

## 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 \$406 million to more than 8,803 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.



[www.sare.org](http://www.sare.org)

# 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](http://sare.org/projects), and search for project number OW13-043.

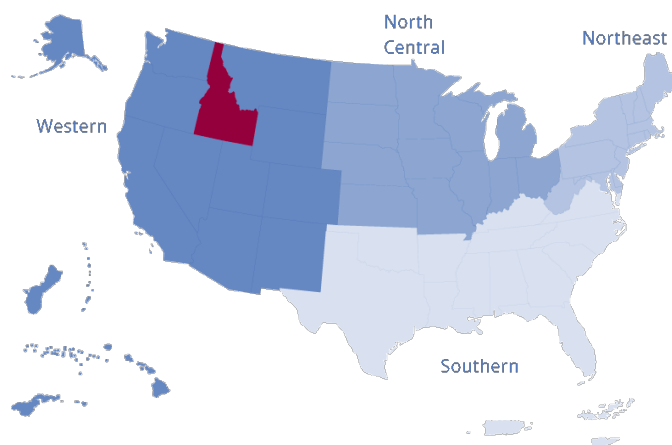
## SARE in Idaho

[western.sare.org/state-profiles/idaho/](http://western.sare.org/state-profiles/idaho/)

**\$2,428,719**  
**in total funding**

**19 grant project**  
(since 1988)

For a complete list of grant projects state by state, go to [www.sare.org/state-summaries](http://www.sare.org/state-summaries)



# SARE in Idaho

## Grants awarded 2019-2024

Total awards: **19 grants**

- 3 Farmer/Rancher
- 6 Research and Education
- 3 Professional Development Program
- 1 On Farm Research/Partnership
- 6 Graduate Student

Total funding: **\$2,428,719**

\$74,754	Farmer/Rancher
\$1,820,409	Research and Education
\$288,656	Professional Development Program
\$75,000	On Farm Research/Partnership
\$169,900	Graduate Student

Find a complete list of projects on page 3.

## Farmer and rancher impacts 2019-2024

SARE grantees have reported the following impacts from their projects:

**3,320 farmers participated in a SARE-funded project**

**311 farmers reported a change in knowledge, awareness, skills or attitude**

**21 farmers changed a practice**



Learn about local impacts at:  
[western.sare.org/sare-in-your-state/idaho/](https://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-profiles/idaho/](https://western.sare.org/state-profiles/idaho/) to learn more.

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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.

For detailed information on SARE projects, go to  
**[www.SARE.org](https://www.SARE.org)**



# AGRICULTURE PROJECTS FUNDED IN IDAHO

by USDA's  
Sustainable Agriculture Research and Education (SARE) Program

Idaho has been awarded \$6,249,516 grants to support 81 projects, including but not limited to, 25 research and/or education projects, 11 professional development projects and 34 producer-led projects. Idaho has also received additional SARE support through multi-state projects.

## RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
SW24-009	Using Milk Urea Nitrogen as a Nutritional and Environmental Decision-Making Tool to Improve Dairy Sustainability	\$349,999	Dr.Izabelle Teixeira University of Idaho Dr.Mireille Chahine University of Idaho Pedram Rezamand University of Idaho Dr.Bruce Richards Utah State University Amy Skibiel University of Idaho Dr.Hernan Tejeda University of Idaho
SW23-946	Evaluating benefits of neonatal calf gut-originated probiotics, as direct-fed microbials (DFMs), during the weaning transition to improve calf health	\$349,875	Dr.Denise Konetchy, DVM University of Idaho Dr.Amin Ahmadzadeh, PhD University of Idaho Dr.Bruna Calvo Agostinho, PhD University of Idaho Dr.Leluo Guan, PhD University of Alberta Dr.Anne Laarman, PhD University of Alberta Pedram Rezamand University of Idaho Dr.Hernan Tejeda University of Idaho
SW23-944	Seeds underhoof: can the soil seed bank facilitate restoration of sheep-grazed, cheatgrass-invaded rangelands?	\$71,104	Dr.Kelly Hopping Boise State University Kerry Byrne Department of Environmental Science and Management, Cal Poly Hum

SW22-940	Pacific Northwest Cover Crop Decision Aid System	\$349,697	Dr.Sanford Eigenbrode University of Idaho Kendall Kahl University of Idaho - Soil and Water Systems Dr.Subodh Adhikari University of Idaho Ryan Boylan Palouse Conservation District Tracy Ericksen The Eriksens Garry Esser Esser Farms Dr.Douglas Finkelburg University of Idaho Mark Greene Sheryl Hagen-Zacharison Zacharison farm Dr.Patrick Hatzenbuehler University of Idaho Lucas Sheneman University of Idaho Chloe Wardropper University of Idaho Frank Wolf Lester Wolf Farms Clint Zenner Zenner Family Farm
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

SW21-922	Soil health and profitability implications of including brown mustard and its products in an integrated wireworm management system	\$349,919	Dr.Kurtis Schroeder University of Idaho Dr.Arash Rashed University of Idaho Dr.Erik Wenninger 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 Wayne Westberg
SW18-015	On-farm evaluation and demonstration of advanced manure solidliquid separation technologies for a sustainable dairy industry in Idaho	\$287,466	Dr.Lide Chen University of Idaho
SW16-031	Optimizing Water and Nitrogen Use for Sustainable Wheat Production	\$249,939	Dr.Olga Walsh University of Idaho
SW11-122	Incorporating Cover Crops and Green Manure in High-Desert Organic and Conventional Farming Systems	\$47,628	Lauren Golden University of Idaho
SW06-083	Black Soldier Fly Larvae as a Tool for Managing Animal Waste and Providing a Food Source for the Aquaculture Industry	\$117,682	Sophie St-Hilaire Idaho State University
SW06-039	'Living on the Land' Stewardship Education Program Expansion	\$160,204	Stephanie Etter University of Idaho Extension
SW05-142	Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations	\$135,756	Amanda Shiffler University of Idaho Dr.Bryan Hopkins BYU
SW05-067	Assessment and Demonstration of the Sustainability of Long vs. Short Potato Rotations	\$179,403	Bryan Hopkins University of Idaho
SW05-039	Using farmer-rancher input to develop and implement experiential educational opportunities for beginning farmers and ranchers	\$160,056	Cinda Williams University of Idaho Extension

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
SW02-004	Reducing Nitrogen and Phosphorus Excretions from Dairies in Gooding and Jerome Counties, Idaho	\$145,672	Alexander Hristov University of Idaho
SW02-037	Promoting Sustainable Potato Cropping Systems	\$158,477	Bryan Hopkins 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**

Project #	Project Title	SARE Support	Project Leaders
WPDP24-005	A hands-on UAS training for ag professionals to sustain western agriculture in a changing climate	\$100,000	Dr.Jae Ryu University of Idaho Linda Schott University of Idaho
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 John Hewlett University of Wyoming, Department of Agricultural Economics Dr.Hernan Tejeda University of Idaho Joel Schumacher Montana State University
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
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
<b>FARMER/RANCHER GRANTS</b>			
<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
FW24-003	Continued no-till research with locally sourced biological and mineral inputs for greenhouse tomato production	\$24,984	Jonah Sloven Sweet Hollow Farm
FW22-407	Building a holistic, biologically rich, healthy vineyard in order to produce a wine with higher nutrient density and superb flavor	\$24,850	Ron Bitner, Phd Bitner Vineyards
FW22-393	Cardboard layering deep compost mulch for weed suppression, soil health, and profitability	\$24,920	Jonah Sloven Sweet Hollow Farm
FW17-039	Saving Water and Improving Soil Health Through LESA, Cover Crops, No-Till, and Management Intensive Grazing	\$20,000	Pat Purdy Pat Purdy
FW17-055	No-till potatoes into cover crop, using mod. conv. planter	\$20,000	Jeff Parkinson Jeff Parkinson
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
FW08-318	IBC Technical Services to Farmer's/Ranchers for Online Markets in South Central Idaho	\$29,997	Judy Hall Idaho's Bounty Co-op



FW08-031	What Good Are Pasture-Raised Ducks to Whole Farm Systems?	\$14,942	Mary Rohlfig
FW06-042	Harvest Frequency, Yield and Economics of Summer Squash	\$4,730	Karen Strickler
FW06-036	Winter and Summer Greenhouse Production for Small-scale Growers	\$6,235	Brad Jaeckel Orchard Farm
FW06-015	Extending Forage Season with Multi-functional Browse Islands	\$8,560	Juvia Judd Lazy M Suris Deborah Berman Lazy M Suris
FW05-007	Controlling Common Tansy with Sheep	\$3,422	Kimberly McConnaghy
FW04-203	Optimizing Spatial & Temporal Aspects of Designs for Small-Scale Diverse Farms	\$5,500	Bridget Betta Bunzel Bunzel Organics
FW03-307	Ovine Browsing for Brush Control of Forested Environments	\$7,500	Jeff Nauman Idaho Department of Lands
FW01-056	Farmers Educating Farmers: Developing a Soil Quality Indicator Guide	\$10,500	Kyle Wilson Natural Resource Conservation Agency
FW01-039	Noxious Weed Grazing with Goats	\$7,000	Bonnie Jensen Lemhi County Ext.
FW01-025	Developing a Sustainable Market for Small Farms in a Rural Community	\$7,385	Diane Green Grentree Naturals
FW00-052	Low Stress Stockmanship School for Lemhi County, ID	\$5,450	Wally Butler
FW00-259	The Farm to Fork Exchange	\$4,625	Nate Jones
FW99-012	Automated On-Farm Irrigation Water Diversion Gate	\$3,890	George Davis
FW99-076	On-Site Rearing of Beneficial Predatory Mite Species	\$4,200	Richard Nathanson

FW98-099	Wiersema Dairy Agroforestry Project	\$5,000	Jim Wiersema
FW98-097	Fear and Loathing in the Potato Patch: Controlling Nematodes with Rape Seed Meal and Green Manures	\$9,910	John O'Connor
FW97-024	Systems Thinking in a Range Environment	\$5,000	Jay Black
FW97-044	Paradise Time Controlled Grazing	\$5,000	Mark Pratt
FW97-049	Non-Irrigated Alfalfa Performance Trial, Benewah County, Idaho	\$3,500	Christina Crawford
FW96-060	Economic Viability of Greenhouse Solarization	\$2,450	Larry Higgins
FW95-046	Developing an Idaho-Based Marketing Cooperative for Sustainability and Locally Grown Produce	\$4,622	Janie Burns Meadowlark Farms
FW95-080	Squash Bug Management Through Introduction of Game Birds	\$2,740	Jill Kohler Eagle Organic Farms
FW95-034	Row Spacing Effect on Weed Suppression	\$530	Lee Griffiths
FW95-025	Biological Control in Idaho Alfalfa Seed Fields	\$5,000	Larry Sorenson Sorenson Farms

#### GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GW24-012	Evaluation of Biofumigants for Eradication of <i>Globodera pallida</i> in Idaho	\$30,000	Louise-Marie Dandurand University of Idaho Bhupendra Bhatta University of Idaho
GW23-250	Cereal Cover Crops for Weed Control in Organic and Conventional Dry Bean Production Systems	\$30,000	Albert Adjesiwor University of Idaho Prayusha Bhattarai University of Idaho
GW23-256	Nematicide Development from <i>Solanum sisymbriifolium</i> for Sustainable Eradication of <i>Globodera pallida</i> in Idaho	\$29,943	Louise-Marie Dandurand University of Idaho Lindsay Schulz University of Idaho

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
GW20-206	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
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

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
OW23-382	Precipitated Calcium Carbonate to Remediate Acidic Eastern Idaho Soils	\$75,000	Dr.Jared Spackman University of Idaho Jared Gibbons University of Idaho Justin Hatch University of Idaho Tom Jacobsen University of Idaho Joseph Sagers University of Idaho
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

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**Total funding from the USDA SARE program to  
Idaho  
\$6,249,516**

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For further information on projects, contact Western SARE at (406) 994-4785 or [wsare@montana.edu](mailto:wsare@montana.edu).

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