Welcome to the UVM Horticulture Research & Education Center
Management Structure

Terry Bradshaw, HREC/Cat Farm Director
◦ 802 922-2591

Andy Bessette, HREC Operations
◦ 802 598-2476

Rachel Stievater, Cat Farm Manager
◦ 802 279-2920

Greenhouse 656-0465
Supported Projects at HREC:

VT Agriculture Experiment Funding, some general fund

- Research
- Teaching
- Extension/Outreach
- Service

Projects must be faculty-sponsored and approved by HREC committee
Facility

Closed-gate
- Open for events, during many workdays
- Combo not to be given freely
- You open, You Shut

Building
- Keyed Lock
  - Combo box
  - Equipment keys same, box in shop
HREC Users

General Respect

- Plot and facility cleanliness
- Consider neighbors, public, other users
- Flush the toilet
- No camping
- No dogs
- No alcohol, etc
HREC Users

Shared spaces: *Respect our palace*

- Lunch space:
  - Fridge, microwave in front office
  - CLEAN UP

- Front Office:
  - Main reception area, please treat it as such

- Classroom:
  - Used for classes, community meetings, days, nights, & weekends

- Field lab:
  - Used for multiple purposes, *pick up when you’re done*
Traffic Flow

One-Way (counter clockwise) around building

Blind corners:
- North of Carey garden in front
- South of main building in back
  - Do not drive
  - Do not walk in road
Catamount Educational Farm
Catamount Educational Farm

- Established 2014 to combine food production activities (fruit & vegetables) under single management system to facilitate increased teaching, research, and outreach programs
- Presently (under)funded by produce sales
  - $70,000 sales 2016
- Staffing:
  - Vegetable manager (50:50 CALS/CDE)
  - Facility Maintenance Specialist
  - HREC Director
UVM Catamount Farm:
Opportunities for Teaching, Research, and Outreach in Specialty Crops and Diversified Agriculture

Research:
- Agronomic Crops
- Organic Fruit and Vegetable Production
- Tree Fruit and Grape Cultivar Trials
- Apple Systems Trials
- Soil Management
- Landscape Design and Ecosystem Studies

Teaching:
- Farmer Training Program
- Fruit and Vegetable Production
- Diversified Farm Management
- Farm Product Marketing
- Value-Added Processing
- Applied Pest Management

Outreach:
- Fruit IPM & Horticulture Outreach
- Vegetable Demonstration and Farmer Trainings
- Master Gardener Workshops & Events
- FHF Workshops & Events
First Aid

Incident Report forms next to phone in shop
- Fill out, submit to TB within 72 hrs of injury
- Employee vs Student Worker Forms

Basic first aid kit in shop
- Band-aids, etc
- ANYTHING worse than a band-aid seek medical attention
- Grab anyone for a ride, or 911 for emergency

IMPORTANT:
IF YOU REPORTED IT, DO NOT LEAVE THE SCENE
Field sharps

Keep up your tetanus shots!!!

Use PPE:
  ◦ Gloves
  ◦ Closed-toe shoes
  ◦ Face protection

USE COMMON SENSE!!!!!

Cuts worse than a band aid, go to ER
Field sharps

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Ticks

Ticks are on the rise in VT and at HREC
ALL ticks are blood-feeders
Major concern: Lyme & other bacterial diseases
Bacterial disease spread by several species, mainly deer ticks
Lyme Disease

Early/localized symptoms:
- Bullseye rash
- Headaches, muscle soreness, fever, malaise
- Treatable at this stage

Later symptoms:
- Migrating pain in muscles, joints, and tendons, and heart palpitations and dizziness
- Nervous system damage in later, persistent infections
Lyme Disease: Prevention

Be tick-safe:
- Especially in tall grass/brushy areas:
  - Use repellent
  - Tuck pants into socks
- Check yourself regularly
  - Removal within 36 hours greatly reduces transmission
  - Antibiotics within 72 hours of high-risk exposure can prevent disease
Tick Removal
Poison Ivy

• The sap oil, called urushiol, causes the skin rash.
• Poison ivy is not contagious.
• Washing the oily sap from the skin with water and soap immediately can help prevent the rash.
• Avoiding direct contact with the plants can prevent the rash.
Wildlife

HREC is a ‘suburban oasis’
- Raccoons, rabbits, woodchucks, skunks, deer, snakes, birds, mice, coyotes, bobcat
- Zoonotic diseases incl. rabies

Do not approach wildlife for any reason
- Terry or Andy can trap nuisance critters in some cases
- Talk to us before doing ANYTHING with wildlife
Goats

Goats kept on farm for brush control

Specific MOU with CALS and UVM Vet for their care and management

NOT a petting zoo!
Goats

• Goat fencing is electric (7000 volts)
• Escaped goats can destroy crops, plantings, and wreak general havoc
• Food safety issues with loose goats in food-crop areas
Equipment Safety
SHOP

Use tools as needed but..

◦ RETURN IMMEDIATELY and put away
◦ Power tools (electric or air) require express permission to use
◦ Tools never leave site
◦ No shop use for personal cars
◦ NO WELDING
◦ CLEAN UP!
Proper Collection of Haz waste

Collect in proper waste container. Must also have proper label.
Tractors and Power Equipment

MUST receive hands-on training on each tractor/ implement/ power tool before use
- Includes lawn mowers, weed wackers, rototillers

Closed-toe shoes REQUIRED

No loose clothing/jewelry; hair tied back

This does not count as training

Second person must be on-site during operation

Training on one tractor does not count for all
Tractor Safety
Pesticide Safety Training
### The Good Old Days?

#### Ascospore Maturity Summary

<table>
<thead>
<tr>
<th>Past</th>
<th>Past</th>
<th>Current</th>
<th>5-Day Forecast</th>
<th>Forecast Details</th>
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<tbody>
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<td>May 10</td>
<td>May 11</td>
<td>May 12</td>
<td>May 13</td>
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<td>55%</td>
<td>61%</td>
<td>67%</td>
<td>74%</td>
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#### Infection Events Summary

<table>
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<tr>
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</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
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</tr>
</tbody>
</table>

- **Infection Events**
- **Days to Symptoms**
- **Average Temp (F) for wet hours**
- **Leaf Wetness (hours)**
- **Rain Amount**
- **Rain Prob (%)**

**Night|Day**

| 0 | 0 | 0 | 0 | 11 | 69 | 11 | 60 | 43 | 42 | 27 | 30 |

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Pesticide Use at UVM HREC

Certain crops and research projects require agrichemical use on-site

Apples, grapes, field crops, some general areas (nursery, poison ivy control)

Spraying generally done early morning, later evening

Commonly sprayed areas are marked research areas, access is restricted
Posted Warning Signs

Post just before application
Keep posted during the REI
Remove within 3 days of the end of the REI

SIGNS MUST BE SEEN AT ALL ENTRANCES TO TREATED AREAS

SIGNAGE AT FRONT GATE AND ‘SIGN IN’ BOOK

GENERAL SIGNAGE POSTED IN MOST COMMONLY-SPRAYED AREAS (APPLES/GRAPES)
Information at a Central Location

Display

- Name, address, telephone number or Emergency Medical Facility
- Facts about the pesticide application:
  - Pesticide name, EPA number, Active Ingredients
  - Location and description of treated area
  - Application time and date and REI

SDS:
http://www.uvm.edu/~orchard/Pesticide MSDS/
Restricted Entry Intervals

REI’s are the legally-mandated period of time after pesticide application when worker entry must be restricted, or personal protective equipment (PPE) required.
Application exclusion zone during spraying

AEZ refers to the area surrounding the pesticide application equipment that must be free of all persons other than appropriately trained and equipped handlers during pesticide applications.

• 100 feet for airblast applications
• 25 feet for handgun applications
Routes of Exposure

- Skin (dermal)
- Mouth (oral)
- Eyes (ocular)
- Nose (respiratory)
Common Poisoning Symptoms
Skin and eye irritation
Nose and throat pain
Skin rashes
Dizziness
Headache
Muscle aches or cramps
Tiredness
Nausea
Diarrhea
Emergency First Aid

Flush eyes with clean water (15 minutes)

- Decontamination: Shower and clean clothes
- Inhalation: Move to fresh air and seek medical attention if symptoms persist
Emergency Assistance

Transportation to a Medical Facility

Provide information to victim and medical personnel:

- Pesticide information
- First aid and medical information
- How pesticide was used
- Information about victim’s exposure
Anti-Retaliation

Employer cannot retaliate against workers who attempt to comply with any provision of the WPS
Pesticide Handler Training

Applies to any employee who handles pesticides as part of their job. This includes agriculture and all non-agricultural uses.

Certified Applicators are exempt from these training requirements.

All Pesticide Handlers or Applicators at HREC Must Have VT Pesticide Applicator’s License.