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 $360 million to more than 8,174 initiatives.

SARE is grassroots with far-reaching impact

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

SARE communicates results

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

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

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

$5,188,611 in total funding

75 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: 75 grants
- 25 Research and Education
- 10 Professional Development Program
- 33 Farmer/Rancher
- 4 On Farm Research/Partnership
- 3 Graduate Student

Total funding: $5,188,611
- $3,902,383 Research and Education
- $739,754 Professional Development Program
- $314,557 Farmer/Rancher
- $151,960 On Farm Research/Partnership
- $79,957 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.

Carmen Willmore
University of Idaho Extension
(208) 886-2406
cwillmore@uidaho.edu

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

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

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 $5,188,611 grants to support 72 projects, including but not limited to, 22 research and/or education projects, 10 professional development projects and 33 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>
</table>
| SW22-938  | Targeted grazing by sheep to control invasive species and reduce wildfire risk on western rangelands | $349,815 | Dr. Kelly Hopping  
Boise State University  
Sergio Arispe, PhD  
Oregon State University  
Marie-Anne de Graaff  
Boise State University  
April Hulet  
Brigham Young University  
Renee Kehler  
U. S. Forest Service |
| SW22-940  | Pacific Northwest Cover Crop Decision Aid System | $349,697 | Dr. Sanford Eigenbrode  
University of Idaho  
Dr. Subodh Adhikari  
University of Idaho  
Ryan Boylan  
Palouse Conservation District  
Tracy Ericksen  
The Eriksens  
Garry Esser  
Esser Farms  
Dr. Douglas Finkelnburg  
University of Idaho  
Mark Greene  
Sheryl Hagen-Zacharison  
Zacharison farm  
Dr. Patrick Hatzenbuehler  
University of Idaho  
Jodi Johnson-Maynard  
University of Idaho  
Lucas Sheneman  
University of Idaho  
Chloe Wardropper  
University of Idaho  
Frank Wolf  
Lester Wolf Farms  
Clint Zenner  
Zenner Family Farm |
Soil health and profitability implications of including brown mustard and its products in an integrated wireworm management system

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

On-farm evaluation and demonstration of advanced manure solidliquid separation technologies for a sustainable dairy industry in Idaho

Dr. Lide Chen
University of Idaho

Optimizing Water and Nitrogen Use for Sustainable Wheat Production

Dr. Olga Walsh
University of Idaho

Incorporating Cover Crops and Green Manure in High-Desert Organic and Conventional Farming Systems

Lauren Golden
University of Idaho

Black Soldier Fly Larvae as a Tool for Managing Animal Waste and Providing a Food Source for the Aquaculture Industry

Sophie St-Hilaire
Idaho State University

‘Living on the Land’ Stewardship Education Program Expansion

Stephanie Etter
University of Idaho Extension

Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations

Amanda Shiffler
University of Idaho
Dr. Bryan Hopkins
BYU

Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations

Bryan Hopkins
University of Idaho

Using farmer-rancher input to develop and implement experiential educational opportunities for beginning farmers and ranchers

Cinda Williams
University of Idaho Extension

Integrated Residue Management Systems for Sustained Seed Yield of Kentucky Bluegrass Without Burning

Donald Thill
University of Idaho

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

Shree Singh
University of Idaho

Promoting Sustainable Potato Cropping Systems

Bryan Hopkins
University of Idaho

Reducing Nitrogen and Phosphorus Excretions from Dairies in Gooding and Jerome Counties, Idaho

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


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>
| WPDP22-017 | Building Negotiation Knowledge and Skills for Enhanced Economic and Environmental Sustainability of Western Farm Businesses | $88,666      | Dr. Patrick Hatzenbuehler  
University of Idaho  
Dr. Kate Fuller  
Montana State University  
John Hewlett  
University of Wyoming, Department of Agricultural Economics  
Dr. Hernan Tejeda  
University of Idaho |
| WPDP22-005 | Enhancing Integrated Pest Management Skills Through Pest Friends, an Educational Board Game                                                 | $99,990      | Jason Thomas  
University of Idaho Extension Minidoka County  
Grant Loomis  
University of Idaho Extension-Blaine County |
| 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 |
| EW03-009  | Expanding Opportunities for Community-Based Educational Programs in Sustainable Small Acreage Farming and Ranching                               | $98,143      | Cinda Williams  
University of Idaho Extension |
<table>
<thead>
<tr>
<th>Project #</th>
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<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW02-011</td>
<td>Workshops on Soil Quality Assessment and Application for Field Staff</td>
<td>$27,590</td>
<td>Paula Jones&lt;br&gt;USDA-NRCS, Three Rivers RC&amp;D Council, Inc.</td>
</tr>
<tr>
<td>EW99-013</td>
<td>A Community Based Approach to Extension In Organic Agriculture</td>
<td>$10,000</td>
<td>Mir M. Seyedbagheri&lt;br&gt;University of Idaho, Elmore County Extension</td>
</tr>
<tr>
<td>EW97-012</td>
<td>Composting Education and Information Access for Western Agriculture</td>
<td>$145,275</td>
<td>Cinda Williams&lt;br&gt;University of Idaho Extension&lt;br&gt;Robert Rynk&lt;br&gt;University of Idaho</td>
</tr>
</tbody>
</table>

**FARMER/RANCHER GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>FW22-393</td>
<td>Cardboard layering deep compost mulch for weed suppression, soil health, and profitability</td>
<td>$24,920</td>
<td>Jonah Sloven&lt;br&gt;Sweet Hollow Farm</td>
</tr>
<tr>
<td>FW22-407</td>
<td>Building a holistic, biologically rich, healthy vineyard in order to produce a wine with higher nutrient density and superb flavor</td>
<td>$24,850</td>
<td>Ron Bitner, Phd&lt;br&gt;Bitner Vineyards</td>
</tr>
<tr>
<td>FW17-039</td>
<td>Saving Water and Improving Soil Health Through LESA, Cover Crops, No-Till, and Management Intensive Grazing</td>
<td>$20,000</td>
<td>Pat Purdy&lt;br&gt;Pat Purdy</td>
</tr>
<tr>
<td>FW17-055</td>
<td>No-till potatoes into cover crop, using mod. conv. planter</td>
<td>$20,000</td>
<td>Jeff Parkinson&lt;br&gt;Jeff Parkinson</td>
</tr>
<tr>
<td>FW16-042</td>
<td>A Rangeland Stock Handling Concept: Inherding on the Hat Creek Grazing Allotment, Ellis Idaho</td>
<td>$19,423</td>
<td>Glenn Elzinga&lt;br&gt;Alderspring Ranch</td>
</tr>
<tr>
<td>FW11-032</td>
<td>Goat Meat is Great!</td>
<td>$7,799</td>
<td>Evelyn Simon&lt;br&gt;Simon Boers</td>
</tr>
<tr>
<td>FW10-039</td>
<td>Pokey Creek Farm Elderberry Exploration</td>
<td>$14,877</td>
<td>Cinda Williams&lt;br&gt;University of Idaho Extension&lt;br&gt;Greg and Leah Sempel&lt;br&gt;Ashley McFarland&lt;br&gt;University of Idaho Extension</td>
</tr>
<tr>
<td>FW08-322</td>
<td>A Multi-Faceted Approach to Managing Powdery Mildew on Organic Table Grapes in Southwest Idaho</td>
<td>$15,000</td>
<td>Ariel Agenbroad&lt;br&gt;University of Idaho Extension</td>
</tr>
<tr>
<td>FW08-318</td>
<td>IBC Technical Services to Farmer's/Ranchers for Online Markets in South Central Idaho</td>
<td>$29,997</td>
<td>Judy Hall&lt;br&gt;Idaho's Bounty Co-op</td>
</tr>
<tr>
<td>FW08-031</td>
<td>What Good Are Pasture-Raised Ducks to Whole Farm Systems?</td>
<td>$14,942</td>
<td>Mary Rohlfing</td>
</tr>
<tr>
<td>FW06-042</td>
<td>Harvest Frequency, Yield and Economics of Summer Squash</td>
<td>$4,730</td>
<td>Karen Strickler</td>
</tr>
<tr>
<td>FW06-036</td>
<td>Winter and Summer Greenhouse Production for Small-scale Growers</td>
<td>$6,235</td>
<td>Brad Jaeckel&lt;br&gt;Orchard Farm</td>
</tr>
<tr>
<td>FW06-015</td>
<td>Extending Forage Season with Multi-functional Browse Islands</td>
<td>$8,560</td>
<td>Juvia Judd&lt;br&gt;Lazy M Suris&lt;br&gt;Deborah Berman&lt;br&gt;Lazy M Suris</td>
</tr>
</tbody>
</table>
Controlling Common Tansy with Sheep $3,422 Kimberly McConnaghy

Optimizing Spatial & Temporal Aspects of Designs for Small-Scale Diverse Farms $5,500 Bridget Betta Bunzel Bunzel Organics

Ovine Browsing for Brush Control of Forested Environments $7,500 Jeff Nauman Idaho Department of Lands


Noxious Weed Grazing with Goats $7,000 Bonnie Jensen Lemhi County Ext.

Developing a Sustainable Market for Small Farms in a Rural Community $7,385 Diane Green Grentree Naturals

The Farm to Fork Exchange $4,625 Nate Jones

Low Stress Stockmanship School for Lemhi County, ID $5,450 Wally Butler

On-Site Rearing of Beneficial Predatory Mite Species $4,200 Richard Nathanson

Automated On-Farm Irrigation Water Diversion Gate $3,890 George Davis

Wiersema Dairy Agroforestry Project $5,000 Jim Wiersema

Fear and Loathing in the Potato Patch: Controlling Nematodes with Rape Seed Meal and Green Manures $9,910 John O'Connor

Non-Irrigated Alfalfa Performance Trial, Benewah County, Idaho $3,500 Christina Crawford

Systems Thinking in a Range Environment $5,000 Jay Black

Paradise Time Controlled Grazing $5,000 Mark Pratt

Economic Viability of Greenhouse Solarization $2,450 Larry Higgins

Squash Bug Management Through Introduction of Game Birds $2,740 Jill Kohler Eagle Organic Farms

Developing an Idaho-Based Marketing Cooperative for Sustainability and Locally Grown Produce $4,622 Janie Burns Meadowlark Farms
<table>
<thead>
<tr>
<th>Project #</th>
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</tr>
</thead>
</table>
| GW21-222  | Trap Crops and Crop Rotation for Eradication of the Pale Cyst Nematode in Idaho | $29,966      | Louise-Marie Dandurand  
University of Idaho  
Paige Hickman  
University of Idaho |
| GW20-217  | The effects of cover crops on soil arthropod communities in the Inland Pacific Northwest | $24,993      | Dr. Sanford Eigenbrode  
University of Idaho  
Dane Elmquist (PI:Eigenbrode)  
University of Idaho |
| GW20-206  | Evaluating the effectiveness of mustard species and their concentrated extracts in reducing losses to wireworms in the Pacific Northwest, USA. | $24,998      | Dr. Arash Rashed  
University of Idaho  
Reed Findlay  
University of Idaho  
Atoosa Nikoukar/ PI Rashed  
University of Idaho |

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

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

Total funding from the USDA SARE program to Idaho  
$5,188,611

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).