

Sustainable Landscape Demonstration Garden

By Ellen Vincent, Clemson University Environmental Landscape Specialist

Between Barre and Lehotsky Halls on the Clemson campus lay two demonstration garden beds. When school is in session the sidewalks that intersect and border these beds are alive with students moving between classes; and faculty, staff, and visitors traveling between buildings. The garden is visible from ground level and second story offices and classrooms as well. The sustainable landscape demonstration garden installation is designed as a model of the urban environmental education garden—a space designed to intrigue, invite, entice, and involve viewers in the hopes of eliciting behavior change. The practices we are demonstrating are eco-friendly sustainable garden design, installation, and maintenance. Students from numerous horticulture classes (Sustainable Landscape Garden Design; Horticulture Inquiry and Discovery; and Landscapes + Health) were involved in all aspects of the project—design, installation, maintenance.

Native plants were selected for this environmental installation due to the recent trend in urban design that advocates creating corridors of native plantings in order to provide food and habitat for native insects and wildlife. Native plants are still a bit hard to find in the local market, perhaps due to consumer perceptions that they are messy and untidy (Nassauer, 1997). One major goal of the sustainable landscape garden demonstration is to properly install the plants and deliver essential but minimal maintenance to the landscape to see how these less used natives perform in the typical urban ornamental landscape.

Six inches of leaf compost was

filled in to a depth of 8" prior to planting. Plants were installed so that crowns or root flare were at the soil surface. Three inches of vegetative mulch was applied to the soil surface after planting. Mulch did not touch the stems of the plants. Water was/is applied deeply by hand using a hose and hose end nozzle/wand whenever the soil feels dry 1.5" below the surface. Weeds are hand pulled from the interiors of the beds when the soil is moist (not wet). No commercial fertilizers or insect/disease products are applied to the area. To measure soil health pre and post installation soil tests were conducted. To measure consumer perceptions pre installation and post installation perception surveys were conducted by student interviewers of passersby. Not surprisingly, perceptions of aesthetics and maintenance were significantly higher after the garden was installed.

There are 25 labeled species/cultivars in the demonstration garden. One bed is 1,400 square feet and the other is 1,800 square feet. Green industry professionals are being asked to visit the site and rate the individual plants at any time of the year. The rating sheet may be found on line at <http://www.clemson.edu/cafls/demo/> or by e-mailing Dr. Vincent at ellenav@clemson.edu.

Plants that perform well in the eye of the public will stay in the demonstration garden while plants that score poorly two seasons in a row will be replaced with new native selections.

Definitions of sustainability are varied and often these days used in "greenwashing" —where a company makes claims that are not supported by their practices. Our

basic definition stems from the 1987 report to the United Nations by the World Commission on Environment and Development, also known as the Brundtland Report. This report defines sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their needs" (World Commission, 1987, p. 8). The Brundtland Report identifies healthy environment, economic development, and social justice as the three issue areas that must be present in order for sustainable development to occur. Current perspectives and practices conveyed to students are inspired by EPA GreenScapes materials (<http://www.epa.gov/epawaste/conservation/tools/greenscapes/index.htm>), the Sustainable Sites Initiative Benchmarks and Guidelines (http://www.sustainable-sites.org/report/Guidelines%20and%20Performance%20Benchmarks_2009.pdf) and the publication *Cradle to Cradle: Remaking the Way We Make Things* (McDonough and Braungart, 2002) along with the Cradle to Cradle products innovation institute (<http://c2ccertified.org/>).

Please be sure to rate the plants each and every time you travel to Clemson—our project will certainly be enhanced by your perspective. The rating form is available on-line at Clemson Sustainable Landscape Demonstration Garden or can be emailed to you.

Work cited:
Nassauer, J. I. (1997). *Cultural sustainability: Aligning aesthetics and ecology*. In *Placing nature: Culture and landscape ecology*. Washington, D.C.: Island Press.

