

## Vermont IPM Extension Implementation Program 2021-2022 Annual NEERA Report

### IPM Implementation in Agronomic Crops - Heather Darby

#### Field Days & Winter Conferences

- 5 part series Virtual Field Day Fridays virtual webinars (127 attendees) <https://go.uvm.edu/j3lio>

#### Seed Quality Testing

- 270 samples in 2021 analyzed for disease, mycotoxins, germination (small grains, dry beans, corn, hemp)
- Farmers requested mycotoxin testing expanded to include aflatoxin. 7 samples in 2020, 23 samples in 2021.

#### IMPACTS:

- 40% increase in seed quality submissions to the lab since 2014
- 4 farmers reported fewer issues with bean diseases as a result of testing seed for seedborne diseases prior to planting
- 3 farmers reported increased access to markets by providing quality information.
- All samples analyzed for aflatoxin have been below the acceptable limit.

### IPM Implementation in Specialty Crops: Apples and Grapes - Terry Bradshaw

#### Extension Outreach Education

- 160 subscribed to [vtapplegrower@list.uvm.edu](mailto:vtapplegrower@list.uvm.edu) listserv; 292 subscribed to [VTgrape@list.uvm.edu](mailto:VTgrape@list.uvm.edu) listserv
- 116 UVM Fruit blog posts promoting IPM tools, Network for Environmental & Weather Applications (NEWA), advertising IPM meetings <http://go.uvm.edu/ogreu>
- 138 grower consultations
- 16 new videos on redesigned UVM Fruit YouTube <https://www.youtube.com/user/UVMOrchard>
- Presentations (attendees)
  - Apple disease identification & management. UVM Master Gardener Summer program (8)
  - Training on apple production. UVM Master Gardener Summer program (10)
  - New England Cider Apple Project: Early results. Northeast IPM Research Update Conference (18)
- Media
  - 3 Across the Fence Television Segments, WCAX TV (2021 VT Apple Season, 2020 VT Apple Season, COVID Farm Market Safety)
  - Season Check-In. VT Viewpoint radio program, WDEV-FM
  - Ciderology VT Hard Pressed. VT Public Television feature film

### IPM Implementation in Specialty Crops: Ornamentals/vegetables in greenhouses/high tunnels and nursery settings - Margaret Skinner

#### IPM First

- Provided ongoing support for network of over 40 growers through on site or virtual meetings or email.
- 150 consultations

### **IPM Implementation in Communities - Ann Hazelrigg**

#### **Master Gardener Course**

- Delivered through web platform 2021 (197 students)
  - IMPACTS:**
    - 91% moderate/considerable knowledge about use of IPM after course
    - 89-99% moderately/very likely to adopt IPM gardening practices (disease-resistant plants, identify pests, improve timing, cultural practices, use pesticides as a last resort, choose least toxic pesticides, reduce use of pesticides)
    - “I am much more conscious of the role that each of us must play in creating habitats for our local flora and fauna to thrive.”
    - “I gained a lot from this course that I will take into my home and community gardening.”
- 2020 course follow-up
  - IMPACTS:**
    - 84% always/regularly currently use IPM practices in their garden
    - 45% have reduced use of pesticides
    - “Combine several different strategies (mechanical, ecological) in order to avoid pesticide use.”
    - “Encourage and assist neighboring gardeners in the community plot to identify pests and diseases. Suggest non-toxic/organic products and practices for control.”

#### **Master Gardener Helpline**

- 900 questions answered through ASK EXTENSION portal
- 128 phone calls, 812 emails
  - IMPACTS:**
    - 36% clients said diagnostic ID helped to manage their pest problem with IPM
    - 24% clients were able to reduce pesticides as a result of the IPM information
    - \$250 average per client estimated cost savings by reducing pesticide use
    - “I got answers that addressed my specific concerns in a timely way that allowed me to move forward with the understanding I needed for success.”
    - “Helped me to make the problem somewhat better without any pesticides at all.”

#### **Master Gardener Advanced Training**

- 2021 Summer Pest & Disease Updates (75 attendees)
  - IMPACTS:**
    - 100% will improve use of IPM practices when trying to manage pests
    - 67% will reduce use of pesticides
    - “I learned a lot from the pest management session that has already helped me to mitigate damage from pests.”
    - “Learned about the ‘decision tree’ when it comes to IPM”
    - “In-person sessions served to reinforce (course) foundation and allow to fill some of the gaps in understanding.”

### **IPM for Pollinator Health**

### **Greenhouse/High Tunnel/Nursery Pollinator Habitat Program**

- 18 sites (10 in 2020, 8 in 2021) established pollinator habitat plantings, 1 new site trained
- IMPACTS:**
- 100% provided education to customers about their importance
  - Brochure: Native Solitary Bees and How to Support Them <https://go.uvm.edu/2gnc7>
  - 4750 pollinator habitat brochures distributed to retail businesses, outreach events (Bringing In Un-Bee-lievable Beneficials, Native Solitary Bees and How to Support Them)
  - 2 articles American Floral Endowment Thrips & Botrytis Newsletter
  - 5 articles VT Nursery & Landscape Assoc. magazine, The Dirt: <https://go.uvm.edu/85xai>
  - Presentations
    - Supporting wild pollinators on diversified vegetable farms. VT Veg & Berry Growers Assoc., UVM Extension
    - Hands-On Training in IPM. New Farms for New Americans Urban Agriculture & Leadership Program
    - 2 lectures for Master Gardener Pollinator Short Course

### **IPM Implementation in Pest Diagnostic Facilities – Ann Hazelrigg**

#### **Plant Diagnostic Clinic Disease/Insect/Weed Diagnostics**

- 125 Commercial samples diagnosed, IPM information provided.
  - 125 email pictures diagnosed, IPM information provided
- IMPACTS:**
- 71% commercial clients said diagnostic ID helped to manage their pest problem with IPM
  - 21% commercial clients were able to reduce pesticides as a result of the IPM information
  - \$233 average per client estimated cost savings by reducing pesticide use
  - “Maybe we didn't reduce (pesticides) but we at least knew what to spray, when (as a result of the IPM recommendation)”
  - “Yes, with positive ID of certain plant diseases, I have switched to cultivars with bred resistance, avoiding sprays and crop loss.”

#### **Extension Outreach Education**

- Presentations (attendees)
  - Master Gardener
  - Plant Disease lecture. Farmer Training
  - Windsor Garden Club/UVM Master Gardener Gardening Series <https://youtu.be/FuaiGZFyNak> (177)
  - Gypsy Moth training video <https://youtu.be/TPK8hvsjEuo>
  - AX Fellows Disease Scouting Training (10)
  - Saffron Twilight Meeting (25)

### **IPM Education for Pesticide Applicators - Ann Hazelrigg and Sarah Kingsley Richards**

#### **Pesticide Applicator Education**

- 3 lectures for Master Gardener Pollinator Short Course
- VT Pesticide Education: Managing Pests While Protecting Pollinators (1 credit) online training for commercial growers (4 attendees)

**IMPACTS:**

- 67% moderately/very likely to adopt at least one new IPM practice
- 67% moderately/very likely to apply and use pesticides more safely
- “The student walks away feeling encouraged to spring into action and more mindfully and effectively manage pests while creating abundant pollinator habitat and protection.”

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This work is supported by Crop Protection and Pest Management Program [grant no. 2017-70006-27143/1013802] from the USDA National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



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