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 $327 million to more than 7,665 initiatives.

SARE is grassroots with far-reaching impact

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

SARE communicates results

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

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

Idaho

Project Highlight: High Tunnels Extend Local Food Production

In 2010, Idaho’s farmers, researchers and educators launched a collaborative effort to achieve the goal of having 20 percent of the state’s food produced locally by 2020. At the same time, a survey of local food vendors revealed that the single largest roadblock to making this goal a reality is Idaho’s short growing season.

This prompted the University of Idaho’s Stephen Love to organize a team of horticulture specialists to expand farmers’ use of high tunnels in the state. Funded by a SARE grant, the team collaborated with three experienced high tunnel growers in different parts of the state to evaluate high tunnel designs and the profitability of growing various crops in them.

The experience at the three farms gave the team important information to share with growers around the state. On one farm, eggplants grown inside the tunnels were superior economically to ones grown outside, but for cucumbers the results were mixed. On another farm, there was a clear advantage to growing tomatoes, garlic and peppers in high tunnels. The third farm showed that medicinal crops otherwise unsuited to Idaho’s climate can be grown in high tunnels. It also evaluated structures specially designed by engineering students to withstand harsh winter conditions.

For more information on this project, see sare.org/projects, and search for project number OW13-043.

SARE in Idaho

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

$4,220,707 in total funding

68 grant projects (since 1988)

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

Total awards: 68 grants
- 23 Research and Education
- 8 Professional Development Program
- 31 Farmer/Rancher
- 4 On Farm Research/Partnership
- 2 Graduate Student

Total funding: $4,220,707
- $3,202,871 Research and Education
- $551,098 Professional Development Program
- $264,787 Farmer/Rancher
- $151,960 On Farm Research/Partnership
- $49,991 Graduate Student

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/idaho

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/idaho to learn more.

Kate Painter
University of Idaho Extension, Boundary County
(208) 267-3235
kpainter@uidaho.edu

Carmen Willmore
University of Idaho Extension
(208) 886-2406
cwillmore@uidaho.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.
Idaho has been awarded $4,220,707 grants to support 65 projects, including but not limited to, 20 research and/or education projects, 8 professional development projects and 31 producer-led projects. Idaho 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>SW21-922</td>
<td>Soil health and profitability implications of including brown mustard and its products in an integrated wireworm management system</td>
<td>$349,919</td>
<td>Dr. Arash Rashed, University of Idaho, Dr. Jae Ryu, University of Idaho, Gordon Gallup, Mark Greene, Dr. Jeremy Hansen, USDA-ARS, Dr. Patrick Hatzenbuehler, University of Idaho, Hans Hayden, Dr. Inna Popova, University of Idaho, Dr. Kurtis Schroeder, University of Idaho, Wayne Westberg</td>
</tr>
<tr>
<td>SW18-015</td>
<td>On-farm evaluation and demonstration of advanced manure solidliquid separation technologies for a sustainable dairy industry in Idaho</td>
<td>$287,466</td>
<td>Dr. Lide Chen, University of Idaho</td>
</tr>
<tr>
<td>SW16-031</td>
<td>Optimizing Water and Nitrogen Use for Sustainable Wheat Production</td>
<td>$249,939</td>
<td>Dr. Olga Walsh, University of Idaho</td>
</tr>
<tr>
<td>SW11-122</td>
<td>Incorporating Cover Crops and Green Manure in High-Desert Organic and Conventional Farming Systems</td>
<td>$47,628</td>
<td>Lauren Golden, University of Idaho</td>
</tr>
<tr>
<td>SW06-039</td>
<td>‘Living on the Land’ Stewardship Education Program Expansion</td>
<td>$160,204</td>
<td>Stephanie Etter, University of Idaho Extension</td>
</tr>
<tr>
<td>SW06-083</td>
<td>Black Soldier Fly Larvae as a Tool for Managing Animal Waste and Providing a Food Source for the Aquaculture Industry</td>
<td>$117,682</td>
<td>Sophie St-Hilaire, Idaho State University</td>
</tr>
<tr>
<td>SW05-142</td>
<td>Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations</td>
<td>$135,756</td>
<td>Amanda Shiffler, University of Idaho, Dr. Bryan Hopkins, BYU</td>
</tr>
<tr>
<td>SW05-067</td>
<td>Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations</td>
<td>$179,403</td>
<td>Bryan Hopkins, University of Idaho</td>
</tr>
<tr>
<td>SW05-039</td>
<td>Using farmer-rancher input to develop and implement experiential educational opportunities for beginning farmers and ranchers</td>
<td>$160,056</td>
<td>Cinda Williams, University of Idaho Extension</td>
</tr>
</tbody>
</table>
SW03-021 Integrated Residue Management Systems for Sustained Seed Yield of Kentucky Bluegrass Without Burning $294,243 Donald Thill
University of Idaho

SW02-038 On-Farm Versus Agricultural Experiment Station Evaluation and Improvement of Intrinsic Characteristics of Landrace Common Bean Cultivars for Sustainable Farming Systems in the Twenty-First Century $167,717 Shree Singh
University of Idaho

SW02-037 Promoting Sustainable Potato Cropping Systems $158,477 Bryan Hopkins
University of Idaho

SW02-004 Reducing Nitrogen and Phosphorus Excretions from Dairies in Gooding and Jerome Counties, Idaho $145,672 Alexander Hristov
University of Idaho

SW00-042 Exploration and Implementation of Sustainable Ag Practices and Outreach on the Fort Hall Indian Reservation for the Protection of Groundwater $103,913 Jennifer Miller
NCAP
John Helsel
Shoshone-Bannock Tribes

SW97-010 Management, Impact and Economics of Beef Cattle Grazing in Mountain Riparian Ecosystems $105,400 Patrick A. Momont
Univ. of ID, Dept. of Animal & Vet. Sci.

SW95-021 Brassica Green Manure Systems for Weed, Nematode, and Disease Control in Potatoes $112,580 Charlotte Eberlein
University of Idaho

LWD91-002 An Economic Evaluation of the MSU Crop Rotations On-Farm Research, Demonstration Legume, Cereal Rotations Compared with Conventional Rotations $23,675 Edgar Michalson
University of Idaho

LW91-029 Development of Sustainable Potato Production Systems for the Pacific North West $330,000 Jeffrey C. Stark
University of Idaho

LW91-027 Development of Winter Wheat Cover Crop Systems for Weed Control in Potatoes $42,141 Charlotte Eberlein
University of Idaho

LW89-015 Total Resource Budgeting of LISA (SARE) Farm Enterprises $31,000 Paul Patterson
University of Idaho

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| EW18-018  | Supporting outcome-based management on private & public rangelands: training agricultural professionals on monitoring techniques | $72,519      | Dr. Jason Karl
University of Idaho                                    |
| EW18-028  | Idaho Qualitative Soil Health Initiative and Training                          | $15,724      | Jessica Harrold
Ada Soil & Water Conservation District
Josie Erskine
Ada Soil & Water Conservation District                      |
| EW05-012  | Forage and Pasture Educational Program for Extension, FSA, and NRCS in the Pacific Northwest | $90,000      | Glenn Shewmaker
University of Idaho                                      |
| EW04-014  | Building Knowledge of Sustainable Rangeland Management Using Information Technology | $91,847      | Karen Launchbaugh
University of Idaho                                      |
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
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</tr>
</thead>
</table>
| EW03-009 | Expanding Opportunities for Community-Based Educational Programs in Sustainable Small Acreage Farming and Ranching | $98,143      | Cinda Williams  
University of Idaho Extension |
| EW02-011 | Workshops on Soil Quality Assessment and Application for Field Staff         | $27,590      | Paula Jones  
USDA-NRCS, Three Rivers RC&D Council, Inc. |
| EW99-013 | A Community Based Approach to Extension In Organic Agriculture               | $10,000      | Mir M. Seyedbagheri  
University of Idaho, Elmore County Extension |
| EW97-012 | Composting Education and Information Access for Western Agriculture           | $145,275     | Cinda Williams  
University of Idaho Extension  
Robert Rynk  
University of Idaho |
| FW17-055 | No-till potatoes into cover crop, using mod. conv. planter                     | $20,000      | Jeff Parkinson  
Jeff Parkinson |
| FW17-039 | Saving Water and Improving Soil Health Through LESA, Cover Crops, No-Till, and Management Intensive Grazing | $20,000      | Pat Purdy  
Pat Purdy |
| FW16-042 | A Rangeland Stock Handling Concept: Inherding on the Hat Creek Grazing Allotment, Ellis Idaho | $19,423      | Glenn Elzinga  
Alderspring Ranch |
| FW11-032 | Goat Meat is Great!                                                           | $7,799       | Evelyn Simon  
Simon Boers |
| FW10-039 | Pokey Creek Farm Elderberry Exploration                                        | $14,877      | Cinda Williams  
University of Idaho Extension  
Greg and Leah Sempel  
Ashley McFarland  
University of Idaho Extension |
| FW08-322 | A Multi-Faceted Approach to Managing Powdery Mildew on Organic Table Grapes in Southwest Idaho | $15,000      | Ariel Agenbroad  
University of Idaho Extension |
| FW08-031 | What Good Are Pasture-Raised Ducks to Whole Farm Systems?                      | $14,942      | Mary Rohlfing |
| FW08-318 | IBC Technical Services to Farmer’s/Ranchers for Online Markets in South Central Idaho | $29,997      | Judy Hall  
Idaho’s Bounty Co-op |
| FW06-015 | Extending Forage Season with Multi-functional Browse Islands                   | $8,560       | Juvia Judd  
Lazy M Suris  
Deborah Berman  
Lazy M Suris |
| FW06-036 | Winter and Summer Greenhouse Production for Small-scale Growers                | $6,235       | Brad Jaeckel  
Orchard Farm |
<p>| FW06-042 | Harvest Frequency, Yield and Economics of Summer Squash                       | $4,730       | Karen Strickler |
| FW05-007 | Controlling Common Tansy with Sheep                                            | $3,422       | Kimberly McConnaghy |</p>
<table>
<thead>
<tr>
<th>Grant Number</th>
<th>Title</th>
<th>Funding</th>
<th>Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>FW04-203</td>
<td>Optimizing Spatial &amp; Temporal Aspects of Designs for Small-Scale Diverse Farms</td>
<td>$5,500</td>
<td>Bridget Betta Bunzel Bunzel Organics</td>
</tr>
<tr>
<td>FW03-307</td>
<td>Ovine Browsing for Brush Control of Forested Environments</td>
<td>$7,500</td>
<td>Jeff Nauman Idaho Department of Lands</td>
</tr>
<tr>
<td>FW01-025</td>
<td>Developing a Sustainable Market for Small Farms in a Rural Community</td>
<td>$7,385</td>
<td>Diane Green Grentree Naturals</td>
</tr>
<tr>
<td>FW01-039</td>
<td>Noxious Weed Grazing with Goats</td>
<td>$7,000</td>
<td>Bonnie Jensen Lemhi County Ext.</td>
</tr>
<tr>
<td>FW01-056</td>
<td>Farmers Educating Farmers: Developing a Soil Quality Indicator Guide</td>
<td>$10,500</td>
<td>Kyle Wilson Natural Resource Conservation Agency</td>
</tr>
<tr>
<td>FW00-052</td>
<td>Low Stress Stockmanship School for Lemhi County, ID</td>
<td>$5,450</td>
<td>Wally Butler</td>
</tr>
<tr>
<td>FW00-259</td>
<td>The Farm to Fork Exchange</td>
<td>$4,625</td>
<td>Nate Jones</td>
</tr>
<tr>
<td>FW99-012</td>
<td>Automated On-Farm Irrigation Water Diversion Gate</td>
<td>$3,890</td>
<td>George Davis</td>
</tr>
<tr>
<td>FW99-076</td>
<td>On-Site Rearing of Beneficial Predatory Mite Species</td>
<td>$4,200</td>
<td>Richard Nathanson</td>
</tr>
<tr>
<td>FW98-097</td>
<td>Fear and Loathing in the Potato Patch: Controlling Nematodes with Rape Seed Meal and Green Manures</td>
<td>$9,910</td>
<td>John O'Connor</td>
</tr>
<tr>
<td>FW98-099</td>
<td>Wiersema Dairy Agroforestry Project</td>
<td>$5,000</td>
<td>Jim Wiersema</td>
</tr>
<tr>
<td>FW97-024</td>
<td>Systems Thinking in a Range Environment</td>
<td>$5,000</td>
<td>Jay Black</td>
</tr>
<tr>
<td>FW97-044</td>
<td>Paradise Time Controlled Grazing</td>
<td>$5,000</td>
<td>Mark Pratt</td>
</tr>
<tr>
<td>FW97-049</td>
<td>Non-Irrigated Alfalfa Performance Trial, Benewah County, Idaho</td>
<td>$3,500</td>
<td>Christina Crawford</td>
</tr>
<tr>
<td>FW96-060</td>
<td>Economic Viability of Greenhouse Solarization</td>
<td>$2,450</td>
<td>Larry Higgins</td>
</tr>
<tr>
<td>FW95-034</td>
<td>Row Spacing Effect on Weed Suppression</td>
<td>$530</td>
<td>Lee Griffiths</td>
</tr>
<tr>
<td>FW95-046</td>
<td>Developing an Idaho-Based Marketing Cooperative for Sustainability and Locally Grown Produce</td>
<td>$4,622</td>
<td>Janie Burns Meadowlark Farms</td>
</tr>
<tr>
<td>FW95-080</td>
<td>Squash Bug Management Through Introduction of Game Birds</td>
<td>$2,740</td>
<td>Jill Kohler Eagle Organic Farms</td>
</tr>
<tr>
<td>FW95-025</td>
<td>Biological Control in Idaho Alfalfa Seed Fields</td>
<td>$5,000</td>
<td>Larry Sorenson Sorenson Farms</td>
</tr>
</tbody>
</table>

### Graduate Student Grants

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
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</tr>
</thead>
<tbody>
<tr>
<td>GW20-217</td>
<td>The effects of cover crops on soil arthropod communities in the Inland Pacific Northwest</td>
<td>$24,993</td>
<td>Dr. Sanford Eigenbrode University of Idaho Dane Elmquist (PI:Eigenbrode) University of Idaho</td>
</tr>
<tr>
<td>GW20-206</td>
<td>Evaluating the effectiveness of mustard species and their concentrated extracts in reducing losses to wireworms in the Pacific Northwest, USA.</td>
<td>$24,998</td>
<td>Dr. Arash Rashed University of Idaho Reed Findlay University of Idaho Atoosa Nikoukar/ PI Rashed University of Idaho</td>
</tr>
</tbody>
</table>

### On Farm Research/Partnership Grants

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>OW15-032</td>
<td>Madison County Healthy Soil Initiative</td>
<td>$50,000</td>
<td>Robbie Taylor Madison SWCD</td>
</tr>
<tr>
<td>OW13-043</td>
<td>Extension of Local Food Production in Idaho Using High Tunnel Technology</td>
<td>$49,999</td>
<td>Dr. Stephen Love University of Idaho</td>
</tr>
<tr>
<td>OW13-017B</td>
<td>Reference strips and precision sensors for increased nitrogen use efficiency in wheat production</td>
<td>$1,961</td>
<td>Dr. Olga Walsh University of Idaho</td>
</tr>
<tr>
<td>OW10-301</td>
<td>Using Aquaponics with Renewable Energy Resources to Create Sustainable Food Systems while Reducing Nutrient, Energy, and Water Costs</td>
<td>$50,000</td>
<td>Matt Johnson Sustain Pro Management Harry Ako University of Hawaii</td>
</tr>
</tbody>
</table>

Total funding from the USDA SARE program to Idaho $4,220,707

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).