



Growing Communities and Gardens Through Composting

Stephanie Krueger, Adrian Landreth, Joy Perry and Teresa Weglarz



BACKGROUND

- ❖ UW-Fox Valley, a two year university in Menasha which boasts a student population of 1700, is a campus highly committed to sustainability and promoting a “green” lifestyle both in classroom instruction and put to use on campus through sustainable practices and service learning activities. In 2003 with the release of the Wisconsin Statewide Waste Characterization Study, discussions began on campus on how to reduce the amount of compostable food waste (approximately 490,000 lbs.) that ends up in the landfill.
- ❖ In 2009, UW-Fox began to collect food waste from the campus cafeteria. During the eighteen day collection period, 200 lbs. of waste were added to a compost tumbler. From this study it was estimated that by expanding the collection and having a site to tolerate a larger capacity of waste, UW-Fox had the potential to collect 4,000 pounds of food waste a semester. However, a site to compost at and funding to expand collection was holding the campus back.
- ❖ We partnered with The Community Garden Partnership and using the community garden site adjacent to campus, could achieve its goal of diverting cafeteria waste from the landfill while providing a valuable educational and tangible resource to community gardeners.
- ❖ The Community Garden Partnership (CGP) is a nonprofit program of Goodwill Industries of North Central Wisconsin. It manages the Community Garden located next to the university along with eleven other gardens located throughout the Fox Valley. Their mission is to “grow food, people, and communities”. The soil generated by UW-Fox’s compost efforts will be returned to the Community Gardens for use by members.

METHODS AND MATERIALS

- ❖ The “brown” material for the project consist of donations provided through the Community Gardens Project, and are made up of mostly woodchips.
- ❖ Compostable grade “Green” material has been comprised of waste provided by the UW Fox Valley kitchen, various compost bins within UW Fox Valley and waste accumulated from student’s homes. In addition generous donations had been received from the Lawrence University SLUGs as well donations from local area businesses.
- ❖ The procedure used for generating usable compost is known as the Windrow system. Under this system a 6” bed of “brown” material was laid out within 15’x6’ plot. A 2”-3” of “green” material is placed over the bed. The fresh waste is then covered with 6” of “brown” material.
- ❖ “Green” material acts as a source of nitrogen while the “brown” material serves as a source of carbon. The ideal ratio of nitrogen to carbon is 1:25
- ❖ All “green” waste going into the site is weighed prior to placement.
- ❖ Daily temperature readings from 3 site positions are taken and recorded.
- ❖ As of 12/5/2010 the project has diverted
265.1 kgs (583.22 lbs) of waste from the UW Fox Valley kitchen
1125.3 kgs (2475.66 lbs) of waste from Lawrence University
Total: 1390.4 kgs (3058.88 lbs)

FUTURE GOALS

DECEMBER/ JANUARY:

- ❖ Expand collection of compostable waste from the kitchen to the student body. Also raise awareness of the program through signage and videos displayed on campus and online.
- ❖ Contact area businesses for donations of organic waste. Develop a sustainable system for collecting the donated waste and delivering it to the compost site at the Community Gardens.
- ❖ Develop a service-learning component for UW-Fox Valley classes on composting and train a base of student volunteers to monitor the collection bins stationed in the cafeteria.

SPRING SEMESTER 2011:

- ❖ Have finished soil from the compost pile that will be tested for heavy metal contamination and other contaminants.
- ❖ Analyze the soil composition and determine ratios of nitrogen, phosphorus, and potassium.
- ❖ Determine carbon to nitrogen ratio and evaluate overall soil stability with the help of Joe Van Rossum and the UW-Extension.
- ❖ Either use the finished soil in the Community Gardens or sell the soil to community members to put money back into the project to keep it sustainable.
- ❖ Invite community members and area schools to participate in composting workshops and tour the compost site.
- ❖ Conduct a project evaluation through data collected and the use of surveys.

“Earth knows no desolation. She smells regeneration in the moist breath of decay.”
-George Meredith

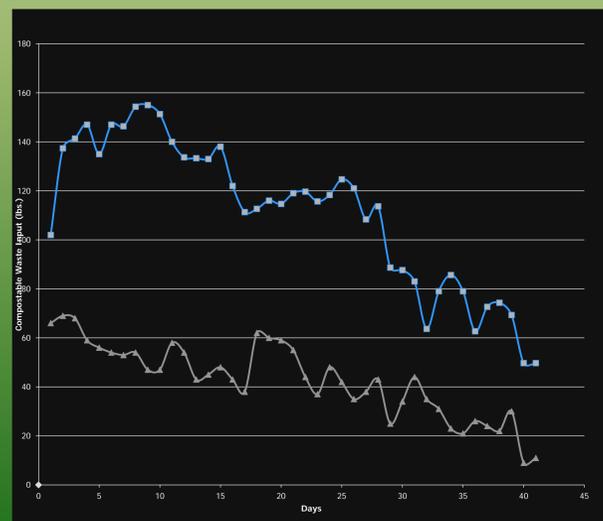


Figure 1-1. Comparative depiction of outside temperature (grey) vs. average site temperature (blue). The daily average value is based on measurements gathered from 3 designated positions. Readings shown above were taken over a 41 day period.

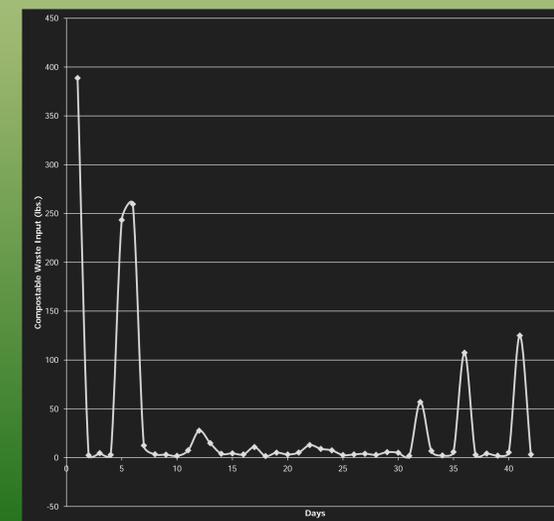


Figure B. depicts the amount of compostable waste deposited into the site over a time frame of 42 days.

AFFILIATION

- ❖ Lawrence University SLUG Program
- ❖ Oren Jakobson
- ❖ UW Extension Waste Education Series
- ❖ Joe Van Rossum
- ❖ The Community Garden Partnership (A Program of Goodwill NCW)
- ❖ Susan Richardson and Erik Kraemer