UVM Horticulture Research Center
Safety Training: Summer 2012

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Today’s Topics: Farm & Field Safety

- Why talk about Safety?
- Who regulates Hort Farm activities?
- Field Safety Basics
- Emergency Response Procedure
- Reporting Accidents or Injuries
- Hazard Identification / Safety Data Sheets
- Routes of Exposure & Hierarchy of Controls
- Proper Disposal of Haz Waste
Why talk about SAFETY?
Latest Hort Farm accidents

- Visitor falls in woods, extensive bleeding from a re-opened wound ("lots of blood. her sock was dripping with blood").

- Student helping in tree nursery dropped a set of loppers and cut his leg. Needed stitches.

- Intern : bad case of poison ivy
Pete’s Greens, Craftsbury VT

“We think a 3 phase converter blew up”. ~ Pete
Some of the Regulations That Apply To Your UVM Hort. Farm Activities

FIFRA: FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

Federal, State & City of South Burlington regulations
UVM & RM policies & procedures

UVM Laboratory Health & Safety Policy:
http://www.uvm.edu/policies/riskmgm/labsafety.pdf
GOAL: EDUCATE in order to PREVENT Injuries/Deaths

UCLA:
20 ml t-butyl lithium

Texas Tech Univ.
removed PPE too soon

Yale Univ.
machine shop
2AM. Alone.
metal lathe
FIELD AND FARM SAFETY
No bare feet or open toe shoes, especially in and around Blasberg building.

Wear only closed shoes (no sandals) to protect feet and minimize potential injuries.
Field Safety Basics: **Poison Ivy**

Wear proper protective clothing

- work gloves,
- long pants,
- long-sleeved shirt
- socks, and
- closed-toe shoes.

**NEVER burn poison ivy!**
The smoke contains particles that can cause serious injury to the eyes, skin, and respiratory tract.

**LEARN TO IDENTIFY IT**
Field Safety Basics:
TICK CONTROL AND PREVENTION

• Wear **LIGHT COLORED** clothing
• LONG PANTS, LONG-SLEEVED shirts. Wear a hat. Wear shoes/boots.
• Tuck in your shirt & pull your socks OVER the pant cuffs.
• Avoid brushing against vegetation.

Check yourself often for ticks, especially on the head, groin, and armpits.

Shower immediately after coming indoors when possible.
• http://www.uvm.edu/newfarmer/?Page=webinars/webinar_recordings.html&SM=webinars/sub-menu.html#safety_webinars
Protect yourself against the sun’s harmful rays

• Wear adequate sunscreen
• wide-brimmed hat provides protection against the sun’s harmful rays
Know the signs of DEHYDRATION
Do Basic Housekeeping DAILY
NO EATING OR DRINKING IN THE SHOP
Wash Your Hands!

• Before taking a break to smoke, eat, or drink.
• Before removing/applying contact lenses or makeup.
• At the end of the day and/or before going home.
• Immediately after removing gloves, regardless of whether they were worn while using chemicals.
• Before and after using a restroom.
• If your hands contact chemicals, inks, oils, grease...
Emergency Response Procedures
HRC Emergency Contact List

University of Vermont
Horticulture Research Center
Emergency Contact List

Physical Address is 65 Green Mountain Drive,
South Burlington, VT

All numbers area code (802)

Fire/Police/Ambulance 911

1. Terry Bradshaw, manager cell 922-2591

2. Josie Davis, assoc Dean campus 656-1032
Miller Dairy Farm 862-2151
Plant/Soil Science main office 656-2630
UVM Greenhouse 656-0465
UVM Physical Plant emergency 656-2560
Green Mt Power electrical (888) 835-4762
Steven’s Propane 878-3710
Trono Fuels (fuel oil) 864-7828
UVM Recycling 656-4191
Lafayette Fence (Front Gate Service) 878-5341

HRC Safety Map
Phone #’s you need to know

State Police Barracks, Williston VT OR if you call 9-1-1 from a campus phone, you get UVM Police

656-FIRE (3473)

UVM Police (report suspicious person or activities, theft, etc)

656-2560

...UVM Service Operations, Press #1 to talk to dispatcher. Use for non-emergency but critical service needs (plumbing leak, elec issue, report strange odor)
What is the purpose of this blue light?

Where is it located?

IMPORTANT:
IF YOU REPORT SOMETHING, PLEASE DO NOT LEAVE THE SCENE.
Locate the HRC Fire Extinguishers.

Sign up for Fire Safety Training
LOCATE ALL SAFETY EQUIPMENT
HRC Eyewash bottles
Located in shop by back door
SAFETY GLASSES ARE AVAILABLE IN THE SHOP

USE THEM!
Remembers to RINSE & KEEP THEM CLEAN.
CHEMICAL SAFETY

- Identify the Hazard
- Routes of Exposure
- Proper Labeling
- Proper Storage
- Proper UVM waste disposal
What types of chemicals are at the Hort Farm?

UN1223 = Diesel Fuel               UN1203 = Gasoline
UN# = Department of Transportation labeling
WARNING SIGNS
IDENTIFY THE HAZARD
What are Some Resources for Getting Chemical Info?

• Label on the container
• Your Supervisor
• Chemical manufacturer or supplier
• Training programs
• UVM Safety department
2. HAZARDS IDENTIFICATION
Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

NFPA: Health – 2, Flammability – 1, Reactivity – 1
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS: Health – 2*, Flammability – 1, Reactivity – 1
0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe *=Chronic Health Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

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<th>Chemical name</th>
<th>CAS No.</th>
<th>% content</th>
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<td>4,4’-Diphenylmethane-diisocyanate, isomers and homologues</td>
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4. FIRST AID MEASURES

Inhalation If aerosol or vapor is inhaled in high concentrations: Move affected individual to fresh air and keep him warm, let him rest. If there is difficulty in breathing; call a doctor.

Eye contact Flush eyes for at least 10 minutes while holding eyelids open. Contact a doctor.

Skin contact Remove contaminated clothes immediately, and wash skin with a cleanser based on polyethylene glycol or with plenty of water and soap. Consult a doctor in the event of a skin reaction.

Ingestion Product is not intended to be ingested or eaten. If this product is ingested, it may cause gastrointestinal blockage. If ingested, it may cause severe irritation of the gastrointestinal tract, and should be treated symptomatically. Do not induce the patient or animal to vomit. Call a doctor, ambulance or seek veterinarian assistance immediately.
**SDS: TRUE or FALSE**

- Manufacturers are required to provide you a Safety Data Sheet.
- SDS info is standardized in the U.S.
- All ingredients must be listed on MSDS.
- All products/chemicals are fully tested.
SDS can tell you how a chemical can get into your body?

**INHALATION**
through the lungs

**ABSORPTION**
through the skin

**INJECTION**
Puncture

**INGESTION**
through the mouth
Is everyone affected by chemicals the same way?
A Note About Chemical Sensitivity

YOU may not be sensitive or affected in any way by a chemical, pesticide or even an aerosol spray.

However, always consider that what you spray or use in the area may affect a person nearby who may have a chemical sensitivity.

Your sensitivity to a chemical can change over time based on your repeated exposure.
Ways to Control A Potential Exposure

OSHA’s Hierarchy of Controls

- Engineering Controls
- Administrative Controls
- PPE
HRC Personal Protective Equipment (PPE)

4 ml thick “BEST” Nitrile gloves

Requires medical clearance & fit testing!
Example:

What are the proper "controls" to use when using linseed oil?
Proper Chemical Storage:
Store chemicals at or below eye level
Store only with other compatible chemicals.
Best stored in flammable cabinet.
OSHA requires a 36 inch access in front of all electrical panels/boxes.

**DO NOT store combustible material near electrical panels.**

Recycle it as fast as you generate it. Don’t store it.
Accidents or Injuries
What to do?
Accidents/Injuries:
Immediately report them to your Supervisor (and/or Terry B)

Dial 9-1-1 to get:
UVM Rescue, if you need immediate Medical care.
Never drive yourself to the hospital!

STUDENTS:
Go to Center for Health & Wellbeing at 425 Pearl Street for Medical Care if needed.
Have someone take you.

STAFF/FACULTY/UVM EMPLOYEES
Go to Concentra Medical, 7 Fayette Road, So. Burlington

Supervisor: Reports the accident to Risk Management Dept at 656-3242 or Risk.Management@uvm.edu
“Employees” : Submit a “First Report of Injury”

Students/Visitors : Submit an “Incident Report”
INCIDENT /ACCIDENT REPORTING

- Tell your Supervisor (or Terry)
- Fill out Incident Report
- Fax to Risk Management, 656-8682
Do you generate any hazardous waste?

Oily rags?
Aerosol cans?
Leftover pesticides?
Leftover paints?
Old computers?
Batteries?
Is waste oil a “hazardous waste”? 

YES! Oil & rags contaminated with oil are regulated as hazardous waste in Vermont.

55-gal waste oil drum from HRC goes for re-use to UVM’s Auto/Bus Garage in Fort Ethan Allen to burn in their waste oil heater.

Safety department picks up waste from off-campus locations on the 3rd Thursday of every month.
Proper Collection of Haz waste

Must collect in a proper waste container.

Must have proper label.
UVM Policy: No Drain Disposal

- has a pH less than 4 or greater than 10.5,
- is flammable (flash point is less than 140 degrees F),
- is reactive (oxidizers, water reactive, pyrophoric, explosive),
- exhibits a toxic characteristic,
- is listed on UVM's HCOC list,
- is a dye,
- has a strong odor,
- has high viscosity,
- or large volumes (more than 10 gallons),
- is oily
Orange Turf Marking Paint

Storm Drain on Spear Street

Neighbor’s Lovely Garden
Properly **Disposal** of UVM’s Hazardous Waste

1) Fill out a haz waste tag

2) Enter Waste tag online
   [http://www.uvm.edu/~esf/](http://www.uvm.edu/~esf/)
UVM Recycling Waste Disposal Guide


- Batteries
- Paper
- Cans & Bottles
- Plastic Bottles
- Cardboard & Boxboard
- Scrap Metal
- Computers/Electronic
- Wood & Pallets
- Glass containers
- Hard Cover Books
- Newspaper and Magazines
Practice safety with hand-held cutting tools.

Always retract blades after use.

Used blades should be collected in puncture proof containers.

Call 656-5408 for pickup of full and properly sealed sharps containers.
GENERAL SAFETY PRACTICES

• Locate and learn how to use emergency equipment before emergency happens.
• Use the buddy system for safety.
• Use proper ventilation and PPE when handling chemicals AND remove gloves before leaving shop areas.
• NEVER use extension cords on a long term basis.
• No food or drink allowed in shop or work areas.
• **No bare feet.** Only closed-toed shoes allowed.
HAZARDS CAN OCCUR IN OFFICE ENVIRONMENTS TOO

AVOID THIS . . . BY AVOIDING THESE!

TRIPPING ON POWER CORDS
BAD ERGONOMICS
OPEN CABINETS

ALWAYS USE GOOD SAFETY PRACTICES

Questions?
Contact us at:
safety@uvm.edu
www.uvm.edu/safety