

PLANT GROWTH FACILITIES MANAGEMENT AND OPERATIONS POLICY
August 5, 2009 Revision

I. Introduction

The policies and guidelines outlined in this manual have been developed by the College of Agricultural, Human, and Natural Resource Sciences (CAHNRS) Plant Growth Facilities Advisory Committee, and have been approved by the Director of the Agricultural Research Center (ARC) to allow for the efficient and effective use of the Plant Growth Facilities (PGF) within CAHNRS. It is important that quality plant growth space which is functional, clean, and pest-free be available to researchers.

Management of the facilities will be a combined effort among the PGF manager, PGF Advisory Committee, and the ARC Director.

II. Administration

A. ARC Director

B. Advisory Committee - The Advisory Committee is comprised of representatives from WSU faculty, staff, and ARS personnel who work in the plant growth facilities. The committee advises the manager and director on matters related to the PGF.

C. PGF Manager - The manager's responsibilities include:

1. Managing overall operations, application of policies, and training of users (faculty, staff, and graduate students) in use of facilities;
2. Monitoring user compliance to PGF policies and resolving differences;
3. Overseeing the setting of environmental controls (refer to Sect. IV-C, Environmental Controls);
4. Maintaining an inventory of current projects;
5. Monitoring the condition of the facilities and equipment and arranging for repair when necessary;
6. Maintaining accurate records on use assignment and other information pertinent to the management of the PGF;
7. Purchasing and maintaining an inventory of supplies.

D. Conflict Resolution - Any conflict which the manager cannot resolve will be adjudicated by the following process:

1. PGF Advisory Committee will try to resolve the conflict.
2. If no resolution is reached, the ARC Director will be consulted.
3. The decision by the ARC Director will be final.

III. Space Assignment Procedure

The intent of this policy is to ensure efficient and compatible use of all greenhouse and growth chamber space. While every effort will be made to accommodate space requests, compromise is often necessary. Compromise may include reduction in space allocations or requests, relocation of certain activities to other greenhouse/growth chamber facilities, and deferred approval. Space allocation will be reviewed on an ongoing basis and adjustments made as necessary.

A. Space use

1. Space is assigned, by request, in the PGF greenhouse and growth chamber facilities which include: 111 (entomology), 114 east, 114 west, 118, 119 and 122 (wheat research). CAHNRS departments and affiliated USDA/ARS units are the primary users of space for research and teaching activities.
2. The space within the wheat research greenhouse, 122, is primarily assigned to the departments of Crop and Soil Sciences, Plant Pathology and affiliated USDA/ARS scientists with an emphasis in wheat and grain legume research activities within the disciplines of plant breeding and cultivar development; genetics; biotechnology; plant pathology; entomology; and stress physiology.

B. Space Assignment

1. Space request form is completed and sent to the PGF manager. Forms are available online at the PGF website (<http://pgf.arc.wsu.edu/>). Click on "Space Request Page" button in the upper right corner.
2. The PGF has been delegated authority to assign space from the Associate Dean and Director of the Agricultural Research Center. The PGF Manager's decision will be final.
3. Researchers cannot sublet or share space after assignment.
4. There are no permanent space assignments. Space requests can be renewed but renewals are not guaranteed.
5. Location for research involving pathogens, insects, or herbicides which can create compatibility problems must be mutually agreed upon by the PGF manager and researcher(s) before space is assigned.
6. Unused or unneeded space reverts back to PGF for reassignment.

IV. Operating Rules

A. Sanitation

1. Project leaders are responsible for seeing that their workers clean all areas in which they work. Equipment will be provided for sweeping and washing.
2. Users should keep plant material and debris off the floor.
3. The greenhouse staff is not responsible for cleaning space after it has been assigned.
4. All plant and soil material not in use should be removed and disposed of properly. Check with PGF manager or staff for the correct dumping sites for your space.
5. Experiment termination
 - a. Project leader or his/her representative is responsible.
 - b. All plant material, soil and supplies must be removed from the growth area when project is finished. Supplies should be placed in designated areas for cleaning or disposal. Plant and soil materials should be disposed of appropriately.
 - c. Benches and floor will be left clean within one week after an experiment is terminated.

- d. Cleaning fee - A cleaning fee will be assessed if the PGF staff must clean area before reassignment can take place.
 6. Plant Growth Facilities are not a storage facility or processing area for field research without the PGF manager's knowledge and approval.
- B. Plant Production
1. Plant maintenance - Researchers do all potting, crossing, maintenance, harvesting and termination of the experiment.
 2. Plants should be grown from seed to seed (or termination) in the same growth area.
 3. Moving plants from one growth environment to another is not allowed without the knowledge and approval of the PGF manager.
- C. Environmental controls - including lighting
1. Controls will be set by the PGF manager or greenhouse staff. The PGF manager and greenhouse staff are experienced in the operation of the PGF environmental control systems and how they work. There are many different systems that have their own peculiarities. If researchers receive permission to set their own controls, environmental parameters must be agreed upon between the researcher and the PGF manager.
 2. Control precedent will be granted to the research project occupying the space first. When more than one project is in one greenhouse, controls will be determined by mutual agreement. PGF manager must take this into consideration when assigning space.
- D. General
1. Any modification of PGF will not be allowed without permission from the PGF manager.
 2. Equipment provided for general use shall be returned clean and in good repair.
 3. All materials and equipment brought into the PGF must be for use in the facilities. All support materials must be stowed away in designated areas.
 4. Only plant materials should be in the growing area. All support materials should be stowed away in designated areas.
 5. No personal plants are allowed in the PGF.
- E. Growth of controlled plants and microorganisms
1. Growth and disposal of transgenic plants and controlled microorganisms will follow procedures described by federal, state, and WSU guidelines. The Institutional Biosafety Committee (IBC), through the Office of Research Assurances, has a biosafety webpage (www.bio-safety.wsu.edu/biosafety/). Forms and templates and other biosafety information are available from this website. All planned GMO projects must be approved through the ARC office.
- F. Use of hazardous materials (toxic or radioactive)
1. Federal, state and WSU guidelines regarding the use and disposal of hazardous materials must be followed. Information is available at the Environmental Health and Safety website (www.ehs.wsu.edu/) under the heading "Environmental Services/Hazardous Waste."

2. All use of radioactive materials must be done only by authorized users under the direction of the Radiation Safety Office. Information is available at their website (www.rso.wsu.edu/) under “Basic Guidance for New and Prospective Users.”

V. Services/Supplies

- A. PGF manager will provide a general potting mix for all users. Potting mixes that are purchased for specific projects must be purchased by that project and stored elsewhere.
- B. Selection of pre-washed pots and trays of different sizes. Available supplies are listed on the PGF webpage.
- C. Fertilizer for injectors, and controlled release fertilizer in areas without injectors.
- D. Hoses, water breakers, wands, etc.
- E. Selection of plastic pot labels and plant stakes.
- F. Soil disposal for uncontaminated soil mix and non-GMO plant materials
 1. For Buildings 111, 114, 119, 817, and 817A, there is a disposal site located north of Building 114, section 4.
 - a. Soil and plant material brought to this site are transferred to the Compost Facility and should be free of herbicides, plastic, wood, paper products, metal, or other materials that will not break down quickly with composting.
 - b. Transport of materials to the site should be done with equipment that will contain everything and not leave a trail from the growth area to the site.
 2. Soil and plant materials can also be placed in reddish-brown painted metal bins outside of headhouses. These bins are transported by PGF staff to compost disposal site.
 3. The disposal site for Building 122 is located at the southeast end of the building.
 - a. Soil and plant material brought to this site will be transferred to the compost yard for composting and should be free of herbicides, plastic, wood, paper products, metal, or other materials that will not break down quickly with composting.
 - b. There are containers provided in the building that are marked for soil and plant materials only and these should be dumped at the disposal site every time they are used.
- G. Disposal of GMO plant and soil materials, and plant materials and soils contaminated with pathogens.
 1. Arrangements must be made with PGF staff for method and location of disposal.
 2. Materials must be free of plastics, wood, paper products or metal before disposal.
- H. Disposal of soil and plant materials contaminated with herbicides
 1. Users are responsible for removal and disposal of these materials.
 2. They absolutely cannot be disposed of in the composting site.
- I. Pest management at Plant Growth Facilities

1. PGF employees routinely monitor greenhouses for pests and perform control methods which include pesticide application.
 2. Any precautions related to monitoring or pest control must be specified in space request form.
 3. All users and workers are notified 24 hours in advance of pesticide applications. This includes posting at greenhouse main entry and/or an email. Email will note anticipated restricted entry interval (REI) for area.
 4. All pesticide applications are performed by PGF staff.
 5. Users must vacate greenhouse facility during pesticide applications. Warning signs are posted.
 6. Greenhouse zones where pesticides have been applied are closed for the REI. Posted warning signs will note reentry time.
 7. All users and workers in the greenhouses are required to attend Worker Protection Standard (WPS) training once every five years unless they possess a valid Washington state pesticide license. Classes last one hour and are taught by the PGF staff.
 8. A minimum of 30 days of pesticide application records are kept at a designated central location in the greenhouses. Records are maintained for seven years.
 9. Material Safety Data Sheets (MSDS) and chemical inventory are located at central location.
- J. Mineral soil container storage.
- K. Advice and technical assistance from professional staff.

Signature Page
for
PLANT GROWTH FACILITIES MANAGEMENT AND OPERATIONS POLICY

Please supply this page with your request for greenhouse and growth room/chamber space request.

I accept the terms of the Plant Growth Facilities Management and Operations Policy:

Signature _____

Date _____