

## 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 \$359 million to more than 8,107 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...

# Florida

### Project Highlight: *Grafted Specialty Tomatoes More Resilient*

Demand for organic heirloom and specialty tomatoes grown in high tunnels is rising, making them high-value crops. Unfortunately, growers of such tomatoes in Florida face challenges in managing soil-borne diseases. Due to Fusarium wilt, one farm faced the complete crop failure of a tomato popular in the local market. University of Florida researcher Xin Zhao partnered with the farm, Frog Song Organics, to see if grafting with resistant rootstocks would control soil-borne diseases in organic high tunnel production systems.

Their experiment compared grafted and non-grafted specialty tomatoes for soil-borne disease resistance, yield and fruit quality. They found that grafting was an effective tool for managing Fusarium wilt and improving the overall health of tomato plants. Yields significantly improved in grafted tomato production compared with non-grafted controls. Even with higher production costs associated with the grafting, the grafted plants resulted in increased net profits.

One hundred professionals and 450 farmers learned of the rewarding research findings at workshops and presentations. Zhao views this on-farm research project as a successful demonstration of technology transfer through a collaborative and productive partnership with local growers to address production issues.

For more information on this project, see [sare.org/projects](http://sare.org/projects), and search for project number [OS13-083](#).

## SARE in Florida

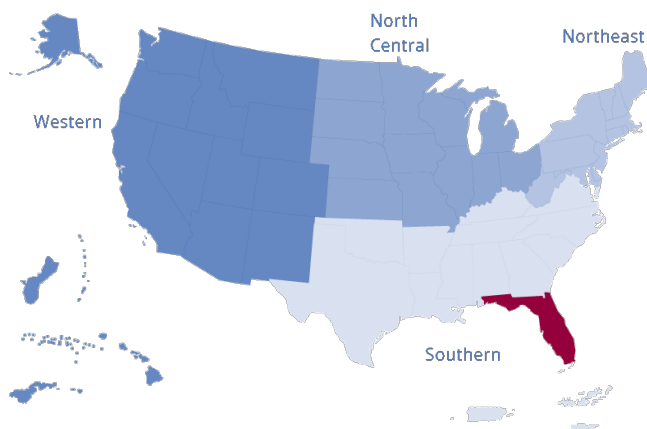
[southern.sare.org/sare-in-your-state/florida](http://southern.sare.org/sare-in-your-state/florida)

**\$8,121,936**  
**in total funding**

**174 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)



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

# SARE Grants in Florida

Total awards: 174 grants



37 Research and Education  
7 Sustainable Community Innovation  
10 Professional Development Program  
27 Farmer/Rancher  
63 Graduate Student  
30 On Farm Research/Partnership

Total funding: \$8,121,936



\$5,867,935 Research and Education  
\$87,296 Sustainable Community Innovation  
\$651,193 Professional Development Program  
\$262,085 Farmer/Rancher  
\$779,971 Graduate Student  
\$473,456 On Farm Research/Partnership

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:

[southern.sare.org/sare-in-your-state/florida](http://southern.sare.org/sare-in-your-state/florida)

## 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 [southern.sare.org/state-pages/florida](http://southern.sare.org/state-pages/florida) 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 FLORIDA

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

Florida has been awarded \$8,121,936 grants to support 172 projects, including but not limited to, 35 research and/or education projects, 10 professional development projects and 27 producer-led projects. Florida has also received additional SARE support through multi-state projects.

## RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE Support	Project Leaders
LS22-370	Using rootstocks to increase blueberry farming sustainability in the South East	\$371,000	Dr.Gerardo Nunez University of Florida Dr.John Diaz University of Florida Dr.Islam El-Sharkawy Florida A&M University Gabriel Maltais-Landry University of Florida Dr.Zilfina Rubio Ames University of Georgia Ariel Singerman University of Florida
LS22-378	Community Apiary - Providing Experiential Education and Access for Novice Beekeepers in an Urban Setting	\$49,957	Ju'Coby Pittman Clara White Mission Octavious Carr The Herban Bee Mallory Schott Clara White Harvest Farms
LS21-353	Evaluating the Dual-Purpose of Chickpea: A Cash and Cover Crop for Agricultural Production Systems in the Southeast	\$397,648	md ali babar University of Florida Dr.Oscar Liburd University of Florida Gabriel Maltais-Landry University of Florida Dr.Jorge Ruiz-Menjivar University of Florida Dr.Marilyn Swisher University of Florida Chris Wilson University of Florida Alejandro Bolques Florida A&M University
LS21-354	The Use of Cyanobacteria Biofertilizers to Increase Crop Productivity, Improve Soil Health, and Agricultural Sustainability in Florida	\$242,000	Dr.Sanku Dattamudi Florida International University Dr.Mahadev Bhat Florida International University Dr.Saoli Chanda Florida International University Dr.Krishnaswamy Jayachandran Florida International University Dr.Leonard Scinto Florida International University

LS21-360	Specialty Pumpkin: Laying the Groundwork for an Emerging Crop and Lucrative Products	\$399,999	Dr.Geoffrey Meru University of Florida Dr.Carlene Chase University of Florida Dr.Andre da Silva University of Georgia Dr.Andrew MacIntosh University of Florida Dr.Angela Ramírez University of Puerto Rico Dr.Jorge Ruiz-Menjivar University of Florida
LS20-334	Optimizing Nutrient and Water Management for Organic Mixed Vegetable Production Systems	\$299,116	Gabriel Maltais-Landry University of Florida Kevin Athearn University of Florida Eban Bean Agricultural and Biological Engineering, UF/IFAS Dr.Carlene Chase University of Florida Tatiana Sanchez UF/IFAS Extension Alachua County
LS20-342	Enhancing Hedgerow Systems in Fruit Tree Production to Improve Beneficial Insect Diversity and Abundance	\$311,118	Dr.Xavier Martini University of Florida Dr.Michael Andreu university of Florida Brett Blaauw University of Georgia Dr.Lauren Diepenbrock University of Florida Rachel Mallinger, Dr. University of Florida
LS19-308	Harnessing Microbes for Sustainable Food Production	\$44,468	Masanori Fujimoto University of Florida
LS19-315	Enhancing Seed Production of Regionally Adapted Crops in the Southeastern Farmer Seed System	\$310,537	Dr.Hector Perez University of Florida
LS18-291	Managing Plant-parasitic Nematodes and Promoting Beneficial Soil Organisms Through Sod-based Crop Rotation	\$198,669	Zane Grabau University of Florida
LS18-297	Shade and Ground Cover Growing Systems for Tea Production in Florida	\$200,000	Brantlee Richter University of Florida
LS18-302	Educational Materials for Cover Crop Adoption and Use in the Subtropics and Tropics	\$46,999	Dr.Danielle Treadwell University of Florida
LS16-270	Cover Crop Diversity through Evaluation and Increase from Breeder Stocks and Germplasm Repositories	\$201,249	Dr.Carlene Chase University of Florida
LS11-244	Taking advantage of pest thrips ecology to increase sustainability of vegetable crop production	\$235,000	Dr.Stuart Reitz USDA-ARS Dr.Stephen Hight USDA-ARS
LS10-228	Educating and Training Future Farmers, Researchers and Extension Personnel in Sustainable Agriculture	\$245,000	Rosalie Koenig University of Florida

LS10-233	Integrated Use of Grafting Technology to Improve Disease Resistance and Fruit Yield in Specialty Melon Production	\$223,000	Dr.Xin Zhao University of Florida
LS10-235	Preparing Small Scale Limited Resource Vegetable Farmers for Organic Farming in North Florida	\$15,000	Dr.Odemari Mbuya Florida A&M University
LS09-216	Improving the quality of life for Southern organic farmers and farm workers	\$190,000	Leah Cohen Florida Organic Growers
LS08-205	Selecting a sunn hemp cover crop genotype for weed suppression and seed production	\$170,000	Dr.Carlene Chase University of Florida
LS07-199	Integrating plant essential oils and kaolin for the sustainable management of thrips and tomato spotted wilt on tomato	\$185,000	Dr.Stuart Reitz USDA-ARS
LS06-187	Silicon soil amendments for enhancing disease resistance while improving overall crop health for cucurbits in organic farming systems	\$180,000	Dr.Robert McGovern UF-IFAS Amanda Gevens University of Florida
LS06-192	Biorational approaches for management of bacterial wilt and bacterial spot on tomato	\$150,000	Dr.Jeffrey Jones University of Florida
LS05-170	Integrated Management of Purple and Yellow Nutsedge in Organic Vegetable Production	\$125,000	Dr.Carlene Chase University of Florida
LS04-168	Development of Florida Native Plants as Farmscaping Cover Crops and Value-added Crops for Limited-Resource Farmers in Central Florida	\$15,000	Robert Kluson Florida Native Solutions, Inc.
LS03-148	Development of sustainable vegetable production systems for south Florida and Virginia based on use of cover crops and precision irrigation	\$179,776	Waldemar Klassen Tropical Research and Education Center
LS02-136	Enhancing the Economic and Environmental Competitiveness of Small Farms Through Agroforestry	\$189,600	Shibu Jose University of Florida
LS02-140	A System Approach for Improved Integration of Green Manure in Commercial Vegetable Production Systems	\$171,800	Johannes Scholberg Agronomy Department, University of Florida
LS00-118	Management of Small Rural Holdings as Economic and Ecological Units	\$21,406	David Zimet North Florida Research and Extension Center Inst.
LS99-101	Developing Effective Methods to Assess the Impact of Community Food Security Programs on Purchases of Local Farm Produce in Three Southern Communities	\$20,000	Ellen Huntley Florida Organic Growers
LS98-090	An Integrated System of Organic Food Production and Urban Food Waste Recycling Using On-Farm Anaerobic Digestion and Fertigation	\$142,623	Anne Barkdoll Full Circle Solutions, Inc.
AS95-019	Biological Control Methods for Citrus Rust Mites and Spider Mites on Florida Citrus Utilizing Predaceous Arthropods as Part of IPM	\$75,000	Carl C. Childers IFAS Citrus Research

LS92-046	Development of Cropping Systems for Nematode Management on Agronomic and Horticultural Crops	\$155,000	D.W. Dickson University of Florida R. McSorley Dept. of Entomology & Nematology, U of Florida Rodrigo Rodriguez-Kabana Auburn University, Plant Pathology
LS91-031	Biological Control and its Economics in the Southern United States	\$49,970	J. Howard Frank University of Florida, Entomology and Nematology
LS91-042	Intensive Short Course on Grant Preparation for Future Applicants to the LISA Competitive Grants Program	\$39,000	Carl Barfield University of Florida
LS90-021	An Educational Program in Low-input Sustainable Agriculture Production Technology and Philosophy	\$18,000	Stephen A. Ford University of Florida

#### PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE Support	Project Leaders
SPDP21-03	Bridging the Food Supply and Sustainable Agriculture Systems with the Nonprofit Sector	\$77,867	Dr. Kimberly Wiley University of Florida Dr. Jennifer Jones University of Florida Dr. Marilyn Swisher University of Florida
ES09-097	Moving nursery producers toward sustainable production practices	\$76,237	Gary Knox University of Florida
ES03-067	What Service Providers Must Know About Organic Rules and Regulations	\$133,762	Rosalie Koenig University of Florida
ES01-054	Growing with the Community: A Hands-on Training Design for Agricultural Educators, Farmers and Community Leaders	\$49,735	Ellen Huntley Florida Organic Growers
ES01-055	Delivery of Biological Control Information and Technology in Florida	\$49,919	James Cuda University of Florida
ES01-056	Training in production and utilization of composted waste materials in warm, humid climates to improve soils for horticultural cropping systems	\$47,896	Monica Ozores-Hampton University of Florida/SWFREC
ES97-030	Integrated Production of Sustainable Crops for Small Farmers in North Florida	\$8,375	Gary Knox University of Florida
ES97-036	Sustainable Agriculture Training Initiative for Texas	\$70,136	Nancy Roe
LST96-012	Facilitating Farmer to Farmer Networks: An Experimental Approach	\$80,997	Dr. Marilyn Swisher University of Florida
LST94-007	Evaluating Sustainability: Gaining Insights	\$56,269	Dr. Marilyn Swisher University of Florida

#### FARMER/RANCHER GRANTS

Project #	Project Title	SARE Support	Project Leaders
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FS22-339	Methodology to enhance nutrition and economics of microalgae use as live feeds in marine aquaculture	\$14,985	Nicole Kirchhoff, PhD Live Advantage Bait LLC
FS20-323	Evaluating Mobile Slaughter Access for Producers and Local Partners	\$10,700	Sheila Austin Red Boot Goat Farm
FS19-317	Analysis of the Antioxidant Qualities of Flowers and Fruits of Several Commercial Varieties of Sambucus nigra ssp. Canadensis (The North American Black Elderberry) in Florida	\$9,971	Heather Martin Hyldemoer & Co., LLC
FS19-314	Season Extension and Increased Economic Sustainability for South Florida Growers: Using high tunnels to extend tomato production	\$9,665	Moses Kashem St. Simon's Farm; Urban Vegetable Project Produce Sales LLC
FS19-319	Sweet Potatoes and Their Vines: A nutritional and sustainable alternative for food and livestock feed	\$9,926	April Singleton L&B Farm
FS10-248	Florida Meat Goat Study	\$9,996	Rita Pruette Granny Smith Farms
FS06-209	Developing Model CSA Software for Multi-cropping and Harvesting	\$9,800	Margaret Pikarsky Bee Heaven Farm
FS03-176	Developing Guidelines for Farmers to Market Directly to Consumers at Community Farmers' Markets	\$14,000	Sharon Yeago Alachua County Farmers' Market, Inc.
FS02-149	Ultraviolet Light absorbing films and nets for insect and disease control in an organic greenhouse	\$8,010	Jim Gibbons
FS01-129	Development of Multi-Herd Management software for small farmers	\$9,949	Dee Blaha
FS01-135	Soil Fertility improvement in Fruit Orchards by Windrowing Urban Plant Debris and Poultry Litter	\$8,644	William Graves, IV Tetley Groves, Inc.
FS01-138	Developing a model to increase support for organic farming research at Land Grant Institutions	\$14,999	Marty Mesh FL Certified Organic Growers and Consumers, (FOG)
FS01-139	Composted Yard Waste as a Replacement for Pine Bark Mulch in Blueberry Production	\$9,800	Richard Nogaj Harvest for Humanity
FS01-140	Using companion plants to increase biological control for thrips in pepper crops	\$9,300	Chuck Obern
FS00-112	Practical Evaluation of Vermicompost on Horticultural Crops	\$9,820	Cynthia L. Connolly
FS00-121	Marketing to the Department of Defense Food Service	\$15,000	Glyen Holmes New North Florida Coop
FS00-125	Does Compost Use Affect Post-Harvest Quality of Vegetables?	\$9,960	Nancy Roe

FS00-127	Alternative Production Methods for Increasing Sustainability of North Florida Strawberry Producers	\$9,964	Larry Gillard South Georgia Farmers Co-op
FS99-089	Developing a Model for Successful Direct Marketing in Southern Communities	\$7,020	Trace Giornelli
FS99-093	Alternative Parasite Control Methods for Goat Producers: A Comparative Analysis	\$5,960	Charles Johnson C&M Farms
FS99-094	Developing an Organically Approved Soil Mix for Use in Vegetable Transplant Production	\$7,660	Rosalie Koenig University of Florida
FS98-067	Feasibility of Indoor Culture and Production of Ornamental Goldfish	\$2,216	Robert Draughon
FS97-057	Effect of Limited Environmental Controls on Shiitake Mushroom Production in the Southern Coastal Plain	\$9,990	Charles McRae
FS95-025	Development of Potting Soil Mixes from Local Wastes	\$9,600	Steve Garrison Almond Tree Nursery
FS95-026	Testing the Efficacy of Alternative Methods of Whitefly Control in Organic Vegetable Production	\$5,200	Rosalie Koenig University of Florida
FS95-030	Management of Artificial and Restored Wetlands to Improve Water Quality	\$10,000	A. Glenn Simpson Big Island Grove
FS94-019	Biological Control of Flower Thrips in Pepper Fields	\$9,950	Ted & Trudy Winsberg Green Cay Farms

#### GRADUATE STUDENT GRANTS

Project #	Project Title	SARE Support	Project Leaders
GS21-235	Examining Field Crop Farmers' Climate Change Perceptions, Adaptation Strategies, and Resilience in Florida: A spatial econometric approach	\$15,775	Dr.Jorge Ruiz-Menjivar University of Florida Yong Liu University of Florida
GS21-237	Agricultural Water Resource Management in Puerto Rico and the U.S. Virgin Islands	\$13,076	Dr.Marilyn Swisher University of Florida Megan Donovan, M.S. University of Florida
GS21-238	Sustainable Management Practices for Vanilla Cultivation	\$16,499	Dr.Alan Chambers University of Florida TREC Joshua Anderson University of Florida
GS21-239	Quantifying and Understanding Factors Affecting Tissue Nitrate Accumulation in Organic Celery	\$16,497	Dr.Xin Zhao University of Florida Zachary Ray University of Florida
GS21-243	Arbuscular Mycorrhizal Fungal Associations in Tea Under Sustainable Production Systems in Florida	\$16,444	Dr.Bala Rathinasabapathi University of Florida Caitlin Clarke University of Florida
GS21-244	What's the Buzz? Assessing Efficacy, Synergisms, and Sustainability of Pollinators in Southern Highbush Blueberry ( <i>Vaccinium corymbosum</i> L.)	\$16,493	Rachel Mallinger, Dr. University of Florida John Ternest University of Florida Department of Entomology and Nematology



GS21-247	Small-scale Farmer Networks in Florida: Understanding and measuring their impacts and exploring the role of extension in their success	\$15,930	Paul Monaghan University of Florida Jose Perez University of Florida
GS21-249	Forecasting Pasture Productivity from Satellite Imagery for Use in Adaptive Grazing Management	\$16,445	Chris Wilson University of Florida Hunter Smith University of Florida
GS20-219	Translating Grazing: Calculating Nitrogen Credits from Cool-Season Integrated Crop Livestock Systems	\$16,493	Dr.Marcelo Wallau University of Florida Kacey Aukema University of Florida
GS20-221	Assessing Anaerobic Soil Disinfestation for Improving Weed and Soilborne Disease Management in High-tunnel and Open-field Salad Green Production	\$16,499	Dr.Xin Zhao University of Florida Isaac Vincent University of Florida
GS20-222	Agroecological Intensification of Warm-season Pastures for Improved Productivity and Quality and Ecosystem Services	\$16,173	Chris Wilson University of Florida Hannah Rusch University of Florida
GS20-223	Intercropping for Pest Control in Organic Kale in Northern Florida	\$16,279	Nora Underwood Florida State University Penelope Ales Florida State University
GS20-224	Determining How the Ubiquitous Fungi Mortierella Regulates Belowground N Dynamics Under Different Crop Rotation Systems	\$16,144	Dr.Hui-Ling Liao University of Florida Kaile Zhang University of Florida
GS20-225	Deploying Oak Mulch to Contain and Suppress HLB Disease in Citrus	\$12,347	Lorenzo Rossi, Ph.D. University of Florida Lukas Hallman UF/IFAS
GS20-231	Evaluating Local Food Hubs as Alternative Food Systems to Preserve Specialty Crop Producers and Build Resilient Communities in North Central Florida	\$14,028	Dr.Jonathan Watson University of Florida BHAGATVEER SANGHA University of Florida
GS20-234	Development of Push-pull System for Ambrosia Beetles, Vectors of Laurel Wilt Disease in Florida Avocado	\$11,564	Dr.Xavier Martini University of Florida Derrick Conover University of Florida
GS19-199	Sustainable Strategies to Combat the Papaya Ringspot Virus	\$16,495	Dr.Alan Chambers University of Florida TREC Sarah Brewer University of Florida
GS19-206	Developing Efficient Probiotics for Microbiota of Diarrhea-Resistant Livestock	\$16,266	Dr.Kwangcheol Jeong University of Florida Peixin Fan University of Florida
GS19-210	Toward the Development of a Push-Pull Strategy to Control Whiteflies in Florida Vegetables	\$9,308	Dr.Xavier Martini University of Florida Nicholas Johnston University of Florida, North Florida Research and Education Center
GS19-203	Evaluation of Cladosporium cladosporioides and Its Extracts for the Management of Pathogenic Bipolaris Species	\$14,332	Dr.Erica Goss University of Florida Ashish Adhikari University of Florida, Plant Pathology

GS18-184	Evaluation of Biopesticides to Manage Silverleaf Whitefly (Hemiptera: Aleyrodidae) in Tomatoes in Florida	\$16,500	Muhammad Haseeb Center for Biological Control, College of Agriculture and Food Sciences, Florida A&M University Jermaine Perier Florida A&M University
GS18-190	Innovations in Spotted Wing Drosophila ( <i>Drosophila suzukii</i> Matsumura) Monitoring and Attract-and-Kill for Development of More Targeted IPM Programs	\$16,334	Dr.Oscar Liburd University of Florida Gabrielle LaTora University of Georgia
GS18-191	Developing Attract and Reward Strategy to Control Thrips and Whiteflies in Florida Tomato	\$10,316	Dr.Xavier Martini University of Florida Iris Strzyzewski University of Florida NFREC
GS18-195	Elucidating the Effects of Organic vs. Conventional Cropping Practice and Rhizobia Inoculation on Peanut Yield and Rhizosphere Microbial Diversity	\$16,496	Dr.Jianping Wang University of Florida Dev Paudel University of Florida
GS18-181	Integrated Weed Management for Long-Term Nutsedge Control and Its Economic Impact in Florida Vegetable Production	\$15,361	Peter Dittmar University of Florida Ranjeet Randhawa University of Florida
GS17-169	Identifying Marketing Opportunities Under the New Organic Transitional Certification Program	\$16,492	Zhifeng Gao University of Florida Xuqi Chen University of Florida
GS17-170	Companion Planting of Native Insectary Plants to Benefit Crop Plants: The promotion of beneficial insects in agricultural communities via trophic resource enhancement	\$10,332	Dr.Suzanne Koptur Florida International University Andrea Salas Florida International University
GS17-171	Development of an Integrated Pest and Disease Management Program Utilizing Companion Plants and Inundative Biological Control for Organic Squash Production	\$16,245	Dr.Oscar Liburd University of Florida Lorena Lopez Virginia Tech
GS17-172	Effects of Herbivore-Induced Plant Volatiles in Various Maturity Stages of Pepper on the Attractiveness of <i>Orius insidiosus</i>	\$9,787	Dr.Xavier Martini University of Florida Edward Traczyk University of Florida
GS17-173	Genetic Markers for Resistance to Gastrointestinal Nematode Infections for a Sustainable Florida Native Sheep Production	\$16,500	Raluca Mateescu University of Florida Zaira Magdalena Estrada Reyes University of Florida
GS17-178	Overcoming Microclimate Challenges to Improve Organic Spinach Production in Florida	\$16,495	Dr.Xin Zhao University of Florida Craig Frey University of Florida
GS15-141	Creating successful Farm to School Programs in Florida: A County-wide Feasibility Study of Direct, Local Procurement	\$11,000	Ray Bucklin University of Florida Dr.Jonathan Watson University of Florida
GS15-145	Sustainable Management Strategies for Management of Key Insect and Nematode Pests in Squash Cropping Systems	\$10,121	Dr.Oscar Liburd University of Florida Lorena Lopez Virginia Tech
GS15-146	Investigating New Management Approaches for Picture-Winged Flies in Sweet Corn	\$7,432	Dr.Gregg Nuessly University of Florida/IFAS/EREC Dr.David Owens University of Delaware

GS15-149	Natural essential oil compounds with heat treatment to control stem-end rot on grapefruit during postharvest handling and marketing	\$10,948	Dr.Mark Ritenour, markritenour University of Florida Jiaqi Yan University of Florida
GS15-151	Legume Proportion of Grass-Legume Mixtures Affects Greenhouse Gas Emissions from Animals Grazing Pasture	\$11,000	Dr.Lynn Sollenberger University of Florida Dr.Jose Dubeux, Jr. University of Florida - NFREC Marta Kohmann University of Florida
GS14-129	Potential use of seeded peanuts as warm-season legumes in the U.S. southern Coastal Plains	\$10,687	Dr.Jose Dubeux, Jr. University of Florida - NFREC Edwin Mozley University of Florida
GS14-134	Effect of Nematode Suppression Using Cover Crops Resistant to Nematodes on Peanut Production	\$10,429	Dr.Patricio Munoz University of Florida Lin Xing University of Florida
GS14-137	Impacts of land use intensification on soil organic carbon stocks, soil carbon fractions and microbial activities in subtropical grazing land ecosystems	\$10,982	Dr.Maria Silveira University of Florida Sutie Xu University of Florida
GS13-119	Nitrogen dynamics of cover crops with sorghum for increased sustainability	\$10,997	Dr.John Erickson University of Florida Jeffrey Fedenko University of Florida
GS12-114	Developing an integrated pest management program for a newly introduced pest in Florida blueberries: the spotted wing drosophila, <i>Drosophila suzukii</i>	\$10,837	Dr.Oscar Liburd University of Florida Lindsay Iglesias University of Florida
GS12-117	Assessment of long-term management impact on soil C dynamics in subtropical grasslands	\$10,879	Dr.Maria Silveira University of Florida Julius Adewopo University of Florida
GS11-100	Efficacy of Entomopathogenic Fungi in Controlling the Small Hive Beetle; a Destructive and Invasive Pest of Honey Bee Colonies	\$9,996	Lambert Kanga Florida A&M University Saundra Wheeler Penn State University
GS11-101	Understanding olfactory cues in host location and dispersal range of the filth fly parasitoid <i>Spalangia cameroni</i> (Hymenoptera:Pteromalidae) to improve the use as sustainable biological control agents for fly control on livestock operations	\$9,828	Dr.Norman Leppla University of Florida Dr.Erika Machtinger Pennsylvania State University
GS11-105	Strategies for Increasing Rhizoma Peanut Contribution to Productivity and Ecosystem Services of Low-Input Pasture Systems	\$9,978	Dr.Kim Mullenix Auburn University/Alabama Cooperative Ex Dr.Lynn Sollenberger University of Florida
GS10-092	Do Human-modified Landscapes Affect Solitary Bee Diversity, Foraging, and Reproduction in Northern Florida?	\$10,000	Dr.Katie Sieving Wildlife Ecology / UF Roselyn Johnson University of Florida
GS10-093	Improving nutrient retention with biochar	\$9,852	Dr.Danielle Treadwell University of Florida Seth Friedman Univ of Florida
GS10-096	Integrated Use of Grafting Technology to Improve Disease Resistance, Yield and Fruit Quality in Organic Heirloom Tomato Production	\$10,000	Dr.Danielle Treadwell University of Florida Charles Barrett University of Florida

GS10-097	Enhancing nitrogen and water use efficiency in tomato production by using grafting technique	\$10,000	Dr.Xin Zhao University of Florida Desire Djidonou Horticultural Science Uvi Florida
GS09-082	The Smells and Sounds of a Subterranean Sessid: Mating disruption and acoustic detection of grape root borer	\$9,434	Dr.Oscar Liburd University of Florida William Sanders University of Florida
GS09-087	Bioenergy and Biofertilizer for Small-Farm Enterprises	\$10,000	Dr.Ann C. Wilkie University of Florida-IFAS Ryan E. Graunke University of Florida-IFAS
GS08-075	Comprehensive evaluation of windbreaks of fast-growing trees	\$9,191	Donald L Rockwood University of Florida Bijay Tamang University of Florida
GS07-057	Optimizing buckwheat use as a weed suppressive cover crop for sustainable cropping systems in Florida	\$10,000	Dr.Carlene Chase University of Florida Pei-wen Huang University of Florida
GS07-063	Reducing nutrient loss below the root zone of drip-irrigated vegetables using low-pressure, increased irrigation time	\$9,966	Bee Ling Poh University of Florida Eric Simonne University of Florida
GS06-053	Are bluebirds good for farms, and are farms good for bluebirds?	\$10,000	Dr.Katie Sieving Wildlife Ecology / UF John Deluca Dept. of Wildlife Ecology and Conservation, UF
GS05-045	Development of an IPM Program for Control of Flower-Thrips in Blueberries in Southeastern United States	\$9,914	Dr.Oscar Liburd University of Florida Hector Arevalo University of Florida
GS04-039	Potential for nitrate-nitrogen leaching in a silvopastoral system compared with open pasture and loblolly pine plantation	\$9,998	Ann Blount Susan Bambo University of Florida
GS02-013	Developing a System to Produce Organic Plug Transplants for Organic Strawberry Production	\$9,500	Daniel Cantliffe University of Florida Ashwin Paranjpe University of Florida
GS02-018	Analysis of a Biological Control Strategy and its Potential in a Pest Management Program in Florida Cabbage	\$10,000	Dr.Stuart Reitz USDA-ARS Nathan Herrick USDA-ARS-CMAVE
GS02-019	Chemical Ecology of Microtheca ochroloma	\$3,057	Susan Webb University of Florida Dr.Marilyn Swisher University of Florida Kristen Bowers USDA-ARS-CMAVE
GS01-009	Competition for Nitrogen and Groundwater Nitrate Levels in Temperate Alley Cropping Systems	\$10,000	Shibu Jose University of Florida Samuel Allen University of Florida
GS00-001	Induction of Volatile Emissions from Peanut Plants in Response to Fungal and Insect Damage	\$10,000	James Tumlinson Insect Attractants Unit Yasmin Cardoza Department of Entomology and Nematology

GS00-005	Investigating the potential use of Trichogramma, a hymenopteran egg parasitoid, in the integrated management of lepidopteran pests of cabbage in Puerto Rico	\$10,000	Richard Pluke University of Florida Richard Pluke University of Florida
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**ON FARM RESEARCH/PARTNERSHIP GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
OS22-153	Enhancing Stink Bug Biological Control for Increased Sustainability of Rice Production in Florida	\$19,982	Dr.Julien Beuzelin University of Florida, Institute of Food and Agricultural Sciences Everglades Research and Education Center
OS21-142	Bridging the Fall Forage Gap with Stockpiled Limpograss Along the Southern Gulf Coast	\$19,981	Dr.Jose Dubeux, Jr. University of Florida - NFREC
OS21-146	Evaluating Sorrel (Hibiscus sabdariffa) Varieties for Production in Florida	\$19,708	Dr.Norma Samuel UF/IFAS Extension
OS21-147	Development of a Push-Pull System in Avocado Groves in South Florida	\$19,923	Dr.Xavier Martini University of Florida
OS21-148	Plant Sap Analysis as a Tool to Optimize Fertilizer Application for Sustainable Citrus Production	\$20,000	Lorenzo Rossi, Ph.D. University of Florida
OS20-132	Fertilizer Mismanagement Impacts on Pasture Health	\$19,828	Cheryl Mackowiak University of Florida
OS20-135	On-farm Evaluation of an Innovative Anaerobic Soil Disinfestation Practice for Improving Organic Carrot Production in North Florida	\$19,995	Dr.Xin Zhao University of Florida
OS20-137	Combining Non-crop Habitat and Semiochemical Lures to Increase Natural Enemy Recruitment and Retention in Florida Vegetable Crops	\$18,164	Dr.Xavier Martini University of Florida
OS18-113	Trap Assisted Scouting for Asian Cockroach Management in Florida	\$14,782	Dr.Julien Beuzelin University of Florida, Institute of Food and Agricultural Sciences Everglades Research and Education Center
OS18-114	Assisting Vegetable Growers in Florida with Soil Health Evaluation Associated with Cover Cropping/Green Manure Practice During Summer	\$15,000	Jehangir Bhadha University of Florida, Institute of Food and Agricultural Sciences Everglades Research and Education Center
OS17-104	Evaluating the Effect of Biological Control and Planting Mixed Varieties to Manage Whitefly and Aphid Pests in Organic Squash	\$14,821	Dr.Oscar Liburd University of Florida
OS17-106	Developing Sustainable and New Alternative Non-chemical Weed Control Strategies for Container Nursery Growers	\$15,000	Dr.Stephen Christopher Marble University of Florida/Institute of Food and Agricultural Sciences
OS17-110	Farmers' Evaluation of Cover Crop Effects on Sandy Soils in the Suwannee River Basin in North Florida	\$14,744	Kevin Athearn University of Florida
OS16-098	Using Flowering Plants on Strawberry Field Edges to Enhance Natural Enemies and Pollinators and Improve Pest Control and Fruit Quality	\$14,996	Justin Renkema University of Florida

OS14-086	Use of non-native invasive tree logs for commercial mushroom production on small farms	\$14,984	Dr.Stephen Hight USDA-ARS
OS13-075	Large Scale Recycling of Used Potting Media with Solarization	\$3,161	Shawn Steed UF/IFAS Extension
OS13-078	Novel approaches to establish rhizome peanut ( <i>Arachis glabrata</i> Benth) on bahiagrass ( <i>Paspalum notatum</i> Flugge) pasture: from research to on-farm application	\$14,945	Dr.Jose Dubeux, Jr. University of Florida - NFREC
OS13-079	Establishing and Evaluating Selected Cover Crops on Small Farms to Increase the Impact of Beneficial Arthropods on Crop Pests	\$14,984	Robert Hochmuth University of Florida
OS13-082	Propagation of edible Pecan Truffle ( <i>Tuber lyonii</i> ) in pecan nurseries	\$14,978	Dr.Matthew Smith University of Florida
OS13-083	Grafting heirloom tomatoes for organic high tunnel production to improve season extension, disease control, and fruit yield: A partnership with local growers for technology transfer	\$14,999	Dr.Xin Zhao University of Florida
OS12-063	Offseason Management for Organic High Tunnels for Improved Pest Suppression and Soil Health	\$14,967	Dr.Carlene Chase University of Florida
OS11-060	Investigating various tactics of intercropping buckwheat with squash to increase natural enemy populations, reduce pest and disease pressure and increase yield	\$14,978	Dr.Oscar Liburd University of Florida
OS10-054	Evaluating compost and lime effects on soil organic matter, soil microbial communities and the control of <i>Fusarium</i> wilt in commercial tomato grown in Florida's sandy soils	\$14,955	Amy Shober University of Florida
OS10-056	Improving Cover Crop Management in Florida Row, Vegetable and Organic Citrus Systems	\$14,940	Dr.Danielle Treadwell University of Florida
OS08-043	Monitoring Nutrient Availability and Leaching Below the Root Zone in Organic Vegetable Production	\$14,900	Dr.Danielle Treadwell University of Florida Bee Ling Poh University of Florida Eric Simonne University of Florida
OS06-029	Development and implementation of a trap cropping system to suppress stink bugs in the southern Coastal Plain	\$15,000	Dr.Russell Mizell, III NFREC-Quincy, University of Florida
OS05-026	Optimization of Irrigation Practices in Organic and Sustainable Vegetable Production with Soluble Dye as an Educational Tool	\$14,663	Eric Simonne University of Florida
OS04-022	A Low Cost Trapping System for Control of the Small Hive Beetle <i>Aethina Tumida</i> Murray, A Pest of Honey Bee Colonies	\$15,000	Peter Teal USDA-ARS/CMAVE
OS03-015	Performance of Various Forage Combinations Under Thinned Pine Canopies in North Florida	\$14,982	Ann Blount

OS03-017	Soil Water Movement in Vegetables Grown with Plasticsulture	\$14,096	Eric Simmone Univ. of Florida IFAS
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**SUSTAINABLE COMMUNITY INNOVATION GRANTS**

<b>Project #</b>	<b>Project Title</b>	<b>SARE Support</b>	<b>Project Leaders</b>
CS15-094	Who's Connected? Sustainable Producers in the North Central Florida Food System	\$34,665	Dr.Kathryn Stofer University of Florida
CS09-072	Wildwood Growers' Market - Starting a Local Food System	\$7,910	Susan Kelly UF/IFAS Sumter Co. Extension
CS06-044	Florida Farm Link - Building the Foundation of a Sustainable Community Food System by Connecting Sustainable Agriculture to Economic Development Initiatives	\$9,521	Laura Morton NRCS/Florida West Coast RC&D
CS04-023	Youth as Community Organizers	\$10,000	Ellen Huntley Florida Organic Growers
CS04-028	Farming and Conservation Easements: A Win-Win Partnership	\$10,000	Mark Hostetler University of Florida
CS03-010	"Santa Rosa Fresh" Marketing Assistance	\$10,000	Paula Davis Santa Rosa County Joan Hughes TEAM Santa Rosa EDC
CS02-008	Test Marketing of New Label in Southwest Florida for USA Grown/Living Wage Produce	\$5,200	Richard Nogaj Harvest for Humanity

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**Total funding from the USDA SARE program to  
Florida  
\$8,121,936**

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For further information on projects, contact 770-412-4787 or [ssare@uga.edu](mailto:ssare@uga.edu). Sustainable Agriculture Research and Education (SARE) is funded by USDA's National Institute of Food and Agriculture (NIFA).