

Clemson University Report To the USDA NCR - 101 Committee
April 2002

New Facilities

Construction of new Science and Technology Center and headhouse is nearly completed. First half of the greenhouse complex was occupied in May, 2001. Second half of greenhouses is just completed and will be occupied May 2002.

Laboratory Building

- 108,000 gross square feet of space distributed on 4 floors
- Ground floor is primarily a seminar area and mechanical equipment space
- 3 upper floors are of a generic design to accommodate future research initiatives
- Each research floor contains four 2,500 square foot main lab suites
- Smaller specialty labs are located in perimeter areas and include: Biosafety Level 3 lab and a radiation work area
- Common equipment areas for autoclaves, dishwashers, long term freezer storage and centrifuges on each floor
- Walk-in cold and warm rooms located on each floor
- PI Offices are located in a clustered administrative area on each floor
- Bioinformatics group is housed in two office suites with direct access to a 32 node computer array

Headhouse

- 16,000 gross square foot headhouse support facility
- Two laboratories including a Biosafety Level 3 lab
- Seven, 100 square foot, walk-in growth rooms
- Four reach-in growth chambers (room to accommodate 25 total)
- Four cold rooms

Greenhouses

- 40,000 gross square feet under glass directly connected to the headhouse
- 32 research sections with individual environmental controls
- Mist propagation with bottom heat sections
- Photoperiod control (light exclusion) section
- Overhead sheltered outside growing areas

Publications

- Rajapakse, N.C., T. Cerny, S. Li, and R. Oi. 2001. Alteration of greenhouse light environment by photoselective covers to produce compact plants. *Acta Hort.* 559(1):243-248.
- Wilson, S.B., N.C. Rajapakse, and R.E. Young. 2001. Carbohydrate status and postharvest recovery of micropropagated hosta plantlets stored at varying temperatures in light or dark. *Acta Hort.* 543:265-273.
- Wilson, S.B. and N.C. Rajapakse. 2001. Growth control of *Lisianthus* by photoselective plastic films. *HortTechnology* 11:581-584
- Wilson, S.B. and N.C. Rajapakse. 2001. Growth regulation of sub-tropical perennials by photoselective plastic films. *J. Environ. Hort.* 19:65-68.