

## 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 \$389 million to more than 8,542 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...

# Maine

**Project Highlight: Assessment of Nursery Gear Technology to Optimize Growth, Survival and Economic Efficiency in Farming Atlantic Sea Scallops**

Dr. Christopher Davis led a team of researchers at Pemaquid Oyster Company to study how producers can use nursery gear technology to develop new aquaculture businesses in Maine. For years, Maine has been characterized by a longstanding economic and cultural tradition of scallop fishing due to its ideal environmental conditions for sea scallop populations. Although there are numerous established Maine business entities with sea scallops, the abundance and profit opportunity of scallop harvesting indicates that this industry will continue to grow for years to come. To support the growth of this industry, Dr. Davis studied nursery technology to develop an innovative production strategy for sea scallop harvesters.

With the help of a SARE grant, Dr. Davis assessed five different nursery gear technologies by comparing growth rates, survival rates and the costs of using the different gear types. The results of this project are valuable to farmers looking to enter the sea scallop sector, especially existing aquaculture operations looking to diversify income and fishermen who rely on the competitive wild-caught market. The data from the study has the potential to optimize growth rates and survival of sea scallops, and may enable Maine sea-farmers to take advantage of the economic growth promised by sustainable sea scallop aquaculture.

For more information on this project, see [sare.org/projects](http://sare.org/projects) and search for project number FNE21-976.

## SARE in Maine

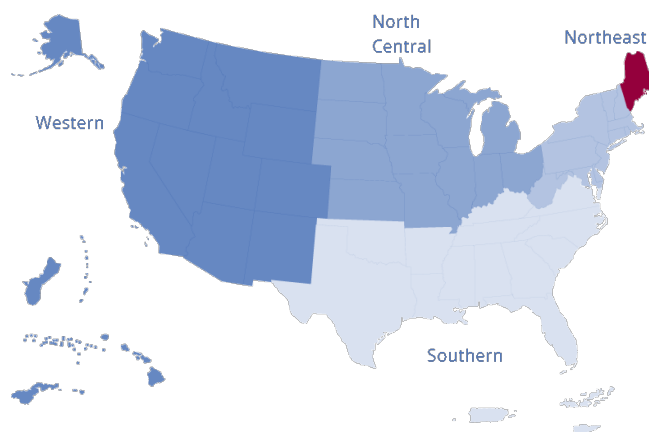
[northeast.sare.org/sare-in-your-state/maine](http://northeast.sare.org/sare-in-your-state/maine)

**\$9,121,226**  
**in total funding**

**263 grant projects**

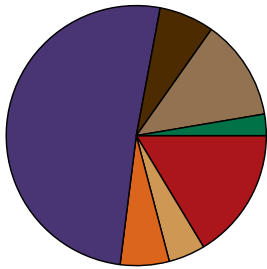
(since 1988)

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



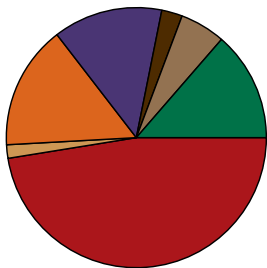
# SARE Grants in Maine

Total awards: 263 grants



43 Research and Education  
12 Sustainable Community Innovation  
16 Professional Development Program  
134 Farmer/Rancher  
18 Graduate Student  
33 On Farm Research/Partnership  
7 Research Only

Total funding: \$9,121,226



\$4,328,106 Research and Education  
\$152,859 Sustainable Community Innovation  
\$1,406,684 Professional Development Program  
\$1,240,677 Farmer/Rancher  
\$235,218 Graduate Student  
\$514,709 On Farm Research/Partnership  
\$1,242,973 Research Only

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:

[northeast.sare.org/sare-in-your-state/maine](http://northeast.sare.org/sare-in-your-state/maine)

## 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 [northeast.sare.org/state-pages/maine](http://northeast.sare.org/state-pages/maine) to learn more.

Ellen Mallory  
University of Maine  
(207) 581-2942  
[ellen.mallory@maine.edu](mailto:ellen.mallory@maine.edu)

Tom Molloy  
University of Maine  
(207) 581-3213  
[thomas.molloy@maine.edu](mailto:thomas.molloy@maine.edu)



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



# AGRICULTURE PROJECTS FUNDED IN MAINE

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

Maine has been awarded \$9,121,226 grants to support 259 projects, including but not limited to, 39 research and/or education projects, 16 professional development projects and 134 producer-led projects. Maine has also received additional SARE support through multi-state projects.

## RESEARCH AND EDUCATION GRANTS

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
<a href="#">LNE23-462</a>	Farm Site Permit and Lease Application Workshop Development and Implementation for Fishermen Entering Maine's Expanding Seaweed Aquaculture Industry	\$109,158	Liz MacDonald Ocean Approved Inc.
<a href="#">LNE21-416</a>	Education and On-farm Research to Improve Long-term Sustainability of Hemp in the Northeast	\$204,331	Dr. John Jemison, Jr. University of Maine Cooperative Extension
<a href="#">LNE19-374</a>	Nutrient and Weed Management Strategies for Organic Wild Blueberry Growers	\$199,828	Dr. Lily Calderwood University of Maine
<a href="#">LNE19-377</a>	Building Social Sustainability on Farms through Online and In-Person Education	\$197,676	Leslie Forstadt University of Maine Cooperative Extension
<a href="#">LNE17-358</a>	Developing Best Management Practices for pulse and oilseed crops in the Northeast	\$105,527	Jake Dyer Maine Potato Board
<a href="#">LNE14-336</a>	Best management practices for the control of blister worm on oyster farms	\$61,742	Dr. Paul Rawson University of Maine
<a href="#">LNE14-337</a>	Control of Haemonchus contortus in northern New England sheep and goats through manipulation of its winter ecology	\$200,161	Dr. James Weber University of Maine
<a href="#">LNE13-325</a>	Improving winter grain yields, grain quality, and nitrogen use efficiency in New England using adaptive management	\$236,931	Ellen Mallory UMaine Coop Extension
<a href="#">LNE11-306</a>	Increased profits from disease-free garlic planting stock	\$121,340	Dr. Steve Johnson University of Maine
<a href="#">LNE10-294</a>	Eliminating the effects of footrot on sheep flocks in the Northeast	\$184,760	Dr. Richard Brzozowski University of Maine Cooperative Extension
<a href="#">LNE09-287</a>	Reducing fuel and fertilizer costs for corn silage in the Northeast with cover crops and no-till	\$149,755	Richard Kersbergen University of Maine Cooperative Extension
<a href="#">LNE08-275</a>	Integrating Organic Crop Management Practices with Permitted Pest Control Materials: IPM for Organic Farms	\$158,403	Dr. Eric Sideman Maine Organic Farmers and Gardeners Association

LNE07-264	Canola as an oilseed crop for New England	\$78,867	Peter Sexton University of Maine Cooperative Extension Andrew Plant University of Maine Coope
LNE06-237	Managing weed seed rain: A new paradigm for organic and low-input farmers	\$156,520	Dr.Eric Gallandt University of Maine
LNE06-240	Expanding grain production and use on organic dairy farms in Maine and Vermont	\$143,626	Richard Kersbergen University of maine Cooperative Extension
LNE06-242	Building connections: Creating a broader public base for CSAs	\$151,655	Russell Libby MOFGA
LNE05-228	Maine Organic Farmers and Gardeners Association (MOFGA)	\$24,999	Dr.Eric Sideman Maine Organic Farmers and Gardeners Association
LNE04-203	Hybrid Mulching Effects on Vegetable Crop Productivity, Weed Dynamics and Soil Quality	\$131,302	Dr.Mark Hutton University of Maine Coope
LNE04-210	Developing a Support Network for Grass Based Livestock Producers	\$90,400	Diane Schivera Maine Organic Farmers and Gardeners Association
LNE03-178	Katahdin Hair Sheep Upgrade Project - Phase II	\$105,690	Dr.Richard Brzozowski University of Maine Cooperative Extension
LNE02-160	Restoring Our Seed: Extension Program to Train Farmers in Ecological Seed Crop Production	\$135,000	CR Lawn MOFGA Eli Kaufman MOFGA
LNE02-166	Integration of a Brassica Green Manure into the Potato-Barley Rotation	\$77,503	Peter Sexton University of Maine Cooperative Extension
LNE01-141	Diversity - Intensity of Cover Crop Systems: Managing Weed Seed Bank - Soil Health	\$155,937	Dr.Eric Gallandt University of Maine
LNE01-146	Farms for Maine's Future: Comprehensive, Sustainable Strategies Using Teams	\$145,000	John Piotti Coastal Enterprises, Inc./Maine Farms Project
LNE00-138	Katahdin Hair Sheep Upgrade Project	\$135,167	Dr.Richard Brzozowski University of Maine Cooperative Extension
LNE99-122	Establishing Integrated Systems Baseline - Educational &- Mentoring Programs	\$56,833	Stewart Smith Maine Sustainable Agriculture Society
LNE98-103	Soil Amendment - Crop Rotation Effects on Productivity - Soil Properties Within Potato Production Systems	\$100,126	Gregory A. Porter University of Maine
LNE98-113	Alternate Grain/Bean Rotations for Optimized Economic Yield in Northeast Organic Farming	\$68,604	William Brinton Woods End Agricultural Institute
LNE96-064	Impact of Herbicides on Beneficial Insects of Blueberry -; Cranberry	\$150,000	Frank A. Drummond University of Maine, Dept of Biological Sciences
LNE96-071	Compost Laboratory Education Project	\$51,650	William Brinton Woods End Agricultural Institute

ANE95-027	Utilization of a Neem Product in a Reduced Synthetic Chemical Insecticide Management Program for Colorado Potato Beetle	\$18,245	Kathleen Murray Dept. of Biological Sciences, University of Maine
ANE94-020	Nutrient Management on Maine Dairy Farms	\$107,000	Timothy S. Griffin New England Plant, Soil and Water Research Lab
LNE94-041	Farmer-to-Farmer Directory and Field Days (LNE91-29)	\$28,000	Dr.Eric Sideman Maine Organic Farmers and Gardeners Association
LNE94-046	Improving Pollination for the Northeast: On-Farm Testing, Demonstration and Management of the Alfalfa Leafcutting Bee	\$120,000	Frank A. Drummond University of Maine, Dept of Biological Sciences
LNE93-036	Ecological Management of Potato Cropping Systems (ANE93.018)	\$11,870	Gregory A. Porter University of Maine
LNE92-030	Decision Making in Sustainable Agriculture Systems - Planning Grant	\$5,000	Michell Hutt University of Southern Maine
LNE91-029	Farmer-to-Farmer Directory and Conference (LNE94-41)	\$21,500	Dr.Eric Sideman Maine Organic Farmers and Gardeners Association
LNE90-023	The Integration of Crop (Potato) and Livestock Production Systems	\$43,000	Barbara Barton University of Maine
LNE89-012	Ruminant Animal Production Using Tyfon Forage Brassica	\$85,000	Mary Weidenhoeft University of Maine

#### RESEARCH ONLY GRANTS

Project #	Project Title	SARE Support	Project Leaders
LNE23-478R	Transitioning Sea Farms to Clean Battery Power	\$198,750	Nick Planson The Boat Yard, LLC
LNE23-479R	Proofing Mycelium-based Buoys in Aquaculture Applications	\$192,221	Sue Van Hook Greenhorns
LNE22-448R	Investigating Dual-use Solar for Wild Blueberry Farms in Maine	\$134,509	Dr.Lily Calderwood University of Maine
LNE22-451R	Covering Ground: Assessing Effectiveness of Interseeding Cover Crops in Late Season Vegetable Crops to Enhance Soil Health in the Northeast	\$184,013	Jason Lilley University of Maine Cooperative Extension
LNE22-457R	Development of a Rapid and Inexpensive Assay for Farm-Based Detection of Four Pathogenic Vibrio Strains Linked to Shellfish Hatchery Failures	\$199,985	Dr.Meredith White Mook Sea Farm Steve Zimmerman Mook Sea farm, Inc
LNE21-426R	Pilot-scale Efforts to Demonstrate Commercial Growout Technologies of the Arctic Surfclam in the Marine Intertidal	\$134,460	Dr.Brian Beal Downeast Institute for Applied Marine Research and Education

LNE21-431R	New Approaches to Seaweed Aquaculture: Developing a Biosecure and Reliable Seed Stock for the Emergent Northeast Edible Seaweed Industry	\$199,035	Dr.Nicole Poulton Bigelow Laboratory for Ocean Sciences
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**PROFESSIONAL DEVELOPMENT PROGRAM GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
ENE23-185	Supporting Farm Transition Planning and Access in New England	\$149,181	Tricia Rouleau Maine Farmland Trust
ENE22-176	Reducing Tensions on Market Day: Training Farmers' Market Organizers and Service Providers on Conflict Resolution and De-escalation Strategies	\$149,407	James DeBiasi Maine Federation of Farmers' Markets
ENE21-171	Building Farm Business Advising Skills through Collaborative Professional Development for Maine Farmland Trust and SCORE Maine	\$77,619	Tricia Rouleau Maine Farmland Trust
ENE21-167	Diversity, Equity, and Inclusion Training for Agricultural Organizations and Individual Service Providers	\$149,990	Ryan Dennett Maine Organic Farmers and Gardeners Association
ENE20-164	The Northeast Climate Adaptation Fellowship to Support Vegetable and Fruit Farmers	\$149,000	Dr.Rachel Schattman University of Maine School of Food and Agriculture
ENE17-146	Professional Development in Calibrating Pesticide and Nutrient Application Equipment for Agricultural Service Providers	\$90,743	Caragh Fitzgerald University of Maine
ENE17-147	Training the Trainers; Enhancing Extension Resources for Beginning Farmers	\$47,107	Jason Lilley University of Maine Cooperative Extension
ENE16-142	Focusing on interpersonal relationships for greater farm viability	\$61,002	Leslie Forstadt University of Maine Cooperative Extension
ENE14-131	Applied Poultry Science Professional Development Project - Phase II	\$70,715	Donna Coffin UMaine Extension Dr.Richard Brzozowski University of Maine Cooperative Extension
ENE11-119	Management Practices to Reduce Agricultural Emissions: A Workshop for Professionals	\$33,098	Susan Gammon Androscoggin Valley Soil and Water Conservation District
ENE08-108	Sustainable Livestock Mortality Management	\$169,425	Mark Hutchinson University of Maine Extension
ENE04-084	Eat Local Foods Coalition: Connecting Nutritionists and Farmers	\$9,973	Russell Libby MOFGA
ENE02-068	Sustainable Farm Forest Management Using Small-Scale Logging Methods	\$98,744	Andrew Egan University of Maine
ENE01-063	Farmer Interviews as a Tool for Educating Agricultural Support Personnel and Other Farmers	\$42,120	Stewart Smith Maine Sustainable Agriculture Society
ENE97-029	University of Maine Cooperative Extension Compost School	\$101,560	Neal D. Hallee University of Maine Cooperative Extension

ENE96-027	In-Service Training on Sustainable Animal Agriculture	\$7,000	Calvin Walker University of Maine
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**FARMER/RANCHER GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
FNE23-037	Developing Precision Oyster Farming Methods Using Environmental Data	\$21,268	Max Burtis Ferda Farms LLC
FNE23-060	Reducing Environmental Risk and Increasing Productivity on Mussel Farms	\$29,814	Matthew Moretti Bangs Island Mussels / Wild Ocean Aquaculture, LLC
FNE23-049	Expanding Organic, Ecological, Regenerative Christmas Tree Agroforestry in Maine	\$20,311	Jonah T Fertig-Burd Celebration Tree Farm & Wellness Center, LLC
FNE23-063	Muka-- Tree Hay as an Alternative Livestock Feed	\$10,706	John O'Meara O'Meara Family Farm
FNE23-052	Growing Bay Scallops on a Maine Oyster Farm as a Strategy to Diversify Crops and Adapt to a Warming Gulf	\$21,592	Jordan Kramer Winnegance Oyster Farm
FNE23-048	Optimizing Ginger Yields and Profit	\$6,436	Erica Emery Rustic Roots Farm
FNE23-055	Battery and Renewable Power for Oyster Farming	\$29,836	William Leathers Maine Ocean Farms
FNE23-039	Low Cost, High Volume Hard Clam Farm	\$29,250	Adam Campbell North Haven oyster Co.
FNE22-013	Efficient Leaf-dense Tree/Shrub Silage Production from Field Edges: Climate-resilient Winter Forage Supplement for Cattle, Sheep, and Goats	\$30,000	Shana Hanson 3 Streams Farm Karl Hallen State University of New York (SUNY), College of Environmental Sc
FNE22-015	Get the Fish Out: Black Soldier Fly Larvae and Marine Macro-algae as Feed Ingredient Replacements for Small Land-based Aquaculture Operations	\$29,484	Jenna Grosbarth Canopy Farms L3C
FNE22-017	Field Testing the Viability of 3D-printed Oyster Farm Equipment	\$24,662	Jordan Kramer Winnegance Oyster Farm
FNE22-012	Improving Pastured Broiler Operations for Chickens and Farmers: Automating Feed Systems on Mobile Pasture Coops and Sharing the Results	\$24,837	Haden Gooch Haden Gooch DBA Mayday Farm
FNE21-976	Assessment of Nursery Gear Technology to Optimize Growth, Survival and Economic Efficiency in Farming Atlantic Sea Scallops	\$15,000	Dr.Christopher Davis Pemaquid Oyster Co., Inc.
FNE21-977	The Effect of Edge-spraying a Broad-spectrum Organically-approved Insecticide to Control Hop Arthropod Pests while Retaining Beneficial Arthropods	\$12,502	Krista Delahunty Aroostook Hops

FNE21-980	Ginger Spacing in High Tunnels for Maximum Yields	\$8,048	Erica Emery Rustic Roots Farm
FNE21-986	Product Differentiation on a Subtidal Oyster Farm	\$9,568	Jordan Kramer Winnegance Oyster Farm
FNE21-987	Aquaculture and Land Farm Collaboration	\$14,309	Emily Lane Vinalhaven Kelp, Inc.
FNE21-992	Development of Integrated Seaweed and Green Sea Urchin Nursery Strategies for the Northeast	\$14,949	Sarah Redmond Springtide Seaweed, LLC
FNE21-988	Alternative, Non-plastic Materials for Aquaculture and Oyster Cultivation	\$14,979	Alex Plowden The Greenhorns
FNE21-990	Development of a De-watering System and Cost Analysis to Transform Fish Waste from Recirculating Aquaculture Systems into Value Added Garden Compost	\$14,963	Cara ODonnell Aroostook Band of Micmacs
FNE20-955	Determining Optimal Seed-clam Size for Littleneck/Oyster Polyculture	\$14,922	Jordan Kramer Winnegance Oyster Farm
FNE20-958	Introducing Value-Added Cornmeal into Liberation Farm's Agricultural Production	\$10,527	Muhidin Libah Somali Bantu Community Association
FNE20-947	Effect of Container Depth on Taprooted Seedling Root Morphology and Post-Transplant Establishment Success	\$14,908	Anson Biller Full Fork Farm
FNE20-965	Developing Management Options for Staph aureus on Organic Dairies	\$13,149	Katie Webb Clark Reed Farm
FNE19-921	Evaluating Alternative Malting Barley Varieties and their Acceptance in the Northeast Craft Brewing Community	\$14,509	Jacob Buck Maine Malt House
FNE19-932	European Corn Borer Detection in Local Hopyards	\$6,247	ryan houghton The Hop Yard
FNE19-936	Using Shading to Control Algal Bio-fouling on a Floating Oyster Farm	\$12,805	Jordan Kramer Winnegance Oyster Farm
FNE19-940	Development of a New Seaweed Growing System for Nori Production in the Northeast	\$15,000	Sarah Redmond Springtide Seaweed, LLC
FNE19-946	Developing Management Options for Staph aureus on Organic Dairies	\$13,157	Katie Webb Clark Reed Farm
FNE18-897	Tree Leaf Fodder for Livestock: Transitioning Farm Woodlots to 'Air Meadow' for Climate Resilience	\$15,000	Shana Hanson 3 Streams Farm
FNE18-901	Littleneck Clam and American Oyster Polyculture: Economic Viability and Nursery Technique	\$12,273	Jordan Kramer Winnegance Oyster Farm



FNE18-905	High Density Hybrid Plums: Innovation and Efficient Fruit Production for the Northeast	\$7,508	John O'Meara O'Meara Family Farm
FNE17-864	Building soil fertility with spent brewers grains	\$11,272	Anson Biller Full Fork Farm
FNE17-868	The effect of crowning and weed management practices on hop yield and downy mildew	\$12,206	Krista Delahunty Aroostook Hops
FNE17-876	Developing a breed registry for Polwarth sheep using imported semen and radio-frequency technology	\$15,000	Nanne Kennedy Seacolors Yarnery at Meadowcroft Farm
FNE17-877	Integrated oyster and littleneck clam aquaculture to increase seafarm yield	\$14,942	Jordan Kramer Winnegance Oyster Farm
FNE16-845	Taking no-till corn a step (or two) further	\$14,800	Mary Ann Hayes Ward Dairy Farm
FNE16-848	Using tidal energy to clean and tumble oysters	\$15,000	Jordan Kramer Winnegance Oyster Farm
FNE16-854	Pallet-mounted plastic grain bin for drying and long-term weatherproof storage	\$7,732	Sean O'Donnell Rusted Rooster Farm
FNE16-856	Viability of directly sown paddy rice	\$14,632	Samuel Rooney Wild Folk Farm
FNE16-857	Using forage radish to combat compaction in hay and pasture land	\$10,671	Abby Sadauckas Apple Creek Farm, LLC
FNE15-820	Evaluating sheep as a sustainable approach to reducing reliance on herbicides, fungicides, and commercial fertilizer in hop yards	\$6,954	Peter Busque The Hop Yard ryan houghton The Hop Yard
FNE15-826	Viability of integrating field peas into organic cereal grain rotations in Maine	\$11,365	Jake Dyer Benedicta Grain Co.
FNE14-796	Investigating Best Practices for the Timing and Amount of Organic Soluble Nitrate Fertigation of Hops in the Northeast	\$14,920	Krista Delahunty Aroostook Hops Dr.Jason Johnston Aroostook Hops
FNE14-797	Evaluation of hardy fig varieties in a northern New England high tunnel	\$14,992	Bill Errickson Singing Nettle Farm
FNE14-808	Study of ramial chip mulch and organic fertilizers on wild blueberries	\$14,706	Nicolas Lindholm Blue Hill Berry Co.
FNE14-810	Brassicas and small grains: Sustainable feed for Northeast dairy farms	\$11,078	John O'Meara O'Meara Family Farm
FNE13-782	Allium white rot biostimulation project-Part 2	\$8,104	Amy LeBlanc Whitehill Farm

FNE12-742	Evaluating Cover Cropping and Non-Herbicide Weed Management Strategies in Hops, a Perennial Crop	\$12,654	Krista Delahunty Aroostook Hops Dr.Jason Johnston Aroostook Hops
FNE12-756	A comparison of strength and survivability of honeybee colonies started with conventional versus northern requeened packages	\$14,997	Erin MacGregor-Forbes Overland Apiaries
FNE11-711	An Experiment on the Effectiveness of Irrigation and Cover Cropping to Produce Sustainable Hops in Maine	\$10,197	Dr.Jason Johnston Aroostook Hops Krista Delahunty Aroostook Hops
FNE11-712	Feeding Minerals and Supplements to a Organic Pastured Poultry Operation	\$14,007	Carly DelSignore Tide Mill Organic Farm
FNE11-714	Amending pasture soil to decrease weed presence while improving forage species composition and quality	\$10,706	Bill Errickson Singing Nettle Farm
FNE11-721	Management of Allium White Rot	\$8,301	Amy LeBlanc Whitehill Farm
FNE10-690	The Analysis of the Cost and Quality of Direct Cut Vacuum Silage for the Northeast	\$8,442	Seth Kroeck Crystal Spring Community Farm
FNE10-694	A Comparison of Honey Bee Colony Strength and Survivability between Nucleus and Package Started Colonies	\$14,993	Erin MacGregor-Forbes Overland Apiaries
FNE10-696	Sulfur Application for Weed Specific Suppression	\$5,812	Kristen McGovern Berry Brook Blueberry Farm
FNE10-698	Buckwheat Hay - A Quality Feed for Dairies in the Northeast?	\$7,314	John O'Meara O'Meara Family Farm
FNE10-699	Evaluating Suitability of Open-Pollinated Melon Varieties for Intensive Organic Production	\$4,093	Alice Percy Treble Ridge Farm
FNE09-656	Pressing Spent Brewers Grains to improve its use as alternative feed: A Study of its effect on Dairy Sheep and Meat lambs	\$9,992	Ells Perry Ellsfarm
FNE09-663	Exploring Husbandry and Equipment Solutions to Infestations of Polydora sp. on a Maine Oyster Farm	\$9,365	Jesse Leach Bagaduce River Oyster Co.
FNE09-665	A Comparison of Honey Bee Colony Strength and Survivability between Nucleus and Package Started Colonies	\$9,993	Erin MacGregor-Forbes Overland Apiaries
FNE09-668	Testing New Dwarfing Apple Rootstocks for the Northern Grower	\$5,363	John O'Meara O'Meara Family Farm
FNE09-671	Using Chickens and a Cover Crop Barrier for Weed Control in Organic Asparagus	\$7,175	Marilyn Stanley Chick Farm
FNE09-673	The effect of biochar applications on soil fertility and crop production on a small vegetable farm in the Northeast US	\$8,262	Sue Straubing Morgan Bay Farm

FNE09-674	Pasturing Hogs on Field Peas and Barley	\$9,973	Hanne Tierney Cornerstone Farm
FNE08-627	Production and nutrition of no-till drilling	\$9,315	Gabe Clark Cold Spring Ranch
FNE08-643	Growing and pressing sunflowers for organic livestock protein supplements	\$9,273	Mia Morrison
FNE08-644	Reduction of Imidacloprid resistance of Colorado potato beetles with an organic integrated pest management program	\$5,110	Megan Patterson Green Thumb Farms
FNE07-600	Crop planning software for small diversified farms	\$9,054	Clayton Carter
FNE07-623	Improving forage quality by seeding through liquid manure applications	\$4,146	Roger Whitney
FNE06-565	Corn silage pellet production	\$6,000	David Barker Barker Farm, Inc.
FNE06-587	Growing winter spelt as an organic grain or forage for dairy cows	\$4,172	Henry Perkins
FNE05-540	Sunflowers as a methionine source for organic poultry production, sunflower hulling processes, and sunflower variety trial	\$9,419	Catherine Albert Jalko Farm
FNE05-548	Tarnished plant bug scouting and control in organic annual day-neutral strawberry production in the Northeast	\$9,160	Mark Jacoby
FNE05-557	Evaluating organic feed quality for dairies	\$10,000	Mia Morrison Maine Organic Milk Producers
FNE05-558	Integration of winter barley with management intensive grazing	\$3,859	Mia Morrison Maine Organic Milk Producers
FNE05-559	Cedar: a control for varroa mites	\$5,215	John O'Meara O'Meara Family Farm
FNE05-561	Monitored study of broomcorn growth in Hancock County, Maine	\$3,682	Susan Sharpe
FNE04-507	Using Ramial Wood Chips to Improve Fertility in a Fruit Tree Nursery	\$2,232	Ann Currier
FNE04-521	Evaluation, Comparison and Feasibility Study of Current Options in Cheese Aging Caves	\$5,315	Warren Knight Smiling Hill Farm, Inc.
FNE04-527	Measuring the Effectiveness of Treating Lambs With Garlic at Various Rates for Internal Parasites Using the FAMACHA System	\$6,000	Jean Noon Noon Family Sheep Farm

FNE04-528	Growing Weed-Free Strawberries	\$1,989	David Pike
FNE04-530	Use of a Polypropylene Fabric Cover as a Barrier to Egg-Deposition by Cranberry Fruitworm <i>Acrobasis vaccinii</i> (Riley)	\$1,593	Ted Sparrow Sparrow Farm
FNE03-455	Broadcast Planting Techniques for Large Ginseng Acreage	\$4,000	Felix Blinn Haven Farm
FNE03-460	Determination of the Productive Capacity of the Damariscotta River for Farm-Raised Oysters ( <i>Crassostrea virginica</i> )	\$8,255	Dr.Christopher Davis Pemaquid Oyster Co., Inc.
FNE03-469	New England Comprehensive Beef and Livestock Production	\$5,190	Eric Jensen Wolfe's Neck Farm Foundation, Inc.
FNE03-479	Portable Sheep Dairy	\$9,611	Claire Mikolayunas University of Wisconsin-Madison
FNE03-482	A Controlled Experiment to Measure the Effectiveness on Lambs of Wormers that Conform to the New Organic Standards	\$7,600	Jean Noon Noon Family Sheep Farm
FNE03-483	Maine Mountain Creamery Advertising Project	\$5,605	Dion Olmstead
FNE03-485	Controlling Varroa Mites with Walnut Leaf Smoke	\$8,682	John O'Meara O'Meara Family Farm
FNE03-495	Feasibility of a Farmer Marketing Group in Piscataquis County	\$7,740	Lorraine Stultzman
FNE02-400	Evaluating Grains Grown in Aroostook County, Maine to Determine the Feasibility of Producing a Locally Grown Poultry Feed	\$2,134	Catherine Albert Jalko Farm
FNE02-401	Designing an Affordable Silage Wrapper for Small Farmers	\$763	Benjamin Albert
FNE02-403	Alternative Feed Source Guide	\$9,191	Scott Bowdridge Kelmescott Rare Breeds Foundation
FNE02-406	Quinoa Introduction in the River Valley	\$5,169	Norris Conant
FNE02-416	Project Aawre	\$4,692	Jennifer Gunderman-King Dawa Farm
FNE02-422	Silvopasture	\$8,000	Brad Hunt
FNE02-423	Fish Waste Utilization Project	\$9,618	Robert Johanson Goranson Farm

FNE02-429	Green Manure Mulch and Cover Crop for Orchards	\$2,691	Marilyn Meyerhans
FNE02-431	Grazing Sheep in Organic Lowbush Blueberry Fields to Control Weeds and Increase Yields	\$3,602	Kevin Poland
FNE02-432	Optimizing Forage Quality and Production on Depleted Farmland to Extend the Grazing Season Increase Yields	\$7,283	David Potter
FNE02-441	Comparing the Input Costs and Economic Returns of a Planted Windbreak in Central Maine	\$5,657	Ted Sparrow Sparrow Farm
FNE01-390	Comparison of Green Manure Mixes in Relation to Nitrogen Immobilization - Release	\$3,450	Lucian Smith Beech Hill Farm/College of the Atlantic
FNE00-328	Improving Financial Returns Early in an Orchard's Life Through Alley Cropping.	\$11,100	Jack Kertesz
FNE00-331	"Bird, Blossom, and Berry" subscription program.	\$7,583	Madeline Cantwell
FNE99-239	Farmer-to-Market Website: A Meat Processing and Delivery Resource Survey	\$2,480	Perry Ells Kelmescott Rare Breed Foundation
FNE99-244	Winter Wheat Trials with Response to Composts for Maine	\$4,900	Mark Fulford
FNE98-198	An Alternative to Flooding for the Winter Protection of Cranberries in ME	\$4,938	Bert-Sid Look
FNE98-204	Raspberry Mulch Evaluation	\$1,895	Chris Bailey The Morris Farm
FNE98-209	Timing and Intensity of Cultivation and Effects on Weed Control	\$2,770	Gerald Fortin
FNE98-213	Goldenseal Production for Sustainable Woodlot Management	\$4,125	Tom Griffin Woods End Farm
FNE98-216	Integrated Approach in Controlling Japanese Beetles Project	\$4,117	George Joseph
FNE97-167	Establishing and Enlarging on Maine Ginseng Production	\$6,000	Stephen Drane
FNE97-171	Successful Marketing Through Product Identification/Packaging	\$3,500	Chris Holmes
FNE97-175	Conservation of Wild Blueberry and Cranberry Pollinators	\$3,950	Sanford E. Kelley, Jr.
FNE97-177	Field Trials of Ag Covers to Reduce Cranberry Fruitworm Damage	\$1,770	Michael McFarlane

FNE97-189	Improving Production Methods for Shiitake Mushrooms	\$2,225	Carlton Woodward
FNE96-127	Using Composted Paper Mill Wood Fiber Residual as a Mulch/Soil Amendment in Potato Production	\$2,974	Donald Fitzpatrick
FNE96-135	The Development of Rhubarb Agriculture in Maine	\$3,200	Mark Jacoby
FNE96-136	The Efficacy of Red Oak Sawdust as a Mulch to Control Grass and Weeds in Organic Wild Blueberries	\$2,827	Douglas Johnson
FNE96-137	Dairy Farm Diversification/Waldo County, Maine	\$3,000	Jeffery Keene
FNE96-138	Sustainable Pollination of Wild Blueberry and Cranberry	\$4,880	Sanford E. Kelley, Jr.
FNE96-143	Broad Based Organic Control of Cranberry Fruit Worm	\$2,950	Michael McFarlane
FNE95-079	Developing a Sustainable Approach to Hop Production in Northeast	\$5,970	Jonathan Blumberg
FNE95-099	Best Methods of Establishing Newly Planted Cranberry Vine	\$2,080	Michael MacFarlane
FNE95-112	Once Daily Milking - Organic Dairy Herd	\$4,990	Gloria and Greg Varney
FNE94-037	Comparison of Organic Mulches for Perennial Quackgrass Control in Orchard Floor Management	\$642	Cynthia Anthony
FNE94-038	Minor Breed Turkeys - Growth Rate and Eating Qualities	\$980	Anne Bossi
FNE94-053	Feasibility and Propagation of Leafcutter Bee in Maine	\$922	John Russell
FNE93-009	Evaluation of the Economic and Environmental Impact of Amino Acid Based Laying Rations	\$660	Charles Wallace
FNE93-010	Nutrient Management For Potatoes Used for Potato Chips	\$5,000	Carl D. Smith
FNE93-011	Evaluation of a Fiber Flax Production System as a Low Input, Alternative Crop for Northern New England	\$5,000	Greg Ward
FNE93-024	Cranberry 2000	\$6,250	Darin Hammond

#### GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
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GNE22-277	Investigating Lobster Byproducts as Soil Amendments for Disease Suppression and Soil Health Improvement in Potato Production	\$14,620	Dr.Jianjun Hao University of Maine Katie Ashley University of Maine
GNE21-253	How does climate adaptation knowledge spread in advisor-farmer networks? Tracking the long-term impacts of the Northeast Climate Adaptation Fellowship	\$15,000	Dr.Rachel Schattman University of Maine School of Food and Agriculture Sara Delaney University of Maine
GNE21-260	Optimizing Thresholds and Reduced-Risk Management Strategies for the Control of SWD in Maine's Wild Blueberries	\$10,528	Dr.Philip Fanning University of Maine Benjamin Johnson University of Maine
GNE20-244	Reducing Risks of Wildlife/Livestock Parasite Transmission	\$14,907	Dr.James Weber University of Maine Rachel White University of Maine
GNE19-218	Automated Net Return Mapping: Using Inexpensive Technology for Maximizing Profit of Small-Scale Farms	\$14,806	Dr.Eric Gallandt University of Maine Johnny Sanchez University of Maine
GNE19-194	Analyzing Early Growth Characteristics and Anchorage Force to Improve Cultivation Tolerance in Carrots	\$14,683	Dr.Eric Gallandt University of Maine Rebecca Champagne The University of Maine
GNE18-172	Improving Productivity of Casco Bay Kelp Farms Using Spatiotemporal Analysis of Coastal Nutrient Data	\$14,754	Dr.Damian Brady University of Maine Gretchen Grebe University of Maine
GNE18-184	Innovative Resources for Small Ruminant Health	\$15,000	Anne Lichtenwalner, DVM PhD University of Maine Sarah Paluso University of Maine
GNE15-110	Bioactive compounds in farm-raised sea vegetables	\$7,616	Dr.Denise Skonberg University of Maine Dhriti Nayyar University of Maine
GNE14-072	Balancing economy and ecology: A systems comparison of leading organic weed management strategies	\$13,147	Dr.Eric Gallandt University of Maine Dr.Jianjun Hao University of Maine Dr.Aaron Hoshide University of Maine Bryan Brown University of Maine
GNE14-074	Genetic comparisons of temperature tolerances of a candidate sea vegetable crop, <i>Alaria esculenta</i>	\$14,992	Susan Brawley University of Maine Charlotte Quigley University of Maine
GNE14-076	Increasing parameter accuracy of an agriculturally focused, spatially-explicit bee abundance model	\$14,652	Frank A. Drummond University of Maine, Dept of Biological Sciences Dr.Cynthia Loftin University of Maine Brienne Du Clos University of Maine
GNE13-053	The effects of dietary imidacloprid on bumblebee health in lowbush blueberry fields in Maine	\$14,082	Frank A. Drummond University of Maine, Dept of Biological Sciences Kalyn Bickerman University of Maine Orono

ONE13-055	Integrating social and natural science to improve pollination outreach and education for farmers	\$13,545	Dr.Samuel Hanes University of Maine Kourtney Collum University of Maine
ONE13-069	Factors contributing to low embryo survival in Atlantic salmon ( <i>Salmo salar</i> )	\$14,989	LeeAnne Thayer University of Maine
ONE11-016	Farm-Grown Microbial Soil Inoculants: Effects on Bread Wheat Yield and Quality	\$9,767	Dr.Eric Gallandt University of Maine Aaron Englander University of Maine
ONE10-001	Assessing the Direct Effect of Disease-Suppressive Soil Amendments on <i>Rhizoctonia solani</i>	\$9,430	Stellos Tavantzis University of Maine Edward Bernard University of Maine
ONE10-004	Improving Weed Control on the Small Farm: Evaluation of Scale-Appropriate Cultivation Tools	\$8,700	Dr.Eric Gallandt University of Maine Benjamin Costanzi University of Maine

#### ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
ONE22-423	Exploring the Viability of Intertidal Quahog Aquaculture in Maine	\$29,943	Dr.Marissa McMahan Manomet
ONE21-384	Biological and Economic Optimization of Shell Size and Timing for Sea Scallop ( <i>Placopecten magellanicus</i> ) Ear-hanging in the Northeast U.S.	\$21,190	Dr.Damian Brady University of Maine
ONE21-398	Maine Soil Health Network: Sharing Soil Health Data and Practices to Increase Farm Viability and Climate Resilience	\$29,634	Alex Gulachenski Wolfe's Neck Center for Agriculture & the Environment
ONE20-366	Comparing Alternative Weed Management Practices to Black Plastic in CBD Hemp Production	\$29,993	Dr.John Jemison, Jr. University of Maine Cooperative Extension
ONE20-356	Development of Integrated Seaweed and Green Sea Urchin Aquaculture for Diversification of Sea Farms in the Northeast	\$29,985	Andrea Angera, Jr. Maine Seaweed Exchange
ONE20-359	Improving Shelf Life of Fresh Pack Maine Wild Blueberries	\$28,270	Dr.Lily Calderwood University of Maine Marjorie Peronto University of Maine Cooperative Extension
ONE20-364	Biosecurity Preparedness, Infectious Disease Prevention, and Farmer Training on Northern New England Swine Farms	\$29,270	Carolyn Hurwitz Maine Department of Agriculture Conservation and Forestry Carol Delaney, M.S. Maine Department of Agriculture, Conservation and Forestry
ONE19-334	Maine Climate Resilience Training Program	\$29,787	Ryan Dennett Maine Organic Farmers and Gardeners Association
ONE19-341	Expanding Quahog and Oyster Polyculture in Maine	\$29,575	Dr.Marissa McMahan Manomet
ONE18-322	More Maine Meat Chain of Custody Project	\$14,996	Tanya Swain Maine Sustainable Agriculture Society



ONE17-306	A histopathological-biochemical health and condition assessment of farmed blue mussels in a changing Gulf of Maine	\$14,233	Adam St.Gelais University of New England
ONE16-268	Pilot aquaculture production of sea scallops ( <i>Placopecten magellanicus</i> ) in Maine, Japanese technique	\$14,665	Dana Morse Maine Sea Grant and University of Maine Cooperative Extension
ONE16-270	Effects of non-NPK organic soil amendments on yield and quality of vegetable crops	\$10,197	John Paul Rietz Organic Growers Supply (Fedco)
ONE16-283c	Investigating methods of preventing soil loss in a potato:grain rotation system using cover and nurse crops	\$9,866	Dr.John Jemison, Jr. University of Maine Cooperative Extension
ONE14-203	High-tannin pasture plantings	\$9,758	Diane Schivera Maine Organic Farmers and Gardeners Association
ONE14-204	Hancock County Gleaning Initiative	\$14,850	Katie Freedman Healthy Acadia
ONE13-187	Potential of coppiced alder as an on-farm source of fertility for vegetable production	\$14,896	Dr.Suzanne Morse College of the Atlantic
ONE13-195	Linking limited-resource immigrant farmers to EQIP programs	\$14,565	Daniel Ungier Cultivating Community
ONE12-164	Farm-based control measures for caseous lymphadenitis in small ruminants: Offering a choice to the producer	\$14,969	Anne Lichtenwalner, DVM PhD University of Maine
ONE11-141	Fall Flame Weeding: Targeting weed seeds before they enter the seedbank	\$12,238	Dr.Eric Gallandt University of Maine
ONE09-098	Evaluation of Scale-Appropriate Weed Control Tools for the Small Farm	\$9,236	Dr.Eric Gallandt University of Maine
ONE09-103	Grafting hoophouse tomatoes for improved yields and profitability	\$9,525	Dr.Mark Hutton University of Maine Coope
ONE09-109	On-farm Colonization of tomatoes by Mycorrhizal Fungi, phase 2	\$8,307	Frank Wertheim UMaine Cooperative Extension
ONE08-088	Oregano oil for internal parasite control in sheep, goats, and beef cattle	\$9,914	Diane Schivera Maine Organic Farmers and Gardeners Association
ONE08-091	On-Farm Colonization of Tomatoes by AM Fungi	\$4,055	Frank Wertheim UMaine Cooperative Extension
ONE07-073	Evaluation of various recipes and ingredients for composting aquaculture fish waste to attain a stable, high-nitrogen end product	\$9,995	Dr.Mike Pietrak USDA National Cold Water Marine Aquaculture Center
ONE05-038	Adopting pre-sidedress nitrogen testing to minimize nitrate application in sweet corn and pumpkins	\$8,010	David Handley University of Maine Cooperative Extension

ONE05-040	Evaluation of forage soybeans to provide simultaneous benefits: A high-protein dairy forage and a legume cover crop?	\$9,800	Mark Hutchinson University of Maine Extension
ONE05-041	Evaluation of silver reflective mulch, white inter-row mulch, and plant spacing for increasing yields of bell pepper	\$9,167	Dr. Mark Hutton University of Maine Coope
ONE05-044	MOFGA's Farm Training Project: Workshops for Farm Apprentices and Other New and Beginning Farmers	\$6,560	Andrew Marshall Maine Organic Farmers and Gardeners Association
ONE05-048	Pilot production of biodiesel from canola in New England	\$9,925	Peter Sexton University of Maine Cooperative Extension
ONE04-025	Managing Smooth Bedstraw (Galium mollugo L.) in Forage Crops	\$7,405	Richard Kersbergen University of maine Cooperative Extension
ONE03-007	The effect of food processing waste on cover crop growth and subsequent cash crop production in a certified organic vegetable operation	\$9,930	Mark Hutchinson University of Maine Extension

#### SUSTAINABLE COMMUNITY INNOVATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
CNE13-109	Maine Grain Alliance Farmer/Baker/Miller Workshops	\$6,574	Amber Lambke Maine Grain Alliance Dr. Harold Dowse Maine Grain Alliance
CNE12-095	Southern Somerset Local Foods Connection	\$15,000	Paula Day Maine Alternative Agriculture Association
CNE10-068	School-Supported Agriculture for Downeast Maine	\$14,957	Katie Freedman Healthy Acadia
CNE09-061	Recipes for success: Empowering farmers, leveraging resources, building community	\$23,446	Craig Lapine Cultivating Community
CNE09-062	Maine Fiberarts Online Tour Map: Studios and Farms, 2009-2012	\$24,378	Christine Macchi Maine Fiberarts
CNE08-046	Maine Beef Producers Association executive director position	\$10,000	Pamela Harnden Maine Beef Producers' Association
CNE08-050	Downeast Maine Farm to School	\$10,000	Doug Michael Healthy Acadia Coalition
CNE08-054	Get Fresh Net	\$9,658	Tanya Swain Western Mountains Alliance
CNE07-030	Lots to gardens	\$10,000	Kirsten Walter Lots to Gardens
CNE06-005	Town of Rumford community and economic development planning for agriculture	\$10,000	Mark Hews Threshold To Maine RC&D Area

CNE06-012	Farm to School in Hancock County	\$9,965	Doug Michael Healthy Acadia Coalition Heather Albert-Knopp Healthy Acadia Coalition
CNE06-016	Passamaquoddy youth wild berry package development	\$8,881	Deirdre Whitehead Passamaquoddy Tribe

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**Total funding from the USDA SARE program to  
Maine  
\$9,121,226**

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For further information on projects, contact 802-651-8335 or [nesare@uvm.edu](mailto:nesare@uvm.edu). Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).