

WSLR Plant Growth Facility Recharge Summary

R. Eddy, January 31, 2005

Background:

In January, 2000, at a meeting of WSLR researchers, there was agreement toward "institutionalizing" the WSLR facility with "Three levels of 'charge back' needed: NSF-chamber charge, Facility-owned shelves, and User-owned shelves or chambers." In 2002, then-Associate Dean Woodson distributed a building policies memo stating the goal to make WSLR a "model for new space to support multi-disciplinary research" and asked Nolan Shumway, Bradford Redding and myself to track expenses in anticipation of a recharge system. During the last several years, Bradford Redding has been taking on some centralized management of the plant growth areas. Dean Woodson has agreed to continue subsidizing the center for this fiscal year by paying 50% of Bradford Redding's salary. Starting July 1, 2005, he's asked me to start the new recharge system.

The WSLR growth chambers and light shelves in common-use areas and the greenhouse will be "folded into" the existing College of Ag Plant Growth Center managed by Rob Eddy (HLA), Nolan Shumway (BPP) and Bradford Redding (BPP). This center currently consists of 33 growth chambers housed in three buildings and available to Ag researchers for a recharge fee. Ten of those chambers are the Percival AR-75L models in the sub-bsmt of WSLR.

New costs to researchers:

For WSLR researchers, this change means that on July 1:

- The recharge on the 10 Percival chambers that constituted the original plant growth center will be lowered to \$0.12 per square foot per day (\$2.28 per chamber per day); down from the current \$0.16 per square foot per day (\$3.02 per chamber)
- Greenhouse space will cost \$0.06 per sq ft per day to use
- Light shelves located in the sub-bsmt rooms S006-S038 will cost \$0.03 per sq ft per day
- The 30+ chambers of various makes, sizes located in rooms 141, B014 and sub-bsmt rooms S006-S038 will cost \$0.06 per sq ft per day

New capabilities:

In anticipation of this expansion, we have upgraded the heating, cooling and computerized control of the greenhouse. The greenhouse is now the best-cooled on campus, capable of growing most Arabidopsis lines. Unusable growth chambers in common areas have been removed. User-owned growth chambers in the common-use rooms have been repaired. \$1000 worth of pest control products have been purchased. An Arabidopsis drying area has been established in RM 141, freeing up room for actively growing plants. Koldwave cooling units have been installed in sub-bsmt rooms that could not maintain proper temperatures.

Services provided:

- Purchase and maintain inventory of lamps, soil mix, commonly used pots, irrigation tools, sanitation supplies such as paper towels, soap and latex gloves
- Twice-yearly refrigeration maintenance on chambers
- Programming of chambers if requested, timers and greenhouse controls

- Troubleshooting and routine maintenance of chambers, light shelves and greenhouse
- Facilitate and pay for repairs
- Facilitate and pay for most installation and removal of equipment in center
- Weekly pest scouting, notifications and applications of pesticides
- Lamp changes
- Trash removal and autoclaving potted plant material

Facility users' responsibility:

- Acquiring approval from WSLR building committee prior to moving any equipment into common use areas
- Consulting with Bradford on specs of new equipment bought for center
- Filling out paperwork for requesting space in center, including account number for recharge
- Daily monitoring and maintaining crops, including watering and fertilizing
- Keeping growth areas and work areas sanitary and orderly
- Terminating experiments in timely manner

User-owned chambers in center:

Owners of growth chambers will decide when/if they will allow someone else to use it. The incentive to share is that the borrower pays the recharge. Chambers under warranty will not be charged.

Recharge not for amortization:

Recharge funds will not be used to buy more chambers, but for the services mentioned above.

Recharge does not include Facilities/Administration costs:

F/A costs are a part of the 52% of your grants that Purdue takes. It is not added to our recharge. Costs of recharge center can be written as line item of grant requests, usually under "Other Supplies and Expenses."

Bradford Redding manages:

Bradford will have authority and flexibility of decision-making in daily management. He will be primary contact for all needs.

Equipment not included in center:

Not in the scope of management is equipment located in labs. The Center will not include freezers, refrigerators, incubators or other equipment not directly used for growing plants. A more cost-effective way for researchers to maintain this type of equipment is to set up a service agreement with Purdue Refrigeration for twice-yearly maintenance.

Assessed every 2 years:

Recharge fees will be evaluated by Purdue Business Services about every 2 years and adjusted up or down. At that time, center can be expanded to include new equipment or new areas, if WSLR Building Committee requests.

Repairs Covered

All repairs will be covered unless the user damages the chamber due to misuse. Older chambers that break down may not be repaired if it is determined they should be "junked" by Refrigeration mechanics and the facility managers. Determining a cost formula for this determination is difficult,

due to different makes, sizes and ages of the 31 chambers we are proposing be folded into the School of Ag Plant Growth Center. Guidelines will be as follows, according to age of equipment and size (and therefore approximate expense of vital components such as the compressor):

5 years old or less:	Equivalent of 7 years recharge (\$1,226 – 4,905)
6-14 years old:	Equivalent of 3.5 years recharge (\$613 - \$2,452)
15 years or older:	Equivalent of 1.75 years recharge (\$306 - \$1,226)

Decision to junk chambers will be Rob, Nolan and Bradford's. Appeals can be made to WSLR Building Committee.