

MEETING THE IPM NEEDS OF VERMONT STAKEHOLDERS

- Program areas are closely integrated with a **research** base and are well matched with expertise at the University of Vermont.
- **Education** and information delivery methods are diverse and include workshops, training sessions, fact sheets, newsletters, blogs, websites, webinars, television programs, video clips, demonstrations, and one-to-one education.
- Each program area involves **collaborative** efforts both within the state and region to optimize resources and expertise to develop effective IPM programs.

VERMONT IS A VERY RURAL STATE

Agriculture is crucial to the vitality of our rural communities. The Vermont IPM program provides a critical foundation that addresses the important local, state and National IPM goals of agricultural profitability and sustainability while reducing the health and environmental risks associated with agricultural production.

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INTEGRATED PEST MANAGEMENT

THE VERMONT EXTENSION IMPLEMENTATION PROGRAM ADDRESSING STAKEHOLDER PRIORITIES AND NEEDS FOR 2014-2017

The Vermont Integrated Pest Management (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 build sustainable pest management systems that reduce the potential risks to human health and the environment.

🍃 122 educational events

🍃 6,393 participants

🍃 2,777 garden questions

🍃 1,065 plant samples

"I learned to plan in advance on how I will watch for disease, what to look for, how to test and minimize risk."

- Vermont Grain Grower



Checking for pests on hops

Program Areas

- Agronomy
- Apples
- Grapes
- Greenhouse
- Landscape
- Communities
- Pest Diagnostic Facilities



United States
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CULTIVATING HEALTHY COMMUNITIES

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Pests on hops



Checking for pests on apples



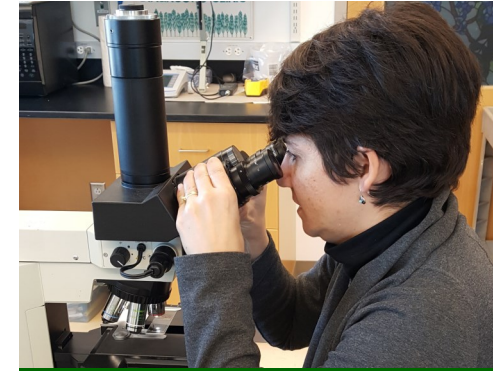
Greenhouse IPM



Ladybug on landscape plant



Community outreach



Assessing plant sample

Agronomy

- Attendees of **Agronomy Field Days and Winter Conferences** learned new information to improve scouting and pest identification skills and strategies to reduce weed, insect, and disease pressure. Changes in these behaviors have improved crop quality and farm economics.
- Winter and spring wheat, dry beans, and hops fields in Vermont, Massachusetts and New York were scouted for the **Grain Disease Survey**. Pathogens were identified with the help of the Plant Diagnostic Clinic. Scouted farms have minimized pesticide applications or adopted new pest control strategies.
- Farms were identified for **Loose Smut Seed Lot Testing** and sent for testing using the embryo count method. Only one of four contaminated seed lots tested positive, indicating better testing methods are needed.

The **Grain Disease Survey** has increased the number of arthropod pests and diseases which farmers can now identify.

Apples & Grapes

- Attendees of **Apple Extension, Outreach and Education** events learned new information to improve management of apple scab and major apple pests. Changes in these behaviors have improved confidence in making pest management decisions and reduced the use of broad spectrum pesticides.
- Attendees of **Grape Extension, Outreach and Education** events have learned pathogen lifecycle information, improving management of major grape diseases.
- Participants in the **Apple IPM Guideline Assessment** increased adoption of IPM practices by 4% and participants in the **Grape IPM Guideline Assessment** increased adoption of IPM practices by 41% through this self-assessment process.

"Your spray reminder/updates are critical to my success. Your insight and reminders are so helpful."

- Vermont Grape Grower

Greenhouse

- Attendees of **IPM First for Greenhouse Ornamentals** events learned new information to increase use of plant-mediated IPM and biological control agents, and improved insect identification, decreasing pesticide use.
- Greenhouse operations enrolled in **IPM First for Greenhouse Ornamentals** increased use of plant-mediated IPM and biological control agents and now regularly scout for pests. Changes in these behaviors have reduced use of pesticides and increased crop quality.
- Attendees of **Tri-State Greenhouse IPM Workshops** have learned new information which has increased use of plant-mediated IPM and biological control agents, improved insect identification and scouting, and improved diagnosis of nutrition deficiencies. Changes in these behaviors have decreased chemical pesticide use and led to more effective use of fertilizers.

Landscape

- Attendees of **Green Industry IPM Ambassador** events learned new information to establish habitat plantings for natural enemies in the landscape and best management practices to reduce the movement of invasive earthworms in nurseries.
- Operations enrolled as **Green Industry IPM Ambassadors** have promoted and expanded IPM adoption in the green industry. Changes in these behaviors have reduced pest outbreaks because problems were detected early.
- Attendees of **Regional IPM Workshops for Landscapers** have learned new information to use biological control agents in landscapes and understand the threat of exotic invasives.

"The Master Gardener Helpline provided answers, solutions and reassurance for many garden issues."

- Vermont Home Grower

Communities

- Students of the **Master Gardener Course IPM Lectures** were introduced to the concept of Integrated Pest Management and were able to adopt specific home garden practices to better incorporate IPM.
- Students of the **Master Gardener Advanced Training Webinars** learned new information about specific home garden IPM practices for managing white grubs in lawns, weeds in turf, and tomato late blight. This knowledge has been passed on to Master Gardener Helpline clients and the general public to reduce the use of pesticides in home gardens.
- Clients of the **Master Gardener Helpline** (home gardeners) have learned information that helped them to choose IPM practices to manage their pest problems. These changes in behavior have reduced use of pesticides in home gardens.

Pest Diagnostics

- Attendees of **Plant Diagnostic Clinic** events have learned new information about current and emerging pests, general IPM practices, and crop-specific IPM practices. This knowledge has led to adoption of IPM practices that have reduced pesticide use.
- Clients of the **Plant Diagnostic Clinic** (commercial growers) have learned new information through sample identification which increased knowledge of both their pests and IPM management options. Increased knowledge has resulted in adoption of IPM practices and less pesticide use by commercial growers.

Use of the Plant Diagnostic Clinic by **Targeted Stakeholder Groups** (apple & grape growers, landscapers) has increased, resulting in adoption of IPM practices in these crops.