

# **Policies and Procedures**

## **Horticultural Greenhouses and Cold Storage Facilities**

Maine Agricultural and Forest Experiment Station  
College of Natural Sciences, Forestry, and Agriculture  
University of Maine

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### **Contents**

Introduction.....	1
Staff, Contact Information, and Availability .....	2
Emergency Contacts .....	2
Facilities Description .....	2
Superintendent and User Responsibilities.....	4
Operational Policies .....	5
Space and Plant Request Forms .....	7
Facility Use Charges .....	7
Greenhouse and Garden Advisory Committee .....	7

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### **Introduction**

This document describes the policies and procedures for use of the horticultural greenhouses and associated cold storage room on the University of Maine campus. The Horticultural Facilities include the Roger Clapp Greenhouses, Quonset Greenhouse and a Cold Storage Room. The Roger Clapp Greenhouses are located north of Deering Hall on Grove Street Extension. The Quonset Greenhouse is located south of Nutting Hall. The cold storage room is located in the basement of the Maine Bound barn.

Please note that information on safety policies and procedures is provided elsewhere (“Safety Compliance and Training” on the Horticulture Facilities web page). The policies and procedures for the horticultural greenhouses and cold storage room apply to all facility users including faculty, instructors, staff, graduate and undergraduate students, and student employees.

The horticulture greenhouses and cold storage unit are facilities of the Maine Agricultural and Forest Experiment Station and College of Natural Sciences, Forestry, and Agriculture. These facilities are central to the Station’s efforts to generate research-based information to advance and improve the productivity and profitability of Maine’s horticultural industry. These facilities also provide critical space for station-sponsored research in sustainable agriculture, forest ecosystem science, biological sciences and entomology. Students in the Environmental

Horticulture and Sustainable Agriculture programs use the Roger Clapp Greenhouses for course activities, and the facility houses the College's permanent plant collection. Scheduled use by other University of Maine programs and faculty for research and teaching is welcomed. Other UMaine users have included faculty and students from art, chemistry, and engineering.

## **Staff, Contact Information, and Availability**

### **Superintendent**

Brad Libby, Superintendent  
5762 Roger Clapp Greenhouses  
Orono, Maine 04469  
(207) 581-3112 - office  
[blibby@maine.edu](mailto:blibby@maine.edu) - email  
Mail: 5722 Deering Hall, Orono, Maine 04469

### **Student Employees**

The superintendent typically employs a small number of undergraduate students to assist with both greenhouse operations and maintenance of the Littlefield Gardens. Student employees of the facility are generally not available for research or project activity. It is the responsibility of facility users to provide staffing for their projects. Users must notify the superintendent of new project employees. It is recommended that faculty introduce new employees to the superintendent and other facility staff.

### **Availability and Hours of Operation**

The Horticultural Facilities are available for use by all faculty, staff, and students of the College of Natural Sciences, Forestry, and Agriculture. Student activities must have faculty oversight. Research activities of the Maine Agricultural and Forest Experiment Station have the highest priority for space allocation. Horticultural teaching also is a priority. Other University faculty may be granted space for research projects and teaching on a space-available basis. The Roger Clapp Greenhouses are open for general use during regular University business hours (8:00-4:30 M-F) and other times the superintendent is present.

### **Emergency Contacts**

Emergency	911
Brad Libby, Superintendent	207-581-3112
University Police	207-581-4040
Safety and Environ. Management	207-581-4055
Maine Agricultural and Forest Experiment Station	207-581-3205
College of Natural Sciences, Forestry, and Agriculture	207-581-3202

### **Facilities Description**

#### **Roger Clapp Greenhouses**

The Roger Clapp Greenhouses support research and teaching in horticulture, sustainable agriculture, entomology, and forestry. The facility has three main sections of interconnected glass houses. There are seven glass houses designated 1-7. There are three connecting houses

designated a, b, and c. A brick building on the north end of the facility is called the “head house” and contains a classroom, offices, and other workspace. Current use of the individual houses is summarized below. The total growing space under glass is approximately 11,000 square feet (ft<sup>2</sup>), including bench space, aisles, and other workspaces. The greenhouses are heated by steam radiation from the campus system. Manual and automated vents and exhaust fans provide ventilation. Limited supplemental lighting is available in Houses 1, 2, 4, and 5. The water source for the greenhouses is the campus water supply.

There is 1500 ft<sup>2</sup> of outdoor nursery space and a small hoop house (600 ft<sup>2</sup>) within the fenced perimeter on the west side of the Roger Clapp Greenhouses. The hoop house is used to overwinter plants.

#### *Current Use of the Roger Clapp Greenhouses*

Greenhouse #1: Research projects—Organic research, Black Bear Food Guild’s seedling production (spring).

Greenhouse #2: Research projects.

Greenhouse #3: Research projects and permanent collection (mist benches for propagation).

Greenhouse #4: Research projects.

Greenhouse #5: Research projects and teaching.

Greenhouse #6: Working head house.

Greenhouse #7: Permanent collection.

Greenhouse A: Permanent collection.

Greenhouse B: Permanent collection.

Greenhouse C: Permanent collection.

Head house (Greenhouse Classroom): Greenhouse classroom, office space, and workspace.

#### **Greenhouse Classroom**

Use of the classroom in the head house area is scheduled through the registrar’s office. This room is used as general workspace when not used for class meetings. To avoid conflicts, individuals planning to use the classroom should contact the superintendent for permission.

All users should clean up after each use. Food and beverages are not allowed in the classroom per laboratory safety regulation. Obtain permission from the superintendent before storing materials in the classroom cooler. All stored items must bear the owner’s name and contact information.

#### **Quonset Greenhouse**

The Quonset Greenhouse supports floriculture research. This greenhouse is 3000 ft<sup>2</sup> in total area with approximately 1200 ft<sup>2</sup> of bench space. The Quonset Greenhouse is covered with triple-wall polycarbonate and heated by three oil-fired furnaces suspended from the ceiling. The polycarbonate was installed new in August 2009. Ventilation is provided by a manual ridge vent, two exhaust fans, and an evaporative cooling pad system. Supplemental lighting covers the entire growing space. The water source for the greenhouse is the campus water supply.

#### **Cold Storage**

The Cold Storage Room provides a rudimentary walk-in cold storage space for plant material from field research. The room is located on the basement level (northeast corner) of the Maine

Bound Barn. The room is approximately 200 ft<sup>2</sup> and has limited shelving. The temperature is kept at approximately 36 °F by a refrigeration unit located in an adjacent utility room. Users may water their plants with the watering can labeled and located within cold storage. Water is obtained from the sink located at the west end of the basement level.

### **Facility Acknowledgment**

When users acknowledge that project activity occurred at the Horticultural Facilities, identify the facilities as Roger Clapp Greenhouses, College of Natural Sciences, Forestry, and Agriculture. An image of the College logo is also available.

### **Superintendent and User Responsibilities**

#### **Responsibilities of the Superintendent**

- Facilitates research and teaching activities of faculty and students.
- Maintains communication with facility users on projects and activities.
- Provides recommendations to facility users on facility use and plant care.
- Receives and approves requests for space in facilities.
- Supervises students employed by the greenhouse.
- Ensures safety and environmental compliance by all users and staff; and notifies supervisors of noncompliance.
- Maintains the facility infrastructure and associated equipment.
- The superintendent is the primary contact to University of Maine's Facilities Management regarding facilities issues.
- Provides appropriate pest control (excludes research treatments and biological control).
- Maintains permanent plant collection.
- The superintendent reports to the Associate Director of the Maine Agricultural and Forest Experiment Station.

#### **Responsibilities of Facility Users**

- Provide superintendent with advance notification of needs and future requests.
- Maintain communication with the superintendent regarding project activity.
- Adhere to all safety and use policies.
- Ensure that all staff, including student employees, complete all required safety training before working in any of the Horticultural Facilities.
- Adhere to all operational policies listed below.
- Begin using space only after approval of a space use request has been granted.
- Notify superintendent when project is complete.
- Provide their own plant material needed for research or experiments.
- Maintain their plants, including watering and fertilizing.
- Clean up all areas of use after each activity, especially potting benches and common areas.
- Dispose of all debris and plant waste; plant waste should be disposed of in the unlined waste barrels located in House #6. Non-compostable trash should be disposed of in waste barrels lined with trash bags.

## **Operational Policies**

### **Safety, Chemicals, Pesticides, and Security**

#### *Safety*

All facility users must adhere to all University, College, and Horticultural Facilities safety policies. All required training and documentation must be completed before conducting any activity within the Horticultural Facilities. Information on safety policies can be found via the link for “Safety Compliance and Training” on the Horticultural Facilities web page.

#### *Chemical Use*

Chemicals cannot be brought into the Horticultural Facilities without approval of the superintendent and submission of material safety data sheets (MSDS). Chemical use requires appropriate safety training.

#### *Pesticides*

The superintendent makes all pesticide applications except for research treatments. Research treatments must be pre-approved by the superintendent.

Permission from the superintendent and MSDS sheets are required before storing pesticides in the pesticide storage building. All containers must be clearly labeled with the owner’s name. Space is limited in the pesticide storage building, which makes material disposal a priority. It is the researcher’s responsibility to remove and properly process unused pesticides for disposal. This procedure often involves a chemical pick-up by the Department of Safety and Environmental Management. Pesticides being evaluated for industry should be returned to the company sponsoring the project.

#### *Security and Access*

The Roger Clapp Greenhouses are open for general use during regular University business hours (8:00-4:30 M-F) and other times the superintendent is present. University security or custodial services unlocks and locks the Roger Clapp Greenhouses during weekdays.

The Quonset Greenhouse is locked when users are not present. University Security does not unlock and lock the Quonset Greenhouse. It is very important that users with keys relock the door when they enter after hours. Security may not be able to relock until the next day.

Keys should not be ordered from the University Lock Shop without permission from the superintendent. The Department of Plant, Soil and Environmental Sciences manages the key inventory for the Horticultural Facilities. It is the responsibility of facility users to retrieve keys from employees before their departure.

### **Supplies, Equipment, and Storage**

#### *Supplies*

Users are responsible for providing their own materials and supplies for their projects. A generic peat-lite type growing medium and one or two common pot sizes may be available from the facility at cost.

### *Facility Equipment and Tools*

Some tools and equipment are available for general use, such as carts, wagons, hoses and mixing tubs. These should be cleaned and returned immediately after use. Tools and equipment should not be removed from the facility.

### *Project-owned Equipment*

Users are responsible for all maintenance (parts and labor) associated with project equipment purchased or acquired and brought onto the facilities.

### *Donated Equipment*

Approval must be received from the superintendent before accepting donated equipment for the facilities. Cost for future maintenance and use will be a consideration. The user who facilitates the donation is responsible for submission of required University forms to accept donations.

### *General Storage*

- Storage space is limited. In general, project-related storage is only available for short periods, typically one growing season.
- Materials should be clearly labeled with the owner's name. Unlabeled items may be disposed of or relocated.
- Because storage space is limited, materials should be purchased in quantities that will be used during the current season. Long-term storage generally adds to the facility staff workload. For example, bags of growing medium often break during long-term storage due to physical or UV damage to packaging, requiring clean up and disposal.
- Project materials and equipment should be stored in locations specifically approved by the superintendent and must be clearly labeled with the owner's name. Some cabinet storage space is available in House #6.
- Materials such as pots, medium, and tools must not be stored on greenhouse benches or other growing spaces.
- Stored materials must not block access or egress.
- Deliveries can be placed under the stairwell outside the classroom, but must be removed within one week.

### **Routine Greenhouse Operations**

- Greenhouse benches are not to be used as general workspace. Workbenches in House 6 and the classroom are available for general use.
- Materials (growing medium, pots, tools, etc.) should not be stored on benches.
- Consult the superintendent if special equipment, structures, or materials are required on benches.
- Greenhouse benches are not designed to support heavy loads. Large plots or flats with field soil must be kept on the floor or other approved surface.
- Do not modify greenhouse benches or any other part of the facility without specific permission from the superintendent.
- Do not use tools and equipment owned by the facility without specific permission of the superintendent. The superintendent must track tools and equipment to maintain the inventory and ensure availability for all users.

- Do not adjust or modify environmental controls (fans, vents, lights.) without specific permission from the superintendent.

### **Permanent Plant Collection**

The superintendent maintains the Permanent Plant Collection. Some plants are not appropriate for use in student laboratories. Many plants are not available for removal from the greenhouses. Some plants are rare, easily damaged, or they may be sensitive to cold temperatures during transport. Special precautions should be taken to protect plants from cold temperatures. These precautions include moving plants in closed cardboard boxes, covering with plastic bags, and transporting plants in heated vehicles.

Plants must not be altered or removed from the collection without specific permission from the superintendent each time. See Plant Request Form below. This permission step allows the superintendent to maintain an accounting of specimens, which helps to ensure availability of plants to other users.

Instructors are encouraged to bring students to view the collection, however please schedule with the superintendent to avoid conflicts with other users. Plants in the collection should not be disturbed without specific permission.

The greenhouses cannot accommodate personal plants in the Permanent Plant Collection or space used by research or teaching projects.

### **Space and Plant Request Forms**

#### **Space Request Form**

A space request form must be submitted and approved by the superintendent before occupying any space. The form can be found on the Horticultural Facilities web page. It is best to discuss the project or activity with the superintendent during planning stages and submit space requests well in advance to ensure space availability. Space is granted for a period up to one year. A space request is required annually for multi-year projects. Availability and impact of the proposed project upon other users are factors when considering approval of space requests.

#### **Permanent Collection Plant Request Form**

A plant request form must be submitted to the superintendent for approval prior to using or removing plants from the permanent collection. The form can be found on the Horticultural Facilities web page. Key information required for plant requests include the borrowers name and contact information, course name and number, plants requested and quantities, and pick-up and return dates.

#### **Facility Use Charges**

Effective October 1, 2011, all project or activity directors requesting services at Roger Clapp Greenhouses, Jacob Shur Facility, and the Lyle E. Littlefield Ornamentals Trial Garden must provide funds for facility fees for basic services and/or labor costs for other services except when the activity is part of contract initiated prior to July 1, 2011. Fees and labor rates are set by the college to provide reimbursement for *direct costs* incurred at its facilities for services provided in support of individual projects and activities. Fees and labor rates apply to all research, teaching,

outreach and other projects and activities requiring or requesting services. Specific information on fees and administrative procedures is provided on the Maine Agricultural and Forest Experiment Station web site ([Service Fees and Labor Rates at Farms and Greenhouses](#)). Fees and labor rates for services are established consistent with the [Policies and Procedures on Direct Cost Recovery and Sharing at Crop, Greenhouse, and Livestock Facilities](#) of the College of Natural Sciences, Forestry, and Agriculture and policies of the University of Maine Office of Research and Sponsored Programs.

### **Greenhouse and Garden Advisory Committee**

The Greenhouse and Garden Advisory Committee advises the superintendent and Dean/Director on policies, procedures, and priorities for the Roger Clapp Greenhouses, Jacob Shur Facility, and the Lyle E. Littlefield Ornamentals Trial Garden.

The Greenhouse and Garden Advisory Committee meets at least annually. The committee advises the Dean/Director in the following areas:

- Priorities for equipment maintenance and replacement.
- Priorities for infrastructure maintenance and improvement.
- Long-range operational planning.
- Budget management for meeting facility missions, goals, and objectives.
- Planning and procedures for the allocation of facility space and related resources.
- Implementation of safety procedures.

The Committee also is charged with developing 5-year missions, goals, and objectives for facilities for approval by the Dean/Director. The committee seeks input from appropriate academic unit chairs and teaching coordinators when advice to the superintendents or Dean/Director may influence teaching programs.