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 $404 million to more than 8,776 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 in Hawaii
SARE: Advancing the Frontier of Sustainable Agriculture in...

Hawaii

Project Highlight: Pest Reduction on Agricultural Lands due to Hawaiian Short-eared Owls
If you can encourage a threatened native species, help control non-native pests, benefit the state’s farmers, and preserve a culturally important icon, you’ve hit an ecological grand slam. That’s exactly what the University of Hawaii’s Melissa Price is trying to do with the islands’ pueo owls. The native pueo have an important place in the island’s spiritual life and are listed as threatened on Oahu. Exact numbers are hard to come by. Getting a better idea of the population and distribution of pueo was one of the objectives of Price’s project. In fact, the owls are so hard to count, some people told Price her team would be lucky to find any pueo at all. However, based on sightings and surveys, Price has documented the birds nest in wetlands, at higher elevations, and in native forests under ferns.

Hawaii also has barn owls, which were introduced to the island ecosystem in the 1950s, but barn owls prey on both native and non-native species. Price’s research documented the seasonal use of agricultural lands by pueo and developed recommendations for producers on how to conserve or create pueo habitat to get their pest-management benefits. Due to increased knowledge about pueo, producers are now helping to achieve a “win-win-win” for the native Pueo, for Hawai’i conservation, and for economic benefits to agriculture.

For more information on these projects, see sare.org/projects, and search for project number OW18-017.

SARE in Hawaii
western.sare.org/state-profiles/hawaii/

$9,731,138 in total funding
144 grant projects
(since 1988)

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

www.sare.org
SARE in Hawaii

Grants awarded
2019–2024

Total awards: 39 grants
15 Farmer/Rancher
8 Research and Education
4 Professional Development Program
4 On Farm Research/Partnership
8 Graduate Student

Total funding: $3,586,367
$329,002 Farmer/Rancher
$2,446,812 Research and Education
$339,578 Professional Development Program
$249,073 On Farm Research/Partnership
$221,902 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:

4,783 farmers participated in a SARE-funded project
1,167 farmers reported a change in knowledge, awareness, skills or attitude
191 farmers changed a practice

Find a complete list of projects on page 3.

Photo credit: Olha Sydorovych

Learn about local impacts at:
western.sare.org/sare-in-your-state/hawaii/

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/hawaii/ to learn more.

Sharon Motomura-Wages
University of Hawaii
(808) 969-8250
smotomur@hawaii.edu

Jensen Uyeda
University of Hawaii at Manoa
(808) 384-7110
juyeda@hawaii.edu

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

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA).
AGRICULTURE PROJECTS FUNDED IN HAWAII
by USDA’s Sustainable Agriculture Research and Education (SARE) Program

Hawaii has been awarded $9,234,590 grants to support 134 projects, including but not limited to, 33 research and/or education projects, 20 professional development projects and 55 producer-led projects. Hawaii 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>SW24-003</td>
<td>Improving the sustainability of avocado lace bug (Pseudocysta perceae)</td>
<td>$348,022</td>
<td>Dr. Angelita Acebes-Doria&lt;br&gt;DKI US Pacific Basin Agricultural Research Center, USDA Agricultural Research Service</td>
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<tr>
<td>SW24-008</td>
<td>Breadfruit Agroforestry - Overcoming Barriers to Adoption</td>
<td>$313,337</td>
<td>Dr. Noa Lincoln&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Sharon Wages&lt;br&gt;University of Hawaii</td>
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<tr>
<td>SW24-010</td>
<td>Developing a Pesticide Resistance Management regime utilizing soluble silicon fertilizer</td>
<td>$348,523</td>
<td>Dr. Joanna Bloese&lt;br&gt;University of Hawaii&lt;br&gt;Dr. Teresita Amore&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Russell Galanti&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Dr. Lisa Keith&lt;br&gt;USDA ARS&lt;br&gt;Hannah Lutgen&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Dr. Stuart Nakamoto&lt;br&gt;U. of Hawaii Manoa, Human Nutrition, Food, and Animal Sciences&lt;br&gt;Dr. Alberto Ricordi&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Dr. Jon Suzuki&lt;br&gt;USDA ARS</td>
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<td>SW23-955</td>
<td>Seedless Leucaena hybrids for sustainable silvopasture systems</td>
<td>$348,722</td>
<td>Dr. Travis Idol&lt;br&gt;University of Hawaii&lt;br&gt;Dr. Dulal Borthakur&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Dr. Rajesh Jha&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Melelani Oshiro&lt;br&gt;University of Hawaii at Manoa&lt;br&gt;Shannon Sand&lt;br&gt;University of Hawaii at Manoa</td>
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<tr>
<td>Project Code</td>
<td>Title</td>
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<td>Principal Investigator(s)</td>
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<tr>
<td>SW22-935</td>
<td>Wildlife Impacts on Agroecosystems and Culture: Achieving Integrated Pest Management of Invasive Ungulates in Hawai‘i</td>
<td>$349,979</td>
<td>Dr. Melissa Price &lt;br&gt;University of Hawaii &lt;br&gt;Kyle Caires &lt;br&gt;University of Hawaii &lt;br&gt;Derek Risch &lt;br&gt;University of Hawaii &lt;br&gt;Stephanie Shwiff &lt;br&gt;USDA National Wildlife Research Center, Dept of Economics &lt;br&gt;John Steensma &lt;br&gt;Steensma Dairy &lt;br&gt;Dr. Mark Thorne &lt;br&gt;University of Hawaii at Manoa</td>
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<tr>
<td>SW22-936</td>
<td>Entomopathogenic Bombs – Sweet Potato Weevils Be Gone</td>
<td>$336,848</td>
<td>Dr. Brent Sipes &lt;br&gt;University of Hawaii &lt;br&gt;Roshan Manandhar &lt;br&gt;University of Hawai‘i &lt;br&gt;Dr. Koon-Hui Wang &lt;br&gt;University of Hawaii</td>
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<tr>
<td>SW21-920</td>
<td>Economic Evaluation of Beef Cattle Production Models and Marketing Alternatives in Hawaii</td>
<td>$51,386</td>
<td>Dr. Mark Thorne &lt;br&gt;University of Hawaii at Manoa &lt;br&gt;Dr. Dillon Feuz &lt;br&gt;Utah State University</td>
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<tr>
<td>SW20-911</td>
<td>Instant biofumigation using natural products from papaya seed waste for sustainable management of soil-borne plant pathogens</td>
<td>$349,995</td>
<td>Dr. Wei Wen Su &lt;br&gt;University of Hawaii at Manoa, College of Tropical Ag &amp; Human Resources (CTAHR) &lt;br&gt;Dr. Stuart Nakamoto &lt;br&gt;U. of Hawaii Manoa, Human Nutrition, Food, and Animal Sciences &lt;br&gt;Dr. Koon-Hui Wang &lt;br&gt;University of Hawaii &lt;br&gt;Dr. Tao Yan &lt;br&gt;Dept. of Civil &amp; Environ. Engineering, University of Hawaii at Manoa</td>
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<tr>
<td>SW17-050</td>
<td>Assessing and Sharing Breadfruit Management Practices</td>
<td>$220,811</td>
<td>Dr. Noa Lincoln &lt;br&gt;University of Hawaii at Manoa</td>
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<tr>
<td>SW16-021</td>
<td>Improving Nitrogen Synchronization of Local Fertilizers, Soil Fertility, and Crop Quality with Biochar Application</td>
<td>$259,816</td>
<td>Dr. Nguyen Hue &lt;br&gt;University of Hawaii at Manoa</td>
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<td>SW16-023</td>
<td>Development of Individual Free-Choice Mineral Supplementation Program for Sustainable Grazing Management of Hawaii’s Rangelands</td>
<td>$332,601</td>
<td>Dr. Mark Thorne &lt;br&gt;University of Hawaii at Manoa</td>
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<tr>
<td>Project Code</td>
<td>Title</td>
<td>Funding Amount</td>
<td>Principal Investigator(s)</td>
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<td>SW14-026</td>
<td>High nutrient solution fertilizers derived from local organic inputs for field and greenhouse application in the tropics</td>
<td>$170,466</td>
<td>Dr. Amjad Ahmad University of Hawaii at Manoa</td>
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<tr>
<td>SW12-040</td>
<td>Low-input integrated management of tomato viruses in Hawaii</td>
<td>$297,296</td>
<td>Dr. Mark Wright University of Hawaii</td>
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<tr>
<td>SW12-114</td>
<td>Secondary Effects of Behavior-based Pasture Management</td>
<td>$37,125</td>
<td>Matthew Stevenson University of Hawaii</td>
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<tr>
<td>SW11-052</td>
<td>Developing sustainable pest management strategies against major pests of papaya in Hawaii</td>
<td>$148,174</td>
<td>Dr. Leyla Kaufman University of Hawaii at Manoa</td>
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<tr>
<td>SW11-055</td>
<td>Reducing Pacific Island Growers’ Reliance on Off-island Fertilizer Sources Through Improved Awareness and Efficient Use of Local</td>
<td>$284,070</td>
<td>Dr. Theodore Radovich University of Hawaii, Manoa</td>
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<tr>
<td>SW09-102</td>
<td>Voluntary Long-Term Protection of Agricultural Land in Hawaii</td>
<td>$82,814</td>
<td>Dr. Christopher Lepczyk University of Hawaii at Manoa</td>
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<tr>
<td>SW09-502</td>
<td>Sustaining Molokai Native Hawaiian Family Farms</td>
<td>$47,420</td>
<td>Alton Arakaki UH-College of Tropical Agriculture and Human Resources, Cooperative Extension Service; Glenn Teves UH CTAHR Cooperative Extension Service</td>
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<tr>
<td>SW08-037</td>
<td>Sunn hemp and its allelopathic compounds for vegetable production in Hawaii and beyond</td>
<td>$156,105</td>
<td>Dr. Inga Zasada USDA-ARS Horticultural Crops Research Lab Dr. Koon-Hui Wang University of Hawaii Dr. Cerruti R. R. Hooks University of Maryland Dr. Ming Li Wang USDA-ARS, PGRCU Jari Sugano University of Hawaii, TPSS Dr. Mark Wright University of Hawaii</td>
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<td>SW07-073</td>
<td>Enhancing Phytonutrient Content, Yield and Quality of Vegetables with Compost Tea in the Tropics</td>
<td>$162,500</td>
<td>Dr. Theodore Radovich University of Hawaii, Manoa</td>
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<tr>
<td>Project Code</td>
<td>Project Title</td>
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| SW07-501     | Innovative SARE Coordinator Program: Virtual Field Days to Improve Farmer-Researcher-Extension Linkages | $25,000 | Jonathan Deenik  
University of Hawaii at Manoa                                                                 |
| SW07-604     | Improving and extending the superhero status of the sunn hemp to other growers in need of help    | $10,000 | Dr. Cerruti R. R. Hooks  
University of Maryland  
Dr. Koon-Hui Wang  
University of Hawaii |
| SW04-064     | Management of Banana Bunchy Top in Hawaii                                                        | $90,458 | Dr. Cerruti R. R. Hooks  
University of Maryland |
| SW03-003     | Cropping Systems to Control Tropical Soil-Borne Pests in Dryland-Grown Taro                       | $257,827 | Dr. Susan Miyasaka  
University of Hawaii |
| SW03-010     | Neem and Papaya Fruit Extracts and Ferric Phosphate for Control of Golden Apple Snail in Wetland Taro: Efficacy Testing | $31,831 | Lance Santo  
Hawaii Agriculture Research Center  
Mel Jackson  
Hawaii Agriculture Research Center |
| SW03-055     | Development of a Sustainable Polyculture and Marketing System for Exotic Tropical Fruits         | $156,800 | Richard Bowen  
Department of Nat Res and Envir Mngt |
| SW01-066     | Nature Farming at Wheeler Elementary                                                             | $13,460 | Joe Lee  
Wheeler Elementary School |
| SW99-005     | Survival of Taro: Agronomic and Pathological Research For Sustainable Production                  | $146,700 | Janice Uchida  
Dept. of Plant Pathology, University of Hawaii |
| SW99-022     | Adaptation of a Natural Farming System to Vegetable Farm Production in Hawaii.                    | $85,134 | Clyde Fukuyama  
HARC |
| SW97-001     | Management of Soil-borne Plant Parasitic Nematodes for Sustainable Production of Field Grown Tomatoes and Cucumbers by Cover Cropping | $21,900 | John McHugh  
Walkele Farms |
| SW96-003     | Evaluation of a Perennial Vegetable, Asparagus, as a New Commercial Crop for Hawaiian Farmers     | $49,595 | Susan Schenck  
Hawaiian Agriculture Research Center |
| LWE92-002    | Integrated Hog Farming and Market Gardening for Small Farmers in Tropical Areas of the Western Region | $36,000 | Kent Fleming  
University of Hawaii at Manoa |
A Comparative Study of Low Input and High Input Taro Production in American Pacific with Special Reference to Pest Control

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

<table>
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<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tbody>
<tr>
<td>WPDP24-031</td>
<td>Building Bridges Across the Pacific: Harnessing Island and Remote Area Regional Food Business Centers to Promote Sustainable Agricultural Extension</td>
<td>$99,880</td>
<td>Lucas McKinnon, Hawaii Good Food Alliance, Michelle Crisostomo, Guahan Sustainable Culture, Sharon Hurd, Hawaii Department of Agriculture, Robbi Mixon, Alaska Food Policy Council, Amanda Shaw, HI Agriculture TA Hui; Oahu Ag and Conservation Ass., Jensen Uyeda, University of Hawaii</td>
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<tr>
<td>WPDP23-012</td>
<td>Training Market Systems Facilitators to Improve the Economic Viability of Hawai‘i’s Small Farms</td>
<td>$89,983</td>
<td>Dennis Flemming, Hamakua Institute, Adhann Iwashita, Hamakua Institute, Andrea Kuch, Hamakua Institute, Melissa Nagatsuka, Hamakua Institute</td>
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<tr>
<td>WPDP19-21</td>
<td>Building Competencies in Hawaii’s Agricultural Professionals and Stakeholders in Under Represented Agricultural Communities Through Collaborative Partnerships. State of Hawaii.</td>
<td>$75,000</td>
<td>Joshua Silva, University of Hawaii at Manoa, College of Tropical Agriculture and Jari Sugano, University of Hawaii, TPSS, Michelle Gorham, West Oahu Soil and Water Conservation District, Dr. Koon-Hui Wang, University of Hawaii</td>
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<tr>
<td>EW18-023</td>
<td>Capacity building for Cooperative Extension in Micronesia to reduce Pacific Island food system vulnerability to climate variability</td>
<td>$74,858</td>
<td>Clay Trauernicht, University of Hawaii</td>
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<tr>
<td>Grant Code</td>
<td>Project Title</td>
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<td>Principal Investigator(s)</td>
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<tr>
<td>EW17-004</td>
<td>Breadfruit Agroforestry for Pacific Island Revitalization</td>
<td>$73,689</td>
<td>Craig Elevitch</td>
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<tr>
<td>EW16-008</td>
<td>Agroforestry Design for Sustainable Production Systems in the U.S.-Affiliated Pacific Islands</td>
<td>$73,970</td>
<td>Craig Elevitch</td>
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<td>EW13-010</td>
<td>Pollinator Use and Management: Training in Sustainable Practices for Ag Professionals</td>
<td>$65,386</td>
<td>Dr. Ethel Villalobos</td>
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<tr>
<td>EW11-014</td>
<td>Hawai'i Community-Based Food Security</td>
<td>$58,520</td>
<td>Craig Elevitch</td>
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<td>EW08-013</td>
<td>Promoting Adaptive Management With 'Tropic Sun' sunn hemp (Crotolaria juncea) in Hawaii for Ecological Strategies in Weed Control, Nematode Suppression and Nutrient Management</td>
<td>$53,768</td>
<td>Dr. James Leary</td>
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<tr>
<td>EW07-004</td>
<td>New Crops for Pacific Island Agroforestry</td>
<td>$80,000</td>
<td>Craig Elevitch</td>
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<tr>
<td>EW05-009</td>
<td>Pacific Island Agroforestry Workshops and Field Visits</td>
<td>$59,777</td>
<td>Craig Elevitch</td>
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<tr>
<td>EW03-002</td>
<td>New Farmers: Choosing the Road Less Traveled</td>
<td>$90,000</td>
<td>Samir El-Swaify</td>
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<td>EW02-001</td>
<td>Species Profiles for Pacific Island Agroforestry</td>
<td>$94,971</td>
<td>Craig Elevitch</td>
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<tr>
<td>EW00-026</td>
<td>Sustainable Pest Control for the Tropics</td>
<td>$78,090</td>
<td>Richard Bowen</td>
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<tr>
<td>EW98-004</td>
<td>Agroforestry Handbooks for Pacific Islands</td>
<td>$57,885</td>
<td>Craig Elevitch</td>
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<tr>
<td>EW98-012</td>
<td>Covering New Ground: Tropical Cover Crops for Improving Soil Quality</td>
<td>$84,500</td>
<td>Richard Bowen</td>
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<tr>
<td>EW97-003</td>
<td>Tools for Sustainability: Sustainable Agriculture Video Training Tapes for the Pacific Islands Region</td>
<td>$64,295</td>
<td>John Craven</td>
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<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
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<tr>
<td>EW96-014</td>
<td>Continuation - &quot;Training Agents&quot; in On-Farm Implementation of Sustainable Management Systems for Tropical Agriculture in Hawaii and the Pacific Region</td>
<td>$63,623</td>
<td>Po-Yung Lai University of Hawaii</td>
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<tr>
<td>EW94-014</td>
<td>Training &quot;Agents&quot; in On-Farm Implementation of Sustainable Management Systems for Tropical Agriculture in Hawaii and the Pacific Region</td>
<td>$89,000</td>
<td>Po-Yung Lai University of Hawaii</td>
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<tr>
<td>FW24-007</td>
<td>Pono ACRES: Establishing a Functional Forest Demonstration Site Using the Hybrid Ecosystem Model</td>
<td>$24,950</td>
<td>Shari Tresky Wailea Spring Farm</td>
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<tr>
<td>FW24-012</td>
<td>Piloting an Integrated, decoupled aquaponics system for sustainable fish production.</td>
<td>$23,814</td>
<td>Elko Evans Honest Greens</td>
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<td>FW24-014</td>
<td>Improving Sustainable Coconut Production in Hawaii through Producer-Driven Tissue Culture Propagation and Threat Education</td>
<td>$24,949</td>
<td>Halina Smolak New Eden Farms</td>
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<td>FW24-020</td>
<td>Evaluation of Pasture Forages to Improve Drought Tolerance in Combination with Biodynamic Agricultural Methods</td>
<td>$24,814</td>
<td>Marie Mauger Spirit of the Earth</td>
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<td>FW22-409</td>
<td>Improving Livelihoods of Farmers in Hawaii by Creating a Honey Marketing Model</td>
<td>$25,000</td>
<td>Susan Collins Bird and Bee Hawaii</td>
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<td>FW21-375</td>
<td>The Mango Loa Project phase two: Improving Hawaii’s mango industry by incorporating high density orchard management systems</td>
<td>$16,533</td>
<td>Umi Martin Umi Martin</td>
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<td>FW21-378</td>
<td>Growing Table Grape Varieties for Subtropical Hawaii Using Organic Practices</td>
<td>$25,000</td>
<td>Gerry Herbert Kawanui Farm</td>
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<td>FW21-381</td>
<td>Evaluating the Potential of Cover Crops to Mitigate the Impact of Phytophthora in Macadamia Orchards</td>
<td>$24,574</td>
<td>Andrew Trump Island Harvest Inc.</td>
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<td>FW20-366</td>
<td>Integration of Multifunctional Dairy Water Buffalo (Bubalus bubalis) into a Whole Farm System in Hawaii: economic, ecological and social benefits.</td>
<td>$19,178</td>
<td>Donald Heacock, Kauai Organic Agroecosystems (KOA)</td>
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<td>FW20-368</td>
<td>Mamaki – Fertilization and branch bending trials for continuous leaf flush and soil fertility</td>
<td>$20,000</td>
<td>Dr. Ming Wei Koh, Center for Getting Things Started</td>
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<tr>
<td>FW20-370</td>
<td>Establishing &quot;Bush Tucker&quot; in Hawaii</td>
<td>$22,870</td>
<td>Ken Love, Hawaii Tropical Fruit Growers</td>
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<td>FW19-339</td>
<td>Demonstrating Viability of Cooperative Swine Aggregator Using Inoculated Deep Litter System</td>
<td>$25,000</td>
<td>Atto Assi, Ohana Coffee Farm &amp; Assi Piggery</td>
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<td>FW19-344</td>
<td>Different Poultry Housing Options for Chickens to Determine Fastest Growth Rate</td>
<td>$13,700</td>
<td>Nicole Correa, Double D Farm and Ranch L.L.C.</td>
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<td>FW19-349</td>
<td>Performance of novel clonal cacao accessions in Hawaii under sustainable farming conditions</td>
<td>$20,000</td>
<td>Dr. Pierre Broun, Ninole Cacao LLC</td>
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<td>FW19-350</td>
<td>Comparing Bird Deterrent Strategies to Increase Sustainability and Production of Fruit Crops in Hawaii</td>
<td>$18,620</td>
<td>Paul De Filippi, Mauka Vista Farms LLC</td>
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<tr>
<td>FW18-052</td>
<td>A Living Mulch Income Enhancer</td>
<td>$19,092</td>
<td>Kevin Chan, Kevin Chan</td>
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<td>FW18-034</td>
<td>Can Intensive Rotational Grazing in combination with Indigenous Microorganism Application improve soil condition (i.e., soil carbon, minerals, and microbial life)?</td>
<td>$19,953</td>
<td>Kyle Fisher, Graze and Sprout Farm</td>
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<tr>
<td>FW17-034</td>
<td>The Mango Loa Project</td>
<td>$19,878</td>
<td>Umi Martin, Umi Martin</td>
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<tr>
<td>FW16-003</td>
<td>Establishing Profitable Durian Crops in Hawaii</td>
<td>$28,192</td>
<td>Ken Love, Hawaii Tropical Fruit Growers</td>
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<tr>
<td>FW16-023</td>
<td>Malama Kou Kino</td>
<td>$20,000</td>
<td>Melanie Holt, Real Farm</td>
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</table>
FW15-035  Producing Triploid Oysters  $24,992  David Nisbet  Goosepoint Oyster Co.

FW12-034  Grapes for tropical Hawaii  $17,370  Ken Love  Hawaii Tropical Fruit Growers


FW10-040  Relocating swarms for pollination: How feral bees can be integrated into sustainable farming strategies  $29,975  Jennifer Bach  Honeybee Education Program

FW10-056  Use of Cover Crops with Medicinal Herbs in North Hawaii  $20,117  Dr.Katherine Pomeroy  Kohala Medicinal Herb Farm

FW09-002  No Chill Stone Fruit for Hawaii  $9,528  Ken Love  Hawaii Tropical Fruit Growers

FW09-004  Integrating Existing Crop and Livestock Enterprises on a Native Hawaiian Homestead Farm  $12,580  Conrad Aquino  Alton Arakaki  UH-College of Tropical Agriculture and Human Resources, Cooperative Extension Service

FW09-012  Project Fresh: Mountain View Community Gardens  $30,000  Neena Roumell  Eden Earthworks

FW09-025  Maximizing the Utilization of Bamboo in the Hawaiian Islands  $14,460  Rich von Wellsheim  Whispering Winds Bamboo

FW09-027  Evaluating New Windbreaks and Cover Crops for Tropical Fruit Crops  $12,206  Jane Teves  Puakala Farms

FW09-308  Quantifying Secondary Compounds in Common Pasture Vegetation for Behavior Based Grazing Management in Hawaii  $41,760  Dr.Mark Thorne  University of Hawaii at Manoa

FW09-311  Diversifying Hawai’i Aquaculture with Clam and Oyster Culture  $50,000  Dr.Maria Haws  Pacific Aquaculture and Coastal Resources Center
**Healthy Foundation, Healthy Bees, Making Organic Wax Foundation for Beekeepers**

$13,999

Richard Spiegel
Volcano Island Honey Co.

**Choosing the Best Figs for Hawaii**

$25,000

Ken Love
Hawaii Tropical Fruit Growers

**A Superhero without a Cape: Using the Cover Crop Sunn Hemp to Feed the Soil, Suppress Nematodes and Smother Weeds**

$7,716

Hooks Cerruti
University of Hawaii

**Conversion of Fish Processing Waste to Fish/Animal Feed, Chum and Fertilizer**

$6,695

Takumi Shirakawa
Shirakawa Farm

**Recovery of Tropical Pasture Systems**

$6,875

Dwayne Cypriano

**DDT Removal Using Biodynamic Agricultural Methods**

$6,932

Marie Mauger
Spirit of the Earth Farm

**Field Management/Mulch Project**

$5,232

Fernand Severi

**Grow Your Own Sustainable Barn**

$7,396

Robert Layer

**Increasing Marketable Production of Exotic Tropical Fruit with Protective Covering**

$12,850

Ken Love
Hawaii Tropical Fruit Growers

**Increasing Sustainable Agricultural Production in High Polynesian Islands**

$7,500

Ivona Ballard
Whutnutsamoa

**Increasing the value of products from small family farms by enriching the culinary experience of the local consumers**

$4,000

Glenn Shinsato
Univ of HI

**Rejuvenation of a 60 Year Old Lychee Orchard by Pruning and Fertilizer Applications to Maximize Production**

$4,000

Elisabeth Ladoux

**An On-Farm Educational Approach to Directly Marketing "the Other White Meat"**

$9,900

Daphne McKeehan
Hot Water Immersion Unit for Disinfestation of Hawaii-Grown Lychee and Longan
$5,000
Michael Strong

Flower Induction of Rambutan
$2,100
Liloa Willard

Lone Palm Sprouts Water Recapture and Recycle System
$5,000
Davide Rotstein

The Conversion of Agricultural Waste into Plant and Fish Food
$3,400
Robert Gann

Free Range Pork Production
$5,390
Samuel Okami

Total Utilization of Swine Waste for Crop and Hog Productivity
$4,985
Rondald McKeehan

High Quality Perennial Forage Peanut (Arachis pintal) Pastures for Sustainable Cattle Production in Hawaii
$5,000
Zach Gibson

Sustainable Alternatives To Herbicide for Weed Control: Using Cover Crops To Combat Panicum repens and Panicum maximum In Lowland, Eastern Hawaii
$3,500
Paul Acciavatti
Wailea Spring Farm

Growing Ring-Spot Virus-Free Papayas Using Anti-transpirants and Other Sustainable Techniques
$4,000
Jon Biloon

Sustainable Greenhouse Tomato Production: Evaluating Alternatives to Pesticide Use for Controlling Tomato Pinworm Larvae in Hawaii
$3,520
Shari Tresky
Wailea Spring Farm

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**GRADUATE STUDENT GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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</thead>
<tbody>
<tr>
<td>GW24-006</td>
<td>Integrating the Farmer into Pest Management Innovation for Sweetpotatoes.</td>
<td>$30,000</td>
<td>Dr.Koon-Hui Wang University of Hawaii</td>
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<td>Dr.Thao Le University of Hawaii</td>
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<td>Benjamin Wiseman University of Hawaii at Manoa</td>
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</tbody>
</table>
| GW24-007 | Improving Sustainable Hawaiian Sandalwood Silviculture and Endemic Species Conservation with Mixed Stand Management | $30,000 | Dr. Travis Idol  
     University of Hawaii  
     James Friday  
     University of Hawai‘i at Manoa  
     Pandu Wirabuana  
     University of Hawai‘i at Manoa |
| GW22-233 | Examining the biofumigation and innate potential of ground papaya seeds to induce host plant resistance against soil-borne pathogens in Hawaii | $29,348 | Dr. Koon-Hui Wang  
     University of Hawaii  
     Lauren Braley  
     University of Hawaii, Manoa |
| GW22-234 | The evolution and importance of Natural Varroa Resistance in Hawaii's Honeybees | $30,000 | Dr. Ethel Villalobos  
     University of Hawaii  
     Stephen Martin  
     University of Salford  
     Kevin Sander  
     University of Hawaii at Manoa |
| GW22-242 | Designing a Regenerative Systems Approach for Sustainable Turmeric Production | $29,521 | Dr. Theodore Radovich  
     University of Hawaii, Manoa  
     Alina Iliadis  
     University of Hawaii Manoa |
| GW20-211 | A key to sustainable Hawaiian agricultural production resides with the endemic sandalwood species | $24,997 | Dr. Travis Idol  
     University of Hawaii  
     Emily Thyroff  
     University of Hawai‘i Mānoa  
     Emily Thyroff  
     University of Hawai‘i |
| GW20-212 | Evaluate sorghum and sorghum-sudangrass hybrids as soil builders and microbial enhancer crops in the tropic. | $29,521 | Dr. Koon-Hui Wang  
     University of Hawaii  
     Dr. Amjad Ahmad  
     University of Hawaii at Manoa  
     Roshan Paudel  
     University of Hawaii  
     Joshua Silva  
     University of Hawaii at Manoa, College of Tropical Agriculture  
     Dr. Philip Waisen  
     University of California Agriculture and Natural Resources Division  
     Roshan Paudel  
     University of Hawaii |
| GW19-201 | A Hawai‘i Soil Health Index to Guide Farmer Adoption of Sustainable Management Practices | $23,036 | Jamie (Jayme) Barton, M.A.  
     Hawaii Agriculture Research Center  
     Dr. Susan Crow  
     University of Hawaii Manoa  
     Jonathan Deenik  
     University of Hawaii at Manoa  
     Elaine Vizka  
     University of Hawaii at Manoa |
<table>
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<th>Project #</th>
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<th>Project Leaders</th>
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</thead>
</table>
| GW18-026  | Cover Crop "5-in-1 Approach" for Nematode Management Using Mustard and Oil Radish | $24,998      | Dr.Koon-Hui Wang  
University of Hawaii  
Dr.Philip Waisen  
University of California Agriculture and Natural Resources Division |
| GW18-014  | Conditioning Sheep to Avoid Koa Foilage: An opportunity for productive silvopastures in Hawaii. | $24,920      | Rebecca Ryals  
University of Hawaii - Manoa  
Nicholas Krueger  
University of Hawaii - Manoa |
| GW18-104  | Conservation Biological Control of Coffee Berry Borer by Applying Nitrogen Fixing Tree Mulch to Enhance Indigenous Entomopathogenic Nematodes | $24,948      | Dr.Brent Sipes  
University of Hawaii  
Dr.Brent Sipes  
University of Hawaii |
| GW18-187  | Quantifying the Environmental Impact of Doubling Hawaii’s Local Food Supply | $21,119      | Dr.Kimberly Carlson  
University of Hawaii  
Tanya Torres  
University of Hawaii |
| GW14-007  | Evaluating the Potential of Oyster Mushroom Compost Waste for Plant-Parasitic Nematode Management | $24,920      | Dr.Koon-Hui Wang  
University of Hawaii  
Shelby Ching  
University of Hawaii at Manoa |

**ON FARM RESEARCH/PARTNERSHIP GRANTS**

<table>
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<th>Project #</th>
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<th>SARE Support</th>
<th>Project Leaders</th>
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| OW23-378  | Estimating the Application Rate of Locally Produced Liquid Organic Fertilizer to Meet Crop N Requirement | $74,547      | Dr.Amjad Ahmad  
University of Hawaii at Manoa  
Joshua Silva  
University of Hawaii at Manoa, College of Tropical Agriculture and Jensen Uyeda  
University of Hawaii |
| OW22-374  | Mitigation of Breadfruit Orchard Establishment Challenges in Hawai‘i: Assessing Best Practices to Address Weed Management and Ungulate Control | $74,998      | Dana Shapiro  
Hawaii Ulu Cooperative  
Kyle Jackson  
Hawai‘i 'Ulu Cooperative |
| OW20-354  | Healthy Soils Hawai‘i: Building Better Soil on Agricultural Lands through Soil Health Planning | $49,557      | Dave Elliott  
Oahu RC&D  
Hannah Hubanks  
Oahu RC&D |
| OW19-344  | Breadfruit Disease Identification and Varietal Resistance in Hawai‘i | $49,971      | Dr.Noa Lincoln  
University of Hawaii at Manoa  
Eli Isele  
University of Hawaii  
Dana Shapiro  
Hawaii Ulu Producers Cooperative  
Janice Uchida  
Dept. of Plant Pathology, University of Hawaii |
<table>
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<tr>
<th>Project ID</th>
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<th>Institution</th>
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<tr>
<td>OW18-017</td>
<td>Pest reduction on agricultural lands due to Hawaiian short-eared owls</td>
<td>$49,755</td>
<td>Dr. Melissa Price</td>
<td>University of Hawaii</td>
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<tr>
<td>OW17-037</td>
<td>Successful Cacao Establishment through Improved Soil Management</td>
<td>$49,789</td>
<td>Dave Elliott</td>
<td>Oahu RC&amp;D</td>
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<td>OW16-022</td>
<td>Cover Crop Cocktails: Evaluating Costs and Benefits of Mixed-Species Plantings</td>
<td>$41,606</td>
<td>Dave Elliott</td>
<td>Oahu RC&amp;D</td>
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<td>OW15-019</td>
<td>Sustainable Pest Management Approaches for High Tunnel Screenhouse Production in the Tropics</td>
<td>$49,989</td>
<td>Dr. Koon-Hui Wang</td>
<td>University of Hawaii</td>
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<td>OW13-034</td>
<td>Enhancing the sustainability of grass-fed beef production in Hawaii via carcass and meat quality improvement</td>
<td>$49,948</td>
<td>Dr. Yong soo Kim</td>
<td>University of Hawaii</td>
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<td>OW12-041</td>
<td>Effectiveness of Beauveria bassiana on coffee berry borer in different agroclimatic zones</td>
<td>$49,403</td>
<td>Dr. Elsie Burbano Greco</td>
<td>University of Hawaii at Manoa</td>
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<td>OW11-038</td>
<td>Control of coffee berry borer and increase of coffee yields using Surround WP (kaolin)</td>
<td>$47,648</td>
<td>Dr. Shawn Steiman</td>
<td>Coffea Consulting</td>
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<td>OW11-309</td>
<td>Training Livestock to Eat Weeds in the Tropical Pacific and Evaluating the Effects on Meat Quality for Stronger Ranch Profits</td>
<td>$49,610</td>
<td>Matthew Stevenson</td>
<td>University of Hawaii</td>
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<td>OW11-310</td>
<td>Master Farmer Workshop Series</td>
<td>$49,812</td>
<td>Dave Elliott</td>
<td>Oahu RC&amp;D</td>
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**Total funding from the USDA SARE program to Hawaii**

$9,234,590

For further information on projects, contact Western SARE at (406) 994-4785 or wsare@montana.edu. Sustainable Agriculture Research and Education (SARE) is funded by USDA’s National Institute of Food and Agriculture (NIFA).