
Dr.Mohammad Arif  
University of Hawaii  
Jonathan Beutler  
University of California, Davis  
Dr.Jonathan Jacobs, Ph.D.  
Ohio State University  
Dr.Amisha Poret-Peterson, Ph.D.  
USDA Agricultural Research Service  
Jonathan Beutler  
University of California, Davis |
| GW19-200  | Natural pest control in a working agricultural landscape: Investigating the impact of rodent control on beneficial hawks and owls | $24,997 | Dr.Joshua Hull  
UC Davis  
Dr.Sara Kross  
Columbia University  
Breanna Martinico  
UC Davis |
| GW19-191  | Systems approaches to co-manage disease, water and soil health for sustainable processing tomato production in the Western region | $25,000 | Dr.Cassandra Swett  
UC Davis  
Justine Beaulieu  
UC Davis |
| GW19-193  | Conventional vs. regenerative almond orchards, with regards to invertebrate biomass and biodiversity, soil health, food safety, and profitability | $25,000 | Dr.Jonathan Lundgren, PhD  
Ecdysis Foundation  
Dr.Patty Oikawa  
California State University East Bay  
Dr.Erica Wildy  
California State University East Bay  
Thomas Fenster  
California State University East Bay |
| GW19-194  | Sustainable orchard intensification: Cover crops and management intensity | $24,944 | Bradley Hanson  
University of California, Davis  
Steven Haring  
University of California, Davis |
| GW18-041  | Insect Discovery and Breeding as Tools for Sustainable Solutions to Organic Waste Management | $24,942 | Dr.Christian Nansen  
University of California, Davis  
Trevor Fowles  
University of California, Davis |
| GW18-142  | Cover Crop Systems for Almond Orchards: Exploring Benefits and Tradeoffs to Inform Management | $24,852 | Dr.Amelie Gaudin  
University of California, Davis  
Cynthia Creze  
University of California, Davis |
| GW18-126  | Increasing the sustainability of dairy cattle by providing genetic tools to reduce lameness, improving welfare and production | $23,623 | Dr.Anita Oberbauer  
University of California, Davis  
Ellen Lai  
University of California, Davis |
| GW18-062  | Development of New Selection Tools and Crop Varieties for Sustainable Agriculture | $24,443 | Paul Gepts  
University of California - Davis  
Travis Parker  
University of California - Davis |
| GW18-020  | New Ranchers, New Needs: Why are first-generational ranchers deciding against traditional climate adaptation strategies? | $24,982 | Leslie Roche  
UC Davis  
Katherine Munden-Dixon  
University of California - Davis |
| GW17-032  | Management of Fusarium Wilt of Strawberry through Crop Rotation | $24,999 | Dr.Thomas Gordon  
UC Davis Dept. Plant Pathology  
Peter Henry  
University of California at Davis |
| GW16-044  | A Collaborative Approach to Integrated Pest Management of Tadpole Shrimp in California Rice Fields. | $24,928 | Larry Godfrey  
University of California, Davis  
Joanna Bloese  
University of California, Davis |
| GW13-011  | Compost-Induced Disease Suppressive Soils for Control of Verticillium Wilt of Strawberry | $24,992 | Tom Gordon  
UC Davis  
Margaret Lloyd  
UC Davis |
| GW13-018  | Best management practices that promote sustainable crop pollination: the role of crop rotations and tillage depth | $24,954 | Neal Williams  
University of California, Davis  
Katharina Ullmann  
University of California, Davis |
| GW12-024  | Ecosystem Services in Hedgerow Restorations: Pollination Function and Nesting Habitat | $17,882 | Dr.Claire Kremen  
University of California, Berkeley  
Hillary Sardinias  
UC Berkeley |
| GW11-001  | Pastured Poultry/Crop Systems and Their Effect on Food Safety, Farm Economy, and Soil Quality | $24,807 | Dr.Kathleen Hilimire  
University of California, Santa Cruz  
Stephen R. Gliessman  
University of California |
| GW11-012  | Facilitating Integrated Weed Management in California Rice: Predicting E. spp. and C. difformis emergence across heterogeneous growing environments | $17,120 | Dr.Chris van Kessel  
University of California, Davis  
Dr.Mark Lundy  
University of California Cooperative Extension |
| GW10-010  | Irrigation Alternatives for Sustainable Water Use of Processing Tomatoes | $25,000 | Louise Jackson  
UC Davis  
Felipe Barrios Masias  
Board of Regents, NSHE, obo University of Nevada, Reno |
| GW09-018  | Promoting Native Bumblebees in Agricultural systems for conservation and ecosystem service | $20,074 | Dr.Claire Kremen  
University of California, Berkeley  
Dr.Alexandra Harmon-Threatt  
University of Illinois, Urbana-Champaign |
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| GW08-015  | Screening for non-host rotation crops of Colletotrichum acutatum for strawberry nurseries in California | $19,535      | W. Douglas Gubler  
University of California, Davis  
Joseph Jertberg  
UC Davis Plant Pathology Department |
| GW08-018  | Solarization and steam heat combined to control weeds in strawberry            | $19,974      | Steve Fennimore  
University of California, Davis  
Celeste Gilbert  
University of California, Davis |
| GW07-006  | Risk, Rate, and Impact of Medusahead Invasion of California Savannas           | $19,971      | Dr. Emilio Laca  
UC Davis  
Corey Cherr  
University of California, Davis |
| GW07-012  | Managing Soil Food Webs for Enriched and Suppressive Soils: Effects of Cover Crop Diversity and Quality | $19,235      | Tianna Dupont  
University of California at Davis |
| GW07-003  | Sustainable Landscapes: Investigating the Landscape Scale Effects of Riparian Habitat on Natural Pest Control | $17,950      | Suzanne Langridge  
University of California |
| GW06-004  | Linking C and N Cycling to Microbial Community Function in Cover Crop Systems | $9,995       | Angela Yin Yee Kong  
University of California, Davis |
| GW06-007  | Pest Control Services from Natural Habitat                                   | $9,650       | Rebecca Chaplin  
University of California, Berkeley |
| GW06-016  | Investigating the Effect of Hedgerows to Enhance Natural Biological Control   | $10,000      | Tara Pisani Gareau  
University of California, Santa Cruz |
| GW06-017  | Understanding N Fixation by Legume Cover Crops in Organic Vegetable Systems   | $10,000      | Carol Shennan  
University of California, Santa Cruz  
Katie Monsen  
University of California Santa Cruz |
| GW06-029  | Sheep Grazing as a Tool for Vernal Pool Stewardship                           | $8,813       | J. Hall Cushman  
Sonoma State University  
Joan Schwan  
Sonoma State University |
| GW06-030  | Developing a Management Plan for Reducing Thrips-induced Damage on Timothy Hay | $10,000      | Larry Godfrey  
University of California, Davis  
Daniel Marcum  
University of California  
Domic Reisig  
University of California, Davis |

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| OW20-360  | Solarization and Biosolarization: Harnessing the Sun and Organic Matter to Control Weeds | $49,956      | Martin Guerena  
National Center for Appropriate Technology |
| OW19-351  | A Collaborative Beneficial Insect and Pheromone Mating Disruption Demonstration Project | $50,000      | Dr. Stephanie Bolton  
Lodi Winegrape Commission |
| OW19-339  | Collaboration to demonstrate the potential use and value of electronic identification and DNA testing in the sheep industry | $50,000      | Julie Finzel  
The Regents of the University of California, Agriculture and Natural Resources  
Dr. Alison Van Eenennaam  
UCANR |
Total funding from the USDA SARE program to California
$12,845,294