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# innovati\*ns

IN SUSTAINABLE AGRICULTURE

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THE NORTHEAST REGION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION PROGRAM

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**Mountains out of molehills**

**2011 grant awards**

**2012 deadlines**

**State of the  
states**



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Spring/Summer 2011

## INNOVATIONS

is published three times a year by the **Northeast Region Sustainable Agriculture Research and Education (SARE) program**. SARE provides funding for projects that promote profitable, environmentally sound, and socially responsible agriculture.

**SARE RECEIVES FUNDING** from the U.S. Department of Agriculture.

**THE NORTHEAST REGION** is made up of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia, and Washington, D.C.

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*cover and selected illustrations  
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## Mountains out of molehills



In the greater scheme of things, the SARE program isn't all that big. Sure, each of our four regions will provide about \$3 million in grants this year, which is real money in my neck of the woods, but that pales in comparison to larger federal programs, some of which make single awards for many millions of dollars. However, SARE's investments are often magnified over time, in several different ways.

With some SARE-funded research, a seed is sown when innovative concepts are explored and shown to have potential. Non-SARE funds are then obtained from new sources to expand the scope and duration of the original work. For example, a 2002 grant taught New York dairy farmers how to add value to their milk by making farmstead cheeses using a prototype mobile processing unit that brought needed equipment to

the farm; in 2004, the state assembly created a line item in the budget to support the first factory-built "cheesemobile" for farmer training, and an engineering firm adapted the prototype design to manufacture mobile processing units that could be used in all fifty states. So one characteristic of many research projects is that they continue to generate useful information long after the original project ends, attracting support from a range of sources.

In other cases, SARE project leaders build on their own work by winning repeat grant awards to address related issues. This is the case with several Partnership Grant projects that have, in essence, answered a series of questions, one after the other, in projects logically connected over time. Eventually the results of these projects get bundled into a comprehensive understanding of an agricultural problem and its solutions. Several years of work on on-

ion production in muck soils in western New York, which continues this year, is one example; another is work in Massachusetts and nearby states on alternative farm financing, which began with two modest Sustainable Community awards and progresses this year with a larger Research and Education Grant.

Farmers and farm advisors sometimes take an idea from a SARE project and try it again in a new place or with a new twist, so that the same idea may be circulating through several SARE projects at the same time. This creates synergy and a shared purpose, which can culminate in new farm organizations like Northeast Organic Wheat and the Northern

New England Local Bread Wheat Project. These are linked, cooperating coalitions of farmers, bakers, and retailers who want to grow, use, and sell heritage grains and grain products. We may not think of the Northeast as a breadbasket, but now there are about 1,500 acres of bread-quality wheat grown in Vermont and Maine. The Kneading Conference, which grew naturally out of this wider effort, has also used Northeast SARE speaker funds to bring keynote and workshop speakers to this annual event.

Sometimes a farmer will take on a problem and become, over time, a recognized expert in a specific field—for example, a farmer from

Lancaster, Pennsylvania, used several consecutive Farmer Grants to figure out how to manage the grape root borer, a pest that feeds on the grapevine's root system for two or perhaps three years before the adult moth emerges. He speaks at events around the region and the country, taking his expertise—

along with samples of dead vines, devastated roots, and insects—to show to fellow growers, and shares his understanding of his own results and the most recent research.

Agritourism is a way for farmers to develop new revenue streams by becoming a recreational destination, and a multi-state Research and Education project from 2008 has laid some of the ground-

work for a new Professional Development award on the same topic. This cross-pollination is a form of enrichment, since this 2011 effort brings the leader of the earlier grant in as a cooperator. This assures that results and insights aren't lost, even when the audience—initially farmers—migrates to a training effort for Cooperative Extension staff around the region.

Less specifically, but perhaps more importantly, are those projects that help with transformative change by getting a big idea off the ground. SARE can't claim all the credit when this happens, but our funding did help in many cases. For example, our support of

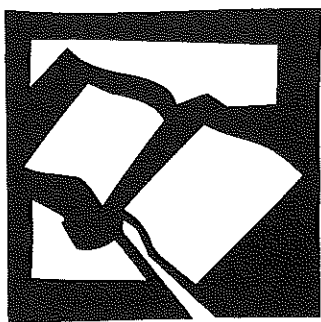
a regional CSA conference in the 1990s helped spread the word about this then-new marketing system, and in 1998 Northeast SARE partnered with Chelsea Green Publishing to produce *Sharing the Harvest*, a guide to CSA management. This book has recently been released in an expanded second edition.

Other grants promoted in-depth intensive pasture management education for agricultural professionals and have influenced the ability of land grant personnel to serve pasture-based livestock farms. Several well-established organic research and outreach programs got early support from SARE grants, such as the University of West Virginia's Organic Farm, the Rodale Research Center's organic orchard, and the more recent support for organic and agroecosystems research at the University of New Hampshire and Pennsylvania State University. Non-profits like PASA, MOFGA, and the region's NOFAs have benefitted from SARE funding as they spread their educational wings in recent decades.

Looking back on the growth of earlier projects adds excitement to making grants today. As you read the summaries of this year's hatchlings perhaps you'll join me in wondering what kind of path they will take towards enduring impacts.

—Vern Grubinger

**Looking back  
on the  
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# Professional Development Grants

**N**ortheast SARE awarded \$331,095 to support four projects that train Cooperative Extension and other agricultural service providers in sustainable techniques. Projects can run several years and are designed to help service providers improve and expand farmer training.

The 2011 projects ranged from \$33,098 to deliver training in reducing greenhouse gas emissions to \$112,616 to enhance understanding of how agritourism affects farm business planning.

ENE11-118

## **Marketing for profit: Tools for success**

Diane Eggert, Farmers Market Federation of New York, Fayetteville NY

Viable farming requires sound marketing plans, and a recent survey indicates that extension staff seeks training in broad-based marketing and business development so they can serve their farmer clients better. The project manager will develop and deliver a comprehensive, segmented curriculum that will proceed from basic concepts—Marketing 101—through advanced training in database management, online marketing, and effective communication. One hundred extension educators will use the training to educate 750 farmers in direct marketing techniques, and 150 of the farmers will adopt new or improved marketing strategies that will increase revenue an average of \$10,000 per farm.

**\$106,847**

ENE11-119

## **Management practices to reduce agricultural emissions: A workshop for professionals**

Susan Gammon, Androscoggin Valley Soil and Water Conservation District, Lewiston ME

Farms emit greenhouse gases through soil and manure practices, fuel use, and animal digestion; reducing these emissions and increasing carbon sequestration will increase sustainability and improve the environment. The project leader will develop and deliver training on practices like livestock nutrition, fertilizer use, and conservation tillage that increase carbon sequestration and reduce operating costs at the same time.

While this training effort is specific to Maine, much of the content will apply across the region. As a result of the project, 30 service providers will advise 1500 farmers about these practices, and 15 will do whole-farm greenhouse gas assessments on at least one farm.

**\$33,098**

ENE11-120

## **Soil management in berry crops as a model for management education**

Marvin Pitts, Cornell University, College of Agriculture and Life Sciences, Ithaca NY

Commercial berry growers do not always embrace the established guidelines for analysis-based fertilizer use or improved soil health practices, even though research confirms the benefits are significant. At the same time, extension educators are often asked to cover practices outside their specific areas of expertise, and there is currently no single, comprehensive resource on berry crop management for them to draw on. The project manager will provide in-depth berry crop and soil management training to educators throughout the Northeast and will also develop a consolidated web-based resource for farm service providers that emphasizes a whole-farm approach to nutrient management specific to commercial berries. Of the 50 educators who participate in the in-depth training, 15 will develop and deliver outreach on this topic, reaching 150 growers who manage 750 acres of berry crops; 50 growers will benefit from nutrient testing and one-on-one consultation and will subsequently adopt analysis-based fertilization and soil health practices.

**\$78,534**

## State of the states

ENE11-121

### Development of extension programming to support the advancement of agritourism in the Northeast

Brian Schilling, Rutgers, the State University of New Jersey, New Brunswick NJ

Agritourism can improve farm income, but farmers need to adopt a business model that encompasses hospitality and service, and moves away from a production-centric model. The project manager will develop and deliver education for farm educators in Vermont, Pennsylvania, New York, and Delaware specific to agritourism with a focus on financial and liability risks, marketing, and general best practices that support bringing paying guests to a working farm. As a result, 120 educators will take training through workshops or live webinars, 30 will adopt and use the content with their client farmers, and 200 farmers will develop marketing or risk abatement plans that can support an agritourism revenue stream on their farm.

\$112,616

Northeast SARE's strong commitment to professional development for agricultural service providers means that, in addition to the new regional Professional Development Grant projects listed to your left, Northeast SARE also supports professional development education through its State Program.

This State Program supports a coordinator at each land grant institution in the region, and these coordinators offer professional development education about sustainable agricultural concepts and techniques to extension educators, USDA agency personnel, other farmer educators, and service providers.

Some coordinators pool their SARE resources and offer collaborative programs in multiple states and with multiple institutional partners. These efforts have included topics like farm energy solutions, season extension technologies and practices, cover crops,

practices to increase local meat production, and soil health assessment and improvement.

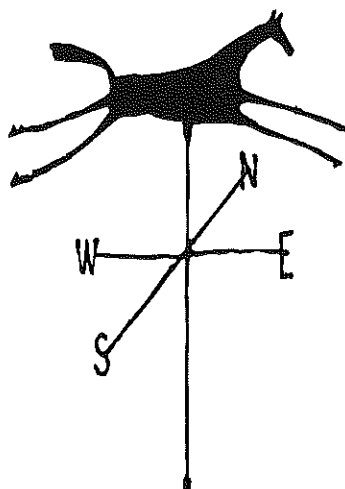
State coordinators also provide outreach to the agricultural community—agricultural service pro-

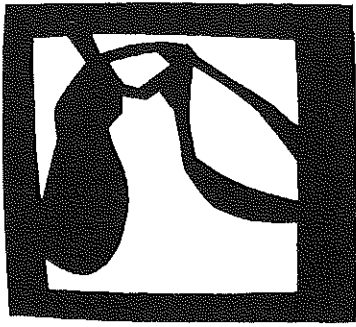
viders and farmers—about the different SARE grant programs. These outreach efforts build awareness and understanding of SARE's programs and help applicants get the information they need to apply for grants.

You can learn more about the individual Northeast SARE State Pro-

grams, their training efforts, and the benefits resulting from this training on the Northeast SARE website. In addition to state reports, you'll find an event calendar, lists of SARE grant projects in each state since 1988, and more information about the state coordinators and staff. Photos, videos, and links to useful publications and websites are also featured on some state web pages.

—Janet McAllister,  
Professional Development  
program associate





# Research &

In the recent grant cycle, Northeast SARE awarded \$1,201,992 to fund eight Research and Education projects. These multiyear projects combine applied research with farmer benefit, and specific changes in farm practices or other results are built into the project plan.

2011 projects ranged from \$69,672 to encourage the adoption of precision feeding on dairy farms to \$392,658 to continue a long-term research project on a closed-system, energy-independent organic dairy farm.

LNE11-306

## **Increased profits from disease-free garlic planting stock**

Steve Johnson, University of Maine Cooperative Extension, Presque Isle ME

Garlic production can lead to high revenue per acre, but the practice of exchanging seed stock bulbs among growers has helped spread pathogens that damage crops and infest soils. The project manager will use tissue culture to develop pathogen-free seed stock for on-farm trials and bulb multiplication, and then follow up with grower and twilight meetings on identifying and managing garlic pests. Of the 100 participating farmers who learn to recognize and manage major garlic diseases, 30 will adopt the new technique of using pathogen-free bulbs, reducing crop losses and preventing the spread of fungal and viral infection.

\$121,341

LNE11-307

## **Potassium and sulfur management of alfalfa: Farmer-driven testing of management methods**

Quirine Ketterings, Cornell University, Ithaca NY

Potassium (K) and sulfur (S) are key nutrients, but it's not clear whether K and S applied with manure in corn years will suffice during subsequent alfalfa years in a rotation, or how best to test if K and S are needed. The project manager will build on current research by adding field-testing for K, S, and micronutrients in alfalfa over two years, do stand assessment, and evaluate impact so that participating farmers can manage K and S

more efficiently, with a potential savings of \$100 an acre or more. Of the 300 farms surveyed at the end of the project, 90 will express an interest in improved K and S management and ten will use their newly gained skills in alternative management practices.

\$119,984

LNE11-308

## **Precision feed management for improved profitability and environmental stewardship in Yates County, New York**

Peter Landre, Cornell Cooperative Extension of Yates County, Penn Yan NY

Precision feeding on dairy farms can protect water quality while improving herd health, milk yield, and operating costs. The project manager will offer benchmarks and spreadsheets that allow farmers to track feed nitrogen and phosphorus inputs, feed costs, milk production, herd health, forage intake, and manure management, and then quantify income over feed costs and nitrogen and phosphorus efficiencies over time. As a result, 20 farmers will adopt precision feeding for 1,200 dairy cattle, improving profits by 5 percent, while decreasing environmental nitrogen by 443,250 pounds and phosphorus by 42,750 pounds.

\$69,672

# Education Grants

LNE11-309

## **Adding value to oilseed crops by producing food-quality oils**

Douglas Schaufler, Pennsylvania State University, University Park PA

Oilseed crops like sunflower and canola can be grown commercially in the Northeast, with most of the interest to date focused on producing biofuels, but there is also potential for pressing more profitable food-grade oils. These oils could be used for frying and then recycled into fuel, getting two products from a single crop. Currently, farmer-ready information on the small-scale production of edible oils is scarce, and the project manager will research degumming, bleaching, and storage life as they affect small-scale producers; he will also demonstrate production, food safety, and sanitation requirements using videos and webinars. As a result, 200 farmers will learn how to safely and profitably produce edible oils, and 20 will progress to production, increasing the value of their oil crop by \$10 a gallon. **\$143,131**

LNE11-310

## **Farm financing: Measuring profitability and success**

Dorothy Suput, The Carrot Project, Boston MA

Newer farmers don't always grasp the economic opportunities and challenges implicit in new production and marketing techniques, nor how to obtain financing for strategic changes in their farm practices. The project manager will work with 30 farmers who have had difficulty accessing capital and startup credit, and she will use both real-world examples and

enterprise planning to help them understand how to use loans to improve farm income. These farmers will leverage up to \$300,000 in both conventional and agency loans and increase farm viability by 10 to 20 percent; project results will also be used to build case studies for other farmers to learn from. **\$79,720**

LNE11-311

## **Rhody Native: Propagation for sustainable landscapes**

Vanessa Venturini, University of Rhode Island Outreach Center, Kingston RI

The demand for locally-grown native species is increasing because of habitat restoration efforts and an expanding consumer preference for locally sourced landscape plants. The project manager will work with five nurseries to develop training that responds to these market needs, including identification, propagation, and cultivation of native plants and the environmental and economic benefits they bring. As a result, 20 nurseries will each produce 2,500 plants, to include 50 native grasses, perennials, shrubs, and trees, all grown from locally collected seed and stem cuttings, for an average sales increase at each nursery of \$25,000. **\$122,335**

LNE11-312

## **No-till, no-herbicide planting of spring vegetables using low-residue, winter-killed cover crops**

Ray Weil, University of Maryland, College Park MD

Cover crops can exacerbate problems with planting into cool, wet spring soils, and this is a challenge for no-till planting of vegetables using high-residue cover crops rather than herbicides to suppress weeds. The project manager will explore the use of low-residue winterkilled cover crops like forage radish, that leave a friable, weed-free spring seedbed, eliminating the need for spring tillage and herbicides while speeding the warming of the soil. The goal is to capture the environmental and economic benefits of cover crops and to gather data on the effect of these low-residue cover crops on different vegetables, planting dates, N dynamics, and farm economics. As a result, 120 farmers growing 2,400 acres of spring-planted vegetables will use no-till on half their acreage, reducing fall and winter N leaching, N inputs, tillage, herbicides, and erosion; farmers will also save \$100 an acre in seedbed preparation and increase earnings by \$500 an acre. **\$153,151**



**Research and  
Education Grants,  
continued**

**Agroecosystems  
Research Grant**

LNE11-313

**University of New  
Hampshire dairy farm  
agroecosystem study, part II**

John Aber, University of New Hampshire,  
Durham NH

This continues previous agroecosystems research into a closed-system, energy-independent organic dairy on a 300-acre research farm in the Northeast. This long-term project is designed to advance understanding of energy and nutrient cycles while exploring technologies to reduce related feed and fuel costs on an organic dairy farm. Project leaders will evaluate a variety of innovative management practices and systems designed to reduce energy demand and close nutrient cycles through optimal use of on-farm resources. Outreach will be through field days and publications.  
\$392,658

## **Award cycle and proposal deadlines**

### **Graduate Student Grants**

May 31 deadline has passed; awards will be announced in early fall 2011.

### **Research and Education Grants**

Preproposals submitted on line by **August 1**, with full proposals from selected applicants due November 1.

### **Professional Development Grants**

Preproposals submitted on line by **August 1**, with full proposals from selected applicants due November 1.

### **Sustainable Community Grants**

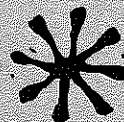
Submit on line by **October 19**.

### **Partnership Grants**

Submit on line by **November 1**.

### **Farmer Grants**

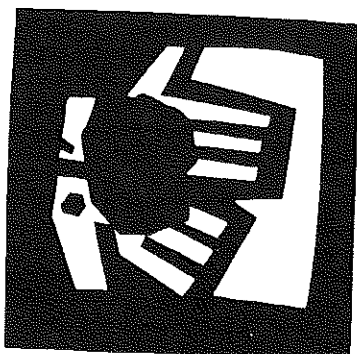
Submit on line by **December 1**.



**[www.nesare.org](http://www.nesare.org)**

for more about award criteria, events, and  
deadlines





# Partnership Grants

**S**ARE Partnership Grants give extension staff and other agricultural service providers a chance to work with farmers on a new approach to sustainable production or marketing. The cap on any award is \$15,000 and projects normally run a year or perhaps two years.

This year, SARE awarded \$269,747 to fund 20 projects. Awards ranged from \$4,705 to test the efficacy of products for basil that could be used in an organic system to \$15,000 to explore minimum till and cover crops to prevent erosion in onion fields.

ONE11-132

## **Evaluation of organic control products for basil downy mildew**

Joan Allen, University of Connecticut, Storrs CT

Downy mildew in basil was first identified as a new disease in 2007, and there were severe outbreaks in the Northeast in 2008 and 2009. The project manager will test the efficacy of products labeled for basil that could be used in organic production on two cultivars—one with high susceptibility, the other with lower susceptibility. Outreach will be through fact sheets, meetings, and websites in the scientific community, grower conferences, and print media, and a diagnostic network.

\$4,705

ONE11-133

## **Identification, characterization, and management of an emerging mastitis pathogen, *Lactococcus lactis*, subspecies *lactis***

Michelle Barrett, Keseca Veterinary Clinic, Geneva NY

Mastitis costs farmers about 1.8 billion in lost sales, and a new pathogen has emerged in western New York. Initially overlooked, the strain may correlate to cows that respond poorly to treatment; testing for this pathogen is also expensive. The project manager will see if there is a simpler and more cost-effective way to identify the presence of the bacteria and, at the same time, establish its prevalence, possible prevention, and sensitivity to antimicrobials. The goal is to build a foundation of knowledge about *Lactococcus*, and out-

reach will be through an existing veterinary practice, grower associations, milk industry professionals, and national conferences.

\$14,445

ONE11-134

## **Evaluating overall health and physical movement of dairy heifers in confinement vs. management intensive grazing**

Fay Benson, Cortland County Cornell Extension, Cortland NY

More understanding of the health effects of managed intensive grazing will support informed farmer transition, and the project manager will compare the overall health of three groups of 60 heifers each to heifers of comparable age in confinement. He will evaluate conception, longevity, milk production, and health issues. He will also use an new wireless pedometer to measure heifer movement, and results will be available through winter meetings, print media, and on the web.

\$11,650

ONE11-135

## **Customer identification and communication education for scale-specific commodities**

Laura Biasillo, Cornell Cooperative Extension of Broome County, Binghamton NY

New and small-scale farmers can benefit from growing for niche and local food markets, but often need enterprise-specific information on how to reach customers and the key components of a marketing plan. The project manager will work with seven

## Partnership Grants, continued

farms doing some form of direct marketing to assess current effectiveness, customer perceptions, and the overall communications and marketing plan for each enterprise. The goal is improve sales, income, and customer relations, and outreach will be through extension, conferences, a training video, educational handouts, and the media.

\$14,986

ONE11-136

### A novel, labor-saving trellising system for grape tomatoes

Steve Bogash, Penn State University Cooperative Extension, Chambersburg PA

This project expands on a previous grant that tested a shake-based harvesting system for grape tomatoes. This technique continues to be promising, but the most widely-used trellis systems don't accommodate shaking for harvest and are also difficult to keep sterile, which is important to avoid the transfer of soil-borne pathogens to other parts of the farm. The project manager will test a new trellis system that works with the shake-based harvest equipment, requires less labor, and is easy to sterilize. Outreach will be through grower newsletters and magazines, winter meetings, field days, twilight meetings, and the web.

\$14,980

ONE11-137

### Underseeding clover in organic wheat to reduce mycotoxins and improve grain quality

Sidney Bosworth, University of Vermont, Burlington VT

Fusarium head blight and subsequent contamination by the mycotoxin deoxynivalenol in organic wheat production means that growers must sell their grain for animal feed instead of for human consumption. The project manager will test whether underseeding clover in winter wheat will reduce contamination, increase overall crop value, and allow more farmers to grow high-value organic wheat for bread flour. Outreach will be through ex-

tension, a field day, grower newsletters, the scientific press, a regional or national forum, and posters and presentations at organic grower conferences and events.

\$14,728

ONE07-138

### Integrating ground cover crops and new herbicide strategies (conventional and organic) for tree growth and soil health

Deborah Breth, Cornell Cooperative—Extension Lake Ontario Fruit Program

High-density orchards of up to 2000 trees per acre have production challenges specific to ground covers, resistant weed management, residual pollution, tree vigor, and soil health in restricted root systems. The project manager will adapt existing research on semi-dwarf trees to intensive high-density systems and measure the effect of different ground covers and herbicides on tree growth, health, and production. Outreach will be through summer tours, winter fruit schools, a statewide growers conference, an extension newsletter, and the agricultural media.

\$15,000

ONE11-139

### Evaluation of organic strategies to control a new invasive pest, swede midge, *Contarinia nasturtii* (Diptera: Cecidomyiidae)

Yolanda Chen, University of Vermont, Burlington VT

Swede midge, or *Contarinia nasturtii*, is a new invasive insect that can cause major losses in Brassicas, and, because of its recent arrival, control recommendations for organic and small-scale farmers haven't been field-tested. The project manager will look at using row covers in the early part of the season, the effectiveness of OMRI-certified insecticides late in the season, and the role of entomopathogenic nematodes and *Bacillus thuringiensis* var. *israelensis* as a soil drench to control midges. Outreach will be via workshops specific to farmer education, a regional grower conference, extension, and the organic network.

\$15,000

ONE11-140

### The effects of top-dressing organic nitrogen on hard red winter wheat yield and quality, part II

Heather Darby, University of Vermont Extension, St. Albans VT

This project continues a previous award that addressed protein content in wheat grown in the Northeast. The market for local breads is growing, but local wheat flour often does not meet baking standards, and a 2010 trial explored the relationship between top-dressed organic N and improved yield and quality. While results were promising, one year of data is not enough to make confident recommendations to farmers. Outreach will be through regional and national publications, a field day, grower conferences, a web video, webinars, and a range of other new media.

\$14,186

ONE11-141

### Fall flame weeding: Targeting weed seeds before they enter the seedbank

Eric Gallandt, University of Maine, Orono ME

Flaming is often used to kill weed seedlings and field stubble, but a farmer observation indicates that flaming may also be effective on weed seeds—his flamed potato fields showed less weed pressure the following year. The project manager will test the effect of three flame doses on the next season's weed seedbank and resulting weed seedling densities. Outreach will be through a field day, a farmer-to-farmer conference, a short web video, and extension.

\$12,238

ONE11-142

### Control of spider mite in eggplants and thrips in sweet peppers using guardian plants and predators

Carol Glenister, IPM Laboratories, Inc., Locke NY

Beneficial insects and mites are effective in controlling thrips in greenhouse peppers

because pepper flowers support continuous reproduction of predator species, and marigolds can be used to attract the thrips before the peppers begin to flower. The project manager will now take these techniques out of the greenhouse and into the field, and she will also follow up on a preliminary trial that indicated that beans can be an effective guardian plant against spider mites in eggplant. Outreach will be via twilight meetings, fliers, presentations at grower meetings, and through resources and results posted to the web.

**\$13,275**

ONE11-143

### **Preventing erosion of muck soils by reducing tillage in onion production, part II**

Christine Hoepting, Cornell Cooperative Extension Regional Vegetable Program, Ithaca NY

Erosion of muck soils in conventional tillage can carry off a foot of soil every ten years, affecting the environment and long-term sustainability. Building on a previous award, the project manager will evaluate critical improvements needed for commercial onion production using minimum till, combined with the optimal use of cover crops, to evaluate nutrient availability, the potential to reduce the need for fertilizer, and the use of in-furrow fungicides to minimize losses from damping off. Outreach will be through the local media, a statewide grower conference, extension, the web, and an international grower magazine.

**\$15,000**

ONE11-144

### **Determining the potential for organic material use in Northeast commercial pear production**

Peter Jentsch, Cornell, New York State Agricultural Experiment Station, Hudson Valley Lab, Highland NY

Pear psylla and leaf spot are two major pests in pears, causing defoliation in smaller fruit, reduced quality and yield, and premature decline or death of trees. Synthetic insecticides can trigger resistance, but two newly developed OMRI treatments—a kaolin product and a refined horticultural oil—have performed well in

recent experiment station studies. The project manager will see if these OMRI products can augment commercial pest management tools in an on-farm setting, and will also compare and evaluate spray nozzles for drift. Outreach will be through a web-based video, field meetings, and winter fruit schools.

**\$14,778**

ONE11-145

### **Development of marketing channel assessment tools for livestock producers**

Matthew LeRoux, Cornell Cooperative Extension, Tomkins County, Ithaca NY

Livestock and value-added dairy farmers in the local food movement use several different direct and wholesale marketing channels, and these farmers have joined with the project manager to identify six factors in marketing performance and have quantified them in a way that avoids making heavy demands on farm recordkeeping. The project manager will test and refine these marketing assessment tools on four farms, and outreach will be in the regional agricultural media, through producer events and conferences, and through case studies prepared for each participating farm.

**\$12,162**

ONE11-146

### **Guide to financing the community supported farm**

Allen Matthews, University of Vermont Center for Sustainable Agriculture, Colchester VT

Community and alternative financing can offer farmers a more flexible borrowing model than traditional bank loans, but they can also have legal implications. Many new and small-scale farmers lack easy access to legal services and don't always have the time or capacity to research and assess their risk when seeking alternative financing. The project manager will assemble a team of farmers, attorneys, service providers, and financial planners to produce a guide to these new financing models, explaining in plain language the risks and opportunities through case studies and legal research. Outreach will be through farm enterprise and new farmer

programs, the legal community, producer networks, extension, and via free download of the guide on several different websites.

**\$14,982**

ONE11-147

### **Raw milk producers manual**

Winton Pitcoff, NOFA-MA Raw Milk Network, Plainfield MA

The demand for unpasteurized milk is growing, but state regulations affecting direct consumer sales can be hard to interpret. The project manager will develop a state-specific manual that will detail best management practices and regulatory requirements, giving existing raw milk dairies key information and giving farmers considering raw milk sales a clear road map for safety and compliance. Free copies of the new manual will go out to all existing raw milk dairies and will be available on request to interested farmers; outreach will be via e-mail lists, newsletters, the statewide media, and the agency website.

**\$8,563**

ONE11-148

### **Evaluation of the effects of aerators on alfalfa stands**

Marli Rupe, Poultney Mettowee Conservation District, Poultney VT

Aeration—making vertical slots in the soil—reduces nutrient runoff and allows manure to infiltrate more efficiently, but it's unclear how aeration will affect alfalfa, a high-value crop whose taproots might be susceptible to damage from aeration equipment. The project manager will work with four farmers to evaluate the use of an aerator on alfalfa, with the goal of supporting improved production on as much as 800 acres. Outreach will be via grower and farm service provider gatherings, farm-based workshops, and summary materials available in handouts, displays, and on the web.

**\$14,992**

## Partnership Grants, continued

ONE11-149

### Managing garlic bloat nematode using biofumigant cover crops

Crystal Stewart, Cornell University, Johnstown NY

Garlic bloat nematode reduces yield and quality of food-grade garlic and infested garlic can't be sold as seed, an important market for many growers. Infestation can range from minor to devastating, with up to 80 percent crop loss. The project manager will test the effectiveness of sorghum-sudangrass and mustard in eliminating the nematode from the soil and also determine how long the nematode survives in the soil without a host plant. Outreach will be at winter grower meetings and a garlic festival, e-mail, a handout, and the agricultural media.

\$14,988

ONE11-150

### Native bee habitat rehabilitation: Encouraging greater adoption of sustainable pollination practices, part III

Alex Surcica, Penn State Cooperative Extension, Chambersburg PA

This project continues previous work to build habitat for wild bees and to see if floral and nesting resources for them can reduce or eliminate the need to import commercial honeybees, which are in crisis and becoming increasingly expensive. The project manager will sample bee populations on cooperating vegetable and small fruit farms to determine third-year changes in native bee diversity and density. Outreach will be through the agricultural print media, a university website, and at a winter grower meeting.

\$14,934

ONE11-151

### Impact of production system and cultivar on yields of roselle (*Hybiscus subtiflora*) leaves and calyxes

Richard VanVranken, Cooperative Extension of Atlantic County, Mays Landing NJ

Roselle is an important food plant in tropical cuisine, specifically in Asia, Africa, and South America, where the plant is cooked as greens, soups, stews, and also used as a coloring agent in a popular drink. As the ethnic market grows, farmers and new immigrants have a marketing opportunity, and while the plant does well in a plastic mulch drip irrigation production system, it is extremely tender and the optimal growing techniques haven't been identified in the cold Northeast region. The project manager will do cultivation trials and evaluate various cultivars for performance, edibility, and yield. Outreach will be through grower news media, twilight meetings, and winter meetings and conference, as well as a regional website.

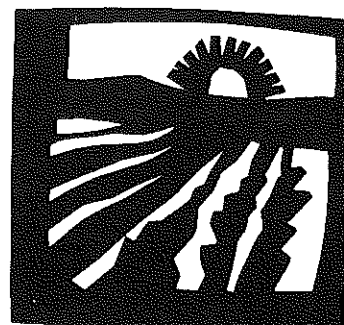
\$14,155

# Farmer

Northeast SARE awarded \$342,803 for 33 farmer-run projects that have the potential to improve stewardship, increase profits, and widespread benefit. Grants are capped at \$15,000 and generally run one to two years.

This year's projects ranged from \$3,318 to compare yield on shift trellises to yield on conventional T-shaped trellises to \$15,000 to see if new husbandry techniques will improve oyster production in Delaware Bay, New Jersey.

# Grants



FNE11-703

## **From seed to sugar: A vertically integrated model for small-scale turbinado sugar production from GMO-free beets**

Erik Andros, Boundbrook Farm, Ferrisburgh VT

A growing preference for local food creates new opportunities, and the farmer will test sugar production from non-GMO beets, reviving a regional industry that faltered in the 1970s. Drawing on trials done in Pennsylvania in 2008, he will grow and process three beet varieties and do market research at winter farmers markets by offering both baked goods and granular sugar to consumers and asking for scores on taste, texture, visual appeal, and potential price points. He will produce a handbook on how to process beets into consumer-grade sugar and a 20-minute film documenting the effort. He will also present his results at conferences, on his own and university websites, and through the agricultural print media.

**\$10,681**

FNE11-704

## **Soil nutrition and fertility options for organic hop growers in the Northeast**

Fletcher Bach, Square Nail Hops Farm, Ferrisburgh VT

A 2010 survey of breweries in New England indicates a strong preference for locally grown hops, but the best management practices for this crop are primarily directed at large-scale non-organic growers in the Pacific Northwest. Small-scale organic producers in New England have different needs, and the farmer will draw on work from previous SARE grants and

focus specifically on fertility management, a key topic for this N-intensive crop. He will compare the impact different types of organic fertilizers on the 'Cascade' variety and measure biomass, quality, and vigor. Outreach will be through extension, field days, and a winter conference, and supporting handouts and photographs.

**\$4,417**

FNE11-705

## **Queen-bee-improvement program-building on the foundation of Pennsylvania survivor stock**

Jeffrey Berta, Always Summer Herbs, Slippery Rock PA

Varroa mites and associated Colony Collapse Disorder have brought substantial losses to beekeepers, averaging about 30 percent mortality since 2006. But the recent discovery of a honeybee behavioral trait called varroa-sensitive hygiene, or VSH, breaks the lifecycle of the mites. There are two commercially available queen bee stocks that exhibit this trait, and the farmer will evaluate these queens against a control to see if the VSH behavior also coincides with adaptability to cold winters and humid summers. The longer-term goal is to selectively breed any superior VSH bees with Pennsylvania Survivor stock to reduce replacement costs and minimize the need for chemical treatments, leading to purer honey and a more stable honeybee population. Outreach will be via producer conferences and the farm web page, along with a summary handout that will be made available to extension, other beekeepers, and at farmers markets.

**\$14,984**

FNE11-706

## **Feasibility of shift-trellis use for northern blackberry production**

Roy Brubaker, Village Acres, Mifflintown PA

Shift-trellises, while not in widespread use in the region, are designed to allow for different configurations according to the stage of bramble cane growth, flowering, and berry formation. They are also said to improve light penetration and overall vigor and reduce labor and injury from thorns at harvest. The farmer will compare the shift trellis to conventional T-shaped posts and wire on two varieties of blackberries and compare berry count, quality, and ease of harvest over several pickings to see if the increased productivity and harvest claims justify wider adoption. Outreach will be through grower conferences and presentations and via the farm website.

**\$3,318**

FNE11-707

## **Using new frames and foundation as a way to control disease in honeybee hives**

Craig Cella, High Valley Farms, Loganton PA

This project seeks to confirm interesting findings from a previous SARE grant that tested the use of gamma irradiation as a way to improve colony hygiene and control diseases in honeybees. The technique was shown to work, but proved prohibitively expensive. The farmer will test a lower-cost system of hive hygiene that involves discarding infected brood combs and cleaning all wood components with a bleach solution combined with preventive feeding protocols for new hives during the

## **Farmer Grants, continued**

first month. He will recruit and support eight cooperating beekeepers by providing frames, foundations, bees, and training, and the results will be disseminated through producer networks and the agricultural media.

**\$15,000**

FNE11-708

### **The effect of two levels of cluster thinning on crop yield and quality for Cabernet Sauvignon and Cabernet Franc grown in the eastern U.S.**

Lawrence Coia, Coia Vineyards, Vineland NJ

The crop yield of wine grapes is generally inversely correlated with quality, and this yield must also be in balance with the vigor of the vine and, more specifically, with the optimal ratio of canopy leaf area to crop weight. The farmer will see if increasing the canopy area to crop weight ratio by decreasing the yield per vine will result in better wine grapes as measured by Brix, wine total phenol content, and taste, with an overall goal of improving wine quality and consistency from year to year. Outreach will be through wine producer organizations, scientific meetings, trade journals, and extension.

**\$10,220**

FNE11-709

### **Evaluation of the insect resistance of interspecific squash hybrids**

Bryan Connolly, Green Dragon Farm, Mansfield Center CT

Maxima squash—Hubbard, buttercup, giant pumpkin, and kabocha squash—are valued for their ornamental and edible qualities, but they are all susceptible to cucumber beetles and squash vine borer. Demand is particularly strong for kabocha and buttercup, but controlling pest damage is expensive and labor intensive. The farmer will field test a hybrid squash, 'Tetsukabuto,' that may offer a middle ground between pest resistance and gourmet and ornamental qualities,

and he will cross-pollinate 'Tetsukabuto' with the more ornamental maxima varieties to see if an attractive gourmet hybrid squash can also be created for pest resistance. Outreach will be through organic newsletters, conferences, and, if the project succeeds, to seed suppliers.

**\$4,022**

FNE11-710

### **Organic no-till establishment of hairy vetch as a cover crop into hay sod and sensitivity to carbon amendments**

Dorn Cox, Westwick Farming LLC, Lee NH

Organic no-till has a wide range of benefits—from reduced erosion to improved soil to eliminating reliance on chemical controls—but applying these methods to cover crop establishment is tricky because of the competitiveness of vetch with sod. Recent no-till and low-till research using front- and rear-mounted equipment indicates that wood ash and biochar may create conditions that favor vetch cover crops, and the farmer will conduct replicated trials with high-carbon amendments and also separate out the influence of liming and potassium sources. The goal is to increase the success rate and adoption of organic no-till cover crops, and outreach will be through twilight meetings, the agricultural media, and extension.

**\$11,525**

FNE11-711

### **An experiment on the effectiveness of irrigation and cover cropping to produce sustainable hops in Maine**

Krista Delahunty, Aroostook Hops, LLC, Westfield ME

Brew pubs and craft brewers seek local and organic hops, but most of the guidelines for growing hops are not tailored to the climate or typical farm size found in the Northeast. The farmer will explore cover cropping and irrigation methods and their impact on yield and labor on a one-acre organic farm. She will use four common varieties in third-year, second-year, and new hops plantings to test the cost-effectiveness of irrigation with alfalfa and straw so that other Northeast farmers can

make informed decisions about adoption. Outreach will be through a producer organization, a farm website, and a detailed report describing project results, changes in yield, and net revenue.

**\$10,197**

FNE11-712

### **Feeding minerals and supplements in an organic pastured poultry operation**

Carly DelSignore, Tide Mill Organic Farm, Edmunds Township ME

Organic grain is expensive, and improving feed efficiency and meat quality using supplements and minerals has the potential to improve farm profits; there may also be downstream benefits in improved human and soil health through the introduction of essential minerals into finished meat and manure. The farmer will test Baccatuna Clay, Azomite, and Fertrell Mineral, with and without Meneffee Humates, against a control flock that is fed normal organic grain and grit to see if there is improved weight gain, enhanced manure content, and enriched and more valuable meat containing more nutrients, less harmful bacteria, and richer flavor. Results will be shared through a report, summary handout, presentation at farmer-to-farmer conferences, the agricultural media, as well as weekly farm tours and statewide open-farm days.

**\$14,007**

FNE11-713

### **Grass pellet fuel for electricity production**

David Dolan, Flying Rabbit Farm, Otego NY

Marginal farmland tends to support only native grasses and weeds, and this project will explore whether these otherwise unusable acres can be used to produce grass-based electricity. The farmer will build and test a gasification unit that will convert grass pellets into a biofuel that runs a small engine and produces electricity; waste heat from the engine will be diverted to a greenhouse. The overall goal is to explore whether grasses on marginal land can be converted to a new crop that reduces reliance on fossil fuels. Outreach will be through the regional agricultural media and a nonprofit network that reaches a

wider audience of consumers and farm activists.  
\$15,000

FNE11-714

**Amending pasture soil to decrease weed presence while improving forage species composition and quality**

Bill Errickson, Zephyr Hill Farm, Brooks ME

Pastures decline over time while pasture weeds increase, and normal renovation practices include cultivation, reseeding, and applying herbicides; these practices tend to lead to soil compaction, erosion, and a compromised environment. The farmer will see if custom soil tests, followed by amendments that enhance fertility, will reduce weeds through improved hay vigor. He will analyze forage nutritional content and monitor weed presence in test and control plots, and outreach will be through on-farm workshops, summary handouts, off-farm presentations to producer gatherings, the agricultural media, and extension.

\$10,706

FNE11-715

**A mechanical hops picker for small-scale acreage**

Larry Fisher, Foothill Hops, Munnsville NY

Hops are a valuable crop that can be profitable on small acreage, but there is a lot of labor involved in hand-picking the crop and the harvest window is very short. Right now, mechanical hops harvesters are large, immobile, and unsuitable for sharing across multiple small farms; to address this gap, the farmer has spent several years developing and refining a mechanical harvest prototype suitable for a small farm. The farmer will develop a design for a small-scale hops harvester that can be manufactured in small quantities and offer detailed plans, including materials, costs, labor, and other key information. He will then track the number of harvesters purchased or built by others using his plans, and outreach will be through grower networks, conferences, and prototype demonstrations.

\$14,770

FNE11-716

**Adaptation and integration of remote setting, selective breeding, and triploid production technologies to revitalize oyster culture in Delaware Bay**

Thomas Foca, Harbor House Seafood LLC, Port Norris NJ

Oyster production along the region's sea-coast has declined drastically from historical levels, affecting the economy of certain communities and leading to a reliance on imports to meet consumer demand. The farmer will address oyster production issues by combining advances in shellfish husbandry to see if selectively bred, hatchery-produced triploid larvae can be grown economically and survive first-year mortality from predation. Outreach will be through the shellfish producer network, a fact sheet available on a statewide website, and at industry and scientific meetings.

\$15,000

FNE11-717

**A multipurpose tool for small farmers**

Fred Forsburg, Honeyhill Farm, Livonia NY

Garlic grown on small farms is generally planted by hand, which is labor intensive, and the farmer has developed a prototype garlic planter platform tool to address the time and effort involved in planting cloves each fall. Early results show a fivefold increase in planting speed and dramatic labor reductions. To refine the multifunctional design for maximum simplicity, affordability, and ease of use, the farmer will build and test a general base unit and garlic-specific and potato-specific platforms, and he will then work with an engineer to develop plans, costs, and material lists. Testing will include measuring performance, ease of operation, safety, adjustability, and other refinements, and outreach will be through farm field days, demonstrations, workshops, and the agricultural media.

\$13,021

FNE11-718

**Planning tool for succession planting of crops, particularly lettuce, broccoli, and corn**

Steven Fulton, Blue Ox Farm, Enfield NH

Crop planning on diversified vegetable farms can be very complicated, but is important to meet the needs of grocery, farm stand, and other markets that seek a steady supply of all farm products. The farmer will track the time needed to grow two varieties of lettuce, one variety of broccoli, and one variety of corn early and late in the season to gauge the effects of temperature and sunlight over three years. He will then develop a planning tool other farmers can use to plan crop succession, allowing for unusually warm or cool growing conditions. Outreach will be through grower meetings and a statewide vegetable grower newsletter.

\$9,002

FNE11-719

**Establishment of *Miscanthus* (*Miscanthus X giganteus*) as an alternate bedding supply**

Steven Harnish, Central Manor Dairy, Washington Boro PA

Bedding with kiln-dried shavings is a common practice on dairy farms, but recently this byproduct has been diverted to the manufacture of wood pellets for heating, which affects price and supply. The farmer will test whether a sterile hybrid of *Miscanthus* can be used as replacement bedding, and this low-input, low-maintenance crop is no longer as difficult to plant thanks to the availability of plugs from rooted stem cuttings. By evaluating the cost per ton and comparative bedding performance of chopped *Miscanthus* in a free-stall dairy, the farmer will gather data on its usefulness. Outreach will be through farm open houses, the agricultural media, and extension.

\$7,350



## **Farmer Grants, continued**

FNE11-720

### **Maximizing log-based shiitake mushroom production by determining optimal fruiting conditions**

Nicholas Laskovski, Dana Forest Farm,  
Waitsfield VT

Growing mushrooms on low-value forest byproducts increases diversification, but there is guesswork involved in improving and predicting mushroom production. The farmer will investigate submersion variables like air and water temperatures, the degree of colonization, and the ratio of water to air after shock submersions, and he will test whether pH will predict mycelium maturity. He will also explore whether Bromophenol Blue can assess log decay and optimal times to induce fruiting. Results will be shared with both farmers and the scientific community, and, if the results are promising, a new fact sheet will support farmer workshop content.

**\$12,143**

FNE11-721

### **Management of allium white rot**

Amy LeBlanc, Whitehill Farm, East Wilton ME

Allium white rot leads to crop loss and the need to take affected land out of production, and the farmer will test the potential of biostimulation with garlic juice and ground garlic greens from healthy plants as a pest management technique on an organic farm. She will compare the pre- and post-treatment presence of the fungus in the soil and, if the results are positive, develop a management plan for other farmers to adopt. Outreach will be through extension, organic grower associations, an open farm day, and producer newsletters.

**\$8,301**

FNE11-722

### **Growing scab-free apples without fungicides**

Louis Lego, Elderberry Pond Farm, Auburn NY

Apple production is very difficult without organic or chemical fungicides to control

scab, but these applications are costly, time consuming, and can affect beneficial insects and soil health. The farmer will test whether intensive mowing, vacuuming, and pruning can reduce or eliminate scab in an orchard with mixed resistance planted on a wider grid for improved air circulation. The goal is to test a combination of a farmer design for improved vacuuming and an OMRI-approved compost to speed decomposition of remaining orchard debris, and then compare resulting leaf and fruit health against controls. Outreach will be through workshops, both at conferences and on the farm, papers and presentations, and via the farm website.

**\$6,732**

FNE11-723

### **Investigating effects of beneficial microbial inoculants on potatoes**

Marina Machahelles, Shoving Leopard Farm, Red Hook NY

Research indicates symbiotic relationships between certain plants and certain nitrogen-fixing bacterial and fungal mycorrhizae can promote fertility, and the farmer will test a mix of beneficial inoculants against a control to see if these treatments affect the emergence, growth, leaf sap, texture, flavor, and tuber Brix of Red Norland potatoes, and whether improved yield and quality will improve income. Outreach will be through grower websites and newsletters, farmer education events, and the farm's website and newsletter.

**\$3,798**

FNE11-724

### **Organic Brussels sprouts in the Northeast: Variety, pest control, and storage trials**

Robin Ostfeld, Blue Heron Farm, Lodi NY

Brussels sprouts are in high demand from the first frost to December, but they are prone to problems with yield, quality, disease, and aphids, depending on conditions. The farmer will grow six varieties new to the farm to evaluate their disease and heat resistance and storage characteristics; a seventh variety that has been grown before will be tested separately for response to Neem and Safer against an

untreated control. The overall goal is to gather more information on production performance and losses across many varieties, and then summarize the results in a format other farmers can use. Outreach will be through an organic newsletter, a university farm quarterly, and the farm website; if the results warrant it, she will also seek opportunities to present at grower conferences.

**\$6,134**

FNE11-725

### **Increasing maple productivity through dropline and spout replacement**

Michael Parker, Parker Family Maple Farm, West Chazy NY

Research on new designs for spouts and tubing used in maple production have been conducted in controlled settings on a limited scale, and the farmer will conduct real-world, larger-scale trials of these emerging devices that may improve sap yield. Building on information gathered in 2010, the farmer will map and label the different mainline and tubing systems over nine separate sugarbushes, each with its own tank, and track yield, sugar concentration, and vacuum levels. He will also calculate the labor and other costs to determine optimal configurations. Outreach will be through research and extension, producer media, producer conferences and workshops, and a webinar.

**\$6,920**

FNE11-726

### **Hops trellis systems comparison: High versus low**

Matt Richardson, Ocean State Hops, Exeter RI

Traditional hops trellises are 18 feet or more, but many farmers in the Northeast are using 12-foot trellises because of the difficulty and labor involved in installing and using taller supports. Lower trellises are generally understood to have lower yield, and the farmer will compare high and low trellises to quantify more precisely these differences and to see if the cost and labor savings of low trellises outweigh the disadvantage of a smaller crop. He will track growth habits, pest management,

fertilizer and water use, and crop yield, and outreach will be through a grower alliance, grower conferences and workshops, and extension.  
**\$14,077**

FNE11-727

### **Raising figs in high tunnels in the Northeast**

Maurice Sheets, Woodland Produce, Fairton NJ

High tunnels call for high-value crops to justify the cost, and the farmer will evaluate figs as a candidate for high-tunnel cultivation. He will track yield, season extension, bird damage, labor, and overall profitability, and will also compare how well outdoor fig trees tolerate winter cold and bird damage and whether they come back from the root each spring. The overall goal is to evaluate whether figs are profitable enough to earn space in the high tunnel and offer a new, profitable, locally grown product. Outreach will be through the state experiment station, a convention poster, extension, and grower workshops.  
**\$9,799**

FNE11-728

### **Winter grazing in the Northeast**

Ridge Shinn, Out of the Woods Farm, Hardwick MA

The high demand for grass-fed beef brings with it incentives to extend the grazing season, lowering hay and feed costs and improving profits. The farmer will build on previous trials and systematically graze ten cows and calves over twenty acres that have stockpiled forage growth from the previous season, and then monitor weather, forage quality, and cow and calf condition as compared to the condition of cows and calves eating stored feed. The goal is to develop a model for other farmers that can reduce the number of hay feeding days over the winter, and outreach will be through producer media, the general agricultural media, conference workshops, and farmer-to-farmer learning.  
**\$10,322**

FNE11-729

### **Improving the quality of queen honeybees produced in the Northeast by modifying the standard ten-frame high-body boxes**

Karoly Toth, Toth Apriaries, Somerset NJ

Queens and bee packages from warmer climates do not fare well in the Northeast, and the farmer will test whether standard ten-frame hive boxes, modified to have two four-frame units with screen bottoms and variable entrances, will affect survival rates and the quality of queens. He will also explore whether these specific qualities can be used for future queen selection, improving overall hive adaptability and reducing failure rates. Outreach will be via beekeeper associations, an on-site demonstration, and extension.  
**\$14,971**

FNE11-730

### **Evaluation of twelve yellow-flesh peach cultivars for organic production in the Northeast**

James Travis, Apple Tree Vineyard and Farm, LLC, Fairfield PA

Bacterial spot and brown rot both limit organic peach production, and organic growers are at a disadvantage when managing this valuable crop. The farmer will evaluate selected peach cultivars for their susceptibility to these diseases and for overall vigor and firmness, and he will also deploy perpendicular-V tree training to increase exposure to sunlight and improve air circulation with the overall goal of optimizing peach production in an organic orchard. Outreach will be through extension, face-to-face contact with other farmers, and the agricultural media, and a final project summary will be distributed in response to inquiries.  
**\$14,536**

FNE11-731

### **Farmer-built spelt dehuller**

Nigel Tudor, Weatherbury Farm, Avella PA  
Spelt offers a diversification opportunity, especially for organic growers, but dehulling the grain so it can be used as a staple food or milled into flour is very hard to do on a small scale—commercial

dehullers are simply too expensive. The farmer will build a prototype dehuller suitable for smaller acreage, scaling down and adapting existing technology for both cost and volume. Outreach will be through the distribution of plans, photographs, and project notes both in print and on line, and through field days, workshops, and an organic grain website.  
**\$7,369**

FNE11-732

### **Dynamic attachment frame system**

Eric Vander Hyde, Barefoot Gardens, Doylestown PA

Small to mid-sized diversified farms, and in particular CSAs, call for a wide range of implements for different field tasks and thus a great deal of switching and adjusting, which uses both labor and time. The farmer will develop a new attachment frame system that uses a single frame with drop-in attachments that can be pre-set for seasonal tasks so that weed suppression, productivity, and crop quality can increase through all stages of production. Outreach will particularly target entry-level and small-scale farmers via a field day and farm-based workshop, the online and print agricultural media, and through demonstration videos posted to the web.  
**\$14,900**

FNE11-733

### **Improving growing practices for processing tomatoes using the Rodale roller crimper**

Theresa Viggiano, First Field, LLC, Princeton NJ

The Rodale roller crimper mechanically kills a cover crop to create a natural mulch that improves the soil and water retention, but may also have promise in processing tomatoes—since processed tomatoes fetch a lower price than whole tomatoes for market, mechanical and efficient harvesting is necessary. The farmer will investigate whether the roller crimper will produce a rye mulch that will decay quickly and not interfere with the mechanized harvest; she will also look at foliar and fruit disease using the roller crimper as compared to conventional pro-

## Farmer Grants, continued

duction methods. Outreach will be via the Rodale website, the state experiment station, and a webinar.  
\$9,290

FNE11-734

### The use of Plumbagin as an organic anthelmintic against *H. contortus* in sheep

Samuel Yoder, Green Alchemy, Kutztown PA

Suppressing parasites in organic livestock grazing systems is challenging and calls for rotation, genetic selection, and reliance on organic wormers that may not always be effective. The farmer will study the efficacy of *Plumbago zeylanica* extract, or Plumbagin, to see if this natural substance can prevent or treat *Haemonchus contortus* in sheep. He will also gather information on the efficacy of other organic anthelmintics, including the results of this study, and produce a single reference useful to other farmers. This will be posted to the farm website, disseminated through a statewide sustainable farming association, and offered to extension.

\$14,916

FNE11-735

### Effects of pole lima production in north/south versus east/west row placement

Edward Zitvogel, Zitvogel Farms, Bridgeville DE

Pole lima beans can be very profitable for small farms, but prolonged heat during flowering makes the plant drop its blooms. The farmer will investigate whether sun exposure and the prevailing wind affect blossom drop and heat stress by comparing his 800 row feet of east-to-west plantings with 800 new feet running north to south and then tracking air temperature and other weather variables to see if there are significant differences in yield by orientation and by inner and outer rows. Outreach will be via extension print and online publications, and will be offered at farmer gatherings and festivals.

\$5,375

# Sustainable

This year, Northeast SARE awarded \$112,580 for eight Sustainable Community Grants. These grants are the result of a collaboration with the Northeast Regional Center for Rural Development; projects connect sustainable agriculture and rural economic development in innovative ways.

This year's projects ranged from \$8,755 to refine the community supported agriculture model so that shares are more convenient and affordable to \$15,000 for improved inventory management for local fresh fruit and vegetables.

CNE11-084

### Market Basket

Angela Berkfield, Post Oil Solutions, Williamsville VT

Local food is often out of reach for low-income families—farmers markets tend to be expensive and CSA shares require a large up-front payment and transportation to the farm to collect weekly shares. A hybrid model, tested in 2010, will allow participants to opt in for the full season, monthly, or weekly, and shares will be brought to a convenient off-farm location. Consumer cost will be comparable to chain supermarket offerings, and participants can use cash, check, or electronic food stamp benefits. The goal is to supplement farmers market and CSA efforts and build awareness of local food choices through cooking demonstrations, community meals, and coordination with existing farm-to-school efforts. Outreach will be through a how-to guide and presentations at workshops and conferences.

\$8,755

CNE11-085

### Improving technical assistance for emerging food-based businesses

Margaret Christie, Community Involved in Sustaining Agriculture, Inc., South Deerfield MA

Adding value to locally produced food helps to scale up local products to meet growing demand, but conventional business development and financing agencies generally don't understand the need for new approaches or the challenges facing farmers and food entrepreneurs. The project manager will convene, network, and train these development entities so they can become more responsive, and will also work with a community development organization and an incubator that has a commercial kitchen. Outreach will be

# Community Grants

through workshops, a newsletter, distribution of a resource guide, and a summary of lessons learned as the project unfolded.

**\$15,000**

CNE11-086

## **Increasing farm profitability through value-added training and certification**

Alison Clarke, Small-Scale Food Processors Association of New York, Rochester NY

Direct sales are a growing segment of the farm economy, and the project manager will develop and deliver an "Adirondack Certified" curriculum that will train farmers in marketing and adding value, and then follow up with support services and one-to-one mentoring. Outreach will be via extension and agency newsletters and the agricultural media.

**\$14,699**

CNE11-087

## **Pocahontas County marketing coordinator**

Jim Cooper, Pocahontas County—GVEDC, Maxwelton WV

Preliminary work with area farmers indicates a need for a marketing coordinator who can act as a link between the farmers and restaurants, food co-ops, and retail. The project manager will increase staffing to broker sales and support production planning with the overall goal of building new markets, securing consumer confidence, and increasing farm profits. Outreach will be through a compilation of results for area farmers, the local and statewide media, and through a farm coalition and development agency.

**\$14,175**

CNE11-088

## **Many Hands Farm Corp**

Ryan Karb, Many Hands Farm Cooperative, Amherst MA

Inexperienced and transient farm workers benefit from training and support that increases their competency and leadership. The project manager will offer on-farm fieldwork training with the goal of leveraging immediate local job opportunities during the season and future opportunities as full-time apprentices, assistant managers, and farmers. Outreach will be through program alumni networking, a descriptive website, on-farm workshops, and CSA distribution days.

**\$14,995**

CNE11-089

## **Creating a local fair trade label**

Kristina Keefe-Perry, Northeast Organic Farming Association of New York, Rochester NY

Consumers have shown willingness to pay a premium for products that benefit low-income farmers in developing countries, yet many are not aware of the economic struggle of farmers close to home. The project manager will test a local fair trade labeling campaign to see if consumers will also pay a premium to local farmers who pledge to pay living wages to their workers and adhere to fair trade standards developed by previous SARE grant. Outreach will be through the organic and agricultural media, conference workshops, and through an expanded purchasing guide that will identify fair trade farmers for consumers.

**\$14,956**

CNE11-090

## **Producer inventory management for fresh fruit and vegetable sales to retail outlets**

Willie Lantz, University of Maryland, Mt. Lake Park MD

Managing retail markets for local fresh fruits and vegetables can be difficult, since maintaining quality is an issue. Adapting a model used by bakeries, the project manager will implement a daily delivery-and-removal system that will improve the quality of locally grown food and return a higher proportion of the retail dollar to the farmer. Outreach will be through an extension fact sheet, grower conferences, and information on the web.

**\$15,000**

CNE11-091

## **An experience economy approach to enhancing Chautauqua-Lake Erie area wine tourism**

Donna Quadri-Felitti, Iowa State University of Science and Technology, New York NY

Farmers must work together to provide a varied and attractive experience for tourists, and the project manager will offer targeted workshops to farmers in New York and Pennsylvania that draw on information from businesses and visitors. The goal is to strengthen agritourism and farm sales and to build both customer satisfaction and return business. Outreach will be through workshop materials posted to the web, extension publications, and news releases.

**\$15,000**



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## **Go green—get *Innovations* on screen**

If you are reading a printed copy of this newsletter, you should consider the benefits of getting an electronic version instead. The less money SARE spends on things like printing, paper, and postage, the more we can spend on outreach, grants, and other initiatives. To make the switch, send your e-mail address to [nesare@uvm.edu](mailto:nesare@uvm.edu).

### ***Dates to remember:***

**August 1:** Preproposals due for Research and Education and Professional Development awards.

**November 1:** Invited full proposals due for Research and Education and Professional Development awards.

**October 19:** Sustainable Community Grant proposals due.

**November 1:** Partnership Grant proposals due.

**December 1:** Farmer Grant proposals due.