Reduce Food Waste Within CWU Catering by Performing a Waste Audit and Developing a Framework for the Implementation of Large-Scale Composting

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Introduction

Food waste is a huge problem in the United States, with 133 billion pounds of food wasted in 2010. A majority of the food that goes uneaten is sent to landfills, where it decomposes into methane due to a lack of oxygen. Methane is a greenhouse gas that contributes to climate change, and it is much more powerful than Carbon Dioxide. When food waste is composted, constant mixing incorporates oxygen allowing food to decompose into a nutrient-rich black soil while producing less harmful gas. CWU is a large contributor to the waste made in Kittitas County. The campus kitchens alone produce thousands of pounds of pre-consumer waste every month. For this project, an audit of pre-consumer and post-consumer food waste was conducted in 1891 Catering. This has allowed staff to understand the scale of the food waste created and the need for waste reduction strategies.

Project Summary

An audit was conducted to analyze the amount of waste produced by 1891 Catering. This CWU Dining service offers customizable menus for events ranging from large buffet banquets to simple platters and refreshments. The kitchen has three areas where food is thrown out: the prep table, the chef's production table, and the event staging room. Bins were set up in each area to collect waste, which was weighed daily

Figure 1: Food-only collection bins (left), and scale used to weigh waste (right)

Prep
- *The prep area creates fruit and vegetable platters, prepares desserts, and cuts produce for the chefs.*
- *Waste items produced here include fruit and vegetable cores, peels, leaves, seeds, and all spoiled food items.*

Production
- *The production area is where the chefs assemble prepped items into meals.*
- *Waste items produced here include meat trimmings, unused pasta, and other over-prepared items.*

Client Waste
- *If food prepared for an event returns to the staging area untouched, the chefs determine if it can be reused for events.*
- *Food that cannot be reused is offered to staff members and thrown away if unwanted.*

Food Waste Collected

Figure 2: Chart showing the daily breakdown of food waste and where it was produced

From April 15th – May 8th, the CWU catering kitchen produced 2205 pounds of food waste, averaging 110 pounds per day of operation (Figure 2)!

What Area Makes the Most Waste?
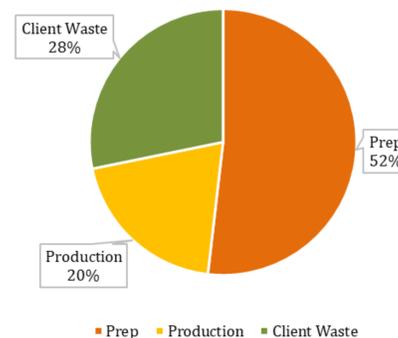

Client Waste 28%
Prep 52%
Production 20%

Figure 3: Chart showing the percentage of food waste that was produced in each area

Figure 4: All waste collected on 4/29/2024 (left) and 5/1/2024 (right)

Figure 5: Food wasted by CWU Catering: prep (left), production (center), client (right)

Conclusions

The kitchen staff has and will continue to use the information gathered to reduce daily waste when possible
- While rotten food is not a large issue, more care should be put into date labeling to ensure the oldest foods are used before expiration.
- The amount of food thrown away was shocking, this has inspired staff to change their wasteful habits, like over-trimming and

More strategies should be developed to promote the safe handling and use of uneaten food
- One plan for waste diversion could involve repackaging event leftovers to be distributed by the Wildcat Pantry.

The data collected will also aid in the future implementation of composting
- Weight totals provided give insight into the infrastructure needed to process and transport waste to a planned composter at the Wildcat Farm

People can be VERY resistant to change
- Communication and compromise are required to achieve full participation.

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This project supports the following UN Sustainable Development Goals

2 ZERO HUNGER

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION