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 $389 million to more than 8,519 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, granteeproduced information products and other educational materials.

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

California

Project Highlight: Potter Valley Tribe’s Native Mushroom Cultivation from Waste Byproduct Substrate for Food Sovereignty

The Potter Valley Tribe in Ft. Bragg, California, began a small operation prior to their SARE project growing various mushrooms with the objectives of food sovereignty, sustainable agriculture, income, and education. Food sovereignty for Native Americans acts as a resurgence of culture, bolstering health, economic development, and native nationhood. The Tribe notes that mushrooms have long been an important feature in Northern Californian diets but are rarely cultivated on Tribal lands.

This Western SARE project experimented with growing on spent coffee grounds, hardwood sawdust from sawmills, and other less frequently utilized local ‘waste’ byproducts such as hemp production. The Tribe aimed to develop their own methodology for production rather than purchasing spawn from other growers. This would increase food sovereignty and diversify the Tribe’s revenue.

Their outreach and education brought in over 40 new participants in the project, including elders and youth, representing eight different tribes. They came together to continue educating tribal youth in mushroom cultivation, cooking, and gathering. The Potter Valley Tribe also created five instructional videos and Mushroom Manual with step-by-step instructions, as well as developed a mushroom cultivation lab.

Three additional tribes will begin their own mushroom operations after becoming inspired by the success of the Potter Valley Tribe project.

For more information on this project, see sare.org/projects, and search for project number RGR20-010.

SARE in California

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

$15,979,321 in total funding
249 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: **249 grants**
- 67 Research and Education
- 46 Professional Development Program
- 80 Farmer/Rancher
- 37 Graduate Student
- 16 On Farm Research/Partnership
- 3 Research to Grass Roots

Total funding: **$15,979,321**
- $9,651,474 Research and Education
- $3,277,482 Professional Development Program
- $1,220,042 Farmer/Rancher
- $801,983 Graduate Student
- $858,926 On Farm Research/Partnership
- $169,413 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  
(530) 754-8547  
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 $15,979,321 grants to support 241 projects, including but not limited to, 59 research and/or education projects, 46 professional development projects and 80 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>
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</thead>
<tbody>
<tr>
<td>SW23-949</td>
<td>Sustainability outcomes of integrated sheep vineyards systems</td>
<td>$347,696</td>
<td>Dr. Amelie Gaudin, University of California, Davis Dr. Elisabeth Forrestel, UC Davis Viticulture and Enology Dr. Brittney K Goodrich, Cooperative Extension at the University of California, Davis Dr. Jonathan Lundgren, Ecdysis Foundation</td>
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<tr>
<td>SW22-931</td>
<td>Quantifying the Indirect Costs of Gray Wolf – Cattle Interactions</td>
<td>$296,080</td>
<td>Tina Saitone, University of California, Davis Dr. Kenneth Tate, University of California Davis</td>
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<td>SW22-932</td>
<td>Effects of colostrum storage and housing style on health and welfare of pre-weaning calves in conventional and organic dairy farms</td>
<td>$339,038</td>
<td>Dr. Jose Peralta, DVM PhD, College of Veterinary Medicine, Western University of Health Sciences Betsy Karle, University of California, Agriculture and Natural Resources Dr. Manel Lopez-Bejar, DVM PhD, College of Veterinary Medicine, Western University of Health Sciences Dr. Brian Oakley, PhD, College of Veterinary Medicine, Western University of Health Sciences Dr. James Reynolds, DVM, College of Veterinary Medicine, Western University of Health Sciences</td>
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<td>SW22-933</td>
<td>Integrated field and satellite based decision support system for climate-resilient and sustainable ranches and rangelands across California</td>
<td>$348,561</td>
<td>Yufang Jin, University of California, Davis Royce Larsen, University of California, ANR Dr. Leslie Roche, UC Davis Matthew Shapero, University of California Davis, ANR Steven Steven Ostoja, USDA, Agricultural Research Service</td>
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<td>SW20-912</td>
<td>Use of Almond Hull and Shell as Organic Matter Amendments in Advanced Orchard Management</td>
<td>$349,807</td>
<td>Dr. Sat Darshan Khalsa, University of California Davis Dr. Patrick Brown, University of California Davis Dr. Amelie Gaudin, University of California, Davis</td>
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<tr>
<td>Project Code</td>
<td>Title</td>
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<td>Principal Investigators</td>
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| 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  
Sara Tiffany  
Community Alliance with Family Farmers |
| 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 |
| SW10-013    | Control of Bacterial Wilt Disease of Ginger through an Integrated Pest Management Program | $289,245  | Dr. Susan Miyasaka  
University of Hawaii |
| SW10-801    | A San Joaquin Valley Quilt: Stitching Together a Region’s Prosperity, Nutrition and Sustainability | $14,935   | Daniel O’Connell  
Sequoia Riverlands Trust |
| SW10-803    | Sierra CRAFT | $30,653   | Bill Bennett  
High Sierra RC&D Council, Inc. |
| SW10-810    | Developing regional distribution networks to enhance farmer prosperity: Retail value chains | $24,906   | Dr. Gail Feenstra  
UC SAREP/ASI |
| SW08-060    | Triple-cropping Dairy Forage Production Systems Through Conservation Tillage in California’s San Joaquin Valley | $118,100  | Dr. Jeff Mitchell  
University of California, Davis |
| SW07-022    | Using Nectar Cover Cropping in Vineyards for Sustainable Pest Management | $178,300  | Mark Hoddle  
University of California  
Dr. Nic Irvin  
University of California |
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Funding</th>
<th>Principal Investigator(s)</th>
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</thead>
</table>
| SW06-033 | Toward a Broader Vision of Sustainability: Social Equity in Sustainable Agriculture | $10,000 | Ron Strochlic  
                          California Institute for Rural Studies |
| SW06-038 | Grazing Strategies to Control Medusahead in California               | $138,539| Dr. Emilio Laca  
                          UC Davis |
| SW06-091 | Alternaria Control Using Biocontrol Yeast in Organic Pistachio Production Systems | $110,286| Dr. Dan Parfitt  
                          UC Davis |
| SW05-078 | Smart Energy Management in Agriculture                               | $68,208 | Karyn Wolf Lynn  
                          Ecological Farming Association |
| SW04-058 | Fresh, From Our Family to Yours: Direct Marketing Education for Producers | $98,395 | Molly Johnson  
                          PlacerGROWN |
| SW04-121 | Farmland Tenure: A Tool Kit                                         | $103,130| Steve Schwartz  
                          California FarmLink |
| SW04-127 | Educational Workshops on Organic Dairy Management                    | $39,377 | Ken Andersen  
                          University of California Cooperative Extension |
| SW03-037 | Confirmation of Riparian Friendly Grazing Project Results and Development of Achievable, Site Specific Reference Conditions for Grazed Riparian Areas | $93,184 | Dr. Kenneth Tate  
                          University of California Davis |
| SW02-008 | Evaluation of the Effects of Vineyard Floor Management Practices on Soil Microbiology | $27,496 | Richard Smith  
                          University of California Cooperative Extension |
| SW02-020 | Management of Vine Mealybugs in California's San Joaquin Valley Through the Integration of Chemical and Biological Controls | $117,286| Kent Daane  
                          UC Berkeley  
                          Walter Bentley  
                          UC Statewide IPM Project |
| SW02-034 | Development and Dissemination of a Cowpea Cultivar for Cover Crops | $43,686 | Dr. Milt McGiffen, Jr.  
                          University of California |
| SW02-035 | Control of Western Tarnished Plant Bug (WTPB) Lygus hesperus Knight in Organic Strawberry Production Systems Using Trap Crops and Tractor-mounted Vacuums | $31,280 | Dr. Sean Swezey  
                          Center for Agroecology and Sustainable Food System |
| SW01-044 | Riparian Friendly Grazing Project                                   | $24,714 | Dr. Kenneth Tate  
                          University of California Davis |
| SW01-057 | Transition to Organic Vegetable Production by Large-Scale Conventional Farmers | $123,399| Louise Jackson  
                          UC Davis |
| SW99-008 | The Transition from Conventional to Low-Input or Organic Farming Systems: Soil Biology, Soil Chemistry, Soil Physics, Energy Utilization, Economics, and Risk | $153,962| Steven Temple  
                          University of California |
| SW99-009 | Rotations with Broccoli - A Sustainable Alternative to Soil Chemical Fumigants | $145,750| Krishna Subbarao  
                          University of California, Davis |
| SW98-044 | Cropping Systems for Intensive Desert Vegetable Production           | $130,672| Charles Sanchez  
                          University of Arizona  
                          Dr. Milt McGiffen, Jr.  
                          University of California |
Reducing Insecticide Use on Celery Through Low Input Pest Management Strategies

John T. Trumble
University of California, Department of Entomology

Decomposition and Nutrient Release Dynamics of Cover Crop Materials

Dr. Jeff Mitchell
University of California, Davis

Development and Implementation of Trap Cropping Strategies for Control of Hemipteran Pests in Pistachio Orchards

Kent Daane
Division of Insect Biology, UC Berkeley

The Transition from Conventional to Low-input or Organic Farming Systems: Soil Biology, Soil Chemistry, Soil Physics, Energy Utilization, Economics and Risk

Steven Temple
University of California

Tillage Practices for Improving Nitrogen Cycling and Soil Quality

Louise Jackson
UC Davis

Controlled Grazing on Foothill Rangelands

Roger Ingram
University of California Cooperative Extension

A Cover Crop System for Sustainable Grape Production in California - Beyond the Transition Phase

Frank G. Zalom
University of California

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

Harry H. Shorey
University of California

Managing Soil Biota in Low-Input and Organic Farming Systems to Enhance Soil Fertility

Kate Scow
University of California, Dept. of Land, Air, and Water Resources

The Transition from Conventional to Low-input or Organic Farming Systems: Soil Biology, Soil Chemistry, Soil Physics, Energy Utilization, Economics and Risk

Steven Temple
University of California

Western Region Community Supported Agriculture (CSA) Conference

Jered Lawson
CSA West

Sierra County Alternative Agriculture Project

Kim Joos
Sierra County Economic Council

Farming in the 21st Century: A Documentary Photography Project

Cynthia L. Vagnetti

Prune Refuges and Cover Crops to Facilitate Low-Input Production of California's Raisin, Table, and Wine Grapes

Frank G. Zalom
University of California

A Multidisciplinary Approach to Evaluate and Aid the Transition From Conventional to Low-Input Pest Management Systems in Stone Fruits

Kent Daane
Division of Insect Biology, UC Berkeley
### ASSISTING RESOURCE-POOR, SMALL-SCALE FARMERS WITH ADOPTION OF LOW-INPUT TECHNOLOGIES THROUGH A CLIENT PARTICIPATION PROGRAM OF COOPERATIVE RESEARCH AND EXTENSION AT THE RURAL DEVELOPMENT CENTER NEAR SALINAS, CALIFORNIA

- **Project #:** LW91-030
- **Project Title:** Assisting Resource-Poor, Small-Scale Farmers with Adoption of Low-Input Technologies through a Client Participation Program of Cooperative Research and Extension at the Rural Development Center Near Salinas, California
- **SARE Support:** $59,992
- **Project Leaders:** Paul Gersper
  - University of California

### CALIFORNIA SUSTAINABLE AGRICULTURE WORKING GROUP

- **Project #:** LWD91-001
- **Project Title:** California Sustainable Agriculture Working Group
- **SARE Support:** $6,500
- **Project Leaders:** Ronald E. Voss
  - University of California, Vegetable Research & Information Center

### APPLICATION OF LOW-VOLUME WATER SYSTEMS TO THE CULTURAL AND BIOLOGICAL CONTROL OF ROOT DISEASES

- **Project #:** LW89-013
- **Project Title:** Application of Low-Volume Water Systems to the Cultural and Biological Control of Root Diseases
- **SARE Support:** $325,160
- **Project Leaders:** Milton N. Schroth
  - University of California

### A COMPARISON OF CONVENTIONAL, LOW-INPUT AND ORGANIC FARMING SYSTEMS: THE TRANSITION PHASE AND LONG-TERM VIABILITY

- **Project #:** LW89-018
- **Project Title:** A Comparison of Conventional, Low-Input and Organic Farming Systems: The Transition Phase and Long-Term Viability
- **SARE Support:** $600,000
- **Project Leaders:** Steven Temple
  - University of California

### COVER CROP INFORMATION FOR RESEARCHERS AND FARMERS

- **Project #:** LW89-020
- **Project Title:** Cover Crop Information for Researchers and Farmers
- **SARE Support:** $90,000
- **Project Leaders:** Robert Bugg
  - University of California

### INFORMATION DELIVERY SYSTEMS FOR USE IN IMPLEMENTATION OF LISA (SARE) RESEARCH AND TECHNOLOGY

- **Project #:** LW89-021
- **Project Title:** Information Delivery Systems for Use in Implementation of Lisa (SARE) Research and Technology
- **SARE Support:** $182,000
- **Project Leaders:** Ronald E. Voss
  - University of California, Vegetable Research & Information Center

### COMPARATIVE STUDY OF ESTABLISHED ORGANIC AND CONVENTIONAL TOMATO PRODUCTION SYSTEMS IN CALIFORNIA

- **Project #:** LW88-003
- **Project Title:** Comparative Study of Established Organic and Conventional Tomato Production Systems in California
- **SARE Support:** $509,447
- **Project Leaders:** Carol Shennan
  - University of California, Santa Cruz

### 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>
| WRGR22-007      | Extending compost-induced disease suppressive soils to small-scale Latinx farmers | $82,713      | Aysha Peterson
  - Resource Conservation District of Monterey County |
| RGR20-006       | Building on Farmer Experience to Increase Cover Crops Adoption in Orchards and Vineyards | $74,594      | Dr.Sonja Brodt
  - UC SAREP
  - Lucas Patzek
  - Napa County Resource Conservation District |
| RGR20-010       | Potter Valley Tribe’s Native Mushroom Cultivation from Waste Byproduct Substrate for Food Sovereignty | $12,106      | Jade Frolic
  - Metamimicry
  - Salvador Rosales, Sr.
  - Potter Valley Tribe
  - Salvador Rosales, Jr.
  - Potter Valley Tribe
  - Gregg Young
  - Potter Valley Tribe |

### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

<table>
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<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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</thead>
</table>
| WPDP23-009      | Enhancing Farmer-to-Farmer Education for Farm Sustainability and Community Resilience | $99,957      | Jeneba Kilgore
  - Agroecology Commons |
| WPDP23-001      | Producing Online Courses with Farmers & Researchers so Ag Professionals Can Access Sustainable Viticulture Education On-Demand | $99,695      | Elizabeth Vukmanic
  - Vineyard Team |
WPDP23-010  "Getting Comfortable in the Weeds: How to Serve California Agriculture" - A Partnership with California FarmLink and CAMEO  $98,485  Poppy Davis  California FarmLink  Asia Hampton  California FarmLink  Stephanie Stevens  California FarmLink

WPDP23-013  A Workshop Series on Robotics, Automation, and Drone Technologies for Sustainable Agriculture  $98,942  Dr. Ali Moghimi  University of California, Davis


WPDP22-022  Advancing Knowledge of Soil Health Assessment and Management Through California’s North Coast Soil Hub  $78,167  Emilie Winfield  Marin Resource Conservation District  Keith Abeles  Sonoma Resource Conservation District  William Hart  Gold Ridge Resource Conservation District  Erica Lundquist  USDA-NRCS Ukiah Field Office  Sanjai Parikh  University of California Davis  Lucas Patzek  Napa County Resource Conservation District  Dr. Kerri Steenwerth  USDA/University of California Davis

WPDP22-023  Closing the Regenerative Agriculture Economy Loop on Small Farms: A Training program for Agricultural Professionals and Curriculum for Small Farmers  $99,807  David Blume  Whiskey Hill Farm/Blume Distillation  Tom Harvey  Whiskey Hill Farm  Ronnie Lipschutz  Sustainable Systems Research Foundation

WPDP22-003  Scaling Regenerative Agriculture in California through NRCS and RCD Conservation Planner Training  $99,917  Adria Arko  San Mateo Resource Conservation District  Jim Howard  USDA Natural Resources Conservation Service  Kevin Watt  TomKat Ranch Educational Foundation / Left Coast Grass-Fed

WPDP21-009  Building Capacity to Reduce Human-Wildlife Conflict  $79,037  Tracy Schohr  UC Cooperative Extension  Laura Snell  UC Cooperative Extension

WPDP21-022  Empowering Agricultural Professionals to Support Beneficial Birds and Discourage Pest Birds  $93,851  Jo Ann Baumgartner  Wild Farm Alliance  Shelly Connor  Wild Farm Alliance

WPDP21-005  Farming Through Wildfire Season: Preparation, Resilience & Recovery  $74,108  Evan Wiig  Community Alliance with Family Farmers  Natalia Pinzón Jiménez  Rhizobia, LLC

PDP20-009  Filling the Gap - Exposing Agricultural Professionals to New and Innovative Small-Farm Tools  $74,982  Rex Dufour  National Center for Appropriate Technology (NCAT)

WPDP19-25  Growing Successful Agricultural Businesses  $74,984  Carolina Martinez  California Association for Micro Enterprise Opportunity  Carla Holland  San Diego Small Business Development Center
<table>
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<tr>
<th>Grant No.</th>
<th>Description</th>
<th>Amount</th>
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</table>
| 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 |
| 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 |
| EW13-022    | Development and training of a national spray application work group           | $57,862 | Gwen-Alyn Hoheisel  
Washington State University |
| EW13-025    | Building Tools and Technical Capacity to Improve Irrigation and Nutrient Management on California’s Central Coast | $39,564 | Pamela Krone-Davis  
Monterey Bay Sanctuary Foundation |
| EW13-027    | Application of Lessons Learned from NRCS Rangeland CEAP: A site-specific, Low Cost System for Medusahead Control | $68,469 | Jeremy James  
University of California |
| EW12-017    | Training Manuals and Professional Development Activities for Teaching Organic Farming and Marketing | $98,782 | Dr. Daniel Press  
University of California Santa Cruz  
Ann Lindsey  
University of California Santa Cruz |
| EW12-033    | FARMING STRATEGIES FOR COPING WITH CLIMATE CHANGE                              | $19,000 | Renata Brillinger  
California Climate & Agriculture Network |
| EW11-029    | Cal Poly Professional Development Compost Training and Establishment of the Cal Poly Compost Project | $59,558 | Hunter Francis  
CAFES Center for Sustainability |
| EW10-004    | Capacity Building Workshops: Developing Regional Agritourism Networks for Agricultural Sustainability and Education | $57,582 | Penny Leff  
UC Sustainable Agriculture Research and Education Program (UC SAREP) |
<table>
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<tr>
<th>Project Code</th>
<th>Title</th>
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<td>EW10-005</td>
<td>Understanding the Climate Benefits of Sustainable Agriculture</td>
<td>$11,905</td>
<td>Jeanne Merrill</td>
<td>CA Climate &amp; Agriculture Network (CalCAN)</td>
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<td>Renata Brillinger</td>
<td>California Climate &amp; Agriculture Network</td>
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<td>EW09-004</td>
<td>Ecology and Management of Grazing, An Online Course</td>
<td>$84,826</td>
<td>Melvin George</td>
<td>University of California</td>
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<td>EW04-012</td>
<td>Adding Value to Grassfed Beef Niche Marketing Efforts</td>
<td>$60,000</td>
<td>Cynthia Daley</td>
<td>California State University, Chico</td>
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<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</td>
<td>National Center for Appropriate Technology (NCAT)</td>
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<td>EW03-007</td>
<td>Extending Hedgerow Systems in California Agriculture</td>
<td>$60,000</td>
<td>Mark Cady</td>
<td>Community Alliance with Family Farmers</td>
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<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</td>
<td>Center for Agroecology and Sustainable Food System</td>
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<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</td>
<td>CA Association Resource Conservation Districts</td>
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<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</td>
<td>California FarmLink</td>
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<td>EW00-012</td>
<td>Sharing Resources to Help Connect Farmers to Direct Marketing Niches</td>
<td>$96,578</td>
<td>David Chaney</td>
<td>SAREP</td>
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<td>EW98-001</td>
<td>Broadening the Audience: Providing Sustainable Agriculture Education for Pest Control Advisers and Agricultural Consultants in California and Oregon</td>
<td>$80,100</td>
<td>David Chaney</td>
<td>SAREP</td>
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<td>EW97-002</td>
<td>Sustainable Range - Pasture Livestock - Dairy Production Training For Resource Professionals</td>
<td>$29,000</td>
<td>Roger Ingram</td>
<td>University of California Cooperative Extension</td>
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<tr>
<td>EW96-005</td>
<td>Multidisciplinary On-Site Training in Sustainable Agriculture Education</td>
<td>$97,432</td>
<td>Steven Temple</td>
<td>University of California</td>
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<tr>
<td>EW96-009</td>
<td>Sustainable Agriculture Curriculum Development Project for Extension Professionals in California's San Joaquin Valley and Central Coast Regions</td>
<td>$98,773</td>
<td>David Chaney</td>
<td>SAREP</td>
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<td>EW96-010</td>
<td>Sustainable Arid Land Grazing Systems: Training for Managers of Public Land and Reserves</td>
<td>$29,000</td>
<td>William Olkowski</td>
<td>Bio-Integral Resource Center (South)</td>
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<td>EW96-011</td>
<td>Professional Training in Biologically Integrated Orchard Systems</td>
<td>$155,940</td>
<td>Jill Klein</td>
<td>Com. Alliance w/ Family Farmers/BIOS Training Prop. for SARE</td>
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<td>EW95-015</td>
<td>A Consortium-Based Sustainable Agriculture Training Program (SATP) Curriculum Plan</td>
<td>$20,000</td>
<td>Dr. Sean Swezey</td>
<td>Center for Agroecology and Sustainable Food System</td>
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- **Notes:**
  - project codes and titles reflect the focus and goals of each project.
  - budgets denote the financial allocation for each initiative.
  - PIs (Principal Investigators) are responsible for leading the projects.
  - Institutions/Networks indicate the organizations involved in each project.
### FARMER/RANCHER GRANTS

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<td>FW23-417</td>
<td>Farming while green and Brown: A case study of beginning farmers of color in California</td>
<td>$24,999</td>
<td>Dilip Sharma, Three Feathers Farm</td>
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<td>FW23-418</td>
<td>Research and Sustainable Integrated Pest Management Implementation on an Organic Central Coast Cut Flower Farm to Reduce Losses From Key Pests.</td>
<td>$24,897</td>
<td>Kelly Brown, Do Right Flower Farm</td>
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<td>FW23-419</td>
<td>Finding Goldilocks: a survey of the factors limiting natural oak recruitment.</td>
<td>$20,005</td>
<td>Alex Palmerlee, Far View Ranch Inc.</td>
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<td>FW23-421</td>
<td>Testing virtual fence systems for fire fuel management</td>
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<td>FW23-423</td>
<td>Examining the environmental, social, and economics of utilizing livestock and summer cover crops in annual cropping systems</td>
<td>$24,753</td>
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<td>Assessing the economic and social viability of transitioning to Winter CSA production as an adaptation strategy to climate change - Seasons 2 and 3</td>
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<td>FW23-435</td>
<td>Evaluating feasibility of solarization for organic small-scale farmers in coastal California</td>
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<td>FW22-388</td>
<td>Implementing Whole Farm Cycling of Nutrients and Carbon with Orchard Waste in Walnut &amp; Cherry Production in Central Valley CA</td>
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<td>Franz Eilers, John Eilers Farms</td>
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<td>FW22-395</td>
<td>Analyzing Crop Profitability And Financial Metrics On Flower Farms</td>
<td>$27,462</td>
<td>Helen Larkin, Lennie Larkin Consulting</td>
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<td>FW22-401</td>
<td>Rehydrating Toro Creek with Sustainable Agriculture: Traceland Farm Demonstration Project</td>
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<td>Jesse Trace, Traceland</td>
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<td>FW22-402</td>
<td>Testing new perennial intermediate wheatgrass for sustainable agriculture in California</td>
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<td>Improving cost-effective testing and actionable understanding of holistic soil and plant nutrition for agroecological farmers</td>
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<td>Benjamin Fahrer, Deep Medicine Circle</td>
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<td>Evaluating Different Value-added Grains for Lassen County</td>
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<td>Thomas Traphagan, Sunset Ranch</td>
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<td>FW21-377</td>
<td>The effects of biochar soil amendments on industrial hemp yields</td>
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<td>Increasing food yields from urban and peri-urban farms through deployment of small-scale agricultural technologies</td>
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<td>David Blume</td>
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<td>FW21-385</td>
<td>Increased Profitability for Small Farms in Silicon Valley Through Year-Round Production of Baby Greens</td>
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<td>Sam Thorp</td>
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<td>FW21-386</td>
<td>Improving Soil Health with biochar and compost application in North Coast Vineyards</td>
<td>$24,583</td>
<td>Dr.Michael Sipiora</td>
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<td>FW21-387</td>
<td>Using Flavonoid and Polyphenol Testing of Honey to Improve Consumer Education</td>
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<td>Alisha Taff</td>
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<td>FW20-364</td>
<td>Adding value to grassfed cattle operations by restoring rangeland health with targeted grazing on California's Central Coast</td>
<td>$19,673</td>
<td>Elizabth Reikowski</td>
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<td>Mitigating on-farm toxins using fungi: a case study on two farms.</td>
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<td>Christopher Tchudi</td>
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<td>Grazing of annual brassicas to extend grazing season in summer-dry pastures in Northern California</td>
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<td>Drill-seeding blue oak acorns: a new method for restoration in California’s rangelands.</td>
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<td>FW18-027</td>
<td>Farm-to-Glass: Performance Testing Different Varieties of Malting Barley</td>
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<td>Bob Adams</td>
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<td>FW18-042</td>
<td>Converting tree nut byproducts into gourmet mushrooms and mulches</td>
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<td>Charlie Chen</td>
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<td>FW18-044</td>
<td>Examining the practical on-ranch application and benefits of low-stress herding and stockmanship techniques</td>
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<td>FW17-054</td>
<td>Honeybee Regeneration Project</td>
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<td>Aidan Wing</td>
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<td>FW16-033</td>
<td>Sorrel Pesto: The Positive Implications of Sorrel as a Substitute for Basil in Pesto Production</td>
<td>$19,710</td>
<td>David Ceaser</td>
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<td>FW16-034</td>
<td>Sustainable Irrigation Demonstration Project: Demonstrating Irrigation Efficiency in California Winegrapes through Advanced Practices and Technologies</td>
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<td>Jason Melvin</td>
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<td>Improving Water Use Efficiency in Conventional and Organic Almonds through Data Driven Irrigation</td>
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<td>FW15-029</td>
<td>High Desert High Tunnels</td>
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<td>Laurie Wayne</td>
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<td>FW14-024</td>
<td>Vines And Ovines: Benefits of Target Grazing to Sheep and Vineyard Industries</td>
<td>$14,991</td>
<td>Jaime Irwin</td>
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</table>
Use of Wood Ash as Soil Amendment on Annual Rangelands $28,995

Mel Thompson
Sierra Farms
Glenn Nader
University of California Cooperative Extension

Woolgathering on the Farm $7,165

Sophie Sheppard
Woolgathering

Creating and Marketing Value-Added Orchard Products $15,000

Nicholas Salle
Salle Orchards
Billie Jean Salle
Salle Orchards

Sierra Nevada Small Farm Progress Days $27,370

Dan Macon

Restoring Plant Diversity and Soil Health in Napa and Sonoma Vineyards: scaling up an agroecologically based pest management strategy $30,000

Houston Wilson
UC Berkeley -- ESPM
Miguel Altieri
University of California, Berkeley

Effects of Aleutian Geese on Humboldt County Pastures $28,540

Alan Bower
University of California Davis

Vines and Ovines: Using Trained Sheep for Vineyard Floor Grazing $29,193

Morgan Doran
University of California

Placer Ag Futures Project $25,670

Bill Bennett
High Sierra RC&D Council, Inc.
Kay Joy Barge
High Sierra Resource

Farm Direct Distribution $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 $14,864

Dr. Sean Swezey
Center for Agroecology and Sustainable Food System

Management Challenges for Dairy Goat Sustainability $15,360

Deborah Giraud
University of California

Using Molasses as an Attractant for Concentrating Grazing on Medusahead $3,479

Morgan Doran
University of California

Conservation Tillage Forage Production in California's San Joaquin Valley $9,400

Dr. Jeff Mitchell
University of California, Davis

Goats in the Chaparral $19,990

Bill Burrows

Sustaining an Agricultural Region: Capay Valley Grown $14,980

Judith Redmond
Full Belly Farm

Evaluation of abalone effluent for reclamation $7,685

Douglas Bush
The Cultured Abalone

A pilot project for zero discharge farming $3,250

Alan Haight
Riverhill Farm
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<td>Marketing Locally Grown</td>
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<td>Mary Ann Vasconcellos</td>
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<td>FW03-007</td>
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<td>Nick Frey Sonoma County Grape Growers Assn.</td>
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<td>Unconventional Conversion: Cultivating Sustainability in Citrus and Avocado Orchards</td>
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<td>Increasing Adoption of Sustainable Practices in Central Coast Vineyards</td>
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<td>Kris Beal Vineyard Team</td>
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<td>FW03-013</td>
<td>Can Llamas Be an Effective Tool for Predator Control?</td>
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<td>Pastured Pork: Economics of Intensive Grazing in the Western United States</td>
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<td>John Currey CR Pigs</td>
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<td>John Lagier Lagier Ranches</td>
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<td>Marin Organics Cooperative Marketing Program</td>
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<td>Warren Weber Star Route Farms</td>
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<td>FW03-318</td>
<td>Conservation of Groundwater Resources in the Mojave High Desert Region through Producer Education of Irrigation Management</td>
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<td>Grant Poole University of California Cooperative Extension</td>
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<td>Establishing a Market for Sustainable Agricultural Products in Sierra Nevada Foothill Counties</td>
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<td>Ed Rich</td>
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<td>Symphylans: A growing menace. A look into its detection, damage, and control in a small-scale Biointensive Community Supported Agriculture Project.</td>
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<td>Water Use of Wine Grapes in the Granitic Soils of the Fair Play Wine Region in the Sierra Foothills</td>
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<td>Brian Fitzpatrick</td>
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Moving From Selling Through Intermediaries to Direct Marketing Using Cause Related Marketing Strategy

Test Marketing Pasture Produced Artisan Cheeses

Good Humus Produce Farm to School Project

Converting Dairy Waste into More Usable Products through Vermiculture

Central Coast Vineyard Team Positive Points System Evaluation and Education Program

Soil Solarization as a Methyl Bromide Alternative in Strawberries

Solarization for Small Farm "Specialty Crops"

Goats as a Source of Weed and Brush Control in Forest Plantations

Feasibility of Soil Solarization for Strawberry Production on the Central Coast of California

Individual Confinement Rearing vs. Pasture-Based Group Rearing of Dairy Calves

Vermicomposting Demonstration Project

Pheromone Foggers for Pesticide Replacement

Farming, Agriculture, and Resource Management for Sustainability (F.A.R.M.S.)

Monitoring Program for Biologically Integrated Orchard Systems (BIOS) in Walnuts

Optimizing crop rotations for soil health and plant disease management in California processing tomatoes

Integrating cover crops and organic matter amendments for whole orchard regenerative management

GW23-247

GW23-249

$29,999

$29,811

Dr. Cassandra Swett
UC Davis
Myles Collinson
UC Davis

Dr. Sat Darshan Khalsa
University of California Davis
Dr. Patrick Brown
University of California Davis
Sydney Cho
UC Davis

$4,447

$7,910

$5,300

$4,300

$10,000

$4,000

$4,000

$4,000

$5,000

$5,000

$3,248

$5,000

$5,000

$5,000

$5,000

$5,000

Maria Ines Catalan
Tim Pedrozo
Annie Main
Charmaine Harris
Dana Merrill
Touxia Thauxaochay
Mike Smith
Allen Albaugh
Larry Galper
Jim Wackerman
Dave Renner
Diamond Point Dairy
Willis Thompson
Craig McNamara
Sydney Cho
Community Alliance with Family Farmers Foundation
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<td>Assessing compost application and grazing management in California rangelands: Impacts on soil microbial ecology and drought resilience</td>
<td>$29,608</td>
<td>Dr. Leslie Roche&lt;br&gt;UC Davis&lt;br&gt;AVA-ROSE BEECH&lt;br&gt;UC Davis</td>
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<td>GW21-224</td>
<td>Hopes of dry land: Managing soils to improve fruit yield and quality in dry farm tomatoes</td>
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<td>Dr. Timothy Bowles&lt;br&gt;University of California Berkeley&lt;br&gt;Yvonne Socolar&lt;br&gt;UC Berkeley</td>
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<td>GW21-227</td>
<td>What is a Healthy Soil for Wine Grape Production? Assessing Soil Health Across California Vineyards</td>
<td>$30,000</td>
<td>Dr. Cristina Lazcano&lt;br&gt;University of California Davis&lt;br&gt;Dr. Mallika Nocco&lt;br&gt;University of California, Davis&lt;br&gt;Dr. Kerri Steenwerth&lt;br&gt;USDA/University of California Davis&lt;br&gt;Noelymar Gonzalez-Maldonado&lt;br&gt;University of California Davis</td>
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<td>Grazing for change: Connecting soil health and ranch viability using adaptive multi-paddock grazing</td>
<td>$24,867</td>
<td>Dr. Timothy Bowles&lt;br&gt;University of California Berkeley&lt;br&gt;Lynn Huntsinger, PhD&lt;br&gt;University of California, Berkeley&lt;br&gt;Paige Stanley&lt;br&gt;University of California, Berkeley&lt;br&gt;Paige Stanley&lt;br&gt;University of California, Berkeley</td>
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<td>GW20-207</td>
<td>Cover crops to enhance control of leaffooted bug, Leptoglossus zonatus, in California tree nut crops</td>
<td>$24,796</td>
<td>Dr. Houston Wilson&lt;br&gt;University of California, Riverside&lt;br&gt;Dr. Kent Daane&lt;br&gt;University of California, Berkeley&lt;br&gt;Rob Straser&lt;br&gt;University of California, Riverside</td>
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<td>Network analysis of organic seed systems: a systems-level analysis for resilience</td>
<td>$24,997</td>
<td>Mark Lubell&lt;br&gt;University of California, Davis&lt;br&gt;Liza Wood&lt;br&gt;University of California, Davis&lt;br&gt;Jared Zystro&lt;br&gt;Organic Seed Alliance&lt;br&gt;Liza Wood&lt;br&gt;University of California, Davis</td>
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<td>GW19-191</td>
<td>Systems approaches to co-manage disease, water and soil health for sustainable processing tomato production in the Western region</td>
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<td>Dr. Cassandra Swett&lt;br&gt;UC Davis&lt;br&gt;Justine Beaulieu&lt;br&gt;UC Davis</td>
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<td>GW19-193</td>
<td>Conventional vs. regenerative almond orchards, with regards to invertebrate biomass and biodiversity, soil health, food safety, and profitability</td>
<td>$25,000</td>
<td>Dr. Jonathan Lundgren, PhD&lt;br&gt;Ecdysis Foundation&lt;br&gt;Dr. Patty Okawa&lt;br&gt;California State University East Bay&lt;br&gt;Dr. Erica Wildy&lt;br&gt;California State University East Bay&lt;br&gt;Thomas Fenster&lt;br&gt;University of California, Davis</td>
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<td>GW19-194</td>
<td>Sustainable orchard intensification: Cover crops and management intensity</td>
<td>$24,944</td>
<td>Bradley Hanson&lt;br&gt;University of California, Davis&lt;br&gt;Steven Haring&lt;br&gt;University of California, Davis</td>
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<td>GW19-200</td>
<td>Natural pest control in a working agricultural landscape: Investigating the impact of rodent control on beneficial hawks and owls</td>
<td>$24,997</td>
<td>Dr. Joshua Hull&lt;br&gt;UC Davis&lt;br&gt;Dr. Sara Kross&lt;br&gt;Columbia University&lt;br&gt;Breanna Martinico&lt;br&gt;UC Davis</td>
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<td>GW18-062</td>
<td>Development of New Selection Tools and Crop Varieties for Sustainable Agriculture</td>
<td>$24,443</td>
<td>Paul Gepts&lt;br&gt;University of California - Davis&lt;br&gt;Travis Parker&lt;br&gt;University of California - Davis</td>
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GW18-020 New Ranchers, New Needs: Why are first-generational ranchers deciding against traditional climate adaptation strategies? $24,982 Dr. Leslie Roche UC Davis Katherine Munden-Dixon 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 William Horwath 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

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 Sardinas 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 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

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
**GW07-003**  Sustainable Landscapes: Investigating the Landscape Scale Effects of Riparian Habitat on Natural Pest Control  
$17,950  
Suzanne Langridge  
University of California

**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

**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

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**ON FARM RESEARCH/PARTNERSHIP GRANTS**

**Project #**  | **Project Title**  | **SARE Support** | **Project Leaders**
---|---|---|---
**OW23-376**  | INTEGRATING COVER CROPS AND SHEEP GRAZING IN ALMOND ORCHARDS  | $75,000  | Julie Finzel  
The Regents of the University of California, Agriculture and Natural Resources

**OW23-384**  | Adaptation of Warm Season Perennial Grasses for Forage Quality, and Resilience High Temperatures in California Irrigated Pastures  | $74,975  | Theresa Becchetti  
University of California Ag and Natural Resources

**OW22-373**  | Targeted Grazing for Fuel Load Reduction  | $74,811  | Dr. Stephanie Larson  
University of California Cooperative Extension

**OW20-360**  | Solarization and Biosolarization: Harnessing the Sun and Organic Matter to Control Weeds  | $49,956  | Martin Guerena  
National Center for Appropriate Technology

**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

**OW19-345**  | Effects of Occultation on Weed Pressure, Labor Costs, Product Quality, and Yield in Sustainable Vegetable Production in Northern California  | $49,994  | Dave Runsten  
Community Alliance with Family Farmers  
Kali Feiereisel  
Community Alliance With Family Farmers
OW19-349  Amador Rangeland Soil Health Research and Education Project  $49,139  Amanda Watson  Amador Resource Conservation District

OW19-351  A Collaborative Beneficial Insect and Pheromone Mating Disruption Demonstration Project  $50,000  Dr.Stephanie Bolton  Lodi Winegrape Commission

OW18-013  Early Weaning of Beef Calves: A Drought Management Strategy on Annual Rangelands  $41,184  Dan Macon  University of California Cooperative Extension

OW17-043  Beginning-farmer Research and Instruction on Growing in High Tunnels  $49,999  nathan harkleroad  ALBA

OW17-054  Advancing sustainable nitrogen management in strawberries through participatory research and education  $49,937  Sacha Lozano  Resource Conservation District of Santa Cruz County

OW16-013  Irrigated Pastureland Enhancement Program  $49,774  Dr.Leslie Roche  UC Davis  Dan Macon  UC Cooperative Extension

OW14-032  Selecting and Managing Vineyard Cover Crops to Reduce Consumption of Net Basin Water  $49,467  Fritz Westover  Vineyard Team  Kris Beal  Vineyard Team

OW13-062  Empowering Socially-Disadvantaged Farmers to Investigate Nitrogen Management in High-Value Vegetable Crops  $45,527  nathan harkleroad  ALBA

OW12-008  Water Management in Sonoma County Grape Production  $49,200  Karen Thomas  Sonoma County Winegrape Commission

OW11-318  Pomo Tribal Supported Agriculture Program  $49,963  Rachel Whetstone  Hopland Band of Pomo Indians  Terri McCartney  Coordinator

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For further information on projects, contact Western SARE at (406) 994-4789 or wsare@montana.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA’s National Institute of Food and Agriculture (NIFA).