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 $333 million to more than 7,800 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.

SARE: Advancing the Frontier of Sustainable Agriculture in...

Connecticut

Project Highlight: Arming Basil Growers with Disease-Control Solutions

Whenever a new pest enters the scene, farmers must quickly learn how to deal with it if they are to remain profitable. Two SARE-funded projects are helping Connecticut farmers cope with this very situation in the case of a serious outbreak of Downy mildew of basil, a new disease to the eastern United States.

Typically, organic farmers depend on cultural practices to reduce disease problems, with control products complementing these practices. In the case of Downy mildew, Connecticut farmers could find no solutions due to the lack of published research on the efficacy of available control products. So Extension agent Joan Allen looked at disease-control products on two species of basil in one SARE-funded project, and then in a second project focused on the most promising contenders. Because of her work, basil growers now have access to possible solutions.

The results from Allen’s first project provided basil farmers information about two products, narrowed down from an original five. Farmers started using the better performers, MilStop and Oxidate. Allen also looked at the effect of nitrogen fertilization rate alone and in combination with the fungicides on the severity of the disease. Close to 500 farmers and gardeners learned of possible new practices through presentations.

For more information on these projects, see sare.org/projects, and search for project numbers ONE11-132 and ONE12-152.

SARE in Connecticut

northeast.sare.org/sare-in-your-state/connecticut

$2,973,455 in total funding

82 grant projects

(since 1988)

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

Total awards: 82 grants
- 19 Research and Education
- 6 Sustainable Community Innovation
- 3 Professional Development Program
- 32 Farmer/Rancher
- 8 Graduate Student
- 10 On Farm Research/Partnership
- 4 Research Only

Total funding: $2,973,455
- $1,647,337 Research and Education
- $70,904 Sustainable Community Innovation
- $227,995 Professional Development Program
- $189,233 Farmer/Rancher
- $114,297 Graduate Student
- $123,647 On Farm Research/Partnership
- $600,042 Research Only

Find a complete list of projects on page 3.

SARE's Impact

53 percent of producers report using a new production technique after reading a SARE publication.

79 percent of producers said they improved soil quality through their SARE project.

64 percent of producers said their SARE project helped them achieve higher sales.

Learn about local impacts at: northeast.sare.org/sare-in-your-state/connecticut

Contact Your SARE State Coordinator

SARE sustainable ag coordinators run state-level educational programs for Extension and other ag professionals, and many help grant applicants and recipients with planning and outreach. Visit northeast.sare.org/state-pages/connecticut to learn more.

Rachel Bespuda
University of Connecticut
(203) 407-3172
rachel.bespuda@uconn.edu

Joe Bonelli
University of Connecticut
(860) 875-3331
joseph.bonelli@uconn.edu

For detailed information on SARE projects, go to 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.
Connecticut has been awarded $2,973,455 grants to support 79 projects, including but not limited to, 16 research and/or education projects, 3 professional development projects and 32 producer-led projects. Connecticut 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>
<tbody>
<tr>
<td>LNE21-423</td>
<td>The Northeast Forest Farmers Coalition: Building a Community of Practice</td>
<td>$249,193</td>
<td>Karam Sheban&lt;br&gt;Yale School of the Environment</td>
</tr>
<tr>
<td>LNE18-363</td>
<td>Improved N Management for Corn using Aerial Images, Adapt-N, Chemical and Biological Tests, and Cover Crops</td>
<td>$241,570</td>
<td>Dr. Karl Guillard&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE13-324</td>
<td>Developing adaptable native shrubs for the green industry</td>
<td>$58,347</td>
<td>Dr. Jessica Lubell&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE09-281</td>
<td>Aronia berries: A sustainable nutraceutical crop for the Northeast</td>
<td>$151,821</td>
<td>Dr. Mark Brand&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE09-279</td>
<td>Development and on-farm training of biologically based methods for integrated crop management of stone fruits in New England</td>
<td>$195,498</td>
<td>Dr. Robert Marra&lt;br&gt;Connecticut Agricultural Experiment Station Lorraine Los&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE03-177</td>
<td>Perimeter trap crop approach to pest management on vegetable farms</td>
<td>$139,527</td>
<td>Ruth Hazzarad&lt;br&gt;University of Massachusetts&lt;br&gt;Jude Boucher&lt;br&gt;University of Connecticut Cooperative Extension</td>
</tr>
<tr>
<td>LNE01-143</td>
<td>Farmer-Run Research Organization for Southern New England</td>
<td>$167,660</td>
<td>Thomas Morris&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE01-144</td>
<td>Survey of the Nutrient Status of Organic Vegetable Farms</td>
<td>$35,397</td>
<td>Thomas Morris&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE00-137</td>
<td>Benefits &amp; Drawbacks of Various Winter Cover Crops in Vegetable Pest Management</td>
<td>$89,202</td>
<td>Kimberly Stoner&lt;br&gt;Connecticut Agricultural Experiment Station</td>
</tr>
<tr>
<td>LNE98-106</td>
<td>Biological Control for Soil-Dwelling Insects &amp; Diseases in Strawberries</td>
<td>$147,557</td>
<td>Richard Cowles&lt;br&gt;Connecticut Agricultural Experiment Station</td>
</tr>
<tr>
<td>LNE97-083</td>
<td>Nitrogen Management for Pumpkins and Squash</td>
<td>$40,000</td>
<td>Richard A. Ashley&lt;br&gt;University of Connecticut</td>
</tr>
<tr>
<td>LNE97-082</td>
<td>Biological and Cultural Methods of Insect Management in Vegetables: Survey and Case Studies of Organic Farms and Evaluation of the Scientific Literature</td>
<td>$20,000</td>
<td>Kimberly Stoner&lt;br&gt;Connecticut Agricultural Experiment Station</td>
</tr>
<tr>
<td>Project #</td>
<td>Project Title</td>
<td>SARE Support</td>
<td>Project Leaders</td>
</tr>
<tr>
<td>------------</td>
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<td>--------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| LNE96-065  | Farm to School Food Education Project                                         | $33,319      | Elizabeth Wheeler  
The Hartford Food System |
| LNE96-068  | New Connections in the Northeast Food System                                   | $13,000      | Mark Winne  
The Hartford Food System |
| ANE95-028  | Integration of Biological and Chemical Control of Twospotted Spider Mites in Containerized Nursery Production | $35,246      | Timothy Abbey  
Univ. of Connecticut Cooperative Extension System  
Richard Cowles  
Connecticut Agricultural Experiment Station |
| LNE94-049  | Project Farm Fresh Start: A Farm-to-School Feasibility Study                   | $30,000      | Mark Winne  
The Hartford Food System |

**RESEARCH ONLY GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
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</tr>
</thead>
</table>
| LNE21-425R | In-ovo and Early Probiotic Supplementation to Control Salmonella in Broilers  | $150,000     | Mary Anne Amalaradjou  
University of Connecticut |
| LNE21-430R | Reducing Farmer Risk through the Use of Triploid Hemp Genetics                | $101,168     | Dr.Jessica Lubell  
University of Connecticut |
| LNE21-432R | Nutritional Management Strategies for Improving Growth and Carcass Composition of Beef-Dairy Crossbred Calves | $200,000     | Dr.Sarah Reed  
University of Connecticut |
| LNE20-412R | Enhancing the Safety of Eggs and Fresh Produce by Novel Ultra-fine Bubble Technology | $148,874     | Dr.Abhinav Upadhyay  
University of Connecticut |

**PROFESSIONAL DEVELOPMENT PROGRAM GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| ENE10-116  | Professional development for agricultural service providers in applied poultry science | $134,501     | Dr.Richard Brzozowski  
University of Maine Cooperative Extension |
| ENE99-048  | Alternative & Herbal Livestock Health Practices                               | $86,994      | Thomas Morris  
University of Connecticut |
| ENE98-042  | Feeding Our Cities: Establishing a Strong Urban/Sustainable Agriculture Interface in Southern New England | $6,500       | Michael T. Keilty  
University of Connecticut Extension |

**FARMER/RANCHER GRANTS**

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| FNE21-996  | Using Shade Cloth to Prevent Heat Damage in Summer Broccoli                   | $10,320      | Andrew Urbanowicz  
Urbanowicz Farm |
| FNE19-944  | Winter Triticale and Red Clover Double Cropping Field Trials for a Three-Year Production Cycle | $14,824      | Craig Stearns  
Mountain Dairy |
| FNE19-939  | Tree Regeneration and Establishment Strategies in Silvopasture and Sugarbush Systems | $13,450      | Dr.Joseph Orefice  
Hidden Blossom Farm |
| FNE19-925  | Honey Plant Intercropping on Christmas Tree Farms                            | $10,032      | Richard Cowles  
Humming Grove Farm |
Comparison of indigenous microorganism and commercial soil inoculant on crop yields and basil downy mildew disease resistance

Establishing propagation protocols and assessing weed risk of litchi tomato, Solanum sisymbriifolium

Enhancing growth rate and well-being of pigs raised on pasture through the use of mobile evaporative cooling while improving pasture fertility and reducing environmental degradation

Conservation tillage for organic cabbage: Yield, weed growth, and management costs

Evaluation of the insect resistance of interspecific squash hybrids

Small farm air chill system

Determining cost-effectiveness of raising slow growing genotype broilers in three alternative housing systems

Breeding colorful disease- and pest-tolerant potatoes

Horticultural Weed Barrier Mats From Dairy Manure — Phase 2

Litchfield County Farmers Livestock Market

Tolerance Variation to Mexican Bean Beetles of Common Bean Cultivars

Remote Sensing for Nitrogen Management in Corn

Increasing Small Farm Profits with American Chestnut Production and Silvopasture

Horticultural Weed Barrier Mats From Dairy Manure

Compost Planting Pots

Timing of Brassica planting to reduce flea beetle damage.
FNE00-294 Fava beans and kale as potential spring nurseries for insect natural enemies to move into the greenhouse.

FNE99-272 "Clean Green Machine" A Hydroponic System

FNE99-243 Compost Planting Pots

FNE99-236 Demonstration of the Effectiveness of Pediobius for Control of Mexican Bean Beetle and Squash Beetle

FNE98-208 Sheep Farmstead Cheesemaking in Connecticut

FNE98-203 Squash Vine Borer and Cotton Row Covers

FNE97-162 Biological Insect Control of Herbaceous Perennials

FNE96-159 Certified Organic Associated Growers (COAG)

FNE96-129 Pedal-Powered Tillage for a Small Community-Supported Farm (CSA)

FNE96-154 Growing Potatoes Organically 3 Different Ways

FNE95-088 Canaan Valley Agricultural Cooperative Waste Management Program

FNE94-048 Innovative Uses of Leaf Compost for the Modern Farmer/Grower

GRADUATE STUDENT GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
<th>Project Title</th>
<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
</table>
| GNE19-221    | Importance of Environmental Factors on Plantings of Wild-Simulated American Ginseng | $15,000      | Marlyse Duguid
Yale School of Forestry and Environmental Studies
Karam Sheban
Yale School of the Environment |
| GNE19-213    | Use of Lactic Acid Bacteria to Control L. monocytogenes on Apples under Simulated Commercial Conditions | $15,000      | Mary Anne Amalaradjou
University of Connecticut
Deepa Ashwarya Kuttappan
University of Connecticut
Mairui Gao
University of Connecticut |
| GNE17-146    | Maximizing the health and size of on-site native pollinator populations for crops requiring sonication pollination | $14,973      | Julia Kuzovkina
University of Connecticut
John Campanelli
University of Connecticut |
### ON FARM RESEARCH/PARTNERSHIP GRANTS

<table>
<thead>
<tr>
<th>Project #</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ONE21-399</td>
<td>Assessment of a Composite Herbal Feed Additive on Reducing Haemonchus contortus in a Dual Purpose Sheep Operation</td>
<td>$14,319</td>
<td>Dr. Erin Masur, DVM Fork You Farms, LLC</td>
</tr>
<tr>
<td>ONE20-368</td>
<td>Incorporating Online Ordering Systems to Increase Farmer Sales at Farmers’ Markets and Beyond</td>
<td>$15,698</td>
<td>Ashley Kremser CitySeed</td>
</tr>
<tr>
<td>ONE16-279c</td>
<td>Farmer-led cover crop trials and demonstrations for vegetable and corn silage fields</td>
<td>$22,465</td>
<td>Jim Hyde USDA NRCS</td>
</tr>
<tr>
<td>ONE16-265</td>
<td>Boosting farmer sales through culinary events and marketing</td>
<td>$14,992</td>
<td>Ashley Kremser CitySeed</td>
</tr>
<tr>
<td>ONE13-179</td>
<td>Investigating forage radish and compost as a means of alleviating soil compaction in established bramble and blueberry fields</td>
<td>$14,958</td>
<td>Mary Concklin University of Connecticut</td>
</tr>
<tr>
<td>ONE12-152</td>
<td>Management of basil downy mildew using organic fungicides and nitrogen fertilization rate</td>
<td>$6,705</td>
<td>Joan Allen Assistant Cooperative Extension Educator in Residence</td>
</tr>
<tr>
<td>ONE08-080</td>
<td>Hastening Adoption of Zone-Tillage on CT/ New England Vegetable Farms</td>
<td>$9,902</td>
<td>Jude Boucher University of Connecticut Cooperative Extension</td>
</tr>
<tr>
<td>ONE06-064</td>
<td>Increasing biological control of brassica pests through overwintering</td>
<td>$9,903</td>
<td>Kimberly Stoner Connecticut Agricultural Experiment Station</td>
</tr>
<tr>
<td>ONE03-011</td>
<td>Simple methods to stack manure and make compost without nutrient loss</td>
<td>$10,000</td>
<td>Tom Morris University of Connecticut</td>
</tr>
</tbody>
</table>

### SUSTAINABLE COMMUNITY INNOVATION GRANTS

<table>
<thead>
<tr>
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<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNE16-128</td>
<td>Early (in-ovo) administration of probiotics to promote growth in broiler chicken</td>
<td>$14,999</td>
<td>Mary Anne Amalaradjou University of Connecticut</td>
</tr>
<tr>
<td>GNE15-113</td>
<td>Natural and eco-friendly approaches to control aflatoxins in poultry feed</td>
<td>$14,393</td>
<td>Michael Darre University of Connecticut</td>
</tr>
<tr>
<td>GNE14-083</td>
<td>Anaerobically digested dairy as a renewable substitution for peat in media for nursery production</td>
<td>$14,856</td>
<td>Dr. George Elliott UCONN John Lamont Frog Belly Farm</td>
</tr>
<tr>
<td>GNE11-020</td>
<td>Organic fertilization for greenhouses</td>
<td>$12,556</td>
<td>Dr. George Elliott UCONN Kristin Hulshart</td>
</tr>
<tr>
<td>GNE10-010</td>
<td>Prevalence of Clostridium difficile (C. diff) in Connecticut Swine farms</td>
<td>$12,520</td>
<td>Dr. Robert Heimer Yale University School of Public Health</td>
</tr>
</tbody>
</table>

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**GNE16-128 Early (in-ovo) administration of probiotics to promote growth in broiler chicken**

- Project Leader: Mary Anne Amalaradjou
- University: University of Connecticut

**GNE15-113 Natural and eco-friendly approaches to control aflatoxins in poultry feed**

- Project Leader: Michael Darre
- University: University of Connecticut

**GNE14-083 Anaerobically digested dairy as a renewable substitution for peat in nursery production**

- Project Leader: Dr. George Elliott
- Institution: UCONN John Lamont Frog Belly Farm

**GNE11-020 Organic fertilization for greenhouses**

- Project Leader: Dr. George Elliott
- Institution: UCONN Kristin Hulshart

**GNE10-010 Prevalence of Clostridium difficile (C. diff) in Connecticut Swine farms**

- Project Leader: Dr. Robert Heimer
- Institution: Yale University School of Public Health Dr. Lynda Osadebe Yale University
<table>
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<tr>
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<th>SARE Support</th>
<th>Project Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNE10-079</td>
<td>Granby Sampler</td>
<td>$14,942</td>
<td>Michelle Niedermeyer&lt;br&gt;Granby Agriculture Commission</td>
</tr>
<tr>
<td>CNE10-073</td>
<td>Farmland ConneCTions Guide</td>
<td>$14,978</td>
<td>Greg Plotkin&lt;br&gt;American Farmland Trust&lt;br&gt;Ben Bowell&lt;br&gt;American Farmland Trust</td>
</tr>
<tr>
<td>CNE09-064</td>
<td>Southern Litchfield County’s first regional locally-grown produce distribution facility</td>
<td>$11,214</td>
<td>Vincent Nolan, Jr.&lt;br&gt;Town of New Milford</td>
</tr>
<tr>
<td>CNE07-018</td>
<td>Engaging and growing community through a community supported market</td>
<td>$9,986</td>
<td>Nicole Berube&lt;br&gt;CitySeed, Inc</td>
</tr>
<tr>
<td>CNE07-029</td>
<td>Creating sustainable food purchasing guidelines in the Northeast</td>
<td>$9,831</td>
<td>Joshua Viertel&lt;br&gt;Yale Sustainable Food Project</td>
</tr>
<tr>
<td>CNE06-015</td>
<td>Planning for community farms across Connecticut</td>
<td>$9,953</td>
<td>Kimberly Stoner&lt;br&gt;Connecticut Agricultural Experiment Station</td>
</tr>
</tbody>
</table>

**Total funding from the USDA SARE program to Connecticut**  
**$2,973,455**

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