

Sustainable Urban Garden-A Replicable Model for Health

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Dr. Ellen Vincent, Dr. Sarah White
Clemson University Horticulture USA

ABSTRACT

Framework:

The Sustainable Landscape Demonstration Garden is a model for urban environments- designed to provide health benefits to people and the environment. Campus Landscape Services and Planning and Landscape Architecture representatives informed students designs. Undergraduate students alongside Campus Landscape Services staff added composted leaves to the soil and installed native plants. The garden is maintained by students enrolled in a Creative Inquiry research class. Students earn Human Subjects Research Certification and conduct perception surveys of passersby. They also serve as ambassadors and engage in conversation with passersby; recommending access to the Web page that contains the garden history, designs, plant profile sheets, and publications. Soil samples are analyzed yearly by the university agricultural soil testing services laboratory. The hypothesis is that an urban garden that is designed, installed, and maintained using research driven theory and methods, can simultaneously enhance the health and well-being of people and the environment.



Photo by Ellen Vincent



Photo by Walker Massey

PROCESS

Two gardens (1,400 sf and 1,800 sf) on a busy college campus were selected for this project. Design, installation, and maintenance collaborators included Campus Landscape Services, Campus Planning and Landscape Architecture, Horticulture and Forestry academic departments and students. Low-maintenance designs (by college students 2011) were selected, organic matter was added to the soil, and native plants were properly installed (2012 fall). Signage and seating were included in the design and an educational Website was developed. Maintenance was performed by students and overseen by campus landscape professionals. Students obtained Human Subjects Behavioral Science Certification for Research and conducted surveys of passersby pre and post installation. Data from Google Analytics was collected to learn which plants were visited on-line.



Photo by B. Anderson, S. Lombardo, E. Vincent



Photo by Ken Allen

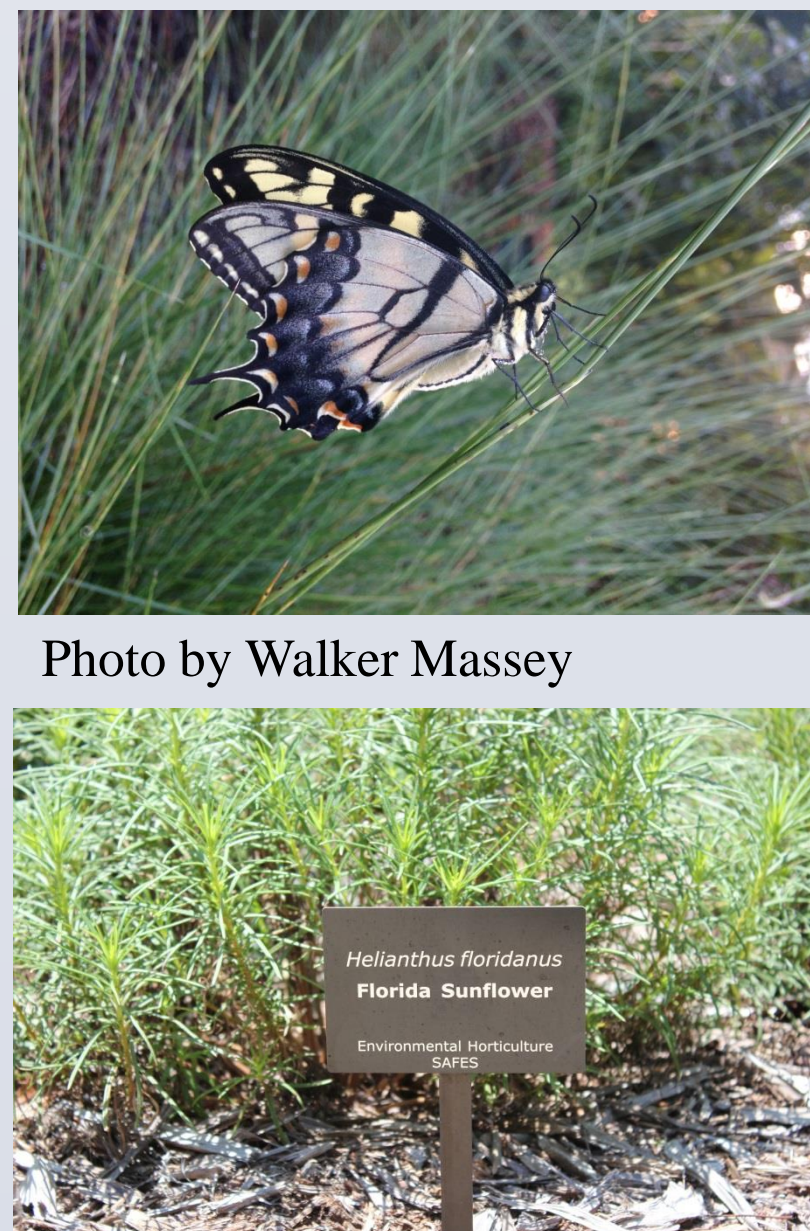


Photo by Ellen Vincent



Photos by Ellen Vincent



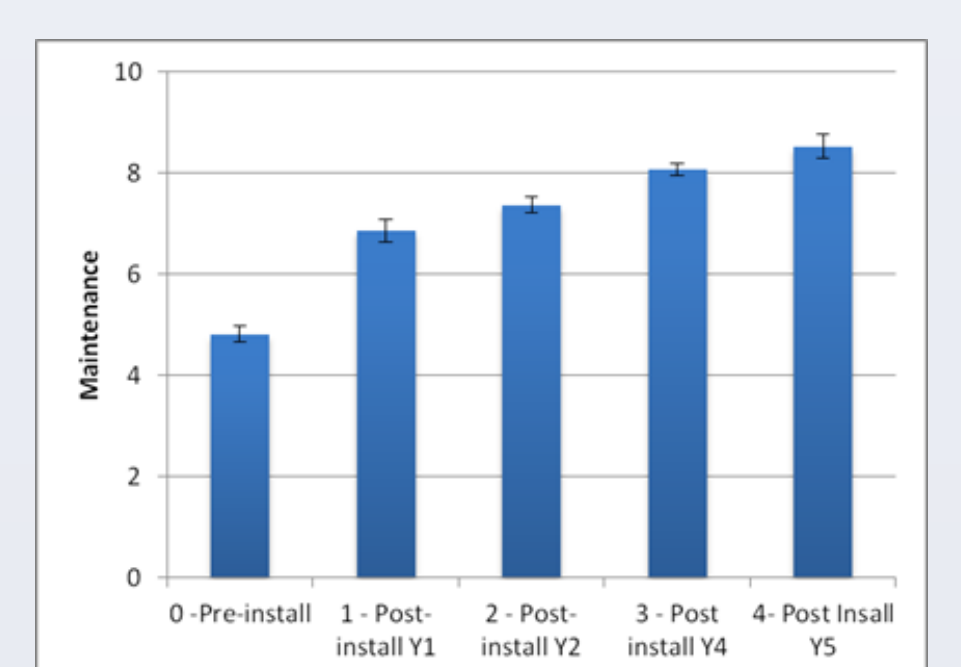
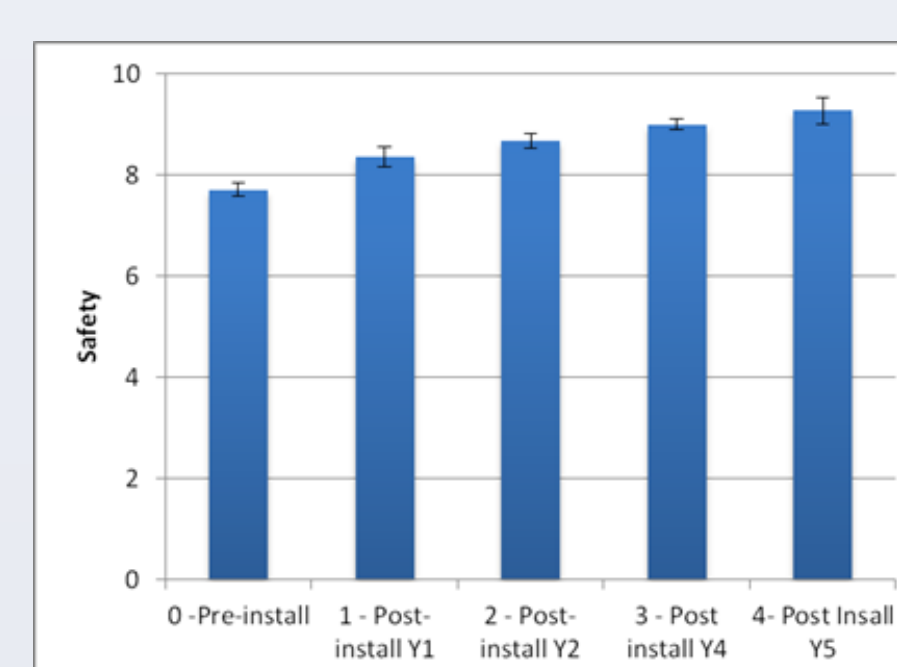
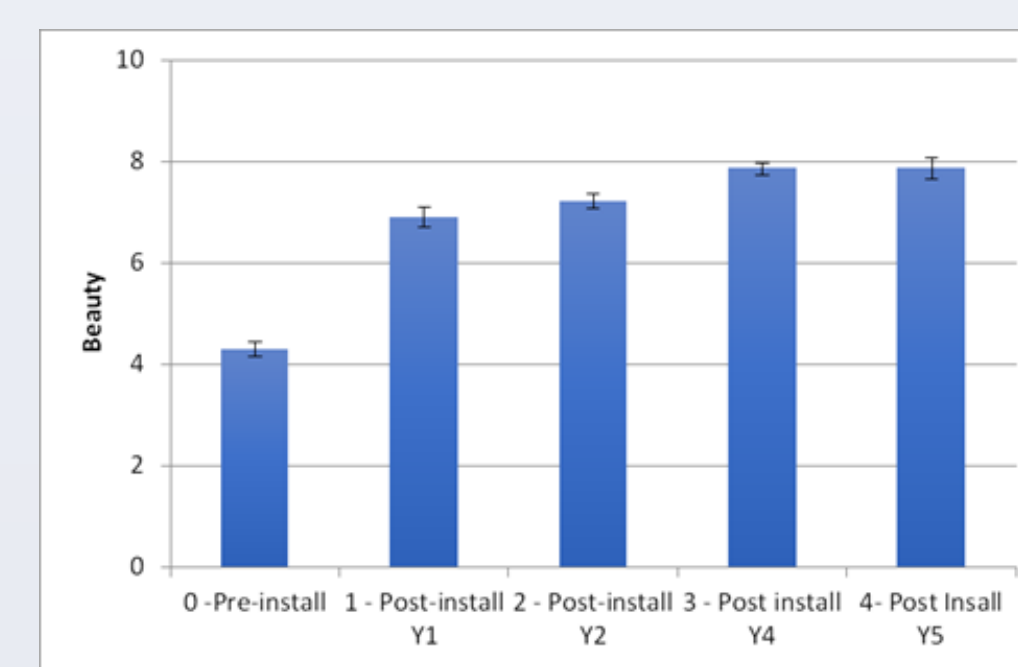
OUTCOMES

Outcomes:

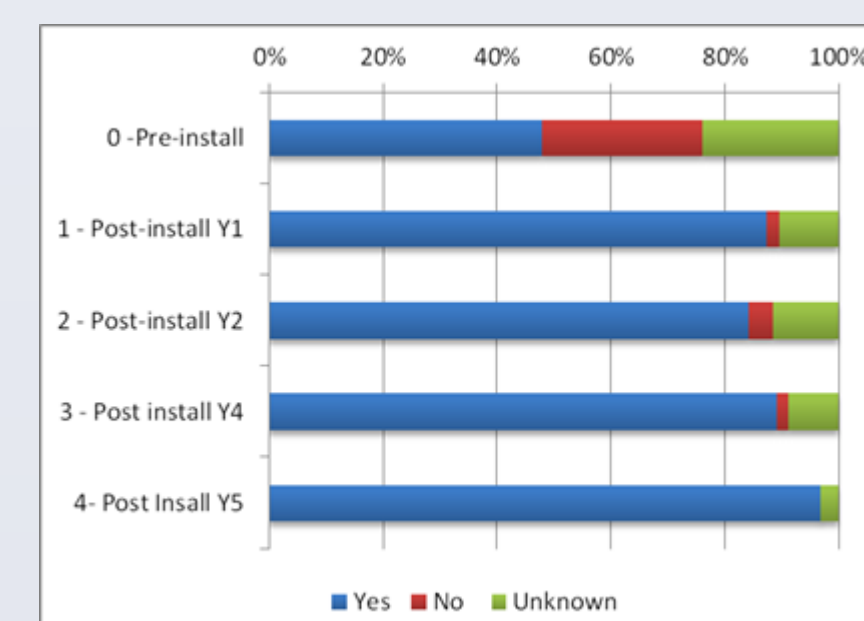
People returned to this site within one-hour of installation. Insects returned to the site during the second growing season. Five years of in-person survey data (pre and post installation; n=899 surveys) indicate a significant rise in users as well as increased perceived perceptions of beauty, safety, and maintenance for the site. Health, environmental, and educational aspects increased as well. Google Analytics data used to identify the most viewed plants for a five-year period indicate *Muhlenbergia capillaris* is the most frequented plant on line at the garden website.

Implications:

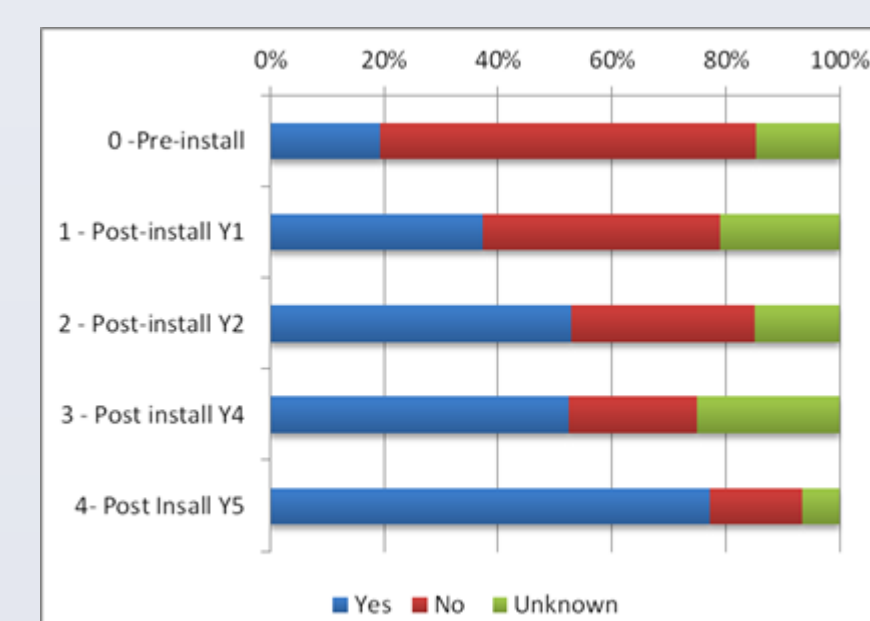
This project is constructed to be replicated or adapted for use in other urban sites that desire to increase health and well-being of the ecosystem (which includes people). Sustainable gardens strategically located in the busiest sections of the city have the potential to both enliven and educate passersby—resulting in increased appreciation of and use of sustainable practices resulting in healthier vibrant ecosystems that support a variety of life forms.



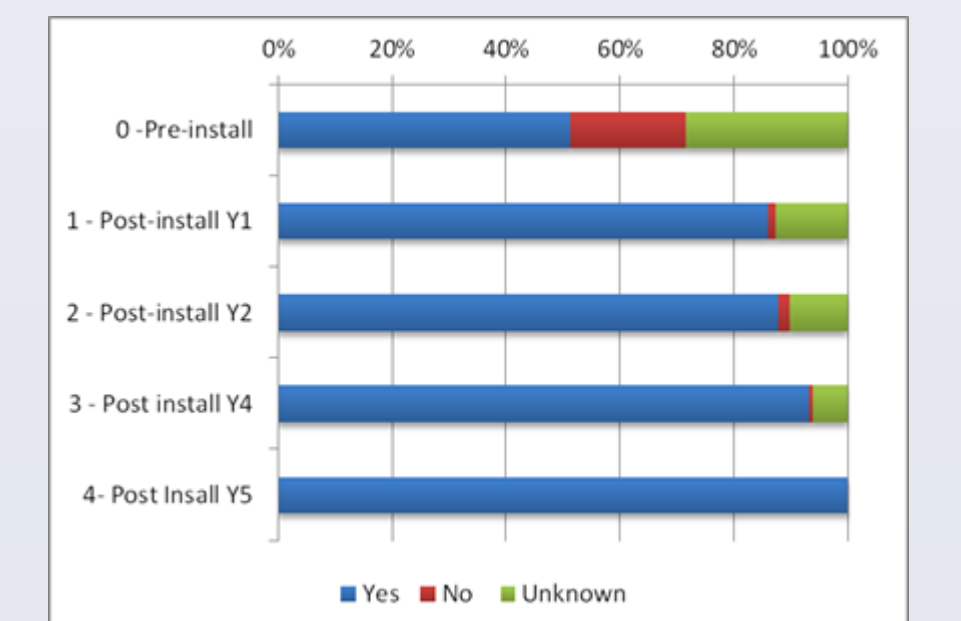
PERCEPTION SURVEY RESULTS



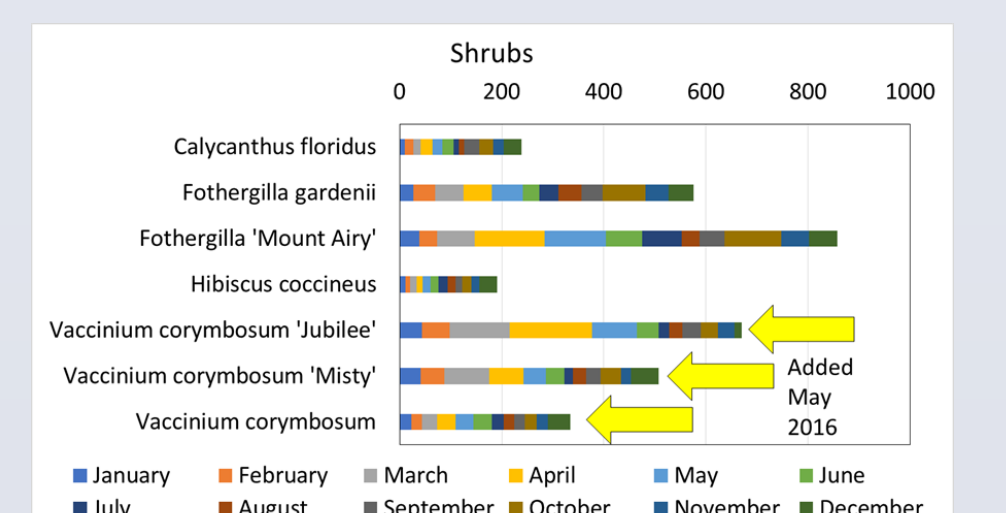
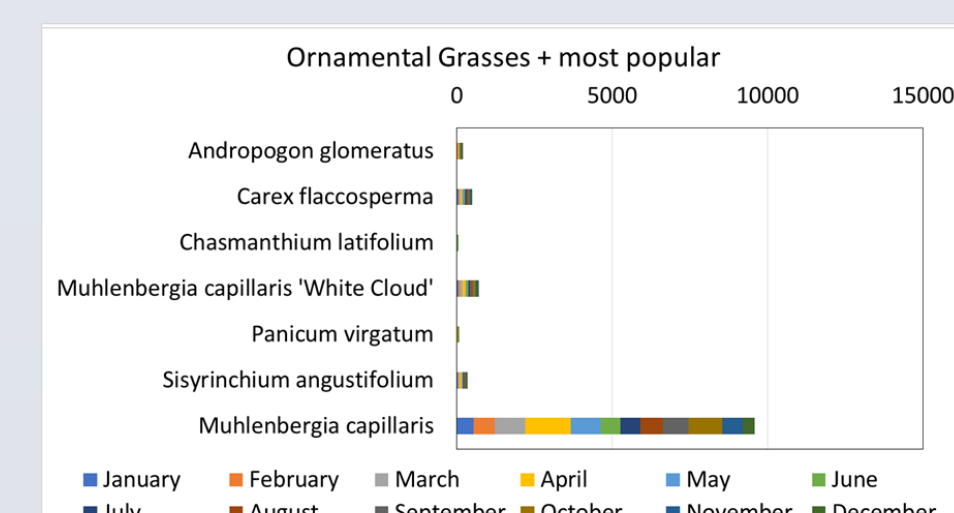
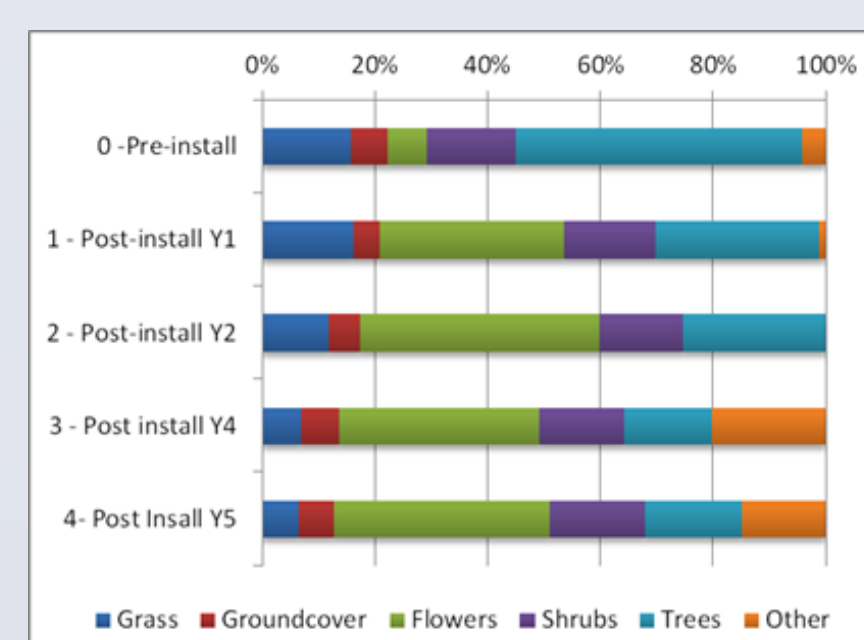
HEALTH



ENVIRONMENT



EDUCATION



PREFERRED PLANTS

GOOGLE ANALYTICS SURVEY RESULTS



<http://www.clemson.edu/cafls/demo/>

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Dr. Ellen Vincent, Lecturer Horticulture
Dept of Plant and Environmental Sciences (PES)
ellenav@clemson.edu

Dr. Sarah White, Associate Professor/Nursery Extension Specialist
Dept of Plant and Environmental Sciences (PES)
swhite4@clemson.edu

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