ME, NH, VT Tri-State Training as a Regional Approach
Progress Summary Report – July 1, 2008 – October 31, 2010

This report contains a summary of the program progress and outcomes during the first 2 years and 4 months of a 3-year funded initiative. Final project outcomes will be measured and reported after completion of the third year.

Program initiative

Maine, New Hampshire, and Vermont face very similar challenges in maintaining their capacity to serve the educational needs of agricultural producers in a changing agricultural environment that includes increasing demand for local foods, higher energy costs, water quality concerns, and global climate change. Many Extension positions have been lost in each state due to retirements and budget cuts, leaving reduced capacity and/or programming gaps. Also, while there is some programming that crosses state lines, more could be done to facilitate the sharing of knowledge among different agricultural organizations across the region.

The objective of our tri-state training project is to create regional communities of expertise in **local grain production** and **on-farm energy strategies,** emerging high priority topic areas facing farmers in our region. For each topic, a team of 3 agricultural service providers from each state (Extension, NRCS, crop advisors and farmers) is increasing knowledge and capacity by participating in coordinated training events, pursuing individual training objectives, and working individually with at least two farmers on related on-farm projects or on case studies. By utilizing a multi-state approach, we are fostering collegiality among the trainees and creating communities of regional knowledge around these critical agricultural concerns. We anticipate this method becoming a new model for interstate cooperation within agricultural programs in the Northeast.

Program Description

1. Three educators from each of Maine, Vermont, and New Hampshire were recruited for each of two training groups (18 total trainees).
2. These trainees participate in intensive multi-year professional development programs delivered through group workshops, field tours, and online interactions.
3. Trainees submit an Individual PD plan that includes action goals and agree to work with at least two farms each to implement new knowledge either via on-farm demonstration projects or via case studies of farm implementation. Project leadership team provides individual support and monitoring of trainee needs.
4. Trainees interact via blogs and webinars to exchange knowledge and define future training agendas.
5. Trainees can access funds for travel, registration, and on-farm demonstrations to implement their PD plans. To date, 6 local grain and 2 on-farm energy trainees have pursued their own individual professional development, including participation in:
    - Extension-sponsored field trip to Quebec to visit a farm, a mill and a bakery involved in their local bread wheat system.
    - USDA OREI research project-sponsored trip to Denmark to tour area farms, mills, university research sites, and other businesses involved in small-scale grains production.
    - Professional conference with several presentations on small grain research for food and feed.
    - Individual visit with Cornell experts to learn about plant pest identification and grain testing.
    - 3-day farm energy audit class offered by EnSave through a local USDA RC&D that included hands-on training at dairy and vegetable farms.
    - University of Maine Energy Training seminar series for professionals.
6. Trainees complete program evaluations. Evaluations guide future project activities.

Outcomes from ME, NH, VT Tri-State Training Program

Local Grains Production	On-Farm Energy
Educators' Outcomes **8 of 9 educators** learned new information at the trainings about small scale equipment, different tillage methods, grain diseases, small scale malting, alternative crop rotations, and current research. **7 of 9 educators** are working with 8 farmers on specific projects: • Evaluating bread wheat as a rotation crop for potatoes • Evaluating small grains as a forage for dairy • Testing topdress organic nitrogen sources for effects on wheat protein and quality • Providing one-on-one technical assistance on post-harvest and storage considerations • Exploring grains to extend the grazing season on diversified livestock operations • Assisting with collaborative milling and marketing strategies **5 educators** provided technical assistance to 100 farmers **3 educators** are assisting newly formed grain farmer groups. One group is working on developing a white-flour mill for locally produced wheat. .	**Educators' Outcomes** **8 of 9 educators** learned new information at the trainings, about alternative heating options, equipment and production issues, biodiesel facility considerations, and costs associated with methane digesters. **7 of 9 educators** have applied this new knowledge in their work with farmers. Examples: one trainee said he was better able to advise farmers on the range of energy options available; two trainees have disseminated information on alternative heating options to 11 greenhouse operators. **3 of 9 educators** are working with 7 farmers on specific projects: • Solar thermal projects - hot water on 2 livestock farms and root zone heating in 1 greenhouse operation. • Improving energy conservation of controlled atmosphere storage facilities on 3 orchard operations. • Assisting 1 vegetable grower reduce energy demands of refrigerated storage • Working with 1 garlic grower on an energy efficient drying tunnel. • Economic evaluation of methane digesters on 5 dairy farms. • Exploring feasibility of small-scale high-solid dairy manure digester, 2 outreach events about project, preparing handout about feasibility study. • Preparing case study of alternative energy project that complements dairy, slaughterhouse facility, compost operation, and forage and bedding sales businesses. • Exploring geothermal heat for a greenhouse operation. **1 educator** is part of a team on biomass burning energy production systems and a methane digester project
Farmers' Outcomes As a result of their work, educators reported that famers with whom they work are: • Using variety trial result to decide which varieties to plant. • Frost seeding spring wheat • Testing the quality of their grains. • Planting grains like triticale as cover crops. • Experimenting with wide row planting with cultivation and seed multiplication techniques.	**Farmers' Outcomes** As a result of their work, educators reported that: • 3 orchardists and 1 vegetable farmer have installed energy conservation improvements in their storage and processing facilities • 1 garlic grower installed recommended new drying tunnel • 1 greenhouse grower installed solar thermal root zone heating • Solar thermal water heating is being adopted at dairy farms
Leveraging 5 educators submitted grants to support their projects with farmers (3 SARE Partnership, 1 REAP, and 1 USDA Rural Business/Cooperative Services; 4 of these were funded).	