

CARE AND MAINTENANCE OF THE PLANT PATHOLOGY GREENHOUSE COMPLEX

The Plant Pathology greenhouse complexes, located on Campus and on College Station Road, are available for use by faculty, students, and staff. The Campus and College Station sites operate as a common facility for those involved in departmental research and teaching programs. Consolidated activities include procurement of some supplies, use of equipment and personnel and overall supervision under one Greenhouse Manager.

The Greenhouse Manager, **Ken Davis**, is responsible for care and maintenance of the greenhouse complexes. His Research Assistant is **Charles Laster**. The greenhouse faculty supervisors are **Dr. Tim Denny** for the Campus greenhouses and **Dr Jim Noe** for the College Station greenhouses.

Procedures used at the greenhouse complexes are described below.

A. --Greenhouse Hours

Greenhouse hours are from 8:00 A.M. to 5:00 P.M. Monday through Friday. Please make sure you lock the greenhouse and headhouse doors at night and on weekends when you leave the facility.

B. Watering

Plants in pots and flats in the greenhouse are watered daily or as needed to minimize wilting of plants yet prevent the water logging of soil. Care will be taken to prevent washing of soil from pots and flats and to prevent splashing from one container to another.

Plants requiring special watering regimes, (e.g. once every other day), should be labeled clearly and the Greenhouse Manager informed of these needs in writing, giving the greenhouse number, section and bench number(s).

For experiments requiring unique watering schedules, researchers will be responsible for watering the plants themselves

C. Care of Plants

The greenhouse staff will provide routine care of all plants in the greenhouses and growth chambers. This includes watering, fertilizing and pest control.

Where care other than routine of plants is desired, written instructions are to be given **by the faculty member to the Greenhouse Manager**. Special care of experimental plants should not be expected from the greenhouse

staff, (e.g. pruning, staking or collecting of seeds or data) without consulting with the Greenhouse Manager.

Plants are watered once weekly with Peters soluble fertilizer. (20-20-20 or 20-10-20). Any additional fertilizers required must be provided by or purchased by the researcher.

D. Removal of Weeds

Grass and weeds growing under the greenhouse benches will be removed as they develop. Weeds will also be controlled around the greenhouses and grass areas with non-volatile weed killer (Roundup).

E. Treatment of Soil

The greenhouse budget can't provide materials for research projects. Therefore, all soil components that are to be used for research will have to be purchased by the researcher.

Field soil will be screened and steam sterilized prior to being placed in the soil bins at College Station. Written requirements for soil mixes should be given to the Greenhouse Manager 2 weeks prior to when the soil is needed. Therefore, plan ahead!

Soil mixes that are stored in polyethylene containers should be clearly marked with the researchers name. When the mixes are no longer needed the containers are to be emptied in the proper area, cleaned and returned to the proper place for storage.

A horticultural bark mix is available on campus for small projects and teaching needs. If large amounts are needed for research projects, inform the Greenhouse Manager 2 weeks in advance so that the soil components can be purchased and mixed.

Special soil needed for projects should be ordered at least two weeks before they are needed, i.e. Pro mix, Metro mix, Brown Earth or any other bagged commercial mix.

F. Application of Pesticides

Pesticides will be applied as needed for insect, mite and disease control. White flies and mites have been the main problems in the past. See the Greenhouse Manager for pesticides that are being used. Signs will be placed on outside doors of the greenhouse being treated prior to spraying. **Do not enter any greenhouse that has pesticide application signs in place.** A record of date of application and the chemicals used will be kept. If experimental plants require special insect or disease control, the Greenhouse Manager must be provided written instructions, including greenhouse sections and bench number. Specific pesticides not normally stocked in the greenhouse inventory will have to be purchased by the researcher.

Pesticide spraying is usually done at 4 P.M. on Friday, so do not schedule greenhouse activities after that time. The greenhouses are safe to reenter at 8 A.M. on Saturday morning.

G. Maintaining Desired Temperatures

Temperatures in each greenhouse will be maintained as close as possible to 22-25 C. Temperatures will be adjusted by the greenhouse staff and checked periodically during the day to maintain the desired temperature. For temperature regimes outside these settings, please see the Greenhouse Manager. Keeping the greenhouse sections at a warmer setting are possible most of the year, but in the summer months, cooler temperatures are almost impossible to obtain.

H. Orderliness

The Greenhouse Manager is responsible for seeing that the headhouse is kept clean and orderly. Equipment, like wheelbarrows and carts, are to be hosed down after each use and returned to the proper place of storage. On Campus a hose is located to the left, out the back door to the headhouse. At College Station a hose is located on the side of House 9.

Everyone – Faculty, staff, students and greenhouse staff—is expected to keep the greenhouses orderly so that we can be proud to show visitors through them.

Use the trashcans! All trashcans will be emptied at least once a week, more often if full. Greenhouses will be washed out once per week and headhouse swept to maintain order at least once a week.

I. Discarding of Plants and Care of Pots

When an experiment is completed it is the responsibility of the **Researcher** (faculty, staff or student) to see that the plants and soil are properly discarded in accordance with the recommended sanitation procedures.

Turning over the plant or placing a group of plants in a pile on the bench will let the greenhouse staff know plants may be discarded

On campus all discarded plants and soil will be placed in the recycle bin between the upper and lower house. At college station plant material will be placed in the dumpster and soil in the discard pile behind the soil mixing building. Dirty pots and flats are to be placed in the designated area in the headhouse for sterilizing and/or washing. All plastic pots, flats and clay pots will be steam sterilized by the greenhouse staff prior to placing on the shelves designated for sterilized pots in the headhouse.

Never put pots that have been used back on the shelf! All disposable pots, gloves and labels will be discarded into the plastic trashcans designated for regular type trash

Plant material and used soil will be discarded into the designated metal trashcans. Never put labels, pots or other trash in the metal cans. Check with the Greenhouse Manager if you have any questions.

J. Graduate Students

Graduate students are to do their own potting, planting, and discarding of plant material. Plants should be discarded and benches cleaned as soon as an experiment is terminated. The greenhouse staff will do the watering and care of plants, grown by graduate students in the greenhouse. Watering and care of plants grown in the growth chambers will be the responsibility of the graduate student conducting the experiment. Graduate students may request that the greenhouse staff water their plants in the growth chambers on weekends and holidays.

K. Assistance

Request for assistance from the Greenhouse Manager by faculty members should be scheduled with the manager **at least 24 hours** in advance. Hourly student worker employed at the greenhouses are under the direct supervision of the Greenhouse Manager, and request for using them must be approved by the manager.

L. Lights

It is the responsibility of users of supplemental lighting in the greenhouse to maintain and to set the appropriate lighting intervals. The researcher may request that the Greenhouse Manager do this. The researcher must purchase replacement bulbs for greenhouse supplemental light and for growth chambers that are owned by researchers. The greenhouse staff will replace the burnt out bulbs as needed and inform the researcher when new bulbs need to be ordered.

M. Space Assignments

Greenhouse space is assigned by the Greenhouse Manager on an as needs basis. Requests for greenhouse space are usually considered and space assigned in the Fall of each year. Greenhouse space is limited. Since all requests cannot be granted, and since circumstances and needs for assigned space change during the year, it is requested that when an assigned space is no longer needed that the researcher informs the Greenhouse Manager so the space can be utilized. This space can then be reassigned to another researcher.

N. Weekend Care

Watering and ventilation of the greenhouses and growth chambers on Saturday, Sunday and Holidays are the responsibility of the greenhouse staff. Faculty members who have special greenhouse instructions for the weekends should arrange for it in advance with the Greenhouse Manager or make other arrangements.

O. Vehicles

Two vans for departmental use are kept at the campus greenhouses. The large van (#096) is a passenger van and should never be driven to the field or used to haul soil. In other words, it is a people only vehicle. The mini van (#687) is for general use. The campus greenhouse pick-up truck (#450) can be used if reserved with the Greenhouse Manager at least 24 hours in advance. All vehicles are to be refueled at the motor pool on College Station road before returning to campus if the vehicle has less than half a tank of gas. All vehicles must be checked out (user signs name and time of use) on the calendar located in the headhouse. Vehicles can be reserved ahead of time by e-mail (kwdavis@uga.edu) or voice-mail (2-3781) to the Greenhouse Manager.

P. Growth Chambers

The use of all growth chambers must be coordinated with the Greenhouse Manager. When assigning growth chamber space the manager will need approximate dates that the growth chambers will be used (be as specific as possible) and the chamber number if a specific growth chamber is preferred. Requesting chamber reservations periods longer than 2 months is discouraged. At the end of the reserved time, the user must remove all materials that they placed in the chamber during the time they used it. Users should contact the Greenhouse Manager for setting environmental conditions in the growth chambers.

1. Departmental Chambers at Campus headhouse:

There are 3 old chambers (#1,2,3) that are no longer being maintained by the department, they will be used, as is, until they no longer work.

- a. Chamber #1: Percival walk-in. Can be used by all departmental personnel. Chamber has good temperature control, not much lighting.

- b. Chamber #2: Percival walk-in. Can be used by all departmental personnel. Chamber has good temperature control, not much lighting.
- c. Chamber #3: Percival walk-in. Can be used by all departmental personnel. Good temperature control, no lighting.
- d. Chambers # 4 and 5 are no longer in use.
- e. Chamber #6: Percival walk-in. Can be used by all departmental personnel.
- f. Chamber #7: Percival walk-in. Can be used by all departmental personnel.
- g. Chamber #8: Percival walk-in. Purchased and used by Dr. Denny
- h. Chamber #9: Conviron reach-in. Purchased and used by Dr. Gold
- i. Chamber # 10: Percival upright. Can be used by all departmental personnel.
- j. Chamber #11: Conviron reach-in. Can be used by all departmental personnel.
- k. Chamber # 12: Conviron reach-in. Purchased and used by Dr. Sherwood.
- l. Chamber # 13: Conviron reach-in. Can be used by all departmental personnel.
- m. Chamber # 14: Conviron reach-in. Can be used by all departmental personnel.
- n. Chamber #15: Percival upright. Purchased and used by Dr. Sherwood.

2. Growth Chambers at College Station headhouse:

- a. Conviron walk-in. Can be used by all departmental personnel.
- b. Conviron walk-in. Can be used by all departmental personnel.
- c. Conviron walk-in. Purchased and used by all departmental personnel
- d. Conviron walk-in. Purchased and used by all departmental personnel

Revised August 11, 2004