

## 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 \$309 million to more than 7,408 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...

# New Jersey

### Project Highlight: *Programming Supports Northeast Agritourism*

Northeast farmers are relying increasingly on agritourism to expand farm income, create employment for family members and strengthen relationships in the local community. But agritourism also increases a farm's liability, as farm visitors may be exposed to risks they are not familiar with. Some farmers also lack the experience to market their operation to visitors, make the transition to a retail and hospitality enterprise, and manage the associated risks and liabilities.

In response to these issues, a multistate team of Cooperative Extension faculty, led by Brian Schilling from Rutgers University, used SARE funding to develop a train-the-trainer curriculum on agritourism. Its aim was to equip farm service providers with the knowledge, skills and tools needed to help Northeast farmers minimize risk and liability associated with farm visits, mitigate financial risk, and improve marketing strategies.

The project goal was to train 60 Extension educators and other agricultural service professionals, with at least 30 going on to share information with 200 farmers. But in fact, more than 690 educators and 760 farmers came to this project's workshops, classroom-style training, webinars and small-group farm assessments throughout New Jersey, Vermont, Delaware, and Maine, surpassing the expected level of participation several times over.

For more information on this project, see [sare.org/projects](http://sare.org/projects), and search for project number [ENE11-121](#).

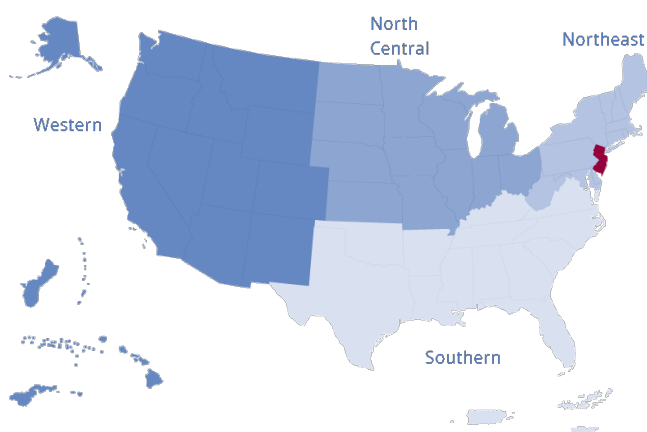
## SARE in New Jersey

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

**\$3,819,286**  
in total funding

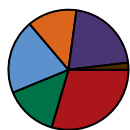
**105 grant projects**  
(since 1988)

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



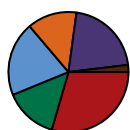
## SARE Grants in New Jersey

Total awards: 105 grants



31 Farmer/Rancher  
15 Graduate Student  
21 On Farm Research/Partnership  
14 Professional Development Program  
22 Research and Education  
2 Research Only

Total funding: \$3,819,286



\$277,764 Farmer/Rancher  
\$204,509 Graduate Student  
\$290,896 On Farm Research/Partnership  
\$978,720 Professional Development Program  
\$1,875,983 Research and Education  
\$191,414 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/new-jersey](http://northeast.sare.org/sare-in-your-state/new-jersey)

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

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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 NEW JERSEY

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

New Jersey has been awarded \$3,844,102 grants to support 105 projects, including but not limited to, 20 research and/or education projects, 14 professional development projects and 31 producer-led projects. New Jersey 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>
LNE20-395	Empowering Northeastern Strawberry Growers With Flower Mapping	\$137,819	Edward Durner Dept. of Plant Biology, Rutgers University
LNE18-362	Goldenberries (Physalis peruviana): A New Fruit for CSA Farms and Farmers Markets	\$102,122	Edward Durner Dept. of Plant Biology, Rutgers University
LNE18-364	An Area-Wide Pest Management Program to Improve Honey Bee Health in Blueberry and Cranberry Pollination Services	\$199,975	Dean Polk Rutgers University
LNE08-273	Spatially Based Whole-Farm Integrated Crop Management (ICM) Systems for Northeast Highbush Blueberry Production	\$180,000	Dr.Cesar Rodriguez-Saona Rutgers University
LNE07-253	Mating disruption for the management of oriental beetle in ornamental nurseries: A research and extension effort	\$106,876	Dr.James Lashomb Rutgers University
LNE07-265	An integrated approach to developing nutrient management schemes for container-grown nursery crops	\$106,562	Dr.John Dighton Rutgers University Gladis Zinati Rutgers, The State University
LNE00-132	Alternate Bed Renovation System for Cranberry Production	\$157,506	Nicholi Vorsa Marucci Center for Blueberry & Cranberry Research
LNE99-128	The Green House Project: Sustainable Agriculture in Urban Areas	\$122,315	Ralph Coolman Rutgers University
LNE99-129	Utilization of Community Leaves for Improving Orchard Soil Quality	\$95,535	Robert Belding Rutgers Cooperative Extension, Rutgers University
LNE97-085	Integration of Behavioral, Biological, and Reduced-Risk Chemical Approaches into a Sustainable Insect Management Program for Cranberries	\$133,179	Sridhar Polavarapu Dept. of Entomology, Rutgers University
LNE97-093	Sustainable Phosphorous Fertilizer Recommendations for Corn Production in the Northeast USA	\$92,780	Joseph R. Heckman Rutgers University, Dept of Plant Science
LNE97-095	Flowering Plants to Enhance Biological Control in Landscapes	\$80,344	Paula M. Shrewsbury Rutgers University

LNE96-073	At-Harvest Stalk Nitrate Testing for Sweet Corn	\$4,710	Joseph R. Heckman Rutgers University, Dept of Plant Science
LNE96-074	Peach Orchard Ground Cover Management to Reduce Arthropod Damage	\$55,000	Peter Shearer Rutgers University
LNE95-056	Presidedress Soil Nitrate Test for Fall Cabbage	\$45,000	Joseph R. Heckman Rutgers University, Dept of Plant Science
LNE95-057	Improving the Profitability & Adaptation of the High-Density Strawberry Production System for the Northeast	\$96,204	Joseph Fiola Rutgers University, Rutgers Fruit Research and Education Center
LNE95-059	Implementation of a Disease Forecasting System for Tomatoes in Northern New Jersey	\$54,210	Winfred Cowgill Rutgers University
LNE93-035	Develop Crop Rotational Budgets For Three Cropping Systems in the Northeast	\$60,846	Robin G. Brumfield Ag'l Economics & Marketing, Cook College, Rutgers State U
LNE89-015	Eggplant: A model system for integrating biological control of Colorado potato beetle and Verticillium wilt	\$25,000	Dr. James Lashomb Rutgers University
LNE89-018	Marketability of Low-input Agricultural Produce	\$20,000	Clair S. Liptak Rutgers

#### RESEARCH ONLY GRANTS

Project #	Project Title	SARE Support	Project Leaders
LNE20-407	Reducing water and fertilizer inputs by incorporating native beneficial bacteria in sustainable turfgrass sod production	\$149,910	Dr. Bingru Huang, PhD Rutgers University
LNE18-369R	Extend and Maximize Postharvest Quality of Strawberry	\$41,504	Thomas Gianfagna Rutgers University

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
ENE19-157	Training Agriculture Service Providers on the Nitty-Gritty Details of No-Till and Cover Crop Practices for Greater Implementation	\$148,966	Bridgett Hilshey North Jersey RC&D
ENE11-121	Development of Extension Programming to Support the Advancement of Agritourism in the Northeast	\$112,616	Dr. Brian Schilling Rutgers University
ENE09-111	Organic vegetable production weed control strategies: Integrating precision cultivation, weed biology and OMRI herbicides	\$89,211	Dr. John Grande Rutgers University
ENE06-096	Matching small-farm crop sprayer application technology with OMRI and traditional agricultural products	\$48,386	Dr. John Grande Rutgers University
ENE04-088	Sustainable Pasture Management for Horses	\$79,100	Dr. Carey Williams Rutgers University Department of Animal Sciences

ENE03-079	An advanced school addressing integrated crop management of highbush blueberries	\$16,550	James Barry Marucci Center for Blueberry and Cranberry Research
ENE02-067	Educating Agricultural Professionals about USDA National Organic Program Requirements and Approved Materials for Certified Organic Crop Production	\$111,893	Emily Brown Rosen Organic Research Associates
ENE01-064	Development of Ethnic & Specialty Vegetable Production & Marketing Resources	\$122,731	Richard VanVranken Rutgers Cooperative Extension - Atlantic County
ENE97-031	Multi-Media Aids and In-Service Training Program for Using Insecticidal Nematodes	\$59,163	Sridhar Polavarapu Dept. of Entomology, Rutgers University
ENE97-035	Review and Evaluation of Educational and Reference Materials Pertaining to Nutrient Management and Soil Health for Sustainable Agriculture Production.	\$7,000	Michelle Infante-Casella Rutgers New Jersey Agricultural Experiment Station Cooperative Extension
ENE96-023	Communication and Outreach for Sustainable Agriculture: A Video Training Program for Extension	\$49,998	Billie Jo Hance Center for Env. Comm., Cook College, Rutgers Univ.
ENE96-017	Teaching to Achieve Sustainable Management of Phytophthora Diseases on Horticultural Crops	\$46,500	Jack Rabin Rutgers Cooperative Extension
ENE95-007	Information Management Training for Integrated Crop and Pest Management	\$59,508	Jack Rabin Rutgers Cooperative Extension
ENE95-014	Promoting Sustainable Agriculture Through a Systems Approach to Consensus Building and Public Policy Education	\$27,098	Edmund Tavernier Dept of Agriculture

#### FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
FNE20-952	Chemical-Free Vineyards	\$14,813	Steve and Audrey Gambino Villa Milagro Vineyards
FNE19-931	Cold Storage of Eastern Oysters, <i>Crassostrea virginica</i> , to Reduce Winter Mortality in an Increasingly Variable Environment	\$14,845	Betsy Haskin Betsy's Cape Shore Salts
FNE18-885	Comparison of Five Methods of Crop Thinning in Pinot Noir and their Effects on Fruit Composition and Wine Quality	\$14,871	Michael Beneduce Beneduce Vineyards
FNE18-888	Optimization and Demonstration of Field Nursery Practices for Oyster Seed Cultivation in the Delaware Bay, NJ	\$14,240	Lisa Calvo Sweet Amalia Oyster Farm
FNE18-892	Analyzing the Profitability of Seasonal Wreath Production	\$5,223	Monica Drazba Chickadee Creek Farm
FNE16-853	Examining varieties of alternative grain crop: Malt barley and its efficacy in a double-grain cropping system in New Jersey	\$14,543	Henry Muehlbauer Swampy Vale Farm

FNE15-833	A honeybee IPM program for pollinator health in blueberry production	\$15,000	Dennis Wright Fruitwood Orchards Honey Dean Polk Rutgers University
FNE15-821	Design and construction of a low-impact amphibious vehicle for efficient and sustainable oyster farming	\$15,000	Gustavo and Lisa Calvo Sweet Amalia Oyster Farm
FNE14-807	Evolving cage design for floating oyster farms in Barnegat Bay, NJ	\$11,088	Scott Lennox Forty North Oyster Farms
FNE13-780	Methods to control bio-fouling of cultured eastern oysters, <i>Crassostrea virginica</i> , by the tube-building polychaete worm, <i>Polydora cornuta</i>	\$13,415	Betsy Haskin Betsy's Cape Shore Salts
FNE12-747	Improvement and demonstration of subtidal cage culture methods to cultivate oysters in Delaware Bay, New Jersey	\$14,910	Barney HOLLINGER Elder Point Oyster Company
FNE11-716	Adaptation and integration of remote setting, selective breeding and triploid production technologies to revitalize oyster culture in Delaware Bay	\$15,000	Thomas Foca Harbor House Seafood, LLC
FNE11-727	Raising fig trees in high tunnels in the Northeast	\$9,799	Maurice sheets woodland Produce
FNE11-729	Improving the Quality of Queen Honey Bees produced in the Northeast by Modifying Standard 10-Frame High Body Boxes	\$14,971	Karoly Toth Toth Apiaries
FNE11-733	Improving Growing Practices for Processing Tomatoes Using Rodale Roller Crimper	\$9,290	Theresa Viggiano First Field LLC
FNE11-708	The effect of two levels of cluster thinning on crop yield and quality for Cabernet Sauvignon and Cabernet Franc grown in the Eastern US	\$10,220	Dr.Lawrence Coia Coia Vineyards, LLC
FNE09-672	A Middle Entrance for Beehives II	\$3,984	Dave Stewart
FNE08-646	A middle entrance for beehives	\$4,816	Dave Stewart
FNE04-516	Pre-sidedress Nitrate Test in Pumpkins	\$1,121	Erin Hitchner Grant J. Hitchner Farm
FNE03-476	Creating No-Till Cover in Newly Established Organic Blueberry Blocks	\$6,182	John Marchese Emery's Berry Patch
FNE03-478	An Improved System for Moving and Storing Small Rectangular Bales	\$9,949	Richard McDermott Neptune Farm Company
FNE03-493	Event Marketing	\$6,693	Richard Sisti
FNE03-501	Mobile Poultry Processing Unit	\$4,228	John Wunderlich

FNE02-425	Study of the Chilling Requirements of Four Floracane Raspberry Varieties for Greenhouse Raspberry Production	\$6,900	Shirley Kline Happy Valley Berry Farm
FNE02-439	Multi-Farm Garlic Growers Project	\$2,146	Richard Sisti
FNE00-297	Adapting a Western style of pruning and tying peach trees in New Jersey to maximize production and tree longevity.	\$4,425	Rolf Decou
FNE00-298	Sorghum as a finishing grain for bison.	\$3,298	Erick Doyle
FNE00-321	Native spat collectors for obtaining oyster farm seed.	\$4,885	James Tweed
FNE96-142	Comparison of Drainage Methods for Phytophthora Root Rot Control	\$3,500	Abbott Lee
FNE94-062	Solar Heated Aquaculture System	\$3,313	Garland Michallis
FNE93-019	Small Farm Biogas Production & Use	\$5,096	Ara Lynn Liberty Farm

#### GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GNE19-212	Increasing Consumer Acceptance of Baby Leafy Greens Grown in a Controlled Environment	\$15,000	Beverly Tepper Regina O'Brien Rutgers University
GNE18-181	Evaluating Native American Hazelnuts for Use as Cold Hardy Pollenizers in European Hazelnut Orchards	\$10,048	Dr.Thomas Molnar Rutgers University Alex Mayberry Rutgers University
GNE17-141	Breeding for thermal tolerance in farmed atlantic surfclams ( <i>Spisula solidissima</i> )	\$14,963	Dr.Daphne Munroe Haskin Shellfish Research Lab (Rutgers University) Michael Acquafredda Rutgers University - Haskin Shellfish Research Laboratory
GNE17-149	Roles of rhizobacteria from northeast natural ecosystems in improving crop productivity and stress tolerance	\$14,848	Bingru Huang Rutgers University William Errickson Rutgers University - Haskin Shellfish Research Laboratory
GNE17-158	Reclamation of nutrients and irrigation waters from livestock wastewater	\$15,000	Ashaki Rouff Rutgers University Newark Alon Rabinovich Rutgers University Newark
GNE17-162	Increasing horse pasture productivity by integrating warm-season grasses into cool-season rotational grazing systems	\$14,997	Dr.Carey Williams Rutgers, The State University of New Jersey Jennifer Weinert Rutgers, The State University of New Jersey
GNE16-132	Identifying realized predation on BMSB ( <i>Halyomorpha halys</i> , Stål) and host plant impacts	\$13,639	Anne Nielsen Rutgers University John Pote Rutgers University

GN15-112	Development of a high-resolution surveillance protocol using eDNA for detection of brown marmorated stink bugs	\$14,999	Dr. Julie Lockwood Rutgers University Dr. Dina Fonseca Rutgers University Rafael Valentin Rutgers, The State University of New Jersey
GN14-084	Evaluating the biological control agent <i>Trichoderma</i> : Enhancement of plant growth and development through biostimulatory volatile treatment	\$10,248	Dr. Joan Bennett Rutgers, The State University of New Jersey Samantha Lee Rutgers, The State University of New Jersey
GN13-064	Optimization of adventitious rooting of hazelnut stem cuttings to expedite on-farm commercialization trials	\$8,376	Dr. Thomas Molnar Rutgers University Megan Muehlbauer Rutgers, The State University of New Jersey
GN13-070	Biological Control of Blueberry Anthracnose and Cranberry Fruit Rot: Exploiting Fungal Responses to Blueberry and Cranberry Bloom in Biocontrol Treatments	\$13,369	Dr. Peter Oudemans Rutgers, The State University Dr. Timothy Waller Rutgers University
GN13-054	<i>Halyomorpha halys</i> in peaches: improved detection for IPM scouting	\$14,850	George Hamilton Rutgers University John Cambridge Rutgers University
GN12-038	Landscape effects on spatial distribution and movement of brown marmorated stink bug in peach orchards	\$14,179	Dr. Cesar Rodriguez-Saona Rutgers University George Hamilton Rutgers University Noel Hahn Rutgers University
GN11-027	Assessing Nematode Diversity in Natural and Managed Blueberry Habitats	\$14,993	Albrecht Koppenhöfer Rutgers University Dr. Cesar Rodriguez-Saona Rutgers University Monique Rivera Rutgers University
GN10-003	Improving the Sustainability of Switchgrass Establishment Through the Development of Cultivars with Improved Germination	\$15,000	Dr. Stacy Bonos Rutgers, The State University of New Jersey Laura Cortese Rutgers, The State University of New Jersey

#### ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE Support	Project Leaders
ONE20-371	Efficacy of whole herbs on controlling gastrointestinal nematodes in an alpaca fiber operation	\$13,448	Dr. Erin Masur, DVM Hoof & Hound Dr. Alexia Tsakiris, BVetMed, GDipWVHM, CVA Blue Sage Veterinary Wellness Center
ONE20-373	Application of Shell Hash Cover as a Deterrent of Cownose Ray Predation on Hard Clam Farms	\$29,997	Dr. Daphne Munroe Haskin Shellfish Research Lab (Rutgers University)
ONE19-345	Alternative and Organic Management Practices to Control Oriental Beetle in Commercial Blueberries	\$29,848	Dean Polk Rutgers University
ONE16-285c	Integrating cover crops for suppression of soil born diseases in blueberries	\$10,000	Dr. Peter Oudemans Rutgers, The State University
ONE15-243	Rediscovering the Rutgers tomato	\$14,900	Peter Nitzsche Rutgers Cooperative Extension of Morris County



ONE15-247	Establishment and marketing of hops production in the mid-Atlantic	\$14,956	James Simon Rutgers University
ONE14-201	Minimizing risks of Vibrio bacteria in farm-raised oysters grown in intertidal environments of the Delaware Bay	\$14,899	Lisa Calvo Haskin Shellfish Reserach Laboratory, Rutgers University
ONE14-217	Bringing IPM and Natural Enemies Back to the Orchard Post-BMSB	\$14,970	Anne Nielsen Rutgers University
ONE13-185	Pepper weevil pathways	\$14,914	Joseph Ingerson-Mahar Rutgers University
ONE13-190	Mating disruption and reduced-risk methods to control peach pests and brown marmorated stink bug	\$14,833	Dean Polk Rutgers University
ONE12-161	Determining pepper weevil pathways	\$14,957	Joseph Ingerson-Mahar Rutgers University
ONE11-151	Impact of Production System and Cultivar on Yields of Roselle (Hybiscus sabdariffa) Leaves and Calyces	\$14,155	Richard VanVranken Rutgers Cooperative Extension - Atlantic County
ONE09-106	Hazelnuts: A New Sustainable Crop for the Northeastern United States	\$10,000	Dr.Thomas Molnar Rutgers University
ONE09-108	Integrating Cover crops into Sustainable Highbush Blueberry Production in New Jersey	\$10,000	Dr.Zsofia Szendrei Michigan State University
ONE08-090	Asian Pears, an alternative crop for Northeast fruit growers - Developing a Plant Growth Regulator Thinning Program to Ensure Profitability	\$9,997	Daniel Ward Rutgers University
ONE08-092	Low-input management practices for container Ericaceous nursery crops	\$9,985	Gladis Zinati Rutgers, The State University Dr.John Dighton Rutgers Universuty
ONE07-078	Evaluating the effects of production system and cultivar on the development of silvering in bell pepper fruit	\$9,860	Nancy Maxwell New Jersey Agricultural Experiment Station Andy Wyenandt New Jersey Agricultural Experiment Station Wesley Kline New Jersey Agricultural Experiment Station
ONE06-066	Evaluating the effects of variety and production system on the development of silvering in bell pepper fruit	\$9,824	Andy Wyenandt New Jersey Agricultural Experiment Station
ONE06-054	Increasing the sustainability of northeastern goat farms via the establishment of value-added goat meat products in new, nontraditional markets	\$9,973	H. Louis Cooperhouse Rutgers, The State University of New Jersey
ONE05-043	Implementation of an integrated peach rusty spot disease management program in commercial orchards	\$10,000	Norman Lalancette Rutgers University
ONE03-016	Ratcheting up commercial organic high-bush blueberry production systems	\$9,380	William Sciarappa Rutgers Cooperative Extension

**SUSTAINABLE COMMUNITY INNOVATION GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
CNE12-101	Improving the Sustainability of the Horse Industry through Equine-Related Business Planning	\$14,816	Dr. Carey Williams Rutgers University Department of Animal Sciences
CNE06-009	Seeds to Success Youth Farm Stand project: Using social marketing to increase community presence and create a self-supporting project	\$10,000	Luanne Hughes Rutgers Cooperative Extension

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**Total funding from the USDA SARE program to  
New Jersey  
\$3,844,102**

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For further information on projects, contact Deb Heleba, Northeast SARE communications specialist, at 802-651-8335, ext 552 or [debra.heleba@uvm.edu](mailto:debra.heleba@uvm.edu). Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).