

Situation:

Belknap County's agricultural industry is comprised of more than 48 small family farms and horticulture businesses, offering a diverse selection of plant and animal crops and landscape services. These family businesses are an integral part of the local community, providing fresh food, employment and top quality goods and services. Just as important, fields maintained for agriculture buffer residential and commercial development and provide the working landscape that makes New Hampshire's Lakes Region attractive to visitors worldwide.

UNH Cooperative Extension's Response:

For the farming community to thrive, it must continue to be economically and environmentally sustainable. Cooperative Extension in Belknap County is uniquely positioned to provide educational and research-based programs to assist agricultural businesses and natural resource firms in meeting these goals. Amy Ouellette, Belknap County Agricultural Resources Educator, and campus-based Extension specialists understand the challenges and opportunities faced by New Hampshire farms and have forged important partnerships within the region. Belknap County citizens turn to UNH Cooperative Extension as a source of non-biased, accurate information.

Amy, along with many Extension educators and specialists, provides training to Master Gardener volunteers in soil science, integrated pest management (known as IPM), fruit and vegetable production, lawn care, and landscaping. Currently, there are 43 active Master Gardeners in Belknap County helping with Extension programs and contributing to local community service projects. In addition to the 262 phone and 27 drop-in inquiries by the general public that were handled by Amy this year, 282 phone calls from Belknap County citizens were answered by Extension's Family Home and Garden Education Center this year. The most common topics were vegetable gardening, fruit tree pruning, lawn care, poisonous plant identification, landscaping, household pests, water quality and backyard livestock.

How We Make a Difference:

- There are 86 licensed pesticide applicators residing and/or spraying pesticides in Belknap County. These people are farmers, landscapers, golf course superintendents, municipal employees, exterminators, and parks and recreation department workers. Our *Pesticide Safety Education Program* teaches pesticide applicators about the responsibilities of environmental and human safety, sprayer calibration, integrated pest management, pesticide storage and proper disposal of pesticides.
- This past July, Amy diagnosed tomato and potato plant diseases at a farm in Sanbornton and made recommendations for pesticide application that saved both crops. The extended summer rains caused widespread, severe fungal diseases of plants throughout the region. These 12 acres of potatoes are valued at \$120,000 and 900 tomato plants produced a harvest worth at \$27,500 (National Agricultural Statistics Service, USDA, 2007). The farmer managed to harvest almost 100 percent of both crops. Previous to this situation, Amy provided education to the farmer preparing him to obtain a private applicator, restricted use pesticide license. Had the farmer not been licensed, he wouldn't have been able to apply the pesticides necessary to control these plant pathogens.
- UNH Cooperative Extension specialists accompanied Amy on 24 site visits, presented at Belknap County workshops, and made disease diagnosis in conjunction with the Belknap County Ag Resources Educator. Stan Swier, Extension Specialist/Professor, is presently working with the Tilton Park Commission to address an ash borer infestation in the newly planted ash trees at the Riverfront Park. His IPM recommendations are projected to save the town of Tilton thousands of dollars in tree replacement costs. Extension Specialist/Professor Alan Eaton visited four different Belknap County farms in the past year to evaluate pest problems. His IPM recommendations are estimated to have reduced pest injury in apples, sweet corn, and squash production in the county, saving producers money and reducing the impact of pesticides on the environment.

- UNH Cooperative Extension Specialist/Professor Emeritus John Porter met with four dairy and livestock producers in 2008, providing advice to one Gilmanton dairy farm that saved the owner about \$5,000 in construction errors. John has provided on-going support to a goat farm in Gilmanton Iron Works, and the owner attributes her now full-time status with the assistance she has received from UNH Cooperative Extension.
- The grape harvest at Camilla Vineyard of Belmont more than doubled this year, compared to the two previous years. Amy provided education necessary for this grower to obtain his private applicator, restricted use pesticide license. Over the course of the past three years, soil and plant tissue analysis through UNH Cooperative Extension have given this grower the information he needed to fertilize his crop for maximum production and minimal impact to soil and water. Becky Grube, Sustainable Horticulture Specialist, interpreted soil test results and customized a plan for fertilization. In addition, this grape crop was hit by hail two times in 2008 and as a result of injury, Botrytis bunch rot set in by early fall. The grower would most likely have lost his entire crop, had he not consulted with Amy for pesticide recommendations. *“Had Amy not been there, I would have been in trouble. There is no place else to go for the answers to these questions.”* – Dana Clarke, Camilla Vineyard, Belmont
- A strawberry grower in Gilford asked Amy to diagnose a problem that collapsed two acres of strawberry plants on his farm. This disease, *Verticillium* wilt, is normally a problem on poorly-drained soils. Although the grower had located the crop in a well-drained field, the season’s excessive rains led to flooding and crop disease. Amy recommended application of a pesticide to halt the spread of *Verticillium* and installation of underground drainage after the crop is harvested in 2009. These measures will result in thousands of dollars saved and healthy pick-your-own strawberry crops for years to come.
- Amy Ouellette and Mike Sciabarrasi, Extension Specialist/Professor of Agricultural Business Management, consulted with a Meredith farmer and his long-term employee to whom he wishes to transition his business. In New Hampshire, it is rare to find lawyers and accountants with experience in non-traditional farm transfer and farm estate planning. Information on farm record keeping, filing as schedule F tax form and setting up a limited liability corporation was shared.
- One hundred twelve (112) home gardeners attended eight workshops on the following topics: home apple production, native pollinators, maintaining fields for wildlife, pruning ornamental plants, local food production systems, growing garden tomatoes, soil preparation for the home garden, pesticide safety in the home and garden. Extension is the only source for research-based, non-biased information on these topics. The university has nothing to sell, no horticultural or agrichemical products to promote.
- Forty three Master Gardeners contributed 798 hours of time in Belknap County during 2008 (at the current rate for volunteer time of \$19.15, this represents \$15,282 in volunteer time provided for county projects). Master Gardeners are trained volunteers who share their enthusiasm for gardening with the public. By serving as volunteer educators, Master Gardeners help UNH Cooperative Extension programs reach more people. Recently, two courtyards of the Belknap County Nursing Home were landscaped by Master Gardener volunteers. All plants, materials and labor were contributed with funds raised at the Master Gardeners spring plant sale, held each spring in Tilton. These volunteers gave the Belknap County House of Corrections \$500 toward the farm garden program. Amy Ouellette provided technical information at his request, to Superintendent Grenier throughout the growing season.

***The University of New Hampshire Cooperative Extension is an equal opportunity educator and employer.
University of New Hampshire, U.S. Department of Agriculture and N.H. counties cooperating.***