

**The Milton Gardens:
A History and Future of Teaching, Research and Display**

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The Milton Gardens, a combination of teaching, research and display gardens are a part of the Milton Campus of the University of Florida (UF) and Pensacola Junior College (PJC), a joint use facility located 18 miles northeast of Pensacola in Santa Rosa County, Florida. The Milton Gardens are located within a 3-acre area of the campus that was cleared in 1995 for the construction of greenhouse, shade house and nursery production facilities for the University of Florida teaching program. After the construction of permanent facilities, the first plant production classes and the Master Gardeners from Santa Rosa and Escambia Counties contributed countless hours to plant and maintain the nearly 2 acres of trial and demonstration gardens as designed by Dr. Richard K. Schoellhorn and Dr. Mack Thetford. The facility has since become a destination within Northwest Florida and a very popular location for many garden clubs, horticulture study groups, homeowners, visiting scientists and school classes to visit, study or photograph.

As the Milton Gardens and the West Florida Research and Education Center (WFREC) programs have grown, management of the gardens has changed. Dr. Schoellhorn relocated to Gainesville in 2000 to take on new statewide responsibilities within the Institute of Food and Agricultural Sciences (IFAS), and a new faculty member, Dr. James L. Gibson, joined WFREC in 2003. Between 2000 and 2003, Dr. Thetford assumed responsibility for the Milton Gardens and set out on a plan to redesign and expand the scope and size of the gardens. Over the past 3 years the original planting beds of the gardens have been redesigned to create many more paths

and take advantage of the structure created by the maturing woody plants that have been part of the gardens since 1996.

The objectives of the Milton Gardens are threefold. The first is to aid in the plant identification and landscape maintenance courses offered through the horticulture programs on campus. Second, the gardens provide area nurseries and the landscaping industry with a "no risk" trial area where they can see what's new and well suited to Northwest Florida. The third objective is to provide the public with not only a pleasant place to take a walk, but also a living classroom, where students and visitors can identify the flowers and shrubs that make up our Florida landscape. These objectives are shared by similar gardens throughout Florida, which other University of Florida facilities have developed (2).

Teaching. The initial garden designs were the inspiration of Dr. Rick Schoellhorn who served as Coordinator for the Milton Gardens from 1996 to 2000. Dr. Schoellhorn taught classes in greenhouse production and plant identification while at the WFREC. The initial garden design also incorporated many herbaceous and woody landscape plants introduced by Dr. Mack Thetford who since 1995 has used the Milton Gardens and the entire campus when teaching landscape design, plant identification, and landscape management. Other courses that have utilized the Milton Gardens include: plant propagation, annual and perennial gardening, greenhouse and nursery crop culture, plant pathology, entomology, and soil science. In fact, the annual and perennial gardening students design and install new planting beds each spring of odd years, which continually expand the gardens. Also, Dr. Gibson's greenhouse courses rely on stem cuttings of tender herbaceous plants from the Gardens to produce crops. Non-traditional students from local elementary, middle, and high schools learn about wildlife, landscape

ecology, and native plant conservation, along with being exposed to general horticulture topics. Furthermore, local gardeners receive hands-on training during demonstrations of planting, pruning, and fertilization, which emphasizes good stewardship toward the environment.

Research. The Milton Gardens offer areas to conduct scientifically sound research for resident faculty as well as for state-wide trialing programs. For instance, Dr. Schoellhorn developed a research program that focused on identification of tropical perennial crops that would overwinter in North Florida and also tolerate the intense periods of heat, drought, or summer rains for which the region is known. Trialing protocols involved planting into ground beds amended with mushroom compost at 1 yard per 100 ft², and mulching with a thick layer of aged pine bark after soil preparation. The pH of the beds ranged from 6.2 to 6.7 at planting. Next, 72 to 84-cell liners were planted directly into the beds on 12-inch centers and 4 grams of Osmocote 18N-2.6P-9.9K (The Scotts Co. Marysville, OH) was incorporated around each entry. Plants were watered through drip tubes similar to commercial vegetable production irrigation systems after an initial hand watering. Plants were evaluated every other week for initial flowering, peak flowering, and landscape performance. Landscape performance was rated using a 5 point system (1=poor-5=exceptional), and comments were recorded regarding diseases and pest incidence.

Dr. Thetford's introductions to the campus and Milton Gardens continue to be influenced by his research program that has focused on invasive plants, nematode tolerance of landscape plants and propagation, production, and landscape evaluation of native and ornamental plants. For example, Dr. Thetford's recent trials have included: landscape evaluation of 10 selections of *Hypericum reductum* for Gulf Coast landscapes; and participation in a statewide performance trial of *Rudbeckia hirta* for the University of Florida Wildflower Program led by Dr. Jeff Norcini

(1). Most trials of native species occur in new garden areas that have not been amended as previously described so plant performance may be evaluated in low input landscape situations.

With the addition of new faculty come the opportunities for new trialing projects. Winter trials of herbaceous plants in Dr. Gibson's research program have involved the identification of superior performing ornamental mustards, kales, and chards for Northwest Florida. Other species that will be trialed include flowering maple (*Abutilon*), cape daisies (*Osteospermum*), and hardy perennials. Drs. Gibson and Thetford are also collaborating on trials that will include the identification of hardy ferns and begonias for Northwest Florida. The objectives of these projects are to evaluate garden performance of a diverse collection of hardy ferns or fern allies and various rex-type, cane-type, clumping, and angel-wing begonias subjected to sun/shade and irrigation/no irrigation treatments.

Display. Originally the gardens had four main planting beds and a large scientific trialing area. Today, the Milton Gardens have expanded to six main display areas including a children's garden, an ornamental grass border, an entry garden, and a new area was recently thinned of many trees and native scrub between 2002 and 2003 to create what will in 2004 become the new shade garden. These areas will further the garden's ability to create a greater awareness and appreciation of The Milton Gardens and encourage the use of The Milton Gardens as a public garden to promote a better neighborhood and community. In addition, each of the diverse teaching and research programs, activities and interests of the faculty have had an impact on the initial design, plant composition and subsequent changes of The Milton Gardens. Some of the display gardens that have featured several species and cultivars of particular taxa include gingers, canna, and other tropical bulbs, ornamental grasses, ornamental sweet potatoes, sun-loving

coleus, porter weeds, Sweedish ivy, and shrimp plant. Multiple taxa from the *Lamiaceae*, *Rubiaceae*, and *Verbenaceae* families also occur throughout the garden and serve to attract a variety of butterfly species.

The gardens began in 1996 with the development of the University of Florida, IFAS teaching programs established through the West Florida Research and Education Center the previous year. The gardens have been largely built and maintained by UF students, faculty, volunteers, and staff. In January 2004, a new organization was established to physically and financially assist the Gardens. The Friends of the Gardens promises to be the driving force to help take the Milton Gardens from a collection of teaching, research and display gardens to a regional arboretum located within the Milton Campus of PJC and UF. Present programming includes University of Florida Master Gardener volunteer workdays, children's tours, Florida Master Gardener training events, the Santa Rosa County Farm Tour, green industry field days, and the Tri-State Short Course. The ultimate goal of this organization is the establishment of the campus as a botanical garden.

As a destination within Northwest Florida, the Milton Gardens will continue to educate the public and professional community. The Milton Gardens will achieve its mission of providing a venue for teaching, research and display while serving as a popular location for garden clubs, horticulture study groups, homeowners, visiting scientists and school classes to visit, study or photograph plants and wildlife. For the industry, the gardens provide a "no risk" trial area where they can see what's new and well suited to Northwest Florida.