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AGRICULTURE PROJECTS FUNDED IN NORTH CAROLINA

by USDA's
Sustainable Agriculture Research and Education (SARE) Program
1988-2019

North Carolina has been awarded \$13,002,329 grants to support 213 projects, including but not limited to, 58 research and/or education projects, 28 professional development projects and 55 producer-led projects. North Carolina has also received additional SARE support through multi-state projects.

RESEARCH AND EDUCATION GRANTS

Project #	Project Title	SARE support	Project Leaders
LS19-311	Application of the Banker Trap Plant (BTraP) Concept of Trap Cropping for the Management of the Harlequin Bug, a Pest of Brassicaeae: A new paradigm in small farm IPM	\$257,987	Louis Jackai
LS19-310	Cool-season Annual Grass, Grass-Forb, and Grass-Legume Forage Systems for Southeastern Beef Cattle Production	\$270,708	Deidre Harmon NC State University
LS18-303	CEFS Long-term Systems Research: Providing the Building Blocks for Resilient Food Production Systems Phase III	\$100,000	Dr.S. Chris Reberg-Horton North Carolina State University
LS18-294	Promoting Adoption of Cover Crops in Southeastern Farming Systems	\$48,000	Michelle Lovejoy NC Foundation for Soil and Water Conservation
LS17-284	Biological Control of Two-spotted Spider Mite on Vegetables	\$200,000	James Walgenbach NCSU
LS17-285	Growing Local - Phase III	\$300,000	Charlie Jackson Appalachian Sustainable Agriculture Project
LS17-279	Enhancing System Sustainability by Mitigating the Impact of Three Major Constraints to Efficient Cowpea Production and Use: Pests, Pollination and Nodulation	\$210,000	Dr.Beatrice Dingha North Carolina A&T State University
LS17-280	A Supply Chain Approach to Finding Win-win Sustainable Solutions for Edible But Unharvested Produce	\$219,971	Rebecca Dunning North Carolina State University Horticulture
LS15-267	CEFS Long-Term Systems Research: Providing the Building Blocks for Resilient Food Production Systems	\$300,000	Dr.S. Chris Reberg-Horton North Carolina State University
LS14-260	Growing Local – Phase II	\$299,943	Charlie Jackson Appalachian Sustainable Agriculture Project
LS12-248	Quantifying the Multiplier Effect: What	\$211,000	Drew Marticorena

	Sustainable Local Food Systems can Mean to Local Communities		NCSU
LS12-247	CEFS Long-Term Systems Research: Providing the Building Blocks for Resilient Food Production Systems	\$300,000	Dr.S. Chris Reberg-Horton North Carolina State University
LS11-239	Growing Local – Phase I	\$296,645	Charlie Jackson Appalachian Sustainable Agriculture Project
LS11-246	Saving Endangered Hog Breeds	\$151,215	Dr.Alison Martin The Livestock Conservancy
LS10-227	Lighting up the black box: Improving legume performance on organic farms by optimizing microbially-mediated plant and soil nitrogen cycling processes.	\$192,000	Dr.Julie Grossman University of Minnesota
LS09-224	Research and educational support for organic dairy farming in the South	\$250,000	Dr.Steven Washburn North Carolina State University
LS08-203	Exploiting the organic peanut market: refining production systems for the Southeast	\$175,000	Mark Boudreau Hebert Green Agroecology, Inc. Dr.Mark Boudreau Hebert Green Agroecology
LS08-210	Reduced tillage in organic systems: a soil and water quality imperative	\$190,000	Dr.James Mueller North Carolina State University
LS08-211	A multi-disciplinary approach to improve the environmental performance of niche pork production systems and marketability of Heritage swine breeds	\$175,000	Sang Hyon Oh North Carolina A&T State University
LS07-197	Appalachian grown:Farm to School Project	\$170,000	Emily Jackson Appalachian Sustainable Agriculture Project
LS07-200	Selecting cover crops for diverse functions: an integrated soil management approach for organic strawberry production in North Carolina	\$200,000	Dr.Michelle Schroeder-Moreno North Carolina State University
LS06-193	Grafting Rootstocks onto Heirloom and Locally Adapted Tomato Selections to Confer Resistance to Root-knot Nematodes and other Soil Borne Diseases and to Increase Nutrient Uptake Efficiency in an Intensive Farming System for Market Gardeners	\$193,000	Mary Peet North Carolina State University
LS05-169	Exploiting the Organic Peanut Market: Design of Production Systems for the Southeast	\$159,000	Mark Boudreau Hebert Green Agroecology, Inc.
LS05-173	Microarray Analysis and functional assays to assess microbial ecology and disease suppression in soils under organic or sustainable management	\$250,000	Dr.Frank Louws North Carolina State University
LS05-178	Sustainability indicators as management tools to guide farmers, scientists, policy makers and the general public	\$250,000	Jon Brandt North Carolina State University

<u>LS04-161</u>	Evaluation of Beneficial Insect Habitat for Organic Farms	\$72,539	David Orr North Carolina State University
<u>LS04-165</u>	Renewing the Agriculture of the Middle: A Planning grant request to develop a Southern Strategy	\$15,500	Edna Rodriguez Rural Advancement Foundation International - USA
<u>LS04-158</u>	N2-fixation and weed competition: breaking the connection between crops and weeds	\$248,000	Michael Burton NCSU -- Crop Science Department
<u>LS03-146</u>	Appalachian Grown: Toward Regional Community-based Food Systems	\$154,030	Charlie Jackson Appalachian Sustainable Agriculture Project
<u>LS03-154</u>	Examining pasture-based dairy systems to optimize profitability environmental impact, animal health and milk quality	\$226,903	Dr.Steven Washburn North Carolina State University
<u>LS02-132</u>	Cover Cropping and Residue Management for Weed Suppression, Soil Fertility and Organic Crop Production	\$99,117	Keith Baldwin NC A&T State University
<u>LS02-134</u>	The Importance of Genetics: Biological fitness and productivity in range-based systems comparing standard turkey varieties and industrial stocks	\$182,386	Marjorie Bender American Livestock Breeds Conservacy
<u>LS01-122</u>	The Importance of Genetics: Assessing the Immunological Health of Standard Turkey Varieties vs. Industrial Turkey Stocks and Its Implications for Sustainable Turkey Production Systems	\$18,052	Donald Bixby American Livestock Breeds Conservancy
<u>LS01-126</u>	Sustaining Ecological and Economic Diversity Among Limited Resource Landholders by Expanding Opportunities for Management of Productive Woodlands	\$180,431	Sarah Warren North Carolina State University
<u>LS01-128</u>	Influence of microbial species and functional diversity in soils on pathogen dispersal and ecosystem processes in organic and conventional agroecosystems	\$167,842	Jean Ristaino North Carolina State University
<u>LS01-120</u>	Long-Term, Large-Scale Systems Research Directed Toward Agricultural Sustainability	\$230,000	Dr.James Mueller North Carolina State University
<u>LS00-109</u>	Increasing Growers' Quality of life through Direct Marketing: The Role of Farmers' Markets and Consumer Supported Agriculture	\$45,000	Susan Andreatta University of North Carolina at Greensboro William Wicklife, II North Carolina State Cooperative Extension
<u>LS00-110</u>	The Impact of Agricultural Systems on Soil Quality and Sustainability	\$191,263	Mary Barbercheck North Carolina State University
<u>LS99-106</u>	Integrated Crop and Sylvan Systems with Swine: A State and National Initiative	\$156,262	Charles Talbott NCA&T University
<u>LS98-091</u>	Development of Decision Support	\$26,204	Fredrick Cubbage

	Systems for Improvement of Silvicultural Practices on Farm-Based Non-Industrial Private Forests		Forestry Department, North Carolina State University
LS98-094	A Model for Long-Term, Large-Scale Systems Research Directed Toward Agricultural Sustainability	\$256,604	Dr. James Mueller North Carolina State University
LS97-085	Impacts on Agricultural Sustainability from Structural Change in Peanut, Poultry, Swine and Tobacco Production Systems	\$174,858	Hal Hamilton Center for Sustainable Systems
LS97-086	Equal Access to Agriculture Programs and Opportunities	\$151,290	David Harris Land Loss Prevention Project
LS96-077	Development of Sustainable Cropping Systems for Seedless Watermelon and Fall Lettuce in Rotation with Green Manures	\$182,751	M. R. Reddy NCA & T State University, Natural Resources and Environmental Design
LS95-060.1	Animal Waste, Winter Cover Crops, and Biological Antagonists for Sustained Management of Columbia Lance and Other Associated Nematodes on Cotton	\$96,691	Kenneth R. Barker North Carolina State University
LS95-065	Wildlife Enhancement and Education as a Catalyst in the Widespread Implementation of Sustainable Agriculture Practices (Also listed as AS95-18)	\$98,205	Pete Bromley North Carolina State University
LS94-059	Assessing the Impact of Beneficial Insect Populations on Organic Farms (AS94-013)	\$17,735	George Kennedy North Carolina State University
LS94-060	Animal Waste, Winter Cover Crops, and Biological Antagonists for Sustained Management of Nematodes on Cotton	\$46,721	Kenneth R. Barker North Carolina State University
LS94-063	Regional Center for Sustainable Dairy Farming	\$180,497	Dr. Steven Washburn North Carolina State University
LS92-045	Organic Nitrogen Sources for Sweetpotatoes: Production Potential and Economic Feasibility	\$105,000	Wanda W. Collins North Carolina State University, Horticultural Science
LS91-032	Economically Viable Production of Vegetables in The Southern Region Using Low-input and Sustainable Techniques: A Data Base	\$37,000	Mary Peet North Carolina State University
LS91-035	Improved Nitrogen Use-Efficiency in Cover Crop Based Production Systems	\$179,992	Michael G. Waggener North Carolina State University
LS90-026	Swine Waste — Low-cost Alternative to Commercial Fertilizer for Production of Forage for Grazing Cattle	\$50,000	Dr. James Mueller North Carolina State University
LS89-018	Composting Poultry Litter — Economics and Market Potential of a Renewable Resource	\$15,000	L. M. Safley North Carolina State University
LS89-014	On-Farm Demonstrations and Research of Low-input Sustainable Farming	\$100,000	William W. Dow Carolina Farm Stewardship Association

LS88-005	Planning Funds for a Proposal on Extending the Issue of Sustainable Agriculture to Small Farms in North Carolina, Tennessee and Virginia	\$15,000	M. Ray McKinnie North Carolina A & T State University
LS88-006	Planning Grant: On-farm Demonstration of Low-input Farming	\$15,000	William W. Dow Carolina Farm Stewardship Association
LS88-009	A Comparison of Cropping Systems Managed Conventionally or with Reduced Chemical Input	\$255,000	Larry King North Carolina State University

PROFESSIONAL DEVELOPMENT PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
ES19-146	Effectively Using Permanent and Temporary Electric Fence Technology: Adviser training to support producers implementing adaptive grazing management	\$79,954	Dr.Matt Poore North Carolina State University
ES18-140	Training Innovative and Impactful Trainers to Provide Beginning Farmer Support in the Southern Appalachians	\$43,450	Cameron Farlow Organic Growers School
ES17-134	Moving Regional Food Systems Toward Sustainability: An adaptive and interactive online course in local food system development for NC, SC, and VA Extension agents and other service providers	\$79,985	J. Dara Bloom NC State University
SC14-001	Institutionalizing Cover Crop Research and Education in the Southeast	\$129,712	Dr.S. Chris Reberg-Horton North Carolina State University
ES14-124	Strengthening University Local Food Systems: Train the Trainer Approach through Extension, Student, and Food Service Collaboration	\$78,547	Kathleen Liang North Carolina A&T State University
ES13-115	Building Local Food Systems: Training the Trainers, Peer Collaboration, and Materials Development	\$64,113	S. Gary Bullen N.C. State University
ES13-119	Moving the NC Local Food System Toward Sustainability: A Comprehensive Graduate course in Local Food Systems for Cooperative Extension Agents, Specialists, and other Educators	\$79,063	Joanna Massey Lelekacs NC State Extension / CEFS
ES10-104	Back to Basics: Training the Trainers at the Eastern Apicultural Society Conference	\$22,313	Dr.David Tarpy North Carolina State University
ES10-105	Multiple Livestock Species Integrated Parasite Management Train-the-Trainer Programs with On-Farm, Computer-based and Traditional Training Sessions	\$86,105	Dr.Niki Whitley NC A&T SU Cooperative Extension Program
ES10-103	Building Capacity: Farm to School	\$78,303	Emily Jackson Appalachian Sustainable Agriculture Project

<u>ES09-095</u>	Training the Trainers in Community-based Food Systems: a project-oriented case study team approach	\$99,266	Dr.Nancy Creamer North Carolina State University
<u>ES08-090</u>	An agent Training Program in Safe Food Handling & Legal Liability	\$77,344	Diane Ducharme NCSU
<u>ES08-092</u>	Energy Training for Agricultural Professionals in the Southern SARE Region	\$97,684	Mike Morris National Center for Appropriate Technology Steve Moore Center for Environmental Farming Systems
<u>ES08-093</u>	Agritourism Training for Agriculture Professionals	\$82,986	Kent Wolfe CAED
<u>ES06-083</u>	Pasture Pork 101: Comprehensive Agent Training in Pasture-based Hog production	\$62,500	Todd See North Carolina State University
<u>ES05-078</u>	Sustainable Production Systems for Range-Reared Standard Turkeys	\$109,444	Marjorie Bender American Livestock Breeds Conservancy
<u>ES05-079</u>	Direct Market Training for Agricultural Professionals	\$96,757	S. Gary Bullen N.C. State University
<u>ES03-065</u>	Building Sustainable Soil Systems	\$119,848	Wilfred Cromartie SARE
<u>ES03-066</u>	Producer Managed Efforts in Marketing of Livestock & Livestock Products	\$89,400	John O'Sullivan Cooperative Extension Program
<u>ES01-058</u>	Sustaining Agriculture through Community Partnerships	\$49,884	Robin Kohanowich Central Carolina Community College
<u>ES00-047</u>	Training in Alternative Research Strategies for Sustainable Farming Systems	\$101,800	Noah Ranells NCSU (former staff) Phil Rzewnicki NCSU Keith Baldwin NC A&T State University
<u>ES99-043</u>	Multimedia Training Resources on Sustainable Greenhouse Vegetable Production	\$39,887	Mary Peet North Carolina State University
<u>ES98-040</u>	Grazing Management Training to Enhance the Sustainability of Pasture-Based Beef Production Systems	\$31,745	Jim Green North Carolina State University, Crop Science Dept.
<u>ES98-042</u>	Training in Agriculture Program (TAP)	\$17,890	Dorothy Barker Operation Spring Plant, Inc.
<u>ES98-039</u>	Multi Disciplinary Training on Pasture-Based Dairy Systems – A Sustainable Alternative for the Region	\$53,429	Dr.Steven Washburn North Carolina State University

ES97-014	Southern Region Sustainable Ag Training Consortium	\$116,723	Roger G. Crickenberger North Carolina State University
ES97-025	Building Capacity in Sustainable Agriculture: A Comprehensive Training Program in Organic Farming Systems	\$97,500	Dr.Nancy Creamer North Carolina State University
LST94-001	Southern Region Sustainable Agriculture Training Consortium (LST96-8)	\$199,620	Roger G. Crickenberger North Carolina State University

FARMER/RANCHER GRANTS

Project #	Project Title	SARE support	Project Leaders
FS19-313	Bee Pollen Identification for Increased Sustainability	\$9,938	Ryan Higgs Blue Ridge Apiaries
FS18-307	Weed Control Among Brambles: Biodegradable paper barrier or plastic barrier?	\$3,050	Danielle Crocker
FS18-305	Growing Upland Rice for the Local Food Market	\$9,773	Gregory Chatham
FS13-274	Comparing Season Extension Mechanisms on Winter Green Production in the Southern Appalachian Mountains	\$3,737	Paul Littman Ivy Creek Family Farm
FS13-264	Pastured Rabbit Integrated Farming Project	\$2,000	Michelle Bernard Spellcast Farm
FS13-265	Sustainable Forages as an Alternative to Supplemental Feeding	\$9,798	Ryan Higgs Blue Ridge Apiaries
FS13-268	Closed Loop Mushroom Production on 100% Waste Substrate	\$7,623	joseph allawos Asheville Fungi
FS12-260	Encouraging Expanded Organic Sweet Potato Production in North Carolina	\$15,000	John Kimber NC SweetPotato Commission Foundation
FS11-252	Impact of Supplemental Feed Type on Winter Survival of Honey Bee Colonies	\$9,957	Barry Harris, Jr. Silver Spoon Apiaries, Inc
FS10-244	Sustainable Honeybee Strains for Western North Carolina	\$9,959	Ryan Higgs Blue Ridge Apiaries
FS09-239	Wasabi Production	\$8,649	Deidra Smith Amy Sue Blum SARE Southern Region
FS09-240	Early growing season strategy	\$3,482	Hollis Wild Appalachian Trees
FS09-232	Natural Controls for Honey Bee Pests	\$10,000	Scott Barlow

<u>FS09-237</u>	Growing Organic Hops for the Local Market	\$8,268	Rita Pelczar Blue Ridge Hops
<u>FS08-230</u>	Building Capacity for Pastured Poultry Production in Western North Carolina	\$7,755	Casey McKissick
<u>FS07-216</u>	Season Extension for Winter CSA and Restaurant Sales	\$5,829	Annie Louise Perkinson
<u>FS07-220</u>	Meeting the Needs of Microbreweries with Fresh Hops Production	\$9,762	Linda Sakiewicz
<u>FS06-199</u>	Capillary Irrigation for Container Nurseries: a practical alternative to overhead irrigation?	\$9,867	Ellen J. Colodney Coastal Plain Conservation Nursery, Inc
<u>FS06-206</u>	A Diversifying and Marketing Strategy for Sustaining Small Farm Agriculture	\$9,976	Nancy C. Moretz
<u>FS06-211</u>	Value from byproducts of the Southern Wine Grape Industry	\$9,925	Ben Webb Sandy Cross Vineyard
<u>FS06-197</u>	Increasing Economic Viability and Promoting Sustainable Agriculture through Agritourism	\$7,485	Amy Ager Hickory Nut Gap Farm – Spring House Meats
<u>FS04-185</u>	Farmstead Cheese (Queso Blanco) for the Latino Food Market	\$4,361	Tom Shore
<u>FS03-163</u>	Managing Beneficial Insects and Using Pest Trap Crops in Organic Broccoli	\$9,950	Charles A. Church Watauga River Farms
<u>FS03-164</u>	Test Growing & Marketing Specialty Woody Cutflowers	\$8,555	Susan Wright Cochran Shady Grove Gardens & Nursery
<u>FS03-167</u>	Mountain Tailgate Market Association Marketing Initiative	\$14,280	Charlie Jackson Mountain Tailgate Market Association
<u>FS03-170</u>	Short- and Long-term Crop Replacement Project	\$9,787	Phillis Kenlaw 104 Best Drive
<u>FS03-171</u>	Dairy Goat Woodland Grazing Project	\$9,900	Brit Pfann 144 Celebrity Dairy Way
<u>FS03-175</u>	Greenhouse Grown Fraser Fir Tree Seedlings	\$7,401	Justin Wells Sugar Grove Botanical Farm, Inc.
<u>FS02-146</u>	Farmscaping Organic Broccoli to Increase Beneficial Insect Numbers	\$9,855	Charles A. Church Watauga River Farms

FS02-152	Biodiverse-Organic Christmas Tree Production	\$9,333	Mark Lackey
FS01-132	Ginseng Production Utilizing Natural Fungicides	\$9,986	Robert Eidus Eagle Feather Farm
FS00-114	Creating a Tailgate Farmers Market	\$4,380	Annie Louise Perkinson
FS00-128	Direct Marketing Opportunities to Improve Economic Outlook	\$9,050	Andy Youngblood
FS99-091	Ratite Marketing Education Program	\$7,250	Tina Hurdt
FS99-096	Use of Low Value Hardwoods for Shiitake Mushroom Production	\$1,929	Walker H. Rayburn, Jr.
FS99-097	Oriental Persimmons and Pawpaws: Two Sustainable Crops for the South	\$6,534	Lesley Sanderson
FS99-105	Low Cost Compost Screening	\$2,975	Carl Weston
FS99-085	Effects of Cover Crops on Weed and Insect Management in Blackberries	\$9,935	Sam Bellamy Indigo Farm
FS98-068	Late Blight Suppression in Tomatoes Using Competing Fungi on Leaf Surfaces	\$5,800	Tom Elmore Thatchmore Farm
FS98-071	Workshop on Parasite Control Through On-Farm Fecal Studies	\$6,545	Susan Gladin
FS98-076	Development of Low Input Sustainable Practices for Rose Production	\$2,690	Jacqueline Jones
FS98-078	High-Fructose Corn Syrup as a Replacement for Mepiquat to Reduce Vegetative Growth in Cotton	\$2,224	Hubert Morris
FS98-083	Organic Specialty Lettuce Production in Tobacco Greenhouses	\$7,455	John Vollmer
FS97-051	Effect of Different Application Rates of Swine Lagoon Effluent on Corn and Wheat	\$2,317	John Hart
FS97-054	Forest Site Preparation with Swine	\$5,088	Thomas Livingston

FS97-048	Evaluation of Mycorrhizal Inoculation on Growth and Quality of Three Eastern North Carolina Christmas Tree Species	\$650	Daniel Dorsey
FS96-037	Identification of Cover Crops to Enhance the Habitat of Specific Beneficial Insects in Sustainable Production Systems	\$8,452	Kenny Haines Misty Morning Farm
FS96-038	Multiple On-Farm Use of Aquatic Plants and Animals	\$9,575	Harvey Harman Sustenance Farm
FS96-035	Aquaculture Conversion Model Emphasizing Poultry and Hog Facilities Re-Use and Recycled On-Farm Resources	\$6,000	Benny Bunting
FS96-044	Alternatives to Chemicals in the Peanut Cotton Rotation	\$9,366	Hubert Morris
FS95-027	Demonstration of High Value, Small Scale Sustainable Vegetable and Fruit Production Methods	\$9,612	Larry and Judy McPherson
FS95-034	Hydroponic Vegetable Production in Conjunction with a Trout Farming Operation	\$9,975	Carl Zietlow Best Trout and Organic Farm
FS94-007	Perennial Warm Season Grasses as Summer Pasture	\$733	Norman and Karen Jordan
FS94-008	Meat Goats for Weed Control and Alternative Income on Cattle Operations	\$2,020	Tony Kern KC Ranch
FS94-013	Plant Shelters to Extend the Growing Season for Herbs	\$3,550	Richard Morgan Harmony Herb Farm

GRADUATE STUDENT GRANTS

Project #	Project Title	SARE support	Project Leaders
GS19-205	Optimizing Electrical and Mechanical Palmer Amaranth Control and Reducing Seed Production and Viability	\$16,498	Katherine Jennings NCSU Levi Moore North Carolina State University
GS19-215	Quantifying the Disease Ecology and Network Connectedness Across Pollinator Communities as a Result of Planted Pollinator Plots	\$16,500	Dr.David Tarpy North Carolina State University Hannah Levenson North Carolina State University
GS19-212	Rye With or Without Purple Top Turnips for Stocker Calf Grazing Over the Winter Following Corn Harvest as Part of a Southeastern U.S. Integrated Crop-Livestock System	\$11,757	Carrie Pickworth Jordan Cox-O'Neill
GS18-185	Evaluation of Reduced and Strip-tillage Cover Crop Sweet Potato Production Systems on Soil Health, Sweet Potato Growth, and Weed Management Programs	\$16,499	Katherine Jennings NCSU Stephen Smith NCSU
GS16-156	Integrating Pest & Pollinator	\$10,921	Dr.Hannah Burrack

	Management in Southern Berry Production		North Carolina State University Jeremy Slone
<u>GS15-140</u>	Farm-to-Childcare in North Carolina; A Holistic Case Study	\$10,636	J. Dara Bloom NC State University Jacob Rutz
<u>GS15-142</u>	Food Waste: Quantifying on-farm vegetable losses	\$10,206	Dr.Nancy Creamer North Carolina State University Lisa Johnson North Carolina State University
<u>GS14-132</u>	Production of a conditional sterile-male strain for the control of spotted-wing drosophila	\$10,890	Fu-Chyun Chu North Carolina state university
<u>GS14-135</u>	Identifying regionally adapted winter pea and faba bean genotypes that maximize grain and cover cropping potential	\$10,957	Dr.S. Chris Reberg-Horton North Carolina State University Rachel Atwell North Carolina State University
<u>GS13-121</u>	Identifying barriers to sustainable food production by low resource producers and purchase by low income consumers in Washington and Beaufort Counties, North Carolina	\$7,614	Dr.Chantal Reid Duke University, Dept of Biology Kimberly Hill Duke University
<u>GS12-112</u>	Contributions of legume cover crop root systems to soil carbon pools in organic systems using different termination strategies	\$10,997	Julie Grossman NCSU Arun Jani North Carolina State University
<u>GS12-115</u>	Breeding Wheat for Increased Weed-Suppressive Ability against Italian Ryegrass	\$10,952	Dr.S. Chris Reberg-Horton North Carolina State University Margaret Worthington NCSU
<u>GS11-099</u>	Plant mediated effects on parasitoid efficacy in a banker plant system	\$9,930	Dr.Steven Frank North Carolina State University Travis McClure Sara Prado
<u>GS11-102</u>	Verticillium Wilt Management: Elucidating Mechanisms of Resistance and Integration of Sustainable Alternatives in Tomato Production Systems	\$9,970	Dr.Frank Louws North Carolina State University Meagan Iott North Carolina State University
<u>GS11-104</u>	Potential for Conservation Biological Control of Stink bugs in North Carolina	\$9,735	David Orr North Carolina State University Dr.Sriyanka Lahiri University of Florida
<u>GS10-089</u>	The Black Pearl Pepper Banker Plant for Biological Control of Thrips in Commercial Greenhouses	\$9,959	Dr.Steven Frank North Carolina State University Sarah Wong North Carolina State University
<u>GS10-091</u>	Managing field borders for weed seed predators	\$9,856	Dr.S. Chris Reberg-Horton North Carolina State University Aaron Fox North Carolina State University
<u>GS10-094</u>	Evaluation of Herbal Remedies as Alternatives to Antibiotic Therapy in Dairy Cattle	\$9,990	Dr.Steven Washburn North Carolina State University Dr.Kevin Anderson North Carolina State University Keena Mullen North Carolina State University

<u>GS10-088</u>	Predictors of short-term nitrogen availability in organic farming systems that utilize warm season cover crops	\$10,000	Dr.Nancy Creamer North Carolina State University Suzanne O'Connell North Carolina State University
<u>GS09-078</u>	Evaluating vermicompost mediated host plant resistance as a sustainable alternative to manage agricultural insect pests	\$9,810	Yasmin Cardoza North Carolina State University Amos Little North Carolina State University
<u>GS08-067</u>	Southeastern North Carolina Food Systems Project	\$10,000	Leslie Hossfeld University of North Carolina Wilmington Raven Bruno UNCW
<u>GS08-068</u>	Elucidating the role of cellulases involved in biological control of Phytophthora root rot	\$9,931	George Place North Carolina State University Kelly Ivors North Carolina State University Brantlee Spakes Richter North Carolina State University
<u>GS08-073</u>	Traits of Interest for Improving Weed Suppressive Ability in Soybean During the Critical Period for Weed Competition	\$9,972	Dr.S. Chris Reberg-Horton North Carolina State University Kelly Ivors North Carolina State University George Place North Carolina State University
<u>GS08-076</u>	Chemistry and Biodegradability of Dissolved Soil Organic Matter in Diverse Farming Systems	\$9,850	Dr.Wei Shi North Carolina State University Lei Tian
<u>GS07-060</u>	Potential of grafting to improve nutrient management of heirloom tomatoes on organic farms	\$10,000	Mary Peet North Carolina State University Dr.Frank Louws North Carolina State University Suzanne O'Connell North Carolina State University
<u>GS07-062</u>	Omega-3 Purlane Eggs	\$10,000	Thomas Ruffy NCSU Crop Science Department Laura Vance NCSU Crop Science Department
<u>GS07-058</u>	Cover crop mulches for no-till organic onion production	\$10,000	Dr.Nancy Creamer North Carolina State University Emily Vollmer North Carolina State University Dept. Hort. Sci.
<u>GS06-051</u>	Effects of management practices and plant growth regulators on the allelopathic potential of rye (Secale cereale)	\$9,780	James Burton North Carolina State University David Danehower North Carolina State University Christine Sickler North Carolina State University
<u>GS06-052</u>	Testing Technologies for Affordable Bioshelters	\$9,914	Mary Hoepfl Appalachian State University Yonatan Strauch Appalachian State University
<u>GS06-055</u>	Why do farmers adopt conservation practices? Do green payments help? A case study of the Lower Roanoke, North Carolina	\$9,999	Lynn Maguire Duke University Nicholas School of the Environment Lucy Henry Duke University Nicholas School of the Environment

<u>GS05-046</u>	Inducing Disease Resistance and Increased Production in Organic Heirloom Tomato Production Through Grafting	\$10,000	Dr.Frank Louws North Carolina State University Cary Rivard North Carolina State University
<u>GS04-032</u>	Optimizing substrates, composts, and fertilizer additions for organic transplant production	\$10,000	Mary Peet North Carolina State University Elizabeth Larrea North Carolina State University
<u>GS04-035</u>	Effects of Tillage, Rotation, and Organic Inputs on Soil Ecological Properties in Vegetable Crop Production Systems	\$9,998	Greg Hoyt Dept. of Soil Science, NCSU Laura Overstreet
<u>GS03-028</u>	Evaluation of Beneficial Insect Habitat for Organic Farms	\$10,000	David Orr North Carolina State University Lisa Forehand North Carolina State University
<u>GS03-027</u>	Natural Vegetation and its Influence on Weed Populations in Neighboring Fields	\$9,932	Dr.James Mueller North Carolina State University Susan T. Jelinek North Carolina State University
<u>GS01-008</u>	Breeding a better cover crop: a screen of rye germplasm for weed suppression	\$9,986	Dr.Nancy Creamer North Carolina State University Dr.S. Chris Reberg-Horton North Carolina State University
<u>GS00-004</u>	Interactions between predators and insect-parasitic nematodes in soil	\$10,000	Mary Barbercheck North Carolina State University C. Marie Greenwood North Carolina State University
<u>GS00-006</u>	Evaluation of Cover Crops and Conservation Tillage for Conventional and Organic Sweetpotato (<i>Ipomoea batatas</i>) Production in North Carolina	\$9,927	Dr.Nancy Creamer North Carolina State University Danielle Treadwell North Carolina State University

ON FARM RESEARCH/PARTNERSHIP GRANTS

Project #	Project Title	SARE support	Project Leaders
<u>OS19-129</u>	Evaluating Scale-appropriate Technology for Organic No-till Vegetable Production	\$14,904	Karen McSwain Carolina Farm Stewardship Association
<u>OS19-125</u>	Regenerative Grazing to Mitigate Climate Change	\$14,787	Saskia Cornes Duke University
<u>OS18-123</u>	Demonstration of Root Zone Heating Supported by the Developed Biomass Greenhouse Heating System	\$14,883	Dr.Ok-Youn Yu Appalachian State University
<u>OS17-105</u>	Evaluating On-Farm Use of Multi-Species Cover Crops	\$15,000	Michelle Lovejoy NC Foundation for Soil and Water Conservation
<u>OS10-052</u>	Optimizing biological control of greenhouse pests with banker plant systems	\$14,959	Steven Frank NCSU
<u>OS10-055</u>	Increasing on-farm sustainability through agritourism research: An examination of agritourism visitors, farms, and marketing strategies	\$15,000	Dr.Samantha Rich North Carolina State University
<u>OS09-046</u>	Grafting Heirloom Tomatoes on Disease	\$4,960	Susan Colucci

	Resistant Rootstock in Western North Carolina		NC Cooperative Extension
OS09-050	Development and Implementation of On-Farm Biological Soil Disinfestation to Manage Soilborne Diseases In Organic Strawberry Production Systems	\$15,000	Dr.Frank Louws North Carolina State University
OS08-042	New Tools to Make Organic No-till Soybeans and Corn a Reality	\$14,917	Dr.S. Chris Reberg-Horton North Carolina State University
OS07-038	On-Farm Biofuel Production from Sweet Sorghum Juice	\$14,898	Matthew Veal North Carolina State University
OS06-032	Opportunities for pasture-raised Jersey beef in the Southeast	\$14,952	Dr.Steven Washburn North Carolina State University
OS05-025	Salmonella Contamination and Antibiotic Resistance on Pastured Poultry and Conventional Poultry Farms	\$9,542	Cedarose Siemon Independent Research Scientist

SUSTAINABLE COMMUNITY INNOVATION GRANTS

Project #	Project Title	SARE support	Project Leaders
CS15-092	How Local Food System Development Affects the Sustainability of Agriculture: The Impact of Farmer-Consumer Interactions on Production Practices	\$34,830	Charlie Jackson Appalachian Sustainable Agriculture Project
CS12-088	Community Farm & Food Project Phase II – Initiation	\$9,996	Allison Kiehl Southern Appalachian Highlands Conservancy
CS11-086	Community Farm and Food Project Phase I – Assessing Needs and Building Partnerships	\$10,000	Allison Kiehl Southern Appalachian Highlands Conservancy
CS10-082	Farming and Agricultural Recommendations for Mount Pleasant (F.A.R.M.)	\$10,000	Stacy Piehl Town of Mount Pleasant Michael Robertson Town of Mount Pleasant
CS10-079	PolkFresh TradePost Project: A Strategy to Implement Polk County's 20/20 Vision plan for Sustainable Community Development	\$10,000	Carol Lynn Jackson PolkFresh TradePost Project
CS09-070	Stecoah Kitchen Entrepreneurship & Agri-tourism Project	\$10,000	Beth Fields Stecoah Valley Arts, Crafts & Educational Center, Inc.
CS08-063	SNAP! A Sustainable Network at Polk From Farm to Fork and back to Farm again	\$10,000	Mary Lyth
CS07-055	Stecoah Kitchen Entrepreneurship & Agri-Tourism Project	\$10,000	Beth Fields Stecoah Valley Arts, Crafts and Educational Center Beth Fields Stecoah Valley Arts, Crafts & Educational Center, Inc.
CS06-045	Establishing community and business partnerships to build a market identity	\$9,950	Jennifer Ulz Carteret Community College

	for local seafood		
<u>CS06-050</u>	Getting your small farm products to market / a three county program to solve product logistics: marketing/sales, product development, packages and labeling, transportation	\$40,000	David Kendall North Carolina Cooperative Extension
<u>CS05-033</u>	Women Farmers Building a Healthy Community and Economy in the High Country	\$9,900	Chelly Richards Blue Ridge Women in Agriculture (BRWIA)
<u>CS04-030</u>	Healthy Livestock Agriculture & Healthy People: Connecting Local Pasture-Raised Food and Consumers in Central North Carolina	\$10,000	Sally Norton Program on Integrative Medicine
<u>CS04-021</u>	A Strategy for Sustaining Henderson County Agricultural Communities	\$8,500	Lori Sand Henderson County Planning Department
<u>CS04-027</u>	Agricultural Community Support Across Boundaries	\$10,000	Tom Elmore Land-of-Sky Regional Council
<u>CS03-009</u>	Strengthening Rural Communities Through Direct Marketing	\$9,941	Gerry Alfano Park and Recreation-Greensboro Farmers Curb Market Susan Andreatta University of North Carolina at Greensboro
<u>CS03-018</u>	New River Sustainable Agriculture Marketing Plan	\$10,000	Hollis Wild Appalachian Trees
<u>CS02-005</u>	SE North Carolina Agri-Tourism Corridor Development	\$7,000	Mikki Sager The Conservation Fund

MATCHING GRANTS PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
<u>MS09-002</u>	Taking it Statewide: Growing Sustainable Good Systems Capacity and Outcomes across North Carolina	\$14,950	Dr.Nancy Creamer North Carolina State University

PDP STATE PROGRAM GRANTS

Project #	Project Title	SARE support	Project Leaders
<u>SNC18-001</u>	SNC18-001	\$55,555	Dr.S. Chris Reberg-Horton North Carolina State University
<u>SNC19-001</u>	2019 Model State Program	\$22,222	Dr.S. Chris Reberg-Horton North Carolina State University Dr.Sanjun Gu North Carolina A&T State University
<u>SNC17-001</u>	SNC17-001	\$55,555	Dr.S. Chris Reberg-Horton North Carolina State University Dr.Sanjun Gu North Carolina A&T State University
<u>SNC16-001</u>	2016-2017 Model State Program North Carolina State University	\$22,222	Dr.S. Chris Reberg-Horton North Carolina State University

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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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