

## **Principle Investigator**

Jeremy Merrill, PhD

## **Project Title**

Comparing Edible Landscape Productivity Between the Schob Nature Preserve and the Langford Greenroof.

## **Project Abstract**

Edible landscapes are rapidly becoming more prominent in the domains of landscape architecture and land planning. As more students include edible landscapes in their designs it will become important for them to gain a greater understanding of actual construction, management, and monitoring of these types of landscapes.

There are currently a number of garden plots on the Langford Green roof that are growing edible crops. This research proposes to compare what happens on the green roof with edibles planted using raised planters at ground level and give designers a more accurate idea of what to expect from future designed systems. By using the Schob Nature Preserve as the site for the raised beds, it will be close enough to the Langford Green roof to help ensure that the two sites experience the same climatic events: frost, rain, fog etc...

This research will also create an opportunity for students to have experiences with edible plants, their potential in the landscape, and familiarity with the systems and processes typical to edible landscapes. As an outreach opportunity, the researcher will host an edible landscape event in April 2016 during Landscape Architecture month at the Schob Nature Preserve.

## **Project Objectives**

This project has two major objectives that center on research and education. The research component encompasses constructing and maintaining an edible landscape. Data collection will focus primarily on monitoring plant performance on site and comparing crop yields between the Schob Nature Preserve and the plots on Langford's Green Roof.

Education objectives include providing students a learning opportunity through siting, installing, and maintaining an edible landscape, introducing students to edible plants, systems, and processes typical to edible landscapes, and increasing local public awareness of edible landscapes. Additionally, during April 2016, coinciding with National Landscape Architecture Month, the researcher will host event at Schob Nature Preserve where produce from the garden are shared with students, faculty, and neighborhood residents. This event will educate attendees on the types of foods available from edible landscapes and the potential of collaborating with local chefs and cooks to utilize those crops. The event will align with the Texas A&M Mission statement that, "Texas A&M assumes as its historic trust the maintenance of freedom of inquiry and an intellectual environment

nurturing the human mind and spirit.” We have the bonus opportunity to nurture their appetites as well. A display illustrating the completed work, results thus far, and potential benefits of the project results to landscape architecture and planning will also be on site during the event.

**Work Plan**

The work plan involves three main phases: installation, monitoring, and edible landscape event. Phase 1 will be complete in October 2015. Phase 2 will last from November of 2015 until September of 2016. The edible landscape event will take place in April 2016, preparations for the event will occur during the Spring 2016 semester.

<b>Phase 1: Installation</b>	Oct	Nov-Dec	Jan-Mar	April	May-Sep
Locate plots on site					
Purchase equipment					
Construct raised beds					
Install irrigation system					
Purchase plants					
Install plants					

<b>Phase 2: Monitoring</b>	Oct	Nov-Dec	Jan-Mar	April	May-Sep
Develop plan for produce.					
Hire student summer worker.					
Harvest crops and record data					

<b>Phase 3: Edible Landscape Event</b>	Oct	Nov-Dec	Jan-Mar	April	May-Sep
Develop promotional material					
Print promotional material					
Advertise for event					
Analyze data for display					
Host event					

**Student Learning Outcomes**

The researcher will inform and invite the student ASLA chapter to participate in this project. They may choose to participate in any number or all three of the work phases. High impact learning is available during each phase of the project.

Those students who participate in installation will be introduced to the equipment, construction, plant materials, systems, and procedures typical to edible landscapes. In the monitoring phase, student workers will learn the procedures of a standardized data collection regime, including collecting and recording data, data analysis, formatting data for external communication, and problem solving in the field. In the edible landscape event phase, students will gain practical planning and organization skills as they help plan and host an event highlighting edibles and

landscape architecture. They will also participate in an aesthetic experience as the plants grown in this project become cuisine.

### Anticipated Deliverables

- Project blog chronicling the progress of the project
- Research Posters on display at edible landscape event
- Raw dataset
- Final Report
- Conference Submission
- Peer Reviewed article submission

### Budget and Justification

Category	Items	Cost	Running Total
<b>Raised bed materials</b>	Lumber	\$200	\$200
	Chicken Wire	\$100	\$300
	Hardware	\$ 50	\$350
<b>Planting Medium</b>	Vermiculite	\$175	\$525
	Peat Moss	\$77	\$602
	Compost	\$280	\$882
	Plants	\$268	\$1,150
<b>Irrigation Supplies</b>	Soaker Hose	\$50	\$1,250
	Irrigation Control Valve	\$40	\$1,290
<b>Edible Landscape Event</b>	Promotional Materials	\$150	\$1,440
	Additional Food	\$560	\$2,000
<b>Indirect</b>	Student Worker for summer semester	\$500	\$2,500
	Faculty Time	\$500	<b>\$3,000</b>