Title:	A Comprehensive, Interdisciplinary Vermont Extension IPM Program Addressing Stakeholder Priorities and Needs

Sponsoring Agency	NIFA	**Project Status**	COMPLETE
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Program Code: QQIPM **Program Name:** Extension Integrated Pest Management -

Project Director

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Comparison of Three Organic Apple

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Recipient Organization

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Performing Department

Plant & Soil Science

Co-Project Directors

{NO DATA ENTERED}

Departments

{NO DATA ENTERED}

Non-Technical Summary

Vermont is a very rural state; agriculture is essential to the vitality of its rural communities. The coordinated, multidisciplinary Vermont IPM Program addresses essential IPM needs as identified by stakeholders in the state as well as advances the goals of the National IPM Roadmap to continue to build sustainable pest management systems that reduce the potential risks to human health and the environment. The overall goal of the Vermont IPM Program is to reduce economic, health, and environmental risks associated with pest management activities in the following emphasis areas using a trans-disciplinary approach that includes alternative and organic techniques: Agronomic Crops; Specialty Crops (apples, cold climate winegrapes, greenhouse ornamentals, and vegetables/berries); and Consumer/Urban IPM. These areas are closely integrated with a research base and are extremely well matched with the expertise and capacity at the University of Vermont. In addition, the specific IPM programs involve extensive collaboration with grower associations, state/federal agencies, and regional and national institutions. Educational and information delivery methods are diverse and include workshops, training sessions, fact sheets, newsletters, blogs, websites, on-farm demonstrations, and one-on-one education. To determine impacts/effectiveness, each area of emphasis has an evaluation function to identify changes in knowledge/practices and to determine how these changes have impacted economic costs and environmental and health risks. EIPM funds are critical as the foundation which will allow Vermont to continue to address the important local, state and National IPM Roadmap goals of agricultural profitability and sustainability while reducing the health and environmental risks associated with agricultural production.

Accomplishments

Major goals of the project

The coordinated, multidisciplinary Vermont IPM Program addresses essential IPM needs as identified by stakeholders in the state as well as advances the goals of the National IPM Roadmap to continue to build sustainable pest management systems that reduce the potential risks to human health and the environment. The overall goal of the Vermont IPM Program is to reduce economic, health, and environmental risks associated with pest management activities in the following emphasis areas using a trans-disciplinary approach that includes alternative and organic techniques: Agronomic Crops; Specialty Crops (apples, cold climate winegrapes, greenhouse ornamentals, and vegetables/berries); and Consumer/Urban IPM.

What was accomplished under these goals?

Each facet of the VT IPM program accomplished goals to reduce economic, health and environmental risks associated with pest management activities.
The UVM MG program trained 600 new Master Gardeners within this 3 year grant with 3 3 hour lectures on specific IPM

practices geared to home gardens and landscapes. The UVM MG Helpline answered over 4000 phone calls and emails on pest and disease questions (95% of all calls are IPM related). The MG staffed tables at 30 farmers markets, 25 agricultural fairs answering questions on disease insect and weed IPM issues. End of year polls revealed home gardeners chose not to use a pesticide for control of the pest/disease or weed as a result of the call to the toll free Helpline.
UVM Greenhouse IPM-Trained over 100 greenhouse operators and workers on intensive IPM training resulted in reduction from 50-100% of chemical insecticides in greenhouses as a result of IPM scouting and training. 250 growers from VT, ME and NH attended IPM workshops over the course of 3 years and have added the use of banker plants to their operations to decrease pest control.
UVM Agronomy program-Over 15 field days have been held around the state in the 3 years of this grant. Important topics such as new diseases, mycotoxin testing, foliar diseases of grasses and grains, insect pests of corn and soybean were covered. Many blogs and website updates were added to reinforce the information learned at the meetings. Over 6 Winter meetings were held addressing/reinforcing new and developing issues in field crops, grains, hops and oilseed crops.
Apple and Grape IPM addressed IPM issues through blogs and newly revised websites and weekly IPM alerts. 3 Tree Fruit Grower annual workshops were held addressing new pests, management of disease through scouting and monitoring and identification of new varieties.
VT Vegetable and Berry IPM- Biweekly disease and pest updates were sent to the grower listserves for the past 3 growing seasons. Over 1,000 samples were diagnosed in the Plant Diagnostic Clinic. Grower polls showed 85% reduced the use of a pesticide as a result of a postive identification and IPM recommendations. A 2014 workshop was held in VT to help growers learn the value of hot water seed treatment and 90% said they would consider doing this in 2015 as a disease management tool.

What opportunities for training and professional development has the project provided?

Please see opportunities for training and professional development in the accomplishments above.

How have the results been disseminated to communities of interest?

Results were dessiminated to different communities of interest in many ways, depending on the audience. For Master Gardeners, info is sent out through MG website, television shows, factsheets at Farmers markets and Fairs throughout the state. Info also dessiminated through talks, summer field meetings, course lectures, blogs, email and phone calls, plus plant samples.
Agronomy info distributed through websites, field days, winter meetings, blogs, websites, YOU Tube videos, phone calls and emails.
Apple and Grape-newsletters, website, IPM alerts, Winter and summer meetings, conferences, site visits, emails and phone calls.
Greenhouse IPM-websites, Winter Meetings, Tri-State IPM conference, factsheets, one on one site vists, phone calls and emails.
Veg and Berry-Bi-weekly listerve, plant samples, phone calls, emails, site visits, winter and summer meetings, press releases.

What do you plan to do during the next reporting period to accomplish the goals?

{Nothing to report}

Participants

Actual FTE's for this Reporting Period

Role	Non-Students or faculty	Students within Stuffing Roles			Computed Total by Role
		Undergraduate	Graduate	Post-Doctorate	
Scientist	0.9	0	0	0	0.9
Professional	0.3	0	0	0	0.3
Technical	1.1	0	0	0	1.1
Administrative	0.1	0	0	0	0.1
Other	0	0	0	0	0
Computed Total	2.4	0	0	0	2.4

Student Count by Classification of Instructional Programs (CIP) Code

{NO DATA ENTERED}

Target Audience

Target audiences included current or prospective commercial organic and conventional growers of field crops and forages and crop consultants; current and prospective greenhouse ornamentals growers and their workers; current and prospective apple and grape growers, current and prospective organic and and conventional vegetable and small fruit growers. Home gardeners, Master Gardeners, the general public and communities are also target audiences for the Vermont IPM program.

Products

{Nothing to report}

Other Products

Product Type

Other

Description

website Bosworth, S. Vt Crops and Soils webpage. 2014. http://www.uvm.edu/pss/vtcrops/

Product Type

Other

Description

website Darby, H. Northwest Crops and Soils webpage. 2014. http://www.uvm.edu/extension/cropsoil/

Product Type

Other

Description

blog Darby, H. Outcroppings blog. 2014. http://blog.uvm.edu/outcrops

Product Type

Other

Description

blog Darby, H. Whats Hoppening blog. 2014. http://blog.uvm.edu/hoppenin/

Product Type

Other

Description

website Darby, H. Northwest Crops and Soils Hops website. 2014. http://www.uvm.edu/extension/cropsoil/hops

Product Type

Other

Description

column in bi-weekly listserve.
Hazelrigg, A. From the Plant Diagnostic Clinic for VT vegetable and berry growers. 2014. 15 bi-weekly posts.

Product Type
Other

Description
website. Hazelrigg, A. Plant Diagnostic Clinic. http://www.uvm.edu/pd/pdc

Product Type
Other

Description
webiste. Hazelrigg, A. Vermont IPM Program. 2014. http://www.uvm.edu/EIPM/

Product Type
Other

Description
website. Skinner, M. Greenhouse IPM . 2014. http://www.uvm.edu/~entlab/Greenhouse%20IPM/greenhouseipm.html

Product Type
Other

Description
website Bradshaw, T. UVM Fruit. 2014. http://www.uvm.edu/~fruit/

Product Type
Other

Description
Hazelrigg, A. 2014. UVM Master Gardener. http://www.uvm.edu/mastergardener/

Changes/Problems
{Nothing to report}