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 $311 million to more than 7,449 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, granteeproduced information products and other educational materials.

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, and search for project number OS13-083.

SARE in Florida

southern.sare.org/sare-in-your-state/florida

$6,341,727 in total funding

154 grant projects

(since 1988)

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

Total awards: 154 grants
- 26 Farmer/Rancher
- 55 Graduate Student
- 25 On Farm
- 9 Professional Development Program
- 32 Research and Education
- 7 Sustainable Community Innovation

Total funding: $6,341,727
- $247,100 Farmer/Rancher
- $652,812 Graduate Student
- $373,862 On Farm
- $573,326 Research/Partnership
- $87,296 Professional Development Program
- $4,407,331 Research and Education
- $87,296 Sustainable Community Innovation

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

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 to learn more.

Cassel Gardner
Florida A & M University
(850) 599-3594
cassel.gardner@famu.edu

Marilyn (Mickie) Swisher
University of Florida
(352) 273-3538
mesw@ufl.edu

SARE is funded by the USDA’s National Institute of Food and Agriculture (NIFA).

This report includes summaries of competitive grant programs only. Some competitive grant programs that are no longer offered may be included or excluded from the totals in this report depending on the grant program and SARE region.

For detailed information on SARE projects, go to www.SARE.org
Florida has been awarded $6,341,727 grants to support 152 projects, including but not limited to, 30 research and/or education projects, 9 professional development projects and 26 producer-led projects. Florida has also received additional SARE support through multi-state projects.

### RESEARCH AND EDUCATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
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     | Hector Perez |
| LS18-302  | Educational Materials for Cover Crop Adoption and Use in the Subtropics and Tropics | $46,999      | Dr.Danielle Treadwell  
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 |
| 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 |
<table>
<thead>
<tr>
<th>Project ID</th>
<th>Project Title</th>
<th>Budget</th>
<th>Principal Investigator</th>
<th>Institution</th>
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<tbody>
<tr>
<td>LS10-228</td>
<td>Educating and Training Future Farmers, Researchers and Extension Personnel in Sustainable Agriculture</td>
<td>$245,000</td>
<td>Rosalie Koenig</td>
<td>University of Florida</td>
</tr>
<tr>
<td>LS10-233</td>
<td>Integrated Use of Grafting Technology to Improve Disease Resistance and Fruit Yield in Specialty Melon Production</td>
<td>$223,000</td>
<td>Dr. Xin Zhao</td>
<td>University of Florida</td>
</tr>
<tr>
<td>LS10-235</td>
<td>Preparing Small Scale Limited Resource Vegetable Farmers for Organic Farming in North Florida</td>
<td>$15,000</td>
<td>Dr. Odemari Mbuya</td>
<td>Florida A&amp;M University</td>
</tr>
<tr>
<td>LS09-216</td>
<td>Improving the quality of life for Southern organic farmers and farm workers</td>
<td>$190,000</td>
<td>Leah Cohen</td>
<td>Florida Organic Growers</td>
</tr>
<tr>
<td>LS08-205</td>
<td>Selecting a sunn hemp cover crop genotype for weed suppression and seed production</td>
<td>$170,000</td>
<td>Dr. Carlene Chase</td>
<td>University of Florida</td>
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<tr>
<td>LS07-199</td>
<td>Integrating plant essential oils and kaolin for the sustainable management of thrips and tomato spotted wilt on tomato</td>
<td>$185,000</td>
<td>Dr. Stuart Reitz</td>
<td>USDA-ARS</td>
</tr>
<tr>
<td>LS06-187</td>
<td>Silicon soil amendments for enhancing disease resistance while improving overall crop health for cucurbits in organic farming systems</td>
<td>$180,000</td>
<td>Dr. Robert McGovern</td>
<td>UF-IFAS</td>
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<tr>
<td>LS06-192</td>
<td>Biorational approaches for management of bacterial wilt and bacterial spot on tomato</td>
<td>$150,000</td>
<td>Dr. Jeffrey Jones</td>
<td>University of Florida</td>
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<tr>
<td>LS05-170</td>
<td>Integrated Management of Purple and Yellow Nutseed in Organic Vegetable Production</td>
<td>$125,000</td>
<td>Dr. Carlene Chase</td>
<td>University of Florida</td>
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<tr>
<td>LS04-168</td>
<td>Development of Florida Native Plants as Farmscaping Cover Crops and Value-added Crops for Limited-Resouce Farmers in Central Florida</td>
<td>$15,000</td>
<td>Robert Kluson</td>
<td>Florida Native Solutions, Inc.</td>
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<tr>
<td>LS03-148</td>
<td>Development of sustainable vegetable production systems for south Florida and Virginia based on use of cover crops and precision irrigation</td>
<td>$179,776</td>
<td>Waldemar Klassen</td>
<td>Tropical Research and Education Center</td>
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<tr>
<td>LS02-136</td>
<td>Enhancing the Economic and Environmental Competitiveness of Small Farms Through Agroforestry</td>
<td>$189,600</td>
<td>Shibu Jose</td>
<td>University of Florida</td>
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<tr>
<td>LS02-140</td>
<td>A System Approach for Improved Integration of Green Manure in Commercial Vegetable Production Systems</td>
<td>$171,800</td>
<td>Johannes Scholberg</td>
<td>Agronomy Department, University of Florida</td>
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<tr>
<td>LS00-118</td>
<td>Management of Small Rural Holdings as Economic and Ecological Units</td>
<td>$21,406</td>
<td>David Zimet</td>
<td>North Florida Research and Extension Center Inst.</td>
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<tr>
<td>LS99-101</td>
<td>Developing Effective Methods to Assess the Impact of Community Food Security Programs on Purchases of Local Farm Produce in Three Southern Communities</td>
<td>$20,000</td>
<td>Ellen Huntley</td>
<td>Florida Organic Growers</td>
</tr>
<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
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<tr>
<td>AS95-019</td>
<td>Biological Control Methods for Citrus Rust Mites and Spider Mites on Florida Citrus Utilizing Predaceous Arthropods as Part of IPM</td>
<td>$75,000</td>
<td>Carl C. Childers IFAS Citrus Research</td>
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<tr>
<td>LS91-031</td>
<td>Biological Control and its Economics in the Southern United States</td>
<td>$49,970</td>
<td>J. Howard Frank University of Florida, Entomology and Nematology</td>
<td></td>
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<tr>
<td>LS91-042</td>
<td>Intensive Short Course on Grant Preparation for Future Applicants to the LISA Competitive Grants Program</td>
<td>$39,000</td>
<td>Carl Barfield University of Florida</td>
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<tr>
<td>LS90-021</td>
<td>An Educational Program in Low-input Sustainable Agriculture Production Technology and Philosophy</td>
<td>$18,000</td>
<td>Stephen A. Ford University of Florida</td>
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</tbody>
</table>

**PROFESSIONAL DEVELOPMENT PROGRAM GRANTS**

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

**FARMER/RANCHER GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
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<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS20-323</td>
<td>Evaluating Mobile Slaughter Access for Producers and Local Partners</td>
<td>$10,700</td>
<td>Sheila Austin Red Boot Goat Farm</td>
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<tr>
<td>Project ID</td>
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<td>Amount($)</td>
<td>Principal Investigator</td>
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<tr>
<td>FS19-314</td>
<td>Season Extension and Increased Economic Sustainability for South Florida Growers: Using high tunnels to extend tomato production</td>
<td>$9,665</td>
<td>Moses Kashem (St. Simon’s Farm; Urban Vegetable Project Produce Sales LLC)</td>
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<tr>
<td>FS19-319</td>
<td>Sweet Potatoes and Their Vines: A nutritional and sustainable alternative for food and livestock feed</td>
<td>$9,926</td>
<td>April Singleton</td>
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<tr>
<td>FS10-248</td>
<td>Florida Meat Goat Study</td>
<td>$9,996</td>
<td>Rita Pruette (Granny Smith Farms)</td>
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<tr>
<td>FS06-209</td>
<td>Developing Model CSA Software for Multi-cropping and Harvesting</td>
<td>$9,800</td>
<td>Margaret Pikarsky (Bee Heaven Farm)</td>
</tr>
<tr>
<td>FS03-176</td>
<td>Developing Guidelines for Farmers to Market Directly to Consumers at Community Farmers’ Markets</td>
<td>$14,000</td>
<td>Sharon Yeago (Alachua County Farmers’ Market, Inc.)</td>
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<tr>
<td>FS02-149</td>
<td>Ultraviolet Light absorbing films and nets for insect and disease control in an organic greenhouse</td>
<td>$8,010</td>
<td>Jim Gibbons</td>
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<tr>
<td>FS01-129</td>
<td>Development of Multi-Herd Management software for small farmers</td>
<td>$9,949</td>
<td>Dee Blaha</td>
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<tr>
<td>FS01-135</td>
<td>Soil Fertility improvement in Fruit Orchards by Windrowing Urban Plant Debris and Poultry Litter</td>
<td>$8,644</td>
<td>William Graves, IV (Tetley Groves, Inc.)</td>
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<tr>
<td>FS01-138</td>
<td>Developing a model to increase support for organic farming research at Land Grant Institutions</td>
<td>$14,999</td>
<td>Marty Mesh (FL Certified Organic Growers and Consumers, FOG)</td>
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<tr>
<td>FS01-139</td>
<td>Composted Yard Waste as a Replacement for Pine Bark Mulch in Blueberry Production</td>
<td>$9,800</td>
<td>Richard Nogaj (Harvest for Humanity)</td>
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<tr>
<td>FS01-140</td>
<td>Using companion plants to increase biological control for thrips in pepper crops</td>
<td>$9,300</td>
<td>Chuck Obern</td>
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<tr>
<td>FS00-121</td>
<td>Marketing to the Department of Defense Food Service</td>
<td>$15,000</td>
<td>Glyen Holmes (New North Florida Coop)</td>
</tr>
<tr>
<td>FS00-125</td>
<td>Does Compost Use Affect Post-Harvest Quality of Vegetables?</td>
<td>$9,960</td>
<td>Nancy Roe</td>
</tr>
<tr>
<td>FS00-127</td>
<td>Alternative Production Methods for Increasing Sustainability of North Florida Strawberry Producers</td>
<td>$9,964</td>
<td>Larry Gillard (South Georgia Farmers Co-op)</td>
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<tr>
<td>FS00-112</td>
<td>Practical Evaluation of Vermicompost on Horticultural Crops</td>
<td>$9,820</td>
<td>Cynthia L. Connolly</td>
</tr>
<tr>
<td>FS99-089</td>
<td>Developing a Model for Successful Direct Marketing in Southern Communities</td>
<td>$7,020</td>
<td>Trace Giornelli</td>
</tr>
</tbody>
</table>
Alternative Parasite Control Methods for Goat Producers: A Comparative Analysis

Developing an Organically Approved Soil Mix for Use in Vegetable Transplant Production

Feasibility of Indoor Culture and Production of Ornamental Goldfish

Effect of Limited Environmental Controls on Shiitake Mushroom Production in the Southern Coastal Plain

Development of Potting Soil Mixes from Local Wastes

Testing the Efficacy of Alternative Methods of Whitefly Control in Organic Vegetable Production

Management of Artificial and Restored Wetlands to Improve Water Quality

Biological Control of Flower Thrips in Pepper Fields

Development of Push-pull System for Ambrosia Beetles, Vectors of Laurel Wilt Disease in Florida Avocado

Translating Grazing: Calculating Nitrogen Credits from Cool-Season Integrated Crop Livestock Systems

Assessing Anaerobic Soil Disinfestation for Improving Weed and Soilborne Disease Management in High-tunnel and Open-field Salad Green Production

Agroecological Intensification of Warm-season Pastures for Improved Productivity and Quality and Ecosystem Services

Intercropping for Pest Control in Organic Kale in Northern Florida

Determining How the Ubiquitous Fungi Mortierella Regulates Belowground N Dynamics Under Different Crop Rotation Systems

Deploying Oak Mulch to Contain and Suppress HLB Disease in Citrus

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GRADUATE STUDENT GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
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<tbody>
<tr>
<td>GS20-234</td>
<td>Development of Push-pull System for Ambrosia Beetles, Vectors of Laurel Wilt Disease in Florida Avocado</td>
<td>$11,564</td>
<td>Dr. Xavier Martini University of Florida Derrick Conover University of Florida</td>
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<tr>
<td>GS20-219</td>
<td>Translating Grazing: Calculating Nitrogen Credits from Cool-Season Integrated Crop Livestock Systems</td>
<td>$16,493</td>
<td>Dr. Marcelo Wallau University of Florida Kacey Aukema University of Florida</td>
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<tr>
<td>GS20-221</td>
<td>Assessing Anaerobic Soil Disinfestation for Improving Weed and Soilborne Disease Management in High-tunnel and Open-field Salad Green Production</td>
<td>$16,499</td>
<td>Dr. Xin Zhao University of Florida Isaac Vincent University of Florida</td>
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<tr>
<td>GS20-222</td>
<td>Agroecological Intensification of Warm-season Pastures for Improved Productivity and Quality and Ecosystem Services</td>
<td>$16,173</td>
<td>Chris Wilson University of Florida Hannah Rusch University of Florida</td>
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<tr>
<td>GS20-223</td>
<td>Intercropping for Pest Control in Organic Kale in Northern Florida</td>
<td>$16,279</td>
<td>Nora Underwood Florida State University Penelope Ales Florida State University</td>
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<tr>
<td>GS20-224</td>
<td>Determining How the Ubiquitous Fungi Mortierella Regulates Belowground N Dynamics Under Different Crop Rotation Systems</td>
<td>$16,144</td>
<td>Dr. Hui-Ling Liao University of Florida Kaile Zhang University of Florida</td>
</tr>
<tr>
<td>GS20-225</td>
<td>Deploying Oak Mulch to Contain and Suppress HLB Disease in Citrus</td>
<td>$12,347</td>
<td>Lorenzo Rossi University of Florida Lukas Hallman UF/IFAS</td>
</tr>
</tbody>
</table>
Evaluating Local Food Hubs as Alternative Food Systems to Preserve Specialty Crop Producers and Build Resilient Communities in North Central Florida

Evaluation of Cladosporium cladosporioides and Its Extracts for the Management of Pathogenic Bipolaris Species

Sustainable Strategies to Combat the Papaya Ringspot Virus

Developing Efficient Probiotics for Microbiota of Diarrhea-Resistant Livestock

Toward the Development of a Push-Pull Strategy to Control Whiteflies in Florida Vegetables

Evaluation of Biopesticides to Manage Silverleaf Whitefly (Hemiptera: Aleyrodidae) in Tomatoes in Florida

Innovations in Spotted Wing Drosophila (Drosophila suzukii Matsumura) Monitoring and Attract-and-Kill for Development of More Targeted IPM Programs

Developing Attract and Reward Strategy to Control Thrips and Whiteflies in Florida Tomato

Elucidating the Effects of Organic vs. Conventional Cropping Practice and Rhizobia Inoculation on Peanut Yield and Rhizosphere Microbial Diversity

Integrated Weed Management for Long-Term Nutsedge Control and Its Economic Impact in Florida Vegetable Production

Genetic Markers for Resistance to Gastrointestinal Nematode Infections for a Sustainable Florida Native Sheep Production

Overcoming Microclimate Challenges to Improve Organic Spinach Production in Florida

Identifying Marketing Opportunities Under the New Organic Transitional Certification Program

Companion Planting of Native Insectary Plants to Benefit Crop Plants: The promotion of beneficial insects in agricultural communities via trophic resource enhancement
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  
University of Florida

GS17-172  Effects of Herbivore-Induced Plant Volatiles in Various Maturity Stages of Pepper on the Attractiveness of Orius insidiosus  
$9,787  
Dr. Xavier Martini  
University of Florida  
Edward Traczyk  
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  
University of Florida

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  
University of Florida  
Jiaqi Yan  
University of Florida

$10,000  
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 drosophilas, Drosophila suzkii  
$10,837  
Dr. Oscar Liburd  
University of Florida  
Lindsy 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
Understanding olfactory cues in host location and dispersal range of the filth fly parasitoid Spalangia cameroni (Hymenoptera:Pteromalidae) to improve the use as sustainable biological control agents for fly control on livestock operations

Strategies for Increasing Rhizoma Peanut Contribution to Productivity and Ecosystem Services of Low-Input Pasture Systems

Efficacy of Entomopathogenic Fungi in Controlling the Small Hive Beetle; a Destructive and Invasive Pest of Honey Bee Colonies

Do Human-modified Landscapes Affect Solitary Bee Diversity, Foraging, and Reproduction in Northern Florida?

Improving nutrient retention with biochar

Integrated Use of Grafting Technology to Improve Disease Resistance, Yield and Fruit Quality in Organic Heirloom Tomato Production

Enhancing nitrogen and water use efficiency in tomato production by using grafting technique

The Smells and Sounds of a Subterranean Sessid: Mating disruption and acoustic detection of grape root borer

Bioenergy and Biofertilizer for Small-Farm Enterprises

Comprehensive evaluation of windbreaks of fast-growing trees

Optimizing buckwheat use as a weed suppressive cover crop for sustainable cropping systems in Florida

Reducing nutrient loss below the root zone of drip-irrigated vegetables using low-pressure, increased irrigation time

Are bluebirds good for farms, and are farms good for bluebirds?

Development of an IPM Program for Control of Flower-Thrips in Blueberries in Southeastern United States
<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS02-013</td>
<td>Developing a System to Produce Organic Plug Transplants for Organic Strawberry Production</td>
<td>$9,500</td>
<td>Daniel Cantliffe University of Florida Ashwin Paranjpe University of Florida</td>
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<tr>
<td>GS02-018</td>
<td>Analysis of a Biological Control Strategy and its Potential in a Pest Management Program in Florida Cabbage</td>
<td>$10,000</td>
<td>Dr.Stuart Reitz USDA-ARS Nathan Herrick USDA-ARS-CMAVE</td>
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<tr>
<td>GS02-019</td>
<td>Chemical Ecology of Microtheca ochroloama</td>
<td>$3,057</td>
<td>Susan Webb University of Florida Mickie Swisher University of Florida Kristen Bowers USDA-ARS-CMAVE</td>
</tr>
<tr>
<td>GS01-009</td>
<td>Competition for Nitrogen and Groundwater Nitrate Levels in Temperate Alley Cropping Systems</td>
<td>$10,000</td>
<td>Shibu Jose University of Florida Samuel Allen University of Florida</td>
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<tr>
<td>GS00-001</td>
<td>Induction of Volatile Emissions from Peanut Plants in Response to Fungal and Insect Damage</td>
<td>$10,000</td>
<td>James Tumlinson Insect Attractants Unit Yasmin Cardoza Department of Entomology and Nematology</td>
</tr>
<tr>
<td>GS00-005</td>
<td>Investigating the potential use of Trichogramma, a hymenopteran egg parasitoid, in the integrated management of lepidopteran pests of cabbage in Puerto Rico</td>
<td>$10,000</td>
<td>Richard Pluke University of Florida Richard Pluke University of Florida</td>
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</table>

### ON FARM RESEARCH/PARTNERSHIP GRANTS

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>OS20-132</td>
<td>Fertilizer Mismanagement Impacts on Pasture Health</td>
<td>$19,828</td>
<td>Cheryl Mackowiak University of Florida</td>
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<tr>
<td>OS20-135</td>
<td>On-farm Evaluation of an Innovative Anaerobic Soil Disinfestation Practice for Improving Organic Carrot Production in North Florida</td>
<td>$19,995</td>
<td>Dr.Xin Zhao University of Florida</td>
</tr>
<tr>
<td>OS20-137</td>
<td>Combining Non-crop Habitat and Semiochemical Lures to Increase Natural Enemy Recruitment and Retention in Florida Vegetable Crops</td>
<td>$18,164</td>
<td>Dr.Xavier Martini University of Florida</td>
</tr>
<tr>
<td>OS18-113</td>
<td>Trap Assisted Scouting for Asian Cockroach Management in Florida</td>
<td>$14,782</td>
<td>Dr.Julien Beuzelin University of Florida, Institute of Food and Agricultural Sciences Everglades Research and Education Center</td>
</tr>
<tr>
<td>OS18-114</td>
<td>Assisting Vegetable Growers in Florida with Soil Health Evaluation Associated with Cover Cropping/Green Manure Practice During Summer</td>
<td>$15,000</td>
<td>Jehangir Bhadha University of Florida, Institute of Food and Agricultural Sciences Everglades Research and Education Center</td>
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<tr>
<td>OS17-106</td>
<td>Developing Sustainable and New Alternative Non-chemical Weed Control Strategies for Container Nursery Growers</td>
<td>$15,000</td>
<td>Stephen Christopher Marble University of Florida/Institute of Food and Agricultural Sciences</td>
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<tr>
<td>OS17-110</td>
<td>Farmers’ Evaluation of Cover Crop Effects on Sandy Soils in the Suwannee River Basin in North Florida</td>
<td>$14,744</td>
<td>Kevin Athearn University of Florida</td>
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</table>
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

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

OS13-078  Novel approaches to establish rhizome peanut (Arachis glabrata Benth) on bahiagrass (Paspalum notatum 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 (Tuber lyonii) 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

OS13-075  Large Scale Recycling of Used Potting Media with Solarization  $3,161  Shawn Steed  UF/IFAS Extension

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 Fusarium 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
Optimization of Irrigation Practices in Organic and Sustainable Vegetable Production with Soluble Dye as an Educational Tool

A Low Cost Trapping System for Control of the Small Hive Beetle Aethina Tumida Murray, A Pest of Honey Bee Colonies

Performance of Various Forage Combinations Under Thinned Pine Canopies in North Florida

Soil Water Movement in Vegetables Grown with Plasticulture

SUSTAINABLE COMMUNITY INNOVATION GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
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</tr>
</thead>
</table>
| 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                           |

Total funding from the USDA SARE program to Florida
$6,341,727

For further information on projects, contact Candace Pollock, Southern SARE public relations coordinator, at (770) 412-4786 or cpollock@uga.edu.

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