

Lou Greub
Feb. 2006

Upgrading the Plant & Earth Science (Agronomy-Soils-Horticulture) Teaching Facilities.

The new Agriculture-Science Building completed in 1966 included a small “greenhouse” on the roof of the structure. This was the first greenhouse facility available to the College but was shared with the Biology Department, also housed in Ag-Sci., for use in Botany classes. In addition to the limited size, the facility suffered from light deficiency in many locations because of its solid roof construction. At about the same time, a one-acre parcel of land just south of the Wall Amphitheater was developed into a Plant Science nursery as part of a Campus Beautification Project. Dr. Melvin Wall, Chair of the Campus Beautification Project, and Dr. Donald Steinegger of the Horticulture faculty were instrumental in bringing about this project. It was described as being “For the purpose of research and as a teaching aid in Plant Science.” Dr. Steinegger had received a grant to study climatic hardiness of perennial trees, shrub, and plants. The initial planting consisted of 65 fruit trees, grape vines, small shrubs, evergreens, and grasses. The nursery immediately became heavily used as an outdoor teaching laboratory in agronomy and horticulture. It also became a source of plant material harvested during the summer and stored in one of the Ag-Science Building's large walk-in freezers for use in Plant Science labs during the winter months. The nursery has been expanded a couple of times over the years and has been the site of grape, blackberry, raspberry, herb, and perennial

ornamental trials and teaching plots as well as plantings of the traditional agronomic annual and perennial crops.

CAFES Greenhouse

Planning for a new greenhouse began about 1969-70. Plant & Earth Sci. faculty wanted to have it located on the southwest side of the Ag-Sci. building with a connection to the main building for easy access during winter months. This would facilitate transport of plant materials to the labs and classrooms and also be convenient for students to move to and from the greenhouse. However, because of the long-range plans to add a food science wing to the Ag-Science building, campus building planners decided that it would have to be located as a separate, unconnected facility to the east of the ag engineering shop area. Also, I believe that because of budget limitations it was projected to be a two-phase project. Construction of the initial phase, which consisted of a headhouse and four glasshouse rooms, began in 1971 and was finished in 1973. Plant Science faculty Lou Greub, Donald Steinegger, and Bob Tomesh along with Plant & Earth Science technician Mark Kimball were very much involved in the planning of the new greenhouse. The budget for the original project was \$183,000. Phase II did not begin until 1985 when four additional "glass" houses were added to the south end of the initial structure. However, these houses were covered with a double-walled, nearly clear, acrylic material that has a much lower heat loss than glass. The cost of this addition was \$195,723.

In 1988-1990, a \$305,500 project remodeled and expanded the headhouse to add a much needed classroom; upgraded the fertilizer/pesticide storage area; replaced the ailing growth chambers; and installed a computer-controlled ventilation, lighting, and automated watering system. The computer-controlled system was one of the first such installations in a university greenhouse in the mid-west. Fertilizer injection via the watering system and CO₂ injection capability into glasshouse rooms also were included. The completed greenhouse with the increased space and modern facilities has made it possible for horticulture, agronomy, and soils classes to have a year-round laboratory to do their weekly lab work, carry on extended class projects, view demonstrations, and do actual research-type experiments.

In May, 2001, a severe hailstorm with some hailstones the size of grapefruit completely devastated the glasshouses and severely damaged the acrylic-covered part of the greenhouse. Greenhouse manager Dan Waletzko described the scene as “A mine field of glass” following the storm. It took most of the summer to clean up the mess. The only good result from it was that as a result of the persistent urging of the plant science faculty, the older, former glasshouse areas were also recovered with the more heat-saving and moderately hail-resistant biwall acrylic.

The goals in periodically remodeling and upgrading the greenhouse have been to maintain a state-of-the-art teaching and demonstration facility while also allowing faculty and students to do research in a controlled greenhouse environment.

Since the late 1990s the greenhouse facility has become an important facility for horticulturalist Dr. Brian Smith's strawberry and fruit breeding work.