

Measuring Tracking and Analyzing Pre-Consumer Food Waste in K-12 School Cafeterias and Kitchens

There's no getting around it – in a school cafeteria and kitchen, there's going to be food waste. And that waste can take a big bite out of your operating costs when you're just sending it to the landfill and paying disposal fees. Plus, many types of food waste contain a lot of water weight which will add significantly to those fees.

This guide will walk you through strategies and techniques to reduce the amount of food you're sending to the landfill to reduce food waste and save your district from excessive and unnecessary landfill disposal fees.

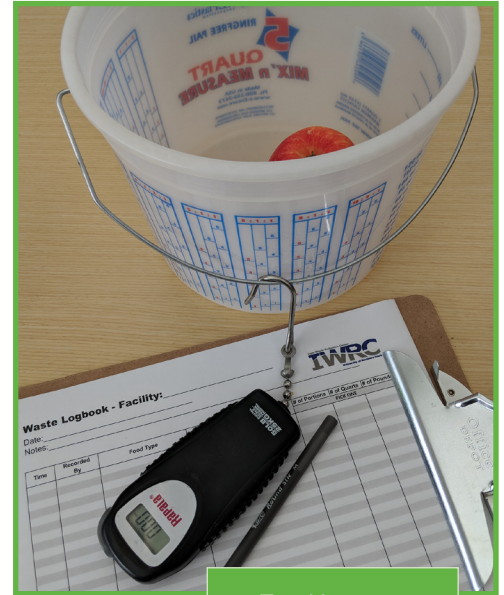
Food Waste Disposal Alternatives

The best place to start seeking alternatives to food waste disposal is in your kitchen. Food waste from kitchens includes any type of food that is thrown in the garbage such as fruit and vegetable trimmings, also known as prep waste; leftover edible food that is thrown away for various reasons; and expired, rotten, or moldy food. Much of this type of food is also referred to as pre-consumer food which is specific to the food that hasn't made it to anybody's plate yet.

When it comes to the leftover and excess edible food, instead of throwing all of that away, it can be donated to local non-profits to help feed food insecure people in your community. The great thing about donation, is if you donate food in good faith to a non-profit organization that feeds the hungry, you will be protected from any liability through the Bill Emerson Good Samaritan Food Donation Act. This act was enacted in the 1990's to promote food donation to help feed food insecure people across the nation while protecting donors from liability.

But the best way to reduce food waste is to first, track how much you generate and second, set reduction goals after analyzing tracking data.

Depending on the area where you will be tracking, you can either purchase a hanging scale which will require a bucket with a handle, or you can purchase a countertop scale, which will also require a bucket or container to hold the food for weighing. The cost of scales vary significantly, but nothing fancy is necessary for tracking kitchen food



Tracking pre-consumer food waste requires very few supplies.



WHAT YOU NEED TO GET STARTED

To start tracking your kitchen food waste, you will need a few supplies that don't cost much.

What You'll Need

- Scale
- Bucket
- Tracking sheets

waste. Hanging scales cost from \$12 for a cheap analog scale to \$30 for a digital luggage or fish scale. Countertop scales, however are generally more expensive if you want to weigh food that is over 11 pounds. Whichever scale you choose, be certain the maximum weight capacity of your scale will accommodate the largest amount of food you will need to weigh at one time. Additionally, many digital scales have different weighing options: ounces, grams, pounds, and milliliters. Make certain kitchen staff understand that the scale needs to be set to one measurement so conversions will not be necessary later. Providing kitchen staff with directions about using the scale will be beneficial to prevent extra work later on.

Getting Kitchen Staff Involved

Getting staff involved in the process is a great way to promote interest in meeting food waste prevention and reduction goals. Schedule a meeting with kitchen staff and open a dialogue about the amount of food that is being tossed; ask them how much they think is being thrown away. Most of the time, people think it is far less than it actually is. Then, tour the kitchen and ask kitchen staff where the best places are for tracking stations.

The most convenient place is usually right by the garbage cans where food is thrown away. Set

up a scale and a clipboard with tracking sheets where all food waste can be recorded. You may want to set up multiple stations in the kitchen depending on how many areas have garbage cans for food waste. Ask the staff to weigh all food before it goes into the garbage and then to immediately record the type of food, weight, reason for disposal, and their initials on the tracking sheets.

Tracking, Recording, and Analyzing Food Waste

When it is time to throw away foods, require kitchen staff to put food into a weighing receptacle or bucket. Make certain the weight of the bucket is known so this can be subtracted from your food waste weight. This is called the "tare weight" and many digital scales have a feature to subtract the tare weight (or bucket weight) from the total weight. You will need to decide if each person weighing food waste will be required to subtract the tare weight, or if this will be done by one person after each tracking sheet is filled up. Once a weight is calculated, this needs to be recorded on the tracking sheets.

After a week or two, convene again with kitchen staff and distribute copies of tracking sheets used for recording food waste. Highlight the top items disposed and the reasons for disposal. Then ask the kitchen staff to troubleshoot the reason the food ended up in the garbage. For example, half of a pan of lasagna was thrown away.



Getting kitchen staff involved in tracking food waste promotes participation and can help reduce your bottom line.

Questions to consider:

- Why was it thrown away?
- Did it spoil?
- If so, why was it not reused or donated before spoiling?
- If it wasn't reused because it had already met a one-time reheat policy, then why was there a half pan left-over in the first place?
- Is the recipe not readily accepted by consumers?
- Do you need a recipe change?
- Was there a half pan left-over because two classrooms of students were on a field trip that day?

In this instance, too much was made. If this is the case, better communication between the cafeteria and teachers could help. The process of analyzing tracking sheets includes questioning every level that caused the waste and coming up with solutions to prevent food waste. Involving kitchen staff can be an eye-opening experience and really help drive change by implementing strategies to prevent food waste.



Tracking food waste provides the opportunity to explore reasons for waste and implement strategies to prevent and reduce food waste.

Once you have a baseline of the amount of kitchen food waste that is being tossed, you can set reduction goals. Starting small ensures reduction goals can be met with success, which will encourage kitchen staff to continue efforts to prevent and reduce food waste. Also, share progress with kitchen staff and analyze other areas that are affected by reducing food waste, such as reduced disposal costs, or increased donation to feed the community's food insecure. The positive benefits of preventing and reducing food waste can be far reaching.


Troubleshooting Food Waste

Food waste occurs for many different reasons and tracking sheets, when filled out by kitchen staff, provides an opportunity to analyze food waste and the amount being generated. During analysis of tracking sheets, setting goals to prevent and reduce food waste should include implementation of strategies that will help meet goals. While preventing food waste so it's not generated in the first place is the best method, recycling food waste is also an option and includes techniques such as composting, anaerobic digestion, feeding animals, and donation. The table on the following page provides an example of troubleshooting food waste:

Troubleshooting Food Waste

TYPE OF WASTE	REASON FOR WASTE	ACTION
½ Pan Lasagna	Already Met One-Time Reheat Policy	<ul style="list-style-type: none"> • Make less next time • Not popular – change recipe • Donate
Hamburger Buns	Moldy	<ul style="list-style-type: none"> • Inspect for freshness when delivered checking expiration dates • Inventory more often moving old items to front of shelves, fridge, and freezer to be used first • Order less at a time • Compost
Lemon Peels	Not Edible	<ul style="list-style-type: none"> • Zest peels to use in recipes • Use peels to flavor drinking water • Donate to feed animals • Compost

Preventing food waste is the preferred method over reducing food waste. Prevention of food waste means that food waste isn't generated in the first place while reducing food waste assigns a strategy to recycle or reuse what is generated through composting, feeding animals, anaerobic digestion and donation. While both strategies are important to diverting food waste from the landfill, focusing on prevention first then reduction can affect your bottom line and decrease disposal costs. Additionally, continuing to track food waste after implementing strategies to prevent and/or reduce food waste can help gauge the effectiveness of your strategies. Finally, it is important to keep kitchen staff involved in the process and to communicate effectiveness of strategies, challenges, and successes to promote participation in prevention and reduction efforts.



Want More Information?

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This material is based upon work supported under a grant by the Rural Utilities Service United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in the material are solely the responsibility of the authors and do not necessarily represent the official views of the Rural Utilities Service.

