

General Procedures at the  
University of Vermont Horticulture Research Center

The Horticultural Research and Education Center is one of the research/educational centers in the Plant and Animal Biology Facilities Department at the University of Vermont. This Department reports to the Dean's Office of the College of Agriculture and Life Sciences. Resources are shared with Miller Research Center as part of the Department of Plant and Animal Biofacilities.

The research centers have multiple functions. These Centers are able to operate smoothly together and often times compliment one another. This document outlines a level of support a researcher can expect to receive from the staff of the HRC, which in turn will aid in planning for research activities. Contracts will also be made out between the Center and researchers, which will identify equipment, material and labor needs as well as clarify duties of the researcher and those of the HRC staff.

The UVM Horticulture Research Center (HRC), as part of the Agriculture Experiment Station, serves as a facility to provide support for University Research, Teaching, Extension, and Outreach activities within the College of Agriculture and Life Sciences. In order for work to be conducted safely and efficiently at the HRC, workers must comply with general policies at the site.

Please note: The Farms are currently involved in a restructuring process so the general policies of use at the HRC may change in the future. For planning purposes for the 2009 season, however, these policies will be in effect until further notice.

1. Plot allocation

Research and teaching support for the farms comes from General Fund, State, and Federal dollars that are allocated to further the missions of the University of Vermont and the College of Agriculture and Life Sciences. Research and teaching proposals must be received by CALS or other UVM faculty in accordance with their officially sponsored programs in their respective departments. Student, community, or affiliate directed efforts will be entertained only with direct support and final oversight by UVM faculty. It is the responsibility of the faculty sponsor to see that conditions for use of the farm are satisfactorily met. Projects sponsored by non-faculty parties may be evaluated on a case-by-case basis but will receive lower priority than officially sponsored projects.

An HRC use review committee meets regularly to discuss use proposals and advise farm staff on plot allocation. Final decisions on project support and allocation will lie with HRC management and CALS Deans office. Users must submit a plan of work to HRC Assistant Director Terry Bradshaw ([tbradsha@uvm.edu](mailto:tbradsha@uvm.edu)) as soon as possible before work begins. *For 2009 activity request forms must be submitted before February 28.*

All HRC users must submit an annual plan, even if there are no expected changes in HRC use from previous years. All projects must include a start and end date. Ongoing projects shall include a 'sunset provision' which describes efforts to be made to return plots back to the original condition at the investigator's expense. Multi-year projects will be considered with a reasonable (3-5 year) timetable where renewal of support will be reevaluated. Use request will still need to be submitted annually for multi-year projects.

Please use the attached HRC maps to assist with plot allocation requests. With proper planning it is rare that we are unable to accommodate requests for normal levels of support. In order to facilitate smooth operations when conflicts do arise, we abide by the following priority list for labor, equipment and resources.

- a. Research
- b. Teaching
- c. Extension
- d. Demonstration and Public Relations

## 2. Access

The HRC is a closed-gate facility, meaning that by default the site is not open to the public. The gate is generally left open when staffed and no spray re-entry periods exist. The gate access code is to be given out to workers with discretion. We understand the need to provide access to the facility to colleagues. Should the gate code become compromised, it will be changed and users notified immediately.

Upon entering facility, workers must check in at main office, review pesticide entry periods, and sign in. The last person leaving at end of day must shut the gate if open. If someone without the code needs to exit, code 9999 can be freely given out (this allows for exit only).

Access to the farm from the Spear Street/Deerfield Drive entrance is provided primarily to allow for ease of equipment transport between the farms. The back gate is not a primary entrance, and the roadway will not be maintained as such. When sending persons to the farm, especially non-primary users, they should be directed to the front gate off of Green Mountain Drive/Shelburne Road. If you do open the back gate, you must close it behind you.

## 3. Management Structure

- a. Assistant Director / Manager of HRC is Terry Bradshaw ([tbradsha@uvm.edu](mailto:tbradsha@uvm.edu), cell 922-2591). This is the primary contact for the HRC.
- b. Associate Director, Vermont Agricultural Experiment Station is Michael Vayda ([mvayda@uvm.edu](mailto:mvayda@uvm.edu) , 656-0555).
- c. Chair of Plant and Soil Science Department is Deborah Neher ([dneher@uvm.edu](mailto:dneher@uvm.edu), 656-0474).
- d. Dedicated facility staff includes T. Bradshaw, help from the general/Miller pool as available, and student hourly help. HRC users should plan on providing their own technical help for 2009, except for conditions outlined

below. Equipment repairs previously done by farm staff will need to be arranged through another avenue.

- e. Yolanda Chen is PSS Faculty contact for Common Ground.
- f. Management staff can revoke permissions for equipment use or facility access as they see necessary.

#### 4. User Orientation and Training

Users of the farm and their staff and workers must attend an orientation session held in the spring. The first training session will be held Monday May 18 at the farm at 2:00 PM. A second session will be held soon after if needed for incoming summer workers. Orientation sessions cover basic HRC policies and include the required EPA Worker Protection Safety training for anyone who works at a facility that uses pesticides. *This training is required for all who work at the HRC whether they use pesticides or not and regardless of the application status of the plots they work in.*

#### 5. Work hours

The general hours of operation for the HRC are 8:00-4:30, Monday through Friday. Given the need to complete tasks in a timely manner, off-hour work is permitted by workers who have access permission. However, no machinery (tractors, etc.) should be used off-hours unless a second person is present or express permission has been given by HRC management. Users of equipment must be trained and signed off on as per the conditions below.

#### 6. Research support

The intent of HRC management is to allocate both labor and equipment resources as evenly as possible among researchers. In order to do this, a contract is to be drawn up in late winter or as appropriate which will outline responsibilities of the researcher and his or her support staff and the staff of the HRC. We are a resource of the College of Agriculture and Life Sciences and our duties include the support of several departments. Because our duties are potentially wide spread, it's important that monies for labor support of individual research projects be written into grant proposals.

The following is a list of what will be provided by the manager/staff of the HRC—all requests for research plots, equipment or labor assistance should be directed to the HRC Manager or his designated agent:

- a. Overview of activities of groups and individuals using the HRC to maximize use of the land, equipment and resources.
- b. Responsible for overall welfare of the HRC and equipment, including those lands not being used for active research.
- c. Safety instruction of individuals using the facilities as mandated by law—includes pesticide Worker Protection Training and Tractor and Equipment Safety Training.

- d. Regulating individual's and group's use of facilities and equipment in order to provide equitable access to resources.
- e. To be available to help with research planning and as a general resource for the College and University.
- f. To provide scheduling of equipment and facilities.

Responsibilities of the researchers would include the following:

- a. Soil preparation of the plot area. This would include soil testing and addition of lime and fertilizer. A copy of any soil or plant material nutrient analysis collected on-site must be submitted to HRC Assistant Director.
- b. Planting, harvesting, weeding – labor needed to maintain research plots and collect data should be provided, or arrangements made with HRC Assistant Director well in advance to plan for staff allocation.
- c. Setting up irrigation within the research plots with assistance from HRC staff.
- d. Cleaning up the plot areas at the end of the research period/season and returning the area to its previous condition.

Dual responsibility between the HRC staff and researchers would be in the areas of application of pesticides and or other materials which may be applied to both research plots and the general grounds of the HRC. This might also involve a general practice such as mowing grass in research area in conjunction with the general grounds. These mutual arrangements will be worked out each year when completing the annual research contracts.

#### 7. Support fees

In order to maintain farm equipment and fund staff HRC staffing, the following fees will be implemented for the 2009 season:

- a. Equipment and operator support (i.e. a person operating a tractor and implement for the end user).....\$60 per hour
- b. Technical support by Farm.....\$30 per hour
- c. Equipment use alone
  - i. Tractor and implement....\$30 per hour
  - ii. Specialized equipment.....\$ as determined
  - iii. Mowers, trimmers, etc to maintain cleanliness of plots will not be charged for use.

It is important for HRC users to plan for equipment needs and coordinate with HRC staff to ensure their availability. Equipment use must be tracked by the user and reported to HRC staff on a monthly basis.

#### 8. Equipment use

**SAFETY FIRST!** Operators must be trained on each piece of equipment by farm staff, and a record kept on file that training was received and permission granted for use.

Specific equipment policies follow:

a. Trucks

- i. PSS Ford Ranger is managed and maintained by the PSS department. Use policy and fees charged are managed by Scott Lewins ([Scott.Lewins@uvm.edu](mailto:Scott.Lewins@uvm.edu), 656-9828)
- ii. The Ford F150 is available for *off-road/on-farm* use only. This vehicle is maintained solely as a convenience work truck, and may not necessarily be available at all times.
- iii. Other vehicles are available on an as-needed, permission-first basis. Truck needs must be coordinated with HRC Director. A per diem fee of \$50 per day plus mileage will be charged for truck use. Scheduling of farm trucks must be done in advance with HRC or Miller Farm staff.
- iv. The Polaris Ranger utility vehicle is not part of the HRC fleet and is operated and maintained by Lorraine Berkett's programs. This vehicle is not available for use by other parties.
- v. All drivers must complete UVM Risk Management Van driving course, and submit certificate to HRC Assistant Director. Certificate must be on file at HRC before operation of vehicles is allowed.

b. Tractors

- i. Only trained workers will be allowed to operate tractors. Training will be provided by HRC management/staff on an as-needed, per-equipment basis; trained operators will not be allowed to train others themselves. Operators must be listed on the HRC users log on the bulletin board in the shop before using motorized equipment.
- ii. Operation of tractors requires that a second person be on-site.
- iii. Other equipment is available on an as-needed, permission-first basis. Operators must be trained specifically on a new piece of equipment before operation.
- iv. All standard safety rules apply when operating tractors.

c. Irrigation

- i. Only specifically trained and authorized persons should operate any part of the irrigation system.
- ii. You turn on, you turn off. Irrigation must not be left on when leaving facility.
- iii. Under no conditions should the overhead irrigation system be operated without express permission.
- iv. All trickle irrigation users must sign in when turning on system. A clipboard is available in the trickle pumphouse for logging irrigation events. Records must include the date, name of person responsible, plots irrigated, time irrigation turned on, and time unit shut down. The door to the pumphouse must be left open when irrigation is running.

d. Shop equipment

- i. Shop tools are available to workers as needed. All tools must be immediately returned to their proper storage space.

- ii. Power tools are available only by express permission of HRC management.
    - . This includes *anything* with a power cord or requiring an air compressor.
  - iii. Tools are not to leave the facility for any reason.
- e. Equipment breakdown
- i. Any breakdowns should be reported to HRC personnel immediately. *Do not try to fix something yourself.* This includes jump starting vehicles in the field. If no one is around, turn the equipment off, remove the key, and leave it as is for HRC personnel to attend to. Inform HRC staff of the problem immediately.

## 9. Pesticides

It is vitally important that workers at the farm follow all required precautions for pesticide use at the facility. Only trained and licensed individuals may apply pesticides of any kind on HRC property. All applicators must have a valid Vermont Non-Commercial Pesticide Applicator's License on file. In addition, anyone who works in an area that has been treated within the past 30 days or that is expected to be treated in the coming season must receive Worker Protection (Pesticide) Training from HRC staff prior to working in the field.

All pesticide applications must be expressly approved by HRC Director prior to the spray event. Applicators must comply with pesticide label restrictions for application instructions, treated area entry and preharvest interval. All pesticide applications must be recorded and submitted immediately to HRC management. Two types of records are needed:

- a. Treated area information: Standard form filled out and posted at the central location in the front office of Blasberg building. Forms will be provided in that area. This document is required to comply with EPA Worker Protection Standards, and is used by all workers and visitors upon the grounds to determine what areas have been sprayed recently.
- b. General, detailed record submitted electronically to HRC management on a monthly basis. This record will be included in the facility pesticide use report sent to the state annually and must include date and time of application, applicator responsible, plot sprayed, material trade name, active ingredient, EPA registration number, restricted entry interval, and weather during application, particularly wind speed and direction. A stock Excel spreadsheet will be available on the HRC website ([http://pss.uvm.edu/dept/hort\\_farm/](http://pss.uvm.edu/dept/hort_farm/)) before the onset of the growing season.
- c. All pesticides must be stored in the chemical shed as directed by HRC staff. Organic materials must be segregated in the middle bay (door 2).

## 10. General recordkeeping

Detailed records of all inputs to field plots must be submitted to HRC management on a monthly basis. Records should include plot name and location, activity performed, input applied, rate, and decision support. A stock Excel spreadsheet will be available on the

HRC website ([http://pss.uvm.edu/dept/hort\\_farm/](http://pss.uvm.edu/dept/hort_farm/)) before the onset of the growing season.

Plots in the 'Organic Zone' must comply with all NOFA-VT regulations regarding organic certification. The portion of the farm west of the main ponds and its associated outlet are included in this Organic Management Area. Any soil or plant tissue tests collected onsite must also be submitted by photocopy to HRC management.

#### 11. Computer support

The HRC is serviced by high speed internet access with wireless service inside the Blasberg building. This service is not part of the UVM network so users who wish to access network service will need to run VPN software available from the UVM Software Archive (<http://www.uvm.edu/software>). Regular internet and email access is available via a standard 802.11g wireless card supplied by the user. This wireless connection is password protected, and the password will be provided to users as needed. There is a computer available in the front office for general use.

The HRC internet connection is bandwidth-limited, so excessive file downloading is not allowed. General browsing, email, and worker hours submission are okay.

#### 12. Greenhouse

The greenhouse and overwintering structures, including associated outdoor nursery pads located at the HRC are managed by the UVM Greenhouse group headed by Colleen Armstrong ([Colleen.Armstrong@uvm.edu](mailto:Colleen.Armstrong@uvm.edu)). Requests for use of these facilities should be made to Colleen or her agents. All policies set forth by the greenhouse group apply within these structures. Efforts are underway to designate the primary HRC greenhouse as an organically managed facility.

#### 13. Classroom scheduling

The Blasberg classroom is available for University groups including course lectures and labs, Extension meetings, and other events at no charge. Use of the classroom must be scheduled at least one week in advance (preferably earlier) with HRC management.

#### 14. Accidents

*Any* injury must be immediately reported to HRC Director/Assistant Director. Within 72 hours of injury a "First Report of Injury" form must be filled out and turned in to HRC Director/Assistant Director. Forms are located on a clipboard in the front office next to the phone. A First Aid kit is located in the shop across from shop phone. If an injury is at all serious, go to the ER. Don't try to doctor a serious wound yourself. Emergency phone numbers are located above the phone in the front office.

The call box outside the main front door will contact UVM Police Services who will arrive to the facility. There is no two-way/voice capability with the box.

15. Future versions of this policy document will supersede all previous versions.

**Appendix A.**

HRC Annual Request for Facility Use and Support  
University of Vermont

All users of the facility must complete a request for use and support agreement annually. This includes past traditional uses including collection maintenance.

An HRC use review committee meets regularly to discuss use proposals and advise farm staff on plot allocation. Final decisions on project support and allocation will lie with HRC management and CALS Deans office. Users must submit a plan of work to HRC Assistant Director Terry Bradshaw ([tbradsha@uvm.edu](mailto:tbradsha@uvm.edu)) as soon as possible before work begins. *For planned 2009 activities request forms must be submitted before February 28.* All HRC users must submit an annual plan, even if there are no expected changes in HRC use from previous years. All projects must include a start and end date. Ongoing projects shall include a 'sunset provision' which describes efforts to be made to return plots back to the original condition at the investigator's expense. Multi-year projects will be considered with a reasonable (3-5 year) timetable where renewal of support will be reevaluated.

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Part A. Initial Request for Support:

1. Investigator's name:
2. Telephone number:
3. E-mail:
4. Department:
5. Default Chartstring:
6. Project Title:
7. Course Number:
8. Expected start date:
9. Expected end date:
10. Plot space requested:  
(from HRC plot map)
11. A short description of the research/teaching needs which would include a general flow plan/dates of activities with areas of requested support.

Part B. HRC Contract (completed after review by HRC board and CALS Deans Office)



1. Date Request received
2. Description/flow of the Protocol with general dates of major activities
3. Equipment needs
4. Irrigation needs
5. Chemicals to be used
6. Plot needs
7. Recording needs
8. Labor support/responsibilities
9. Drying rack needs
10. Root cellar use
11. Cooler needs
12. Other
13. Comments

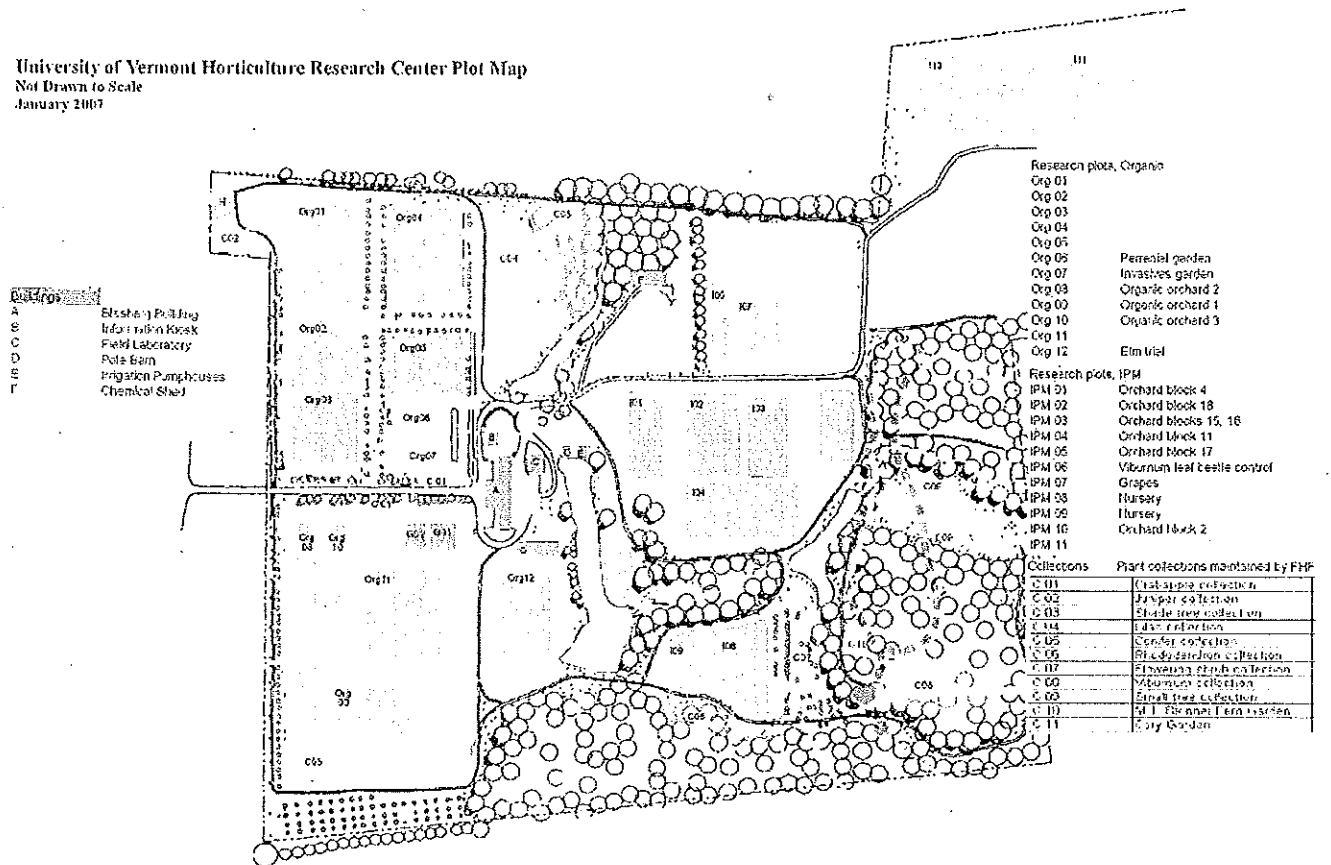
Part C. Summary

1. Actual start date
2. Actual end date
3. Summary of the Protocol or Activity(to be completed after the conclusion of the project)

Appendix B HRC Maps  
For Planning Purposes Only

1. Farm Overview

University of Vermont Horticulture Research Center Plot Map  
Not Drawn to Scale  
January 2007



**Appendix B HRC Maps  
For Planning Purposes Only**

**2. Organic Plots**

**University of Vermont Horticulture Research Center Plot Map**  
Organic-Managed Zone  
Not Drawn to Scale  
February 2008

