

Common Protocol for Growth Room (220A) and Controlled Environment Chamber Use:

Each lab MUST designate one individual to be responsible for insuring that members of that lab are appropriately trained and abide by the common protocol. A list of the responsible individual from each lab, along with phone and e-mail contact information should be posted in 220A and kept up to date.

I. Cleaning and Maintenance of Common Growth Areas

- a. All physical space MUST be kept clean and uncluttered with supplies. Each lab MUST participate in a rotating cleaning schedule. The rotation schedule will be posted in a common area of room 220A.
- b. Each lab MUST provide training to new lab members in room cleaning and maintenance prior to working alone in the room (220A).
- c. Each lab representative MSUT provide accountability for individuals working in the room by updating a 'Proof of Training' log.
- d. A designated space for common cleaning supplies MUST maintained and stocked. Maintaining this area will be part of the rotating cleaning schedule.
- e. DO NOT use the shop vac to clean up wet spills. DO empty it into the proper containment for disposal after each use.
- f. DO NOT store open containers of growth media (soil etc.) in the growth room.
- g. DO NOT allow standing water to accumulate in drain pans, mop buckets, etc.
- h. The workbench MUST be sanitized after each use with an appropriate disinfectant (70% EtOH, 10% bleach, or Greenshield).
- i. The sink and trap MUST be cleaned and sanitized by individual users after each use (10% bleach). DO NOT leave debris or other organic material in/around the sink.
- j. All plant material to be disposed of MUST be placed in biohazard bags before leaving the growth room. Biohazard bags SHOULD NOT be left in 220A, but removed and disposed of after each use.
- k. Cardboard boxes or wooden stakes SHOULD NOT be stored in the room aside from residing in individual chambers. These provide growth substrate for molds.

II. Controlled Environment Chamber Maintenance

- a. Each chamber MUST be labeled with project information. Information should include investigator's name, planting date(s), estimated harvest date.
- b. Each chamber MUST be cleaned and sanitized properly between plantings, as follows: Dilute Greenshield to the recommended concentration on the label; thoroughly wash the inside of the chamber being sure to reach all accessible areas, close the chamber up for 7-10 days and set at high temperature (40 °C or as high as the chamber may be rated for). Note that Greenshield is much better for chambers than bleach or alcohol! It is less volatile and plant friendly. Residual alcohol or bleach can detrimentally impact plant growth.**

Empty chambers MUST be properly sanitized immediately after removal of plant material.

- c. Drainage and airflow of chambers should be checked regularly to avoid pest and pathogen hot spots in the room and in the chambers.
- d. Information regarding problems with growth chamber room temperature or pest infestation should be shared among labs. The white board should be used for this purpose.
- e. Lift the very bottom tray. Mop out an excess water and vacuum. This will prevent the drains from clogging!
- f. Check the lights to be sure they are operating at their full wattage.

III. Pest Prevention and Control

- a. Indicator “sticky” cards MUST be used to monitor for early detection of insect pests.
- b. Regular scouting of experimental material is CRITICAL. Each lab should have a protocol that can be accessed by any researcher using the growth room concerning monitoring and control of pests.
- c. Unless experimentally necessary, senescing plants MUST be promptly removed from growth chambers to LSL 506. Each lab with a need should have designated space in LSL 506 for this purpose.
- d. Plants that have been transferred to the senescence room MUST NOT be returned to the growth room.
- e. Plants that have been grown in a greenhouse facility MUST NOT be transferred to the growth room.
- f. DO NOT open a chamber that does not house plants that you are responsible for growing without consent from the scientist(s) posted on the chamber. If you are not sure if you have permission, contact that person before opening the chamber door! This can upset experiments in progress, interfere with the controlled condition in the chamber, and leave plants vulnerable to pests.

IV. Required Training and Resources

- a. Maintenance of ‘Proof of Training Log’ (in 220A)
- b. Maintenance of common (to our facility) online resources (Google docs)
- c. White board to be installed in the room for information sharing and communication among lab groups.
- d. Lab representatives will meet monthly to discuss issues arising.

Please contact Rebecca Fricke if you have any questions or issues –
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