

NEW FACILITIES

6th St. Greenhouses Expand Research Capability

By Susan McGinley



New greenhouse complex features advanced electronic controls and room to grow.

The College of Agriculture and Life Sciences has a new set of greenhouses on campus. Featuring enhanced natural lighting, advanced capability in electronic controls and customized greenhouse design, the greenhouse complex offers faculty and staff a more controlled space for conducting research in plant sciences, plant pathology, entomology, and for cooperative projects in pharmacology and other disciplines.

The facilities are designed to exceed guidelines for containment of plant pathogens such as bacteria, fungi and viruses. Irrigation water is collected into a central holding tank where it is treated before being released. All plant material and potting soil is steam sterilized to prevent the unintended release of plant material and pathogens. To further protect the research and the environment, each greenhouse area can be accessed separately.

The facility was completed in September 2004 to replace other greenhouses that were removed to provide space for a College of Sciences chemistry building expansion. The university's space constraints in the center of the UA campus do not allow for single story buildings. Constructed on top of the UA's 6th Street

Parking Garage, it has the advantage of receiving unobstructed sunlight year round.

"The new location is fantastic because no one can interfere with our sunlight," says Randy Ryan, assistant director of the Arizona Agricultural Experiment Station. "The new complex is not sandwiched between two tall buildings that cast shadows, as the previous greenhouses were."

Eight greenhouse units are fully operational, and an additional 22 modules will be constructed as funding allows. The greenhouses currently support a variety of research programs in genetics, molecular biology, plant pathology, virology, entomology, research for active plant compounds, and other projects.

The 34,000 square-foot complex includes research space, lab benches for potting and processing plants, headhouses, storage space, bathrooms, showers, lockers, office space for the staff. Along with the additional greenhouse modules, plans also include growth chambers and grow-rooms.

"The computer system is designed to check each module and to issue a warning if there are changes in the system," Ryan says. The entire system is supported by a backup generator in case of power outages.

"With this facility, we can support our outstanding plant science program and literally grow millions of plants a year," Ryan says. ☒

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