



ABSTRACT

Students have no facilities for composting. We seek to develop a program for students to bring their food waste from nearby apartments and on-campus housing. The Bio-energy and Sustainable Energy Laboratory's goal in this program is to provide the facilities and containers for food waste, and educate the student community about composting basics and benefits. We are experimenting with composting methods and materials. By increasing awareness of sustainable methods for recycling waste, we are one step closer to zero waste by 2015.

METHODS AND MATERIALS

Providing facilities to accept students' food waste consists of **five factors**:

- **Open House Event**: To educate and alert students of available facilities
- **Monthly workshops**: Fine tune education, ensure all participants have proper training
- **Instructional signs**: Easy to follow directions for self service and consistency
- **Composting bins**: Various composters available for trying out including static bins, double and single tumblers, hand made bins and piles.
- **Food waste containers**: Specially designed containers for safety, pest control and ease of transport.

INTRODUCTION

Composting can be a simple alternative to landfills which also provides a healthful soil amendment. In order to educate the campus community, the Bio-energy and Sustainable Technology Laboratory is implementing a campus outreach program called **Campus Composting Cooperative**.

The Five Components of Composting

- 1. Temperature** is an indicator of compost health (40 to 60° C) which is determined by:
 - **GREEN** kitchen scraps
 - **BROWN** yard waste
 - **BALANCE** is the key
 - **BULKING AGENTS** are beneficial
 - **PARTICLE SIZE**: smaller=faster
 - 2. Moisture**: 50-60% (damp not dripping)
 - 3. Aeration** promotes microbial activity
 - 4. Substrates** feed the microbes
 - **GREEN** kitchen scraps
 - **BROWN** yard waste
 - **BALANCE** is the key
 - **BULKING AGENTS** are beneficial
 - **PARTICLE SIZE**: smaller=faster
 - 5. MIXING**: Turning = faster decomposition
 - turn **ONE** or **TWO** times a week
 - ensures even decomposition
 - distributes moisture
- **Microbial** driven decomposition
→ You are raising a microbe farm
→ All factors are **interrelated**

Unsuitable materials:

→ Meat, dairy, oils, carnivore manure, chemicals such as pesticides or inks, cat litter, synthetic materials

RESULTS

Open House Event:

- 14 guests visited the Bio-energy and Sustainable Technology Laboratory.
- Introduction to composting facilities
- Taught Five Components of Composting
- Explanation, demonstration, duplication
- Exploring Vermicomposting by Jane
- Composting Basics and Troubleshooting by Crystal Hartman
- Feedback and Focus Session
- Reinforcing through subsequent monthly workshops. Next workshop 3-21-09
- We reviewed food waste safety while distributing waste collection buckets



DISCUSSION

It is difficult to change our behaviors. We have made every attempt to create a convenient program to facilitate change. The challenge will be to continually reinforce new behaviors and encourage long term participation. The Open House indicated a composting program is feasible. The focus group proved productive; among the many suggestions are including dorm participation, small plots for students to grow using compost, tabling on campus, accepting water hyacinth from campus removals, bucket icons, composting tea and vermicomposting workshops, providing buckets for capturing waste from places such as campus Starbucks, collection of brown waste from Community Gardens and guano from bat house. Subsequent monthly workshops will reinforce principles learned and encourage habit forming, long-term participation and lifelong love of composting.

FURTHER INFORMATION

- <http://www.compostingcouncil.org/>
- http://compost.css.cornell.edu/Composting_homepage.html
- <http://whatcom.wsu.edu/ag/compost/>
- http://casfs.ucsc.edu/education/instruction/tofg/download/unit_1.7_compost.pdf
- <http://www.compostinfo.com/tutorial/microbes.htm>

