

# *A Step-by-Step Guide to Conducting a Wasted Food Assessment with EPA's Reducing Wasted Food & Packaging Toolkit*

Milestone 2: Data Analysis,  
Creating and Implementing  
Waste Reduction Strategies; &  
Milestone 3: Tracking Progress

EPA SMM Webinar Academy Mini-Series  
March 26, 2015  
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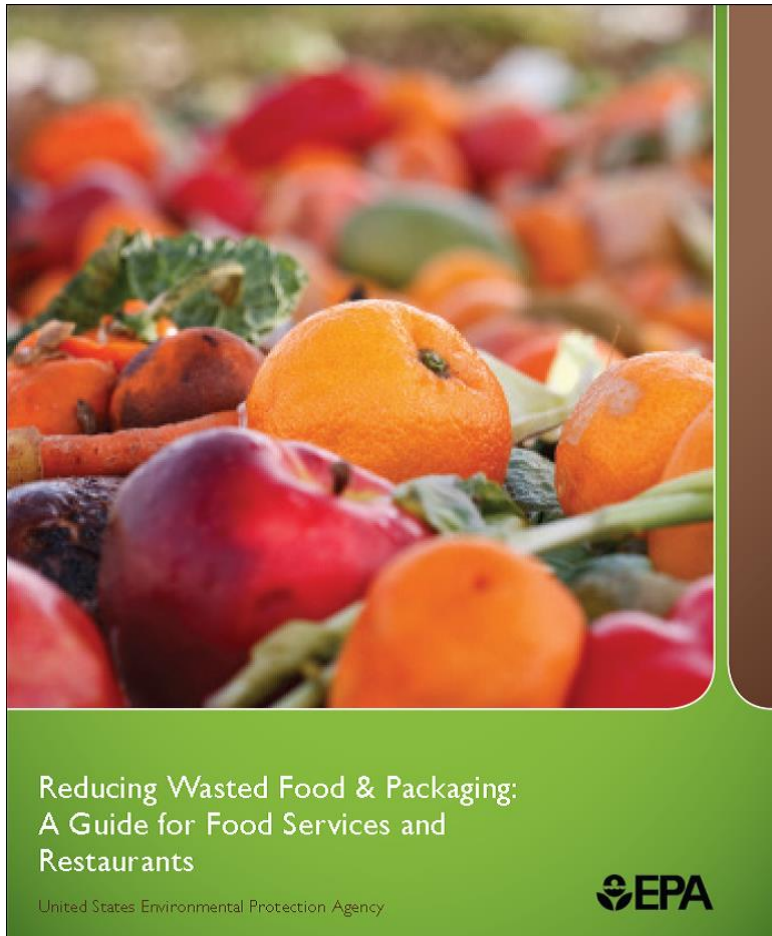
# Today's Session

- Milestone 2: Data Analysis, Creating and Implementing Waste Reduction Strategies
  - Return to the Excel spreadsheet tool for data analysis
  - Strategies to prevent and reduce wasted food and packaging
    - Guest speakers:
      - *Cat Sullivan and Executive Chef Tim Cunningham* – Northern Arizona University (NAU)
      - *Ray Dennis and Chef Dana Massimiani* – Loyola Marymount University (LMU)
      - *Ismail Samad* – Executive Chef of Daily Table (grocery store) and the Gleanery (restaurant)
- Milestone 3: Tracking Progress



# EPA's Reducing Wasted Food & Packaging Toolkit

2 resources in 1 toolkit: a [PDF guide](#) and a programmed [Excel spreadsheet](#)



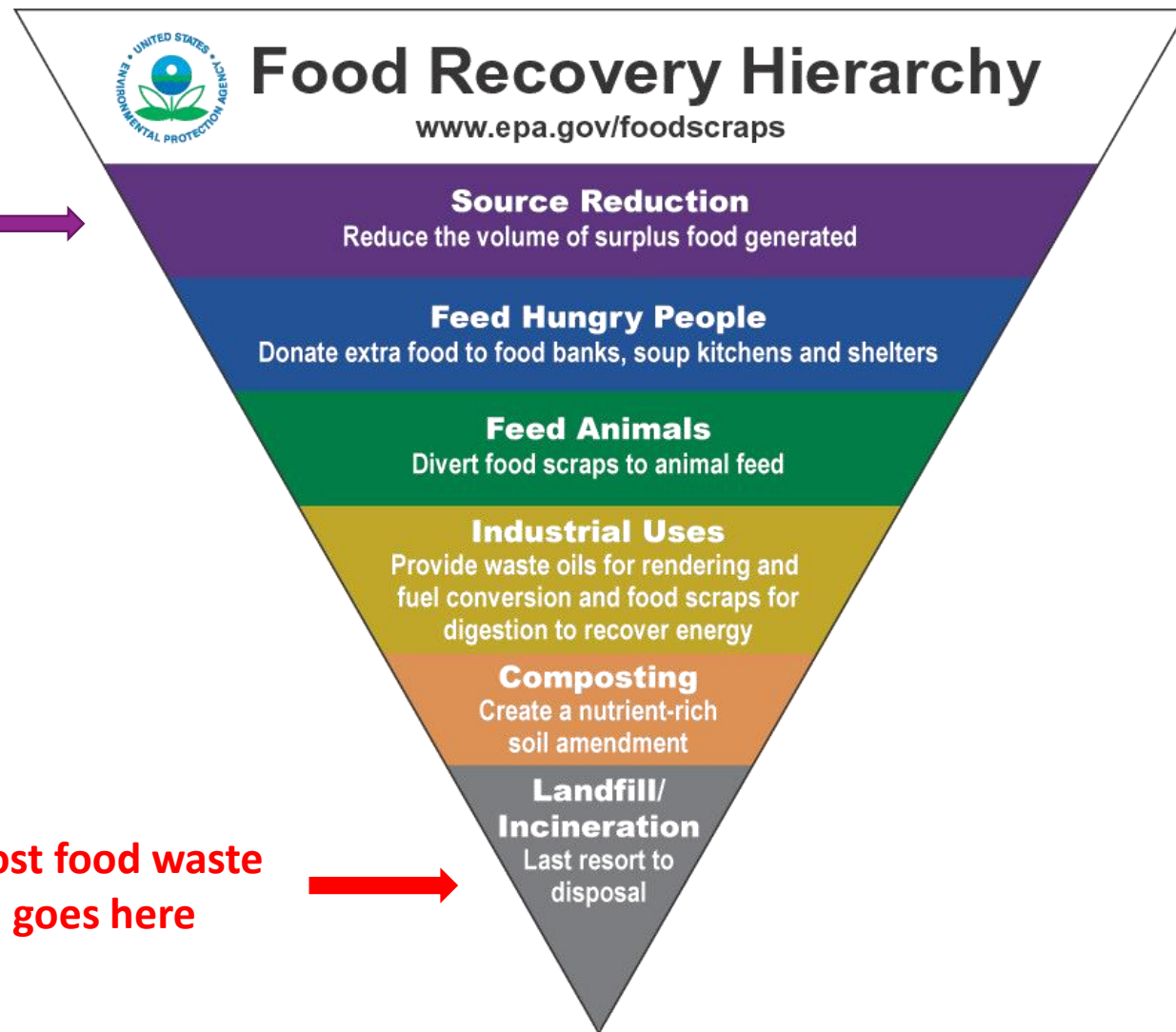
PDF guide: [http://www.epa.gov/foodrecovery/docs/reducing\\_wasted\\_food\\_pkg\\_tool.pdf](http://www.epa.gov/foodrecovery/docs/reducing_wasted_food_pkg_tool.pdf)

Excel tracking spreadsheet: [http://www.epa.gov/waste/consERVE/foodwaste/docs/foodwaste\\_audit\\_tool.xlsm](http://www.epa.gov/waste/consERVE/foodwaste/docs/foodwaste_audit_tool.xlsm)

Highest value:  
Prevent avoidable  
waste!



Most food waste  
goes here

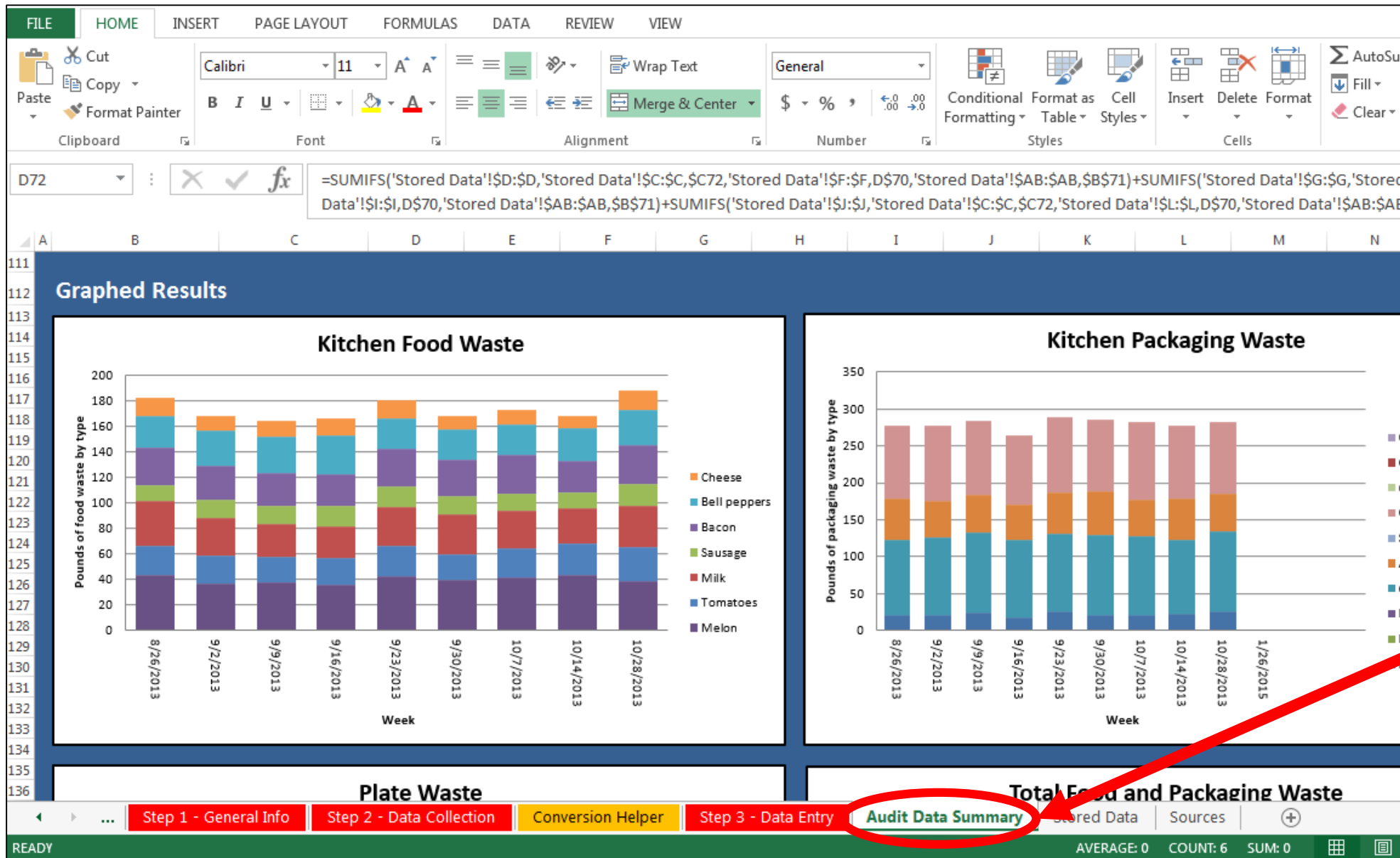


# Toolkit training series Roadmap

<p><b>Thursday, January 29, 2015</b> 1:00pm—3:00pm EST</p>	<p>Milestone 1: Preparing for a Food Waste Assessment and Establishing a Baseline</p> <p>Watch the recording here: <a href="https://attendee.gotowebinar.com/recording/202462955866066690">https://attendee.gotowebinar.com/recording/202462955866066690</a></p>	<p>→ <i>What is being wasted? Why?</i></p>
<p><b>Thursday, March 26, 2015</b> 1:00pm—3:00pm EST</p>	<p>Milestone 2: Data Analysis, Creating and Implementing Waste Reduction Strategies; and</p> <p>Milestone 3: Tracking Progress</p> <p><a href="http://www.epa.gov/smm/web-academy/2015/jan-apr_15.htm">http://www.epa.gov/smm/web-academy/2015/jan-apr_15.htm</a></p>	<p>→ <i>How can we stop it?</i></p> <p>→ <i>Is it working?</i></p>
<p><b>Thursday, April 23, 2015</b> 1:00pm—3:00pm EST</p>	<p>Milestone 4: Measuring Impact</p> <p><a href="https://attendee.gotowebinar.com/register/100000000064935220">https://attendee.gotowebinar.com/register/100000000064935220</a></p>	<p>→ <i>How successful was it?</i></p>

Complete your own Assessment along with us!

# Milestone 2: Data Analysis with EPA's Toolkit



If you haven't yet, you can download the spreadsheet tool at:

<http://go.usa.gov/GXVm>

Analyze your data with the "Audit Data Summary" tab

# Create and Implement Waste Reduction Strategies



## Wasted Food Source Reduction Strategies

### Food Purchasing Policies

Create guidelines and goals to reduce spoilage and waste. Specific policies can include:

- Use a system to identify over-purchased food items and avoid excess wasted food;
- Purchase pre-cut food to reduce prep waste; and
- Implement a "just-in-time" purchasing system to only order what is needed when it is needed.

Use the Food and Packaging Waste Prevention Tool to help determine areas of over-purchasing and waste.

### Storage Techniques

- Ensure that food products are stored under the proper conditions (for example, temperature); and
- Organize food products so that employees can easily:
  - Use older products first,
  - Find products when needed, and
  - Monitor inventory levels.

### Food Reuse/Repurposing

As long as proper food safety and handling practices are followed, reusing leftover food can save money and reduce waste. Creatively repurpose leftovers and trimmings to efficiently use excess food for other meals. Flexibility in menu planning to accommodate the use of excess food from previous meals is key to success.

### Training Staff

While individual managers can influence the amount of food wasted, the food service staff is ultimately responsible for day-to-day food storage, organization, preparation, and disposal. Continuous training and acknowledgement of staff is crucial to ensure proper training of all employees, especially if there is high turnover.

Employing multiple training strategies will increase the effectiveness (for example, in-person training as well as posted signs). Consider offering recognition or incentives to staff who help to significantly reduce waste or come up with new strategies to reduce waste.

Food service managers should educate their staff on basic steps to minimize food waste, including:

- Proper storage and organization practices to ensure food does not spoil before use;
- Cooking and preparation of food to reduce prep waste and food sent back to kitchen:
  - Refining knife skills to reduce improper preparation
  - Reducing batch sizes when reheating foods like soups or sauces to avoid leftovers
- Plating practices to reduce unnecessary food waste (see next page); and
- Waste tracking efforts.



Leftover Fruit  
Smoothies or dessert topping



Vegetable Trimmings  
Base for soups, sauces and stocks



Day-old Bread  
Croutons or breadcrumbs

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### Tray-less Systems

Case studies have shown that trays encourage customers to take more food than they can eat. Discourage customers from wasting food by going tray-less or by switching to smaller trays.

### Menu Planning

Wasted food tracking systems can help identify which dishes customers frequently send back to the kitchen or leave uneaten. This information enables managers to modify the menu to both satisfy customers and generate less waste.

Table 2 contains a simplified example of one week of kitchen food waste tracking using the Food and Packaging Waste Prevention Tool.

Table 2: Menu Planning Example in Food and Packaging Waste Prevention Tool (pounds of wasted food)

Kitchen Food Waste	Prep Waste	Improperly Cooked	Stored Food Expired	Arrived Spoiled	Food Sent Back by Customer
Chicken	6	6	0	0	25
Pasta	4	5	0	0	2
Fruit and Vegetables	5	2	0	0	0
Dairy	4	0	0	0	0
Other	0	0	0	0	0
<b>TOTAL</b>	<b>19</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>27</b>

Background: This example shows wasted food type with respect to why the food was discarded. This information would be automatically generated in the Summary Data portion of the tool after data entry.

Tracking Analysis: Dishes containing predominantly chicken products are frequently sent back to the kitchen by the customers.

Solution: This could indicate that menu items need to be modified or is not being properly prepared on a regular basis. Also, if staff tracks plate waste, managers can adjust portion sizes so that less food is left unfinished.

### Plating: Serving Sizes and Garnishes

Even small garnishes and improper serving sizes quickly add up to a significant amount of food reaching landfills. Food service managers can reduce food waste by:

- Avoiding use of inedible or rarely eaten garnishes unless requested.
- For serviced food counters, using the "ask first" policy for sides and garnishes (for example, ask if a pickle or side salad is wanted with a sandwich).
- Reducing scoop or serving size to reduce wasted food while still satisfying a customer's appetite.

### Removing Trays Reduces Waste

A 2008 study of 25 college campuses found that removing trays at dining halls results in as much as 25 to 30 percent less wasted food.



(Source: Washington Post – February 17, 2011)

### Guest Education

Simply encouraging guests to take only the food they can consume goes a long way in reducing wasted food. Food service managers can post informational signs at buffet-style food service venues that encourage customers to take only enough food to match their appetite.

*EPA's Reducing Wasted Food & Packaging: A Guide for Food Services and Restaurants* has many strategy ideas...

## Case Studies

### University of California (UC), Berkeley

Source Reduction Technique: Guest Education

Like many other colleges and universities, University of California (UC), Berkeley has buffet-style dining halls where much of the wasted food was a result of students' eyes being larger than their stomachs. To address this problem, CalDining worked with the Residential Sustainability Education Coordinator (RSEC) Program to host "Eat the World, Save the Earth" events to encourage students to take only what they could eat. Students who cleared their plates were rewarded with a small prize (for example, candy) while students who wasted food had to scrape their plates into a vessel and the amount of food discarded was measured and reported throughout the evening. Students noted that they had never before thought about how much food they wasted.

### University of Maine at Farmington

Source Reduction Technique: Tray-less Dining

In February 2007, the University of Maine started a tray-less dining program. Food service managers spent several weeks creating communication materials to convey the benefits of the new tray-less dining program to students and other dining hall patrons. The university's food service managers credit their communication efforts as a key component of the program's success. In its first year, the program reduced the university's overall waste generation by 65,000 pounds, or roughly 46 pounds per person. As an added bonus, the university also used 288,000 fewer gallons of water and reduced the energy and dish detergent consumption associated with cleaning trays.

(Source: Time Magazine, August 25, 2008)

### University of Texas at Austin

Source Reduction Technique: Guest Education and Serving Size

In Spring 2008, the University of Texas at Austin audited plate waste during lunch and dinner for five days. They found that students left an average of 5.7 ounces of edible food on their plates, equivalent to a medium-sized apple. Food service staff engaged the students with signage and visualizations of their daily waste using symbolic trash bins. Students were allowed to sample menu items before taking a full serving of the dish. Staff were also trained on portion control and tracking of pre- and post-consumer waste. In

fall 2008, another plate audit was conducted, showing a 48% reduction in wasted food.

### Intel Corporation Cafes in Hillsboro, Oregon

Source Reduction Technique: Food Reuse

Two Intel business dining facilities, serving approximately 12,000 meals per week, tracked all pre-consumer wasted food on a daily basis for one year using computerized food waste tracking systems and software from LeanPath. Starting in April 2009, employees tracked all waste at a scale positioned along the regular route of disposal in the kitchen. They tracked not only the quantity of an item discarded, but the reason for disposal. Weighing time took less than four minutes per employee per week. With the data, the chefs looked for reuse opportunities such as using vegetable scraps for soup stock and sauce base, pureeing certain starches for thickeners in other entrees, using dairy items prepped for the coffee station to make chowder, and turning leftover fruit into chutney. Over the course of the year, wasted food in the kitchen was reduced by 47% and food costs per meal decreased by 13.2%.

(Source: [www.ci.hillsboro.or.us/Sustainability/Sustainability/Web\\_Upload/download/FoodWasteCaseStudy.pdf](http://www.ci.hillsboro.or.us/Sustainability/Sustainability/Web_Upload/download/FoodWasteCaseStudy.pdf))

## Turn Source Reduction Strategies into Action!

From the strategies detailed above, pick one or more to pursue based on your waste assessment:

- Create food purchasing policy
- Revise storage techniques
- Reuse food
- Train staff
- Remove trays
- Revise menu
- Alter plating and serving sizes
- Educate guests on taking only what they can eat



## Feed Hungry People / Feed Animals

How can a business help the community, the environment, and its bottom line at the same time?

Every day, food service providers such as supermarkets and restaurants make decisions about what to do with surplus prepared food, produce, meat, bakery and dairy items that are still safe and wholesome to eat.

### Feed People, Not Landfills: Food Donation

According to the U.S. Department of Agriculture (USDA), 50 million Americans, or 14% of American households, were food insecure in 2009. Donating fresh food not only reduces food reaching landfills, but also feeds those in need.

Do I have to worry about liability from donating food?

Many food providers worry about legal liability related to their donated food. However, the Bill Emerson Good Samaritan Food Donation Act (Public Law 104-210) protects food donors from legal liability if they donate in good faith and without gross negligence.

What kind of food can be donated?

Non-perishable and unspoiled perishable can be donated. Check with the local food bank or food rescue organization to find out what items they will accept. Additionally, follow food safety guidelines\* at [www.food.todonate.com/Edmain/FoodSafety.aspx](http://www.food.todonate.com/Edmain/FoodSafety.aspx) to ensure that food remains edible and safe to eat.

Will it take extra time to set aside donations?

Food that cannot be sold before its expiration date can be set aside for a food recovery group instead of put into the dumpster. Many food rescuers will take the time to sort through the food, meaning the only change in procedure is which bin to place the food in, with no extra work necessary. Most food rescuers also provide monthly totals of donations for making calculating tax deductions easy. Most food recovery programs offer free pickups and

\* (This link is for informational purposes only and does not imply endorsement by EPA.)

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#### Looking for a Venue to Make a Food Donation?

- Check out "Rock and Wrap It Up" ([www.rockandwrapitup.org/resources/hungarpedia](http://www.rockandwrapitup.org/resources/hungarpedia))
- A new tool called Hungarpedia is a resource to match agencies in need with donors of food and other assets
- Feeding America: Offers a database of regional food banks with contacts for smaller outlets

† (This link is for informational purposes only and does not imply endorsement by EPA.)

containers for wholesome, edible food.

What tax benefits do I get from donating food?

Not only will donating food reduce your waste disposal costs, but donations can also generate significant tax benefits for businesses. Donors are advised to consult with their tax advisor in applying the appropriate deduction. Learn more at: [www.epa.gov/waste/conserve/foodwaste/food-donate.htm](http://www.epa.gov/waste/conserve/foodwaste/food-donate.htm).

### Feed Animals

After feeding people, the next preferred food diversion strategy is to send food waste to local farmers and others who use food scraps (generally vegetative only) to feed animals. To get started, contact the county agricultural extension office, state veterinarian, or county health department to find out about specific state regulations and to find contact information for farmers.

... as well as Case Studies and an Action Plan prompt for source reduction and the other preferred methods of managing excess edible food, scraps, and packaging waste.

Download the guide here:

[http://www.epa.gov/foodrecovery/docs/reducing\\_wasted\\_food\\_pk\\_g\\_tool.pdf](http://www.epa.gov/foodrecovery/docs/reducing_wasted_food_pk_g_tool.pdf)

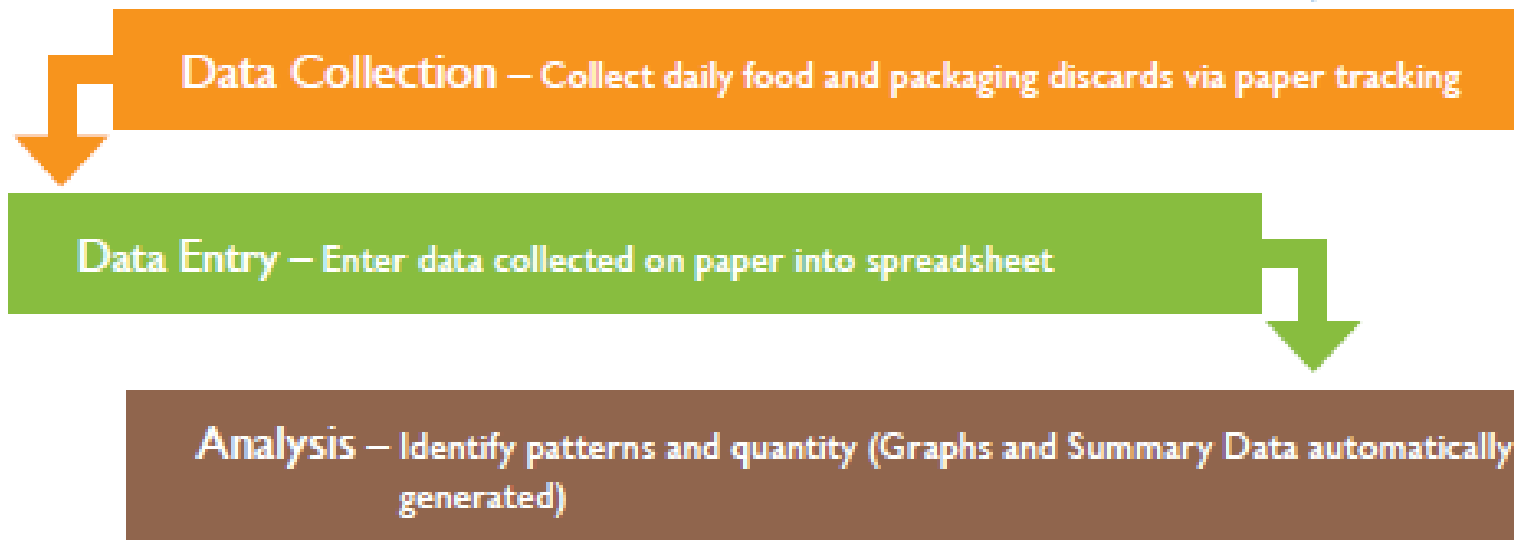


# Disclaimer

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# Milestone 3: Tracking Progress

- Return to EPA's Food & Packaging Waste Prevention Tool and begin tracking cycle once more
- Track for a minimum of two weeks for best results



- Revisit how to Establish a Baseline in the Milestone 1 webinar for more information on how to track: <https://attendee.gotowebinar.com/recording/202462955866066690>

## Other resources:

EPA's Food Recovery Challenge

<http://www.epa.gov/foodrecoverychallenge/>

Sustainable Food Management Webinar Archive

[http://www.epa.gov/epawaste/consERVE/smm/foodrecovery/frc\\_webnr\\_archve.htm](http://www.epa.gov/epawaste/consERVE/smm/foodrecovery/frc_webnr_archve.htm)

USDA webinar September 24, 2014

***Supermarkets, Restaurants, & Food Service Companies Reducing Food Waste***

<http://www.usda.gov/oce/foodwaste/webinars.html>

## Questions?

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