

WVU Evansdale Greenhouse

User Procedures and Policies

April 17, 2018

Part 1: Greenhouse procedures

1. Greenhouse space will generally be used only for growing of plants and related plant handling. Exceptions will be considered on an individual basis. Users should refrain from performing potting, transplanting, and sowing operations in greenhouse bays unless doing so would interfere with teaching and/or research protocols. Drying of soil, manure, or any other inorganic or organic materials is strictly forbidden. Drying rooms and ovens are available in the greenhouse workroom and at the Agronomy Farm.
2. Greenhouse space must not be used for storage of laboratory supplies, dead plant material, pots, media, unmixed fertilizer, irrigation systems, lights, gas cylinders, containers and buckets other than trash cans, chemicals of any sort but especially pesticides, and any other item that detracts from the visual appeal of the facility or which can create a safety hazard. Storage of supplies will be available in assigned areas of the caged area outside and in the greenhouse storage shed behind the greenhouse. Growing media must be stored in the caged area, fertilizer should be stored in the greenhouse storage room or the storage shed, and clean pots and other irrigation, hydroponic, or lighting supplies should be placed in the storage shed. All stored supplies must be usable for future projects. A limited amount of supplies such as watering cans, labware, tools, or dirty pots (awaiting cleaning) may be stored in the greenhouse room if the supplies are in active use.
3. It is the responsibility of the occupant to maintain a safe and clean work and plant growing environment. Users should at a minimum complete worker protection standard (WPS) pesticide training prior to working in the greenhouse and annually thereafter. The Greenhouse Director will provide the training to individuals before they begin work, and additional training sessions will be scheduled at the start of the spring and fall semesters. Users should also complete any other required safety and health training required by WVU, the state of West Virginia, or the federal government. The cleanliness of the facility should reflect well on the Division of Plant Soil Sciences, the Davis College, and WVU as a whole. Users are required to routinely clean any and all areas under their direct control or use (greenhouse rooms, storage areas, and work area in the head house).
4. The production or growing of plants for personal use is strictly prohibited. No exceptions! The introduction of unwanted pests, the difficulty in verifying ownership, unethical use of government facilities, and maintaining an equitable system of greenhouse use by individuals who do not have user agreements are all problematic.
5. All plant material to be moved into the facility must be inspected by the Greenhouse Director for insects and diseases and overall health prior to placement in the greenhouse rooms. The Greenhouse Director, in consultation with the plant owner, reserves the right to quarantine or dispose of any plant material that is deemed diseased or harbors insects. Quarantined material must be placed at least 20 feet away from other greenhouse plants (either in an empty section of

- the plastic house, in an empty room in the new greenhouse, or in the greenhouse workroom) and will be treated with pesticide to eliminate any insect or disease problem.
6. The use of field soil as growing media, or the introduction of insects or pathogens into the greenhouse, requires the submission of additional written materials and protocols by the user to the Controlled Environment Committee before space allocation will be approved. The granting of permission to utilize a specific insect or pathogen in research does not permit the introduction of additional insects or pathogens without the submission of additional information by the user and written permission from the Greenhouse Director. Each insect, pathogen, or field soil introduction will be considered on a case-by-case basis.
 7. Hallways are to be kept free and clear of any and all obstructions. No plants will be grown or placed in hallways. Trash cans will be available for disposal of plant and media waste, but it is the user's responsibility to empty them in the disposal bunker behind the plastic house. All other unwanted plants and media must also be emptied in the disposal bunker. Dead or discarded plants or media must not remain within the greenhouse for any length of time.
 8. All rooms will be open to routine inspection for cleanliness, diseases and insects, safety and health violations, and any other applicable university, state, and federal regulations. Research and teaching may require that greenhouse rooms be secured against unauthorized access. However, the Greenhouse Director will have access to all of the facility at all times.

Failure to adhere to the above-mentioned policies and procedures may result in suspension of greenhouse use privileges, at the discretion of the Director of the Division of Plant and Soil Sciences.

Part 2: Greenhouse policies

Mission

The mission of the West Virginia University greenhouses located on the Evansdale Campus is to support the research, teaching, and outreach mission of the University. While the facility is owned by the University, day-to-day management of the facility rests with the Division of Plant and Soil Sciences in the Davis College of Agriculture, Natural Resources, and Design. This document applies to all greenhouse use and users unless other specific and legally binding arrangements have been made.

A partner in construction of the greenhouse was the USDA Forest Service Northern Research Station (NRS) Morgantown, WV. A memorandum of agreement between WVU and NRS specifies that the Forest Service has exclusive use of two laboratories on the second floor of the facility, greenhouse bays 3E and 3F and assigned caged storage space. All other space in the facility is for the use of WVU or is space designated to be shared by WVU and NRS. NRS has the right to request the use of two of WVU bays on a priority basis when needed.

Organization

Administrative responsibility for the WVU greenhouse lies with the Director of the Division of Plant and Soil Sciences through the administrative authority of the Dean of the Davis College of Agriculture, Natural Resources, and Design, and ultimately the Provost's office of the University. The Greenhouse Director reports to the Director of the Division of Plant and Soil Sciences and informs the Controlled

Environment Committee of space requests and current and future management issues of the facility. The Controlled Environment Committee serves in an advisory function on the day-to-day management of the greenhouse, develops policies and procedures tied to use of the facility, and mediates space requests that exceed the available greenhouse space or may be in conflict with greenhouse policies and procedures. Each Controlled Environment Committee meeting must have a quorum and issues must receive a majority vote of members present for their decisions to be binding in regards to space requests and allocation, and changes in policies and procedures governing the use of the facility. The committee will consist of 7 members appointed by the Director of the Division of Plant and Soil Sciences. At least one of the members shall be an employee of the USDA Forest Service and the Greenhouse Director will serve as one of the members. Decisions by the committee can be appealed to the Director of the Division of Plant and Soil Sciences.

Guiding principle

The WVU Controlled Environment Committee and personnel will try to accommodate any and all request for space and services that further the research, teaching, and outreach agenda of the University, USDA Forest Service and other parties that use the facility. However, if and when projects or experiments significantly infringe on the work of other users, the Greenhouse Director - in consultation with the Controlled Environment Committee and the users that are affected (both the offender and parties negatively affected) - has the right to limit or suspend greenhouse use privileges. The Controlled Environment Committee decisions on the matter are binding but can be appealed to the Plant and Soil Sciences Division Director.

Space requests

Space requests for greenhouse use are to be submitted by mid-term of the fall, spring, and summer semesters preceding the semester in which space is requested. Earlier submittals are encouraged. If space is available, additional off cycle requests will be considered. All requests have to be made in writing and submitted to the Greenhouse Director in electronic form. Please refer to this document and the space request form on how to appropriately reserve space in the greenhouse. The minimum time allocation of space is two weeks and requests for space should be made in half month increments. Decisions on space requested by the respective fall, spring, and summer deadlines will be made at least one month before the start of the respective semesters in which users will take occupancy of assigned space. If notification of the approved start dates is needed earlier than one month in advance, the need should be clearly stated in the request for space and if possible the request for space should be made well in advance of the request deadline. If required (see space charges) appropriate and sufficient accounting information should be supplied to bill the user or their respective administrative unit. When requesting space, it is important that the researchers not underestimate or severely overestimate the time needed to complete the project.

Space assignment

In the beginning of the semester preceding space allocation, the Greenhouse Director will notify Davis College faculty via the faculty listserv, the Controlled Environment Committee member(s) from the Forest Service and other interested parties of the date when space request forms are due along with a request form. The Greenhouse Director will review and try to accommodate routine space requests. If

requests exceed available space or are in conflict with routine management, and/or policies and procedures, the Greenhouse Director will refer the requests to the Controlled Environment Committee. Final approval of space requests/allocation will rest with the Controlled Environment Committee.

The Controlled Environment Committee will convene as soon as possible after the space request deadline (mid semester) and make decisions on space allocation at least one month before the start of a new semester. Applicants will be notified by email of decisions made by the Controlled Environment Committee soon thereafter. The Controlled Environment Committee reserves the right, in consultation with the client, to make changes to the space request and/or allocation and to limit and restrict the use of the facility to facilitate efficient and effective operation for all users. Restrictions and limitations will be noted on the returned application.

Environmental control settings

At the beginning of a research project, researchers should communicate the desired environmental control settings, including supplemental lighting, to the Greenhouse Director by email. All setting and subsequent changes to environmental controls will be made by the Greenhouse Director, in response to the researchers' request. All requests to change settings should be submitted by email to the Greenhouse Director. Temporary changes (less than 8 hours) to facilitate research or teaching operations can be made by the user only upon consultation with the Greenhouse Director.

The Greenhouse Director will consult with each researcher prior to changing any setting. Should an emergency dictate a change in setting to protect plants and/or equipment or facilities, the changes will be documented by the Greenhouse Director and the details provided to each researcher.

Vacating space

Space must be vacated at the termination of the allocated period unless prior arrangements have been made with the Greenhouse Director. Prior arrangements will include a written request for project extension (an email or memo will suffice). The Greenhouse Director will when necessary consult with the Controlled Environment Committee and make a decision on extension requests. Only if space is available can a project go beyond the requested period. Users will be given one week to vacate the greenhouse after a decision by the Controlled Environment Committee is made on forced termination of a project. It is absolutely essential that projects provide conservative, but realistic space requests. Space not used for extended periods of time (more than 1 month) will revert back to the pool of assignable space in order to avoid inefficient use of the facility. If the user can demonstrate a clear need - as is the case of quarantine - for limited use of a greenhouse bay, exceptions will be granted by the Controlled Environment Committee. However, the user will be assessed space charges based on the entire greenhouse bay, not just the space occupied by plants. Prior to vacating an area, it is the responsibility of the user to clean the greenhouse bay by sweeping and spraying with a hose.

Assignment priorities

Priority for greenhouse space will be given to PSS faculty, staff, and students and Forest Service scientists (2 bays). Programs outside the Division of PSS and the Forest Service will be assigned space

excluding bays 3E and 3F if and when available. Projects requiring greenhouse space with tight environmental tolerances will be given priority in assignment of space in the new greenhouse. Projects that do not require strict environmental control will be assigned to the older, plastic covered facility next to the new greenhouse.

Services and user fees

Users fees may be imposed in the future to cover costs associated with optimal greenhouse maintenance and operations.

Some services will be provided by the greenhouse staff such as insect and disease scouting, pesticide application, routine cleaning of common areas, access to storage, help in ordering greenhouse specific supplies, general production information for plants in a greenhouse setting (technical but not research expertise), and routine maintenance. Specialty items needed in research and teaching (such as pots, media, and chemicals not typically used in the greenhouse) must be provided by the investigator. Personnel with the assigned space will be responsible for maintaining and watering of plants unless specific arrangements have been made with the Greenhouse Director. Arrangements for maintenance, holiday or weekend watering or watering under extenuating circumstances can be made with the Greenhouse Director. However, staffing will dictate the level and availability of services beyond the routine services provided. It may be possible in some circumstances to obtain specific services for a fee. Interested investigators need to see the Greenhouse Director if there are questions about services available.