California has been awarded $11,560,492 grants to support 190 projects, including but not limited to, 52 research and/or education projects, 34 professional development projects and 59 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>
<tbody>
<tr>
<td>SW19-902</td>
<td>Potential Economic and Nitrogen Benefits of Fababean as a Double Purpose Cash and Cover Crop in Northern California</td>
<td>$348,772</td>
<td>Dr. Hossein Zakeri, California State University- Chico ; Dr. Maria Giovanni, California State University - Chico ; Dr. Eric Houk, California State University - Chico ; Dr. Jinguo Hu, USDA- ARS ; Dr. Junda Jiang, Lundberg Family Farm ; Jessica Lundberg, Lundberg Family Farm ; Dr. Arash Negahban, California State University - Chico ; Dr. Margaret Smither-Kopperl, USDA-NRCS Lockeford Plant Materials Center</td>
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<tr>
<td>SW19-908</td>
<td>Quantifying the effects of rangeland conversion on ecosystem functions: Linking land use systems to enhance farm profitability</td>
<td>$349,327</td>
<td>Fadzayi Elizabeth Mashiri, University of California</td>
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<tr>
<td>SW18-063</td>
<td>Quantifying the frequency and effects of secondary exposure to rodenticides in barn owls</td>
<td>$249,546</td>
<td>Dr. Sara Kross, California State University</td>
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<tr>
<td>SW17-060</td>
<td>UAS (Unmanned Aerial System)-guided releases of predatory mites for management of spider mites in strawberry</td>
<td>$249,878</td>
<td>Dr. Elvira de Lange, University of California Davis</td>
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<tr>
<td>SW14-011</td>
<td>Farming for Native Bees</td>
<td>$247,649.48</td>
<td>Dr. Gordon Frankie, UC Berkeley</td>
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<tr>
<td>SW12-110</td>
<td>The interaction of rangeland management and environmental conditions in regulating forage quality &amp; quantity and other ecosystem services</td>
<td>$265,414</td>
<td>Valerie Eviner, UC Davis</td>
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<td>SW11-116</td>
<td>Integrated rotation systems for soil borne disease, weed and fertility management in strawberry/vegetable production</td>
<td>$218,424</td>
<td>Joji Muramoto, University of California, Santa Cruz</td>
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<tr>
<td>SW10-013</td>
<td>Control of Bacterial Wilt Disease of</td>
<td>$289,245</td>
<td>Dr. Susan Miyasaka</td>
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</table>
Ginger through an Integrated Pest Management Program

**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

**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
Division of Insect Biology, UC Berkeley
Walter Bentley
UC Statewide IPM Project
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<tr>
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<td>SW02-034</td>
<td>Development and Dissemination of a Cowpea Cultivar for Cover Crops</td>
<td>$43,686</td>
<td>Dr. Milt McGiffen, Jr.</td>
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<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>
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<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>
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<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>
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<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>
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<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>
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<td>SW98-044</td>
<td>Cropping Systems for Intensive Desert Vegetable Production</td>
<td>$130,672</td>
<td>Charles Sanchez</td>
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<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>
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<td>SW97-045</td>
<td>Decomposition and Nutrient Release Dynamics of Cover Crop Materials</td>
<td>$41,064</td>
<td>Dr. Jeff Mitchell</td>
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<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>
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<td>SW96-016</td>
<td>Tillage Practices for Improving Nitrogen Cycling and Soil Quality</td>
<td>$102,000</td>
<td>Louise Jackson</td>
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<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>
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<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>
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<td>Steven Temple</td>
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<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>
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<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</td>
<td>$120,770</td>
<td>Harry H. Shorey</td>
<td>University of California</td>
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<td>SW95-024</td>
<td>Premating Pheromone Communication Between Male and Female Moths</td>
<td>$175,000</td>
<td>Kate Scow</td>
<td>University of California, Dept. of Land, Air, and Water Resources</td>
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<td>SW94-017</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>
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<td>SW94-022</td>
<td>Western Region Community Supported Agriculture (CSA) Conference</td>
<td>$23,991</td>
<td>Jered Lawson</td>
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<td>SW94-037</td>
<td>Sierra County Alternative Agriculture Project</td>
<td>$12,000</td>
<td>Kim Joos</td>
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<td>SW94-054</td>
<td>Farming in the 21st Century: A Documentary Photography Project</td>
<td>$27,000</td>
<td>Cynthia L. Vagnetti</td>
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<td>LW91-026</td>
<td>Prune Refuges and Cover Crops to Facilitate Low-Input Production of California's Raisin, Table, and Wine Grapes</td>
<td>$120,402</td>
<td>Frank G. Zalom</td>
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<td>LW91-028</td>
<td>A Multidisciplinary Approach to Evaluate and Aid the Transition From Conventional to Low-Input Pest Management Systems in Stone Fruits</td>
<td>$299,814</td>
<td>Kent Daane</td>
<td>Division of Insect Biology, UC Berkeley</td>
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<td>LW91-030</td>
<td>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</td>
<td>$59,992</td>
<td>Paul Gersper</td>
<td>University of California</td>
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<td>LWD91-001</td>
<td>California Sustainable Agriculture Working Group</td>
<td>$6,500</td>
<td>Ronald E. Voss</td>
<td>University of California, Vegetable Research &amp; Information Center</td>
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<td>LW89-021</td>
<td>Information Delivery Systems for Use in Implementation of Lisa (SARE) Research and Technology</td>
<td>$182,000</td>
<td>Ronald E. Voss</td>
<td>University of California, Vegetable Research &amp; Information Center</td>
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<td>LW89-013</td>
<td>Application of Low-Volume Water Systems to the Cultural and Biological Control of Root Diseases</td>
<td>$325,160</td>
<td>Milton N. Schroth</td>
<td>University of California</td>
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<td>LW89-018</td>
<td>A Comparison of Conventional, Low-Input and Organic Farming Systems: The Transition Phase and Long-Term Viability</td>
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<td>Steven Temple</td>
<td>University of California</td>
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<td>LW89-020</td>
<td>Cover Crop Information for Researchers and Farmers</td>
<td>$90,000</td>
<td>Robert Bugg</td>
<td>University of California</td>
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<td>LW88-003</td>
<td>Comparative Study of Established Organic and Conventional Tomato Production Systems in California</td>
<td>$509,447</td>
<td>Carol Shennan</td>
<td>University of California, Santa Cruz</td>
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<tr>
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| 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  
Stephani Norton  
Dickinson Farm  
Rosalva Sandoval  
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  
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 |
<p>| EW13-027  | Application of Lessons Learned from                                          | $68,469      | Jeremy James |</p>
<table>
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<tr>
<th>Project Number</th>
<th>Project Title</th>
<th>Funding</th>
<th>Principal Investigator(s)</th>
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</table>
| EW12-017       | Training Manuals and Professional Development Activities for Teaching Organic   | $98,782 | Dr. Daniel Press, Ann Lindsey  
|                | Farming and Marketing                                                          |         | University of California Santa Cruz  
|                |                                                                                  |         | Carlina Revolution  
|                |                                                                                  |         | 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 | $57,582 | Hunter Francis  
|                | Poly Compost Project                                                            |         | CAFES Center for Sustainability  
| EW10-004       | Capacity Building Workshops: Developing Regional Agritourism Networks for       | $59,558 | Penny Leff  
|                | Agricultural Sustainability and Education                                        |         | UC Sustainable Agriculture Research and Education Program (UC SAREP)  
| EW10-005       | Understanding the Climate Benefits of Sustainable Agriculture                  | $11,905 | Jeanne Merrill  
|                |                                                                                  |         | CA Climate & Agriculture Network (CalCAN)  
|                |                                                                                  |         | Renata Brillinger  
|                |                                                                                  |         | California Climate & Agriculture Network  
| EW09-004       | Ecology and Management of Grazing, An Online Course                             | $84,826 | Melvin George  
|                |                                                                                  |         | University of California  
| EW04-012       | Adding Value to Grassfed Beef Niche Marketing Efforts                            | $60,000 | Cynthia Daley  
|                |                                                                                  |         | California State University, Chico  
| EW03-004       | Field Course for Agricultural Professionals on the Common Goals and Strategies  | $60,000 | Rex Doufou  
|                | of USDA’s National organic Standards and Resource Conservation Programs         |         | National Center for Appropriate Technology (NCAT)  
| EW03-007       | Extending Hedgerow Systems in California Agriculture                            | $60,000 | Mark Cady  
|                |                                                                                  |         | Community Alliance with Family Farmers  
| EW02-005       | Organic Farming Principles, Practices, and Materials: Resources for Western     | $101,907| Dr. Sean Swezey  
|                | Region Extension and USDA Professionals                                         |         | Center for Agroecology and Sustainable Food System  
|                |                                                                                  |         | David Chaney  
|                |                                                                                  |         | SAREP  
| EW01-010       | Training and Education Outreach to NRCS and University of California CES staff  | $81,950 | Thomas Wehri  
|                | to Convey Animal Nutrition                                                      |         | CA Association Resource Conservation Districts  
| EW01-013       | Promotion of Intergenerational Farm Transfers for Agricultural Sustainability   | $56,000 | Steve Schwartz  
|                | and Farmland Production                                                         |         | California FarmLink  
| EW00-012       | Sharing Resources to Help Connect Farmers to Direct Marketing Niches            | $96,578 | David Chaney  
|                |                                                                                  |         | SAREP  
| EW98-001       | Broadening the Audience: Providing Sustainable Agriculture Education for Pest  | $80,100 | David Chaney  
|                | Control Advisers and Agricultural Consultants in California and Oregon          |         | SAREP  

**NRCS Rangeland CEAP:** A site-specific, Low Cost System for Medusahead Control
<table>
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<tr>
<th>Project #</th>
<th>Project Title</th>
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<th>Project Leaders</th>
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</thead>
</table>
| 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**

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<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE support</th>
<th>Project Leaders</th>
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| 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                                                        |
| FW16-033  | Sorrel Pesto: The Positive Implications of Sorrel as a Substitute for Basil in Pesto Production | $19,710      | David Ceaser  
Green Skies Vertical Farm                                          |
| FW16-034  | Sustainable Irrigation Demonstration Project: Demonstrating Irrigation Efficiency in California Winegrapes | $19,180      | Jason Melvin  
Zabala Vineyards                                                   |
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<td>FW16-036</td>
<td>Improving Water Use Efficiency in Conventional and Organic Almonds through Data Driven Irrigation</td>
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<td>Pat Ricchiuti, P R Farms, Inc.</td>
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<td>FW15-029</td>
<td>High Desert High Tunnels</td>
<td>$5,183</td>
<td>Laurie Wayne, Locavore Farms</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, Kaos Sheep Outfit</td>
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<td>FW11-037</td>
<td>Use of Wood Ash as Soil Amendment on Annual Rangelands</td>
<td>$28,995</td>
<td>Mel Thompson, Sierra Farms, Glenn Nader, University of California Cooperative Extension</td>
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<td>FW10-037</td>
<td>Woolgathering on the Farm</td>
<td>$7,165</td>
<td>Sophie Sheppard, Woolgathering</td>
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<tr>
<td>FW08-315</td>
<td>Vines and Ovines: Using Trained Sheep for Vineyard Floor Grazing</td>
<td>$29,193</td>
<td>Morgan Doran, University of California</td>
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<td>FW08-324</td>
<td>Placer Ag Futures Project</td>
<td>$25,670</td>
<td>Bill Bennett, High Sierra RC&amp;D Council, Inc., Kay Joy Barge, High Sierra Resource</td>
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<td>FW08-030</td>
<td>Creating and Marketing Value-Added Orchard Products</td>
<td>$15,000</td>
<td>Nicholas Salle, Salle Orchards, Billie Jean Salle, Salle Orchards</td>
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<td>FW08-047</td>
<td>Sierra Nevada Small Farm Progress Days</td>
<td>$27,370</td>
<td>Dan Macon</td>
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<td>FW08-311</td>
<td>Restoring Plant Diversity and Soil Health in Napa and Sonoma Vineyards: scaling up an agroecologically based pest management strategy</td>
<td>$30,000</td>
<td>Houston Wilson, UC Berkeley -- ESPM, Miguel Altieri, University of California, Berkeley</td>
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<td>FW08-312</td>
<td>Effects of Aleutian Geese on Humboldt County Pastures</td>
<td>$28,540</td>
<td>Alan Bower, University of California Davis</td>
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<td>FW07-303</td>
<td>Farm Direct Distribution</td>
<td>$25,444</td>
<td>Brigitte Moran, Marin Farmers Market Association</td>
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<td>FW07-311</td>
<td>Building on Organic Knowledge: On-Farm Transfer of a Trap Cropping Method to Control Lygus Bug in Conventional Strawberry Production</td>
<td>$14,864</td>
<td>Dr. Sean Swezey, Center for Agroecology and Sustainable Food System</td>
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<td>FW07-324</td>
<td>Management Challenges for Dairy Goat Sustainability</td>
<td>$15,360</td>
<td>Deborah Giraud, University of California</td>
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<td>FW06-308</td>
<td>Conservation Tillage Forage Production in California’s San Joaquin Valley</td>
<td>$9,400</td>
<td>Dr. Jeff Mitchell, University of California, Davis</td>
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<td>FW06-304</td>
<td>Using Molasses as an Attractant for Concentrating Grazing on Medusahead</td>
<td>$3,479</td>
<td>Morgan Doran</td>
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<td>FW05-020</td>
<td>Goats in the Chaparral</td>
<td>$19,990</td>
<td>Bill Burrows</td>
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<td>FW05-026</td>
<td>Sustaining an Agricultural Region: Capay Valley Grown</td>
<td>$14,980</td>
<td>Judith Redmond</td>
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<td>FW05-030</td>
<td>Evaluation of abalone effluent for reclamation</td>
<td>$7,685</td>
<td>Douglas Bush</td>
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<td>FW04-024</td>
<td>A pilot project for zero discharge farming</td>
<td>$3,250</td>
<td>Alan Haight</td>
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<td>FW04-028</td>
<td>Organic Vineyard/Orchard Weed and Grass Management Using Miniature Sheep</td>
<td>$7,472</td>
<td>Deborah Walton</td>
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<td>FW04-111</td>
<td>Marketing Locally Grown</td>
<td>$10,000</td>
<td>Mary Ann Vasconcellos</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>
<td>$6,285</td>
<td>Grant Poole</td>
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<td>FW03-007</td>
<td>Integrated Pest Management and Sustainable Grape Production in Sonoma County</td>
<td>$13,000</td>
<td>Nick Frey</td>
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<td>FW03-009</td>
<td>Unconventional Conversion: Cultivating Sustainability in Citrus and Avocado Orchards</td>
<td>$7,500</td>
<td>Zachary Griffin</td>
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<td>FW03-010</td>
<td>Increasing Adoption of Sustainable Practices in Central Coast Vineyards</td>
<td>$13,000</td>
<td>Kris Beal</td>
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<td>FW03-013</td>
<td>Can Llamas Be an Effective Tool for Predator Control?</td>
<td>$6,500</td>
<td>Jill Hackett</td>
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<td>FW03-015</td>
<td>Pastured Pork: Economics of Intensive Grazing in the Western United States</td>
<td>$6,550</td>
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<td>FW03-105</td>
<td>Bay Area Agricultural Cooperative</td>
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<td>FW03-107</td>
<td>Marin Organics Cooperative Marketing Program</td>
<td>$13,500</td>
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<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>
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<td>FW02-211</td>
<td>Marin Organic's Cooperative Marketing Outreach</td>
<td>$9,191</td>
<td>Warren Weber</td>
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<td>Star Route Farms</td>
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<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>
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<td>Small Farm / Specialty Crops</td>
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<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>
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<td>FW00-010</td>
<td>Soil Solarization for Weed and Disease Control in Specialty Crops</td>
<td>$4,975</td>
<td>Mike Smith</td>
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<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>
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<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>
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<td>FW00-210</td>
<td>Test Marketing Pasture Produced Artisan Cheeses</td>
<td>$7,910</td>
<td>Tim Pedrozo</td>
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<td>FW00-299</td>
<td>Good Humus Produce Farm to School Project</td>
<td>$5,300</td>
<td>Annie Main</td>
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<td>FW00-005</td>
<td>Production of Strawberry Plants using Sterile Soil Amendments</td>
<td>$5,000</td>
<td>Allen Albaugh</td>
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<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>
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<td>FW99-073</td>
<td>Converting Dairy Waste into More Usable Products through Vermiculture</td>
<td>$4,300</td>
<td>Charmaine Harris</td>
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<td>FW98-009</td>
<td>Soil Solarization as a Methyl Bromide Alternative in Strawberries</td>
<td>$4,000</td>
<td>Touxia Thauxaochay</td>
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<td>FW98-012</td>
<td>Solarization for Small Farm “Specialty Crops”</td>
<td>$4,000</td>
<td>Mike Smith</td>
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<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>
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<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>
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<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>
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<td>FW97-016</td>
<td>Vermicomposting Demonstration Project</td>
<td>$5,000</td>
<td>Dave Renner&lt;br&gt; Diamond Point Dairy</td>
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<td>FW97-030</td>
<td>Pheromone Foggers for Pesticide Replacement</td>
<td>$5,000</td>
<td>Willis Thompson</td>
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<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&lt;br&gt; Sierra Orchards</td>
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<td>FW95-089</td>
<td>Monitoring Program for Biologically Integrated Orchard Systems (BIOS) in Walnuts</td>
<td>$5,000</td>
<td>Liza Lewis&lt;br&gt; Community Alliance with Family Farmers Foundation</td>
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### GRADUATE STUDENT GRANTS

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<tr>
<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>$24,997.06</td>
<td>Breanna Martinico&lt;br&gt; UC Davis&lt;br&gt; Dr. Joshua Hull&lt;br&gt; UC Davis&lt;br&gt; Dr. Sara Kross&lt;br&gt; Columbia University&lt;br&gt; Michael Turkovich&lt;br&gt; Button and Turkovich</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>
<td>$25,000</td>
<td>Justine Beaulieu&lt;br&gt; UC Davis&lt;br&gt; Dr. Cassandra Swett&lt;br&gt; UC Davis&lt;br&gt; Nicole Tautges&lt;br&gt; Russell Ranch Sustainable Ag Facility - 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>Thomas Fenster&lt;br&gt; California State University East Bay&lt;br&gt; Dr. Jonathan Lundgren, PhD&lt;br&gt; Edcysis Foundation&lt;br&gt; Dr. Patty Oikawa&lt;br&gt; California State University East Bay&lt;br&gt; Sara Tiffany&lt;br&gt; Community Alliance with Family Farmers&lt;br&gt; Dr. Erica Wildy&lt;br&gt; California State University East Bay</td>
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<td>GW19-194</td>
<td>Sustainable orchard intensification:&lt;br&gt; Cover crops and management intensity</td>
<td>$24,944</td>
<td>Steven Haring&lt;br&gt; University of California, Davis&lt;br&gt; Bradley Hanson&lt;br&gt; University of California, Davis</td>
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<td>GW18-041</td>
<td>Insect Discovery and Breeding as Tools for Sustainable Solutions to Organic Waste Management</td>
<td>$24,942</td>
<td>Dr. Christian Nansen&lt;br&gt; University of California, Davis&lt;br&gt; Trevor Fowles</td>
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<td>GW18-142</td>
<td>Cover Crop Systems for Almond Orchards: Exploring Benefits and Tradeoffs to Inform Management</td>
<td>$24,852</td>
<td>Dr. Amelie Gaudin&lt;br&gt; University of California, Davis&lt;br&gt; Cynthia Creze&lt;br&gt; University of California, Davis</td>
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<td>GW18-126</td>
<td>Increasing the sustainability of dairy cattle by providing genetic tools to reduce lameness, improving welfare and production</td>
<td>$23,623</td>
<td>Dr. Anita Oberbauer&lt;br&gt; University of California, Davis&lt;br&gt; Ellen Lai&lt;br&gt; University of California, Davis</td>
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| GW18-062  | Development of New Selection Tools                                             | $24,443      | Paul Gepts }
<table>
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<tr>
<td>GW18-020</td>
<td>New Ranchers, New Needs: Why are first-generational ranchers deciding against traditional climate adaptation strategies?</td>
<td>$24,982</td>
<td>Leslie Roche, Travis Parker, University of California - Davis</td>
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<td>GW17-032</td>
<td>Management of Fusarium Wilt of Strawberry through Crop Rotation</td>
<td>$24,999</td>
<td>Dr. Thomas Gordon, University of California, Davis, Katherine Munden-Dixon, Peter Henry, University of California at Davis</td>
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<td>GW16-044</td>
<td>A Collaborative Approach to Integrated Pest Management of Tadpole Shrimp in California Rice Fields.</td>
<td>$24,928</td>
<td>Larry Godfrey, University of California, Davis, Joanna Bloese, University of California, Davis</td>
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<td>GW13-011</td>
<td>Compost-Induced Disease Suppressive Soils for Control of Verticillium Wilt of Strawberry</td>
<td>$24,992</td>
<td>Tom Gordon, UC Davis, Margaret Lloyd, University of California, Davis</td>
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<td>GW13-018</td>
<td>Best management practices that promote sustainable crop pollination: the role of crop rotations and tillage depth</td>
<td>$24,954</td>
<td>Neal Williams, University of California, Davis, Katharina Ullmann, University of California, Davis</td>
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<td>GW12-024</td>
<td>Ecosystem Services in Hedgerow Restorations: Pollination Function and Nesting Habitat</td>
<td>$17,882</td>
<td>Dr. Claire Kremen, University of California, Berkeley, Hillary Sardinas, UC Berkeley</td>
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<td>GW11-001</td>
<td>Pastured Poultry/Crop Systems and Their Effect on Food Safety, Farm Economy, and Soil Quality</td>
<td>$24,807</td>
<td>Dr. Kathleen Hilimire, UC Berkeley, Stephen R. Gliessman, University of California, Santa Cruz</td>
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<td>GW11-012</td>
<td>Facilitating Integrated Weed Management in California Rice: Predicting E. spp. and C. difformis emergence across heterogeneous growing environments</td>
<td>$17,120</td>
<td>Dr. Chris van Kessel, University of California, Davis, Dr. Mark Lundy, University of California Cooperative Extension</td>
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<td>GW10-010</td>
<td>Irrigation Alternatives for Sustainable Water Use of Processing Tomatoes</td>
<td>$25,000</td>
<td>Louise Jackson, UC Davis, Felipe Barrios Masias, Board of Regents, NSHE, obo University of Nevada, Reno</td>
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<td>GW09-018</td>
<td>Promoting Native Bumblebees in Agricultural systems for conservation and ecosystem service</td>
<td>$20,074</td>
<td>Dr. Claire Kremen, University of California, Berkeley, Dr. Alexandra Harmon-Threatt, Washington University, Alexandra Harmon-Threatt, UC Berkeley</td>
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<td>GW08-015</td>
<td>Screening for non-host rotation crops of Colletotrichum acutatum for strawberry nurseries in California</td>
<td>$19,535</td>
<td>W. Douglas Gubler, University of California, Davis, Joseph Jertberg, UC Davis Plant Pathology Department</td>
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<td>GW08-018</td>
<td>Solarization and steam heat combined to control weeds in strawberry</td>
<td>$19,974</td>
<td>Steve Fennimore, University of California, Davis, Celeste Gilbert, University of California, Davis</td>
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<td>GW07-006</td>
<td>Risk, Rate, and Impact of Medusahead Invasion of California Savannas</td>
<td>$19,971</td>
<td>Dr. Emilio Laca, UC Davis, Corey Cherr</td>
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</table>
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, 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

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| 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 |
| 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
Aaron Kern
Kern Family Farm
Jeremy Mineau
Super Tuber Farm
Nicole Tautges
Russell Ranch Sustainable Ag Facility - UC Davis
John Tecklin
Mountain Bounty Farm |
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<th>Project #</th>
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| OW19-349  | Amador Rangeland Soil Health Research and Education Project                    | $49,139      | Amanda Watson
Community Alliance with Family Farmers
Tim Van Wagner
First Rain Farm
Michael Whamond
Hillview Farm |
| 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      | 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 |

**PDP STATE PROGRAM GRANTS**

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| WSP19-025 | Building Social Equity into Agriculture and Food Systems Extension            | $28,686      | Dr. Sonja Brodt
University of California Sustainable Agriculture Research & Education Program
Shosha Capps
UC Sustainable Agriculture Research and Education Program
Dr. Gail Feenstra
UC SAREP/ASI |
| WSP18-004 | California 2018-20 PDP project                                                | $28,636      | Dr. Sonja Brodt
University of California Sustainable Agriculture Research & Education Program |
| WSP17-004 | 2018 University of California PDP Project                                     | $38,000      | Jeffrey Stackhouse
University of California Cooperative Extension |
ENHANCED STATE GRANTS

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<td>MW18-003</td>
<td>Better Fire: Informing and improving prescribed fire on private lands in California</td>
<td>$24,734</td>
<td>Jeffrey Stackhouse</td>
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<td>University of California Cooperative Extension</td>
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Total funding from the USDA SARE program to California
$11,560,492

For further information on projects, contact Western SARE at (435) 797-2257 or wsare@usu.edu.

Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).