# **Progress Report**

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diversity of food and feed grains while minimizing impacts on the environment.

Tree Fruit/Grapes-Goals include timely delivery of IPM information to apple and grape growers; orchard pest monitoring training and assessment, and 'natural' grape production evaluation. Outreach communications will integrate site- and region-specific weather and pest models based on NEWA information to provide timely information to growers Greenhouse/High Tunnel/Nursery-Goals include addressing grower needs while improving environmental sustainability and

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- 92% moderately/very likely to adopt at least one new IPM practice
- 2023 VT Pesticide Applicator Meeting
- 92-98% moderate/considerable knowledge of Pesticide Compatibility, Worker Protection Standards, Respirator Safety
   & Fit Testing
  - 90% moderately/very likely to apply/use pesticides more safely
  - 79% moderately/very likely to adopt at least one new IPM practice
  - 2022 & 2023 Initial Pesticide Certification Meetings
    - 51-97% moderately/very likely to apply/use pesticides more safely
    - 81-84% moderately/very likely to adopt at least one new IPM practice
    - "Because I'm so new to the industry, this meeting has been very helpful"
    - "Good overview of the regulations and strategies for pest management"
    - "Went over all the basics and stressed the importance of reading the label"
    - "Helped me consider how to better buy, store, and apply pesticides"

# **Pesticide Applicator Report**

• 103 Spring 2022 recertification credits issued

# **Pesticide Applicator Extension Outreach Education**

- · Mindful Pest Management. Master Gardener Advanced Training Webinar
  - 91-100% moderate/considerable knowledge of reading pesticide labels, pesticide regulations, pesticide exposure/risk
  - 100% moderately/very likely to apply/use pesticides more safely
  - 93% moderately/very likely to adopt at least one new IPM practice
  - "Professional and inviting on a topic that is not always welcome!"
- · On-demand online training
- 98% moderately/very comfortable with the manual information
- 100% moderately/very likely to apply/use pesticides more safely
- 95% moderately/very likely to adopt at least one new IPM practice

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

{Nothing to report}

# How have the results been disseminated to communities of interest?

**Agronomy:** IPM information is distributed through field days, winter meetings, blogs, websites, webinars, Facebook posts, YouTube videos, phone calls, emails and social media. Conference proceedings and meeting videos will be posted to our website.

**Tree Fruit/Grape:** IPM information is distributed through newsletters, website, blog posts, factsheets, on-farm workshop, one-on-one consultations, and presentations at regional grower meetings. Information collected in surveys will remain confidential.

**Greenhouse/High Tunnel/Nursery:** IPM information is distributed through workshops, conferences, presentations, site visits, factsheets, websites, Facebook page and a listserv.

**Master Gardener:** IPM information is delivered through the Master Gardener Course, Master Gardener Helpline, advanced training, newsletter, state reports, website, and emails.

Pollinator: IPM information is distributed through each responsible program area networks.

**Plant Diagnostic Clinic:** IPM information is distributed through sample diagnosis, websites, meetings, presentations, webinars, newsletters, television, radio, factsheets, emails, and phone calls. Northeast Small Fruit and Vegetable IPM Working Group education/research priorities will be shared on the NE IPM center website.

**Pesticide Applicator:** IPM information is distributed through presentations, newsletters, online courses, factsheets, website, emails, and phone calls.

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

# Continuation of objectives:

#### **Agronomy Field Days & Winter Conferences**

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Planning for annual events

#### **Hop and Hemp Disease Survey**

•Survey for diseases and plant health at northeast hop and hemp farms

# **Seed Quality Testing**

•Offer annual seed quality testing for grains and corn farmers

# **Agronomy Extension Outreach Education**

Ongoing activities (presentations, website, etc.)

#### **Orchard Scouting Network**

Training/data collection at selected orchards

#### **Grape 'Natural' Production Evaluation**

•Pest damage, crop yield, and juice quality data collection at selected vineyards

# Tree Fruit/Grape Extension Outreach Education

Ongoing activities (presentations, website, etc.)

# Greenhouse/High Tunnel/Nursery Tri-State IPM

•Planning for next event to be held 2024

# Greenhouse/High Tunnel/Nursery IPM First

•Continue to offer individual grower instruction and IPM Factsheets on key pests

# Greenhouse/High Tunnel/Nursery Extension Outreach Education

Ongoing activities (presentations, website, etc.)

#### **Master Gardener Course**

- •Evaluate 2023 course
- Planning course to be held 2024

#### **Master Gardener Helpline**

Ongoing service answering questions on insect, weed, and disease problems and IPM strategies

# **Master Gardener Advanced Training**

•Offer webinars with factsheets on emerging insect, weed, and disease problems and IPM strategies for management

# **Agronomy Pollinator Education**

Pest Assessment Plan evaluation

#### Greenhouse/High Tunnel/Nursery Pollinator Plantings

Continue to support established habitat plantings and bee nesting boxes

#### Master Gardener Pollinator Education

•Continue to offer on-line presentation and factsheets

#### **Pesticide Education Pollinator IPM Training**

•Continue to deliver pollinator module at Initial Pesticide Certification Meetings

•Invite pollinator speakers to 2024 Vermont Pesticide Applicator Meeting

#### **Plant Diagnostic Clinic Diagnostics**

•Continue to provide stakeholders with rapid and accurate diagnosis and current IPM recommendations that consider pollinator health.

#### Northeast Small Fruit and Vegetable IPM Working Group

•Query group for potential meeting in 2023-2024

# Plant Diagnostic Clinic Extension Outreach Education

•Ongoing activities (presentations, website, etc.)

# **Pesticide Certification Meetings**

2024 Initial Pesticide Certification Meeting

•2024 Vermont Pesticide Applicator Meeting

# **Pesticide Applicator Report**

•Fall 2023, Spring 2024 issues

# **IPM and Pesticide Basics**

•Course will be available Summer 2023

#### **Pesticide Applicator Extension Outreach Education**

•Ongoing activities (presentations, website, etc.)

#### **Participants**

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# Actual FTE's for this Reporting Period

Role	Non-Students or faculty	Stude	Computed Total		
		Undergraduate	Graduate	Post-Doctorate	by Role
Scientist	0.1	0	0	0	0.1
Professional	0.9	0	0	0	0.9
Technical	0.4	0	0	0	0.4
Administrative	0.3	0	0	0	0.3
Other	0.5	0	0	0	0.5
Computed Total	2.2	0	0	0	2.2

# Student Count by Classification of Instructional Programs (CIP) Code

(NO DATA ENTERED)

#### **Target Audience**

Commercial field, forage and oil seed growers, vegetable and berry growers, apple and grape growers, nursery and greenhouse operators, landscapers, pesticide applicators, Master Gardeners, beekeepers, home gardeners and general public

#### **Products**

TypeStatusYear PublishedNIFA Support AcknowledgedWebsitesPublished2023NO

#### Citation

Bradshaw, T. & S. Kingsley-Richards. 2023. Commercial Horticulture: Grapes. https://www.uvm.edu/extension/horticulture/grapes

Type Status Year Published NIFA Support Acknowledged

Websites Published 2023 NO

#### Citation

Bradshaw, T. & S. Kingsley-Richards. 2023. Commercial Horticulture: Tree Fruit. https://www.uvm.edu/extension/horticulture/tree-fruit

Type Status Year Published NIFA Support Acknowledged

Websites Published 2023 NO

#### Citation

Darby, H. 2023. Northwest Crops and Soils Program. https://www.uvm.edu/extension/nwcrops

Type Status Year Published NIFA Support Acknowledged

Websites Published 2023 NO

#### Citation

Darby, H. 2023. Champlain Valley Crop, Soil and Pasture Team. https://www.uvm.edu/extension/cvcrops

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Type Status Year Published NIFA Support Acknowledged

Websites Published 2023 YES

Citation

Hazelrigg, A. 2023. Plant Diagnostic Clinic. https://www.uvm.edu/extension/pdc

Type Status Year Published

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# **Product Type**

Data and Research Material

# Description

**Orchard Scouting Network** 

- 4 orchards scouted by undergraduate UVM Agroecology and Extension (AX) Fellows weekly with growers, results reported in program newsletters
- 8 other orchards visited by AX Fellows with UVM Extension personnel for in-depth consultations on production issues

# **Product Type**

Data and Research Material

# **Description**

Grape 'Natural' Production Evaluation

# **Progress Report**

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Certification (SANC), top diseases from 2022. Pesticide recertification certificates @4 credits each 1/19/23, 1/26/23 https://go.uvm.edu/iu58h

# **Product Type**

Educational Aids or Curricula

Description

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#### **Product Type**

Data and Research Material

# **Description**

Greenhouse/High Tunnel/Nursery Pollinator Plantings

- 6 sites habitat plantings, educational signs and brochure holders established
- 900 beneficial habitat plantings brochures distributed
- 1 factsheet
- 1 poster presentation
- 6 presentations (~175 participants)

# **Product Type**

Other

#### Description

Master Gardener Pollinator Education

- Un-Bee-lievable Beneficials 101 5/25/22 (13 participants and 55 recording views)
- Solitary Bee Box House Making 7/10/22 (13 participants)
- Benefits for Beneficials: Habitat Hedges 8/17/22 (9 participants and 127 recording views)

#### **Product Type**

Educational Aids or Curricula

# **Description**

Pesticide Education Pollinator IPM Training (participants)

• Reducing Pesticide Risk to Pollinators in Pest Management. Commercial Pesticide Applicator Meeting, live online: 3/28/22 (58)

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- Planning committee and Root disease recap. Tristate IPM Conference. Online 1/20/22 and 1/27/22 (63)
- UVM Plant Diagnostic Clinic updates. Northeast Plant Diagnostic Network 1/31/22 (20)
- Pests and Diseases of Past and Future. Hanover Garden Club. Online 2/1/22 (35)
- Vermont Hemp research projects. Fourth Annual NE Hemp Conference. Online 3/16/22 (107) eval.
- https://na.eventscloud.com/website/35699/
- PSS 124 Agroecology Class 3/17/22 (55)
- Diseases and Pests of the Garden and Landscape. Friends of the Horticulture Farm. Online 3/19/22 (40)
- Moderator and two presentations: Diseases of Vegetable Crops, Diseases of Landscape Plants. Ft Ticonderoga Garden Series. Ft. Ticonderoga, NY 4/2/22 (50)
- PSS 021 Sustainable Vegetable Class 4/8/22 (30)
- NE APS meeting President and Moderator online division meeting 4/21-4/22/22 (40)
- Pest and disease. UVM Master Gardener NW Chapter 4/21/22 (40)
- PSS 145 Farm Management Class 4/22/22 (35)
- VT Blueberry Twilight meeting on Pollinators. Stowe VT 6/2/22 (20)
- Vegetable Diseases. Farmer Training Program HRC. South Burlington VT 6/24/22 (40)
- Farm Practices for Pollinator Health, Soil Health, and Pest Management. Intervale Community Farm Burlington VT 7/13/22 (40)
- Disease Field walk. Farmer Training Program HRC. South Burlington VT 7/27/22 (20)
- Tree Diseases. UNH Pesticide Supervisory workshop. Manchester NH 9/21/22 (30)
- UVM PSS 124 Agroecology Class 10/12/22 (50)
- Master Gardener Fall wrap up. Pests and diseases of 2022. 11/10/22 (20) https://www.youtube.com/watch?v=n-p8qRWbs1I
- Plant Diagnosis. UVM PBIO Plant Pathology (40)
- Diseases Global to Local. UVM Master Gardener State Conference 12/3/22 (122, 9 states)
- NE Vegetable and Fruit Growers Conference. Manchester NH 12/13-12/15/22 (1200)
- = Farmer to Farmer Session on Vegetable disease (30)
- = Co-Moderator Blueberry Session I and II (90)
- = Winter Growing and Diseases presentation (100)
- Diseases and Pests of 2022. VT Nursery and Landscape Association Flower Show. Essex Jct VT 3/3/23 (100)
- VT Biofungicide Study. Connecticut Cannabis Symposium. Storrs CT 3/16/23 (40)
- MG Lecture Plant Pathology Q and A. Online 3/16/23 (100)
- Diseases and Pests of 2022 and Beyond. UVM EMG Southeast Chapter. Webinar 3/20/23 (60)
- FT Ticonderoga Gardening Symposium. Ticonderoga NY 4/1/23 (60)
- Middlebury Garden Club 4/11/23 (50)
- Rutland Garden Club 4/11/23 (50)
- UVM PSS 124 Sustainable Vegetable Production 4/14/23 (35)

# **Product Type**

Other

# Description

Pesticide Certification Meetings (participants)

- Commercial Pesticide Applicator Meeting, live online 3/28/22 (58)
- Initial Pesticide Certification Meetings: White River Junction 4/19/22 (27), Burlington 4/21/22 (33)
- Vermont Pesticide Applicator Meeting, live online 3/20/23 (64)
- Initial Pesticide Certification Meetings: West Lebanon NH 4/18/23 (36), Burlington 4/20/23 (44)

#### **Product Type**

Other

# **Description**

Pesticide Applicator Report

Spring 2022, Fall 2022, Spring 2023 issues (1574 subscribers)

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# **Progress Report**

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# **Product Type**

Educational Aids or Curricula

# Description

IPM and Pesticide Basics
• "IPM: Integrated Pest Mana9 0 c8