



# EPA's Toolkit for Reducing Wasted Food and Packaging

*A Guide for Food Services  
and Restaurants*

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<http://www.epa.gov/foodrecovery/tools/index.htm>



# Outline

- Overview of Wasted Food & Packaging
- Food Recovery Hierarchy: A Guide to Reducing Your Wasted Food
- EPA's Tool to Track Wasted Food and Packaging – A Tutorial



# Basics of Tool and Toolkit

## Purpose:

- Focus on upstream reduction of wasted food and packaging
- Enable food service entities to understand how much, when and why food and packaging are wasted
- Use information from tool to create targeted interventions to reduce food and packaging waste

## Audience:

- Food service entities



# Why Food?

## Environment

- Food accounts for over 20% of material reaching landfills in United States
- Food in landfills generate methane
- Lifecycle of food accounts for 13% of greenhouse gas emissions nationwide

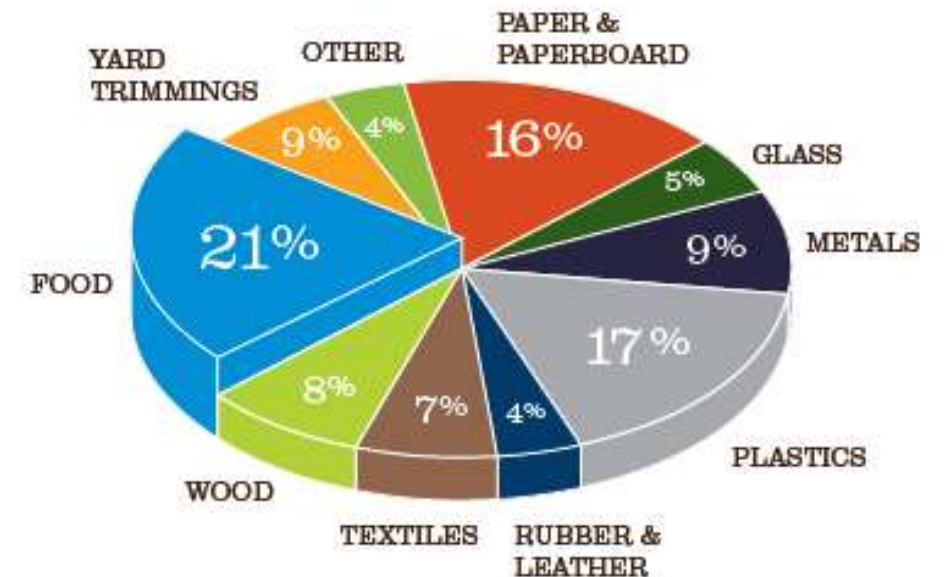
## Economy

- Wasted food costs consumers and businesses in U.S. \$165 billion per year

## Society

- 50 million Americans in the U.S. are currently food insecure

**Figure 1. Percent of Total Waste Generation and Disposal of Municipal Solid Waste in the U.S. in 2010**

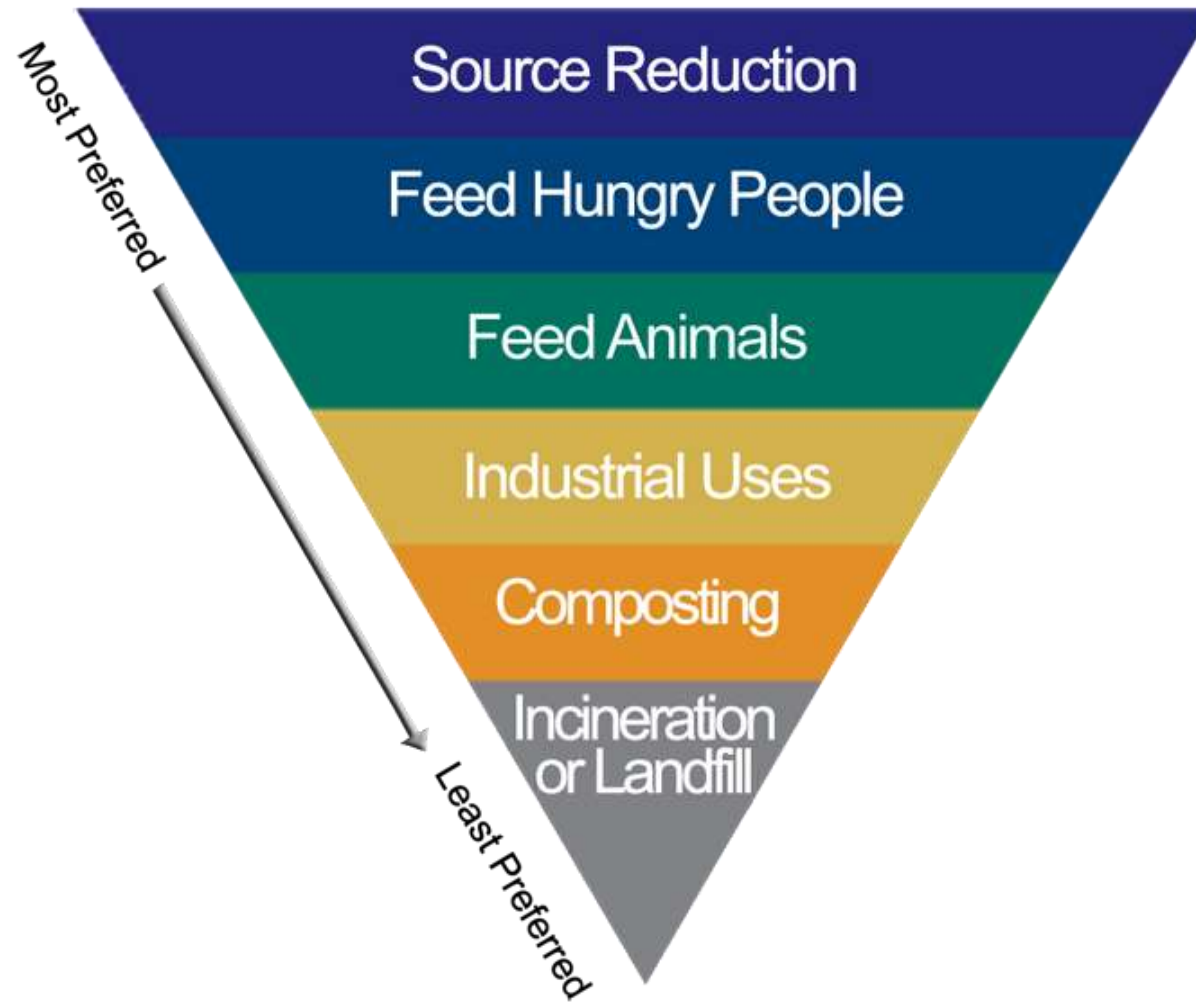


# Why Packaging?

- Packaging accounts for 23% of material reaching landfills each year
- Reducing packaging by 50% in the US would save 105 million MTCO<sub>2</sub>e
  - Equivalent to removing 20 million passenger vehicles from the road
- Food packaging and serveware are large contributors to marine debris

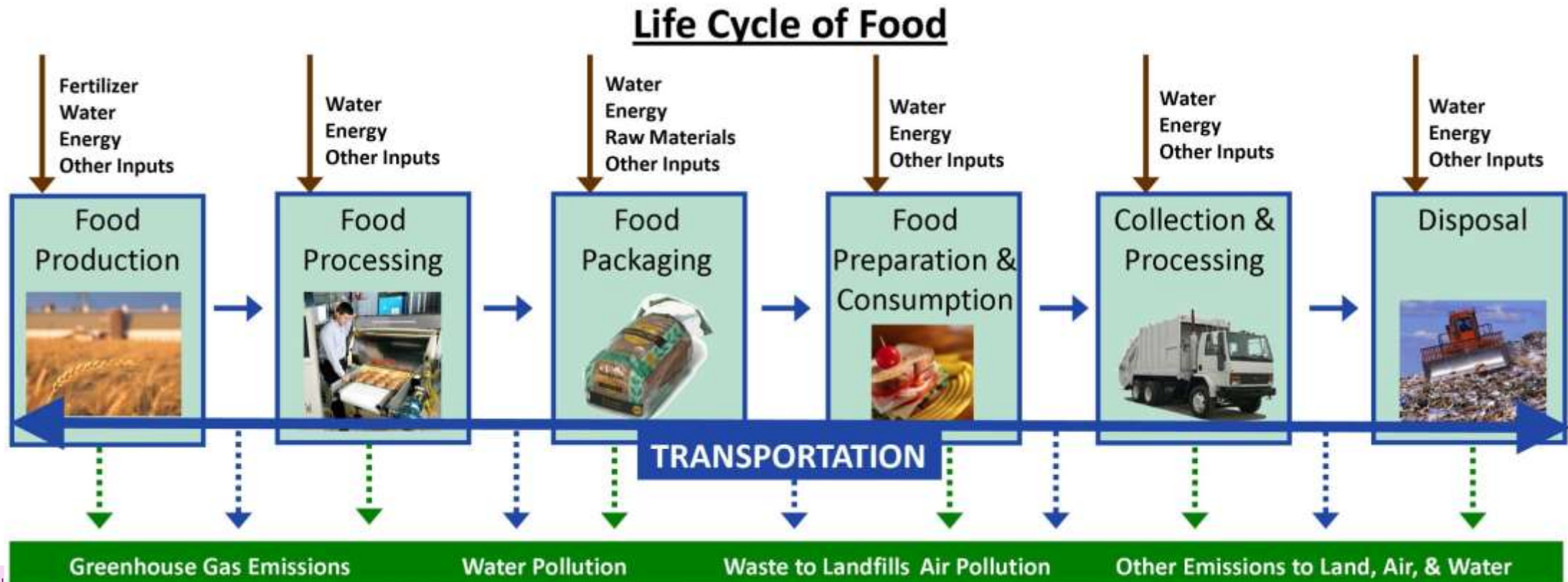


# Food Recovery Hierarchy



# Why Source Reduction?

- Highest opportunity for impact
  - Save \$\$ by reducing over-purchasing and disposal costs
  - Reduce environmental impacts over entire lifecycle



# Why Measure and Track?

*Measuring and tracking is a critical first step to any waste reduction program*

- Important to understand the quantity, type of, and reason for the material being discarded
- Allows you to create targeted and successful interventions





# Food Waste Tracking Systems

- Many types of tracking systems exist
  - Vary in cost, complexity, and focus

	FREE	Available to Public	Easy to Identify Opportunities for Reduction	Long-term Tracking
Paper Tracking Logs	✓	✓		
Automated Tracking Systems (e.g. LeanPath ValuWaste)		✓	✓	✓
Proprietary Tracking Systems			✓	✓
<a href="#">EPA's Food &amp; Packaging Waste Prevention Tool</a>	✓	✓	✓	

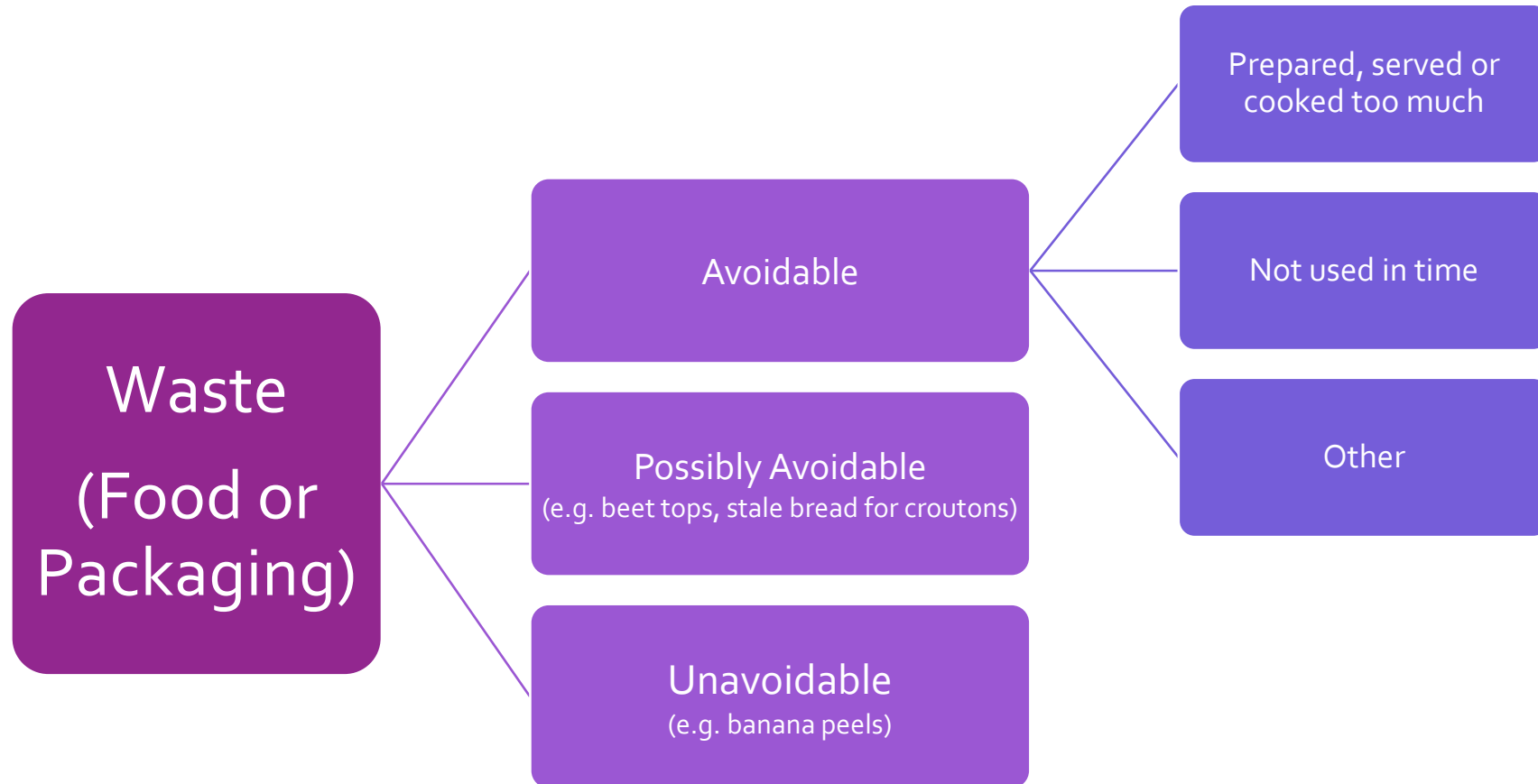


# How The Tool Works

Understanding Why, When & How Much



# Identify Opportunities for Targeted Interventions



# Types of Waste Tracked

- Kitchen Food Waste (Back of the House)
- Plate Waste (Front of the House)
- Packaging Waste

## Key Metrics

- How much
- Why generated
- When



***Helps identify patterns and reasons for food and packaging waste generation -- Assessing waste is the first step to reducing it!***

# Before You Start: How Detailed Do You Want To Be?

## You Can Collect Data At Various Levels of Detail

- Best if decided prior to starting the assessment
- Choose level of detail based on your goals and resources
- Use “Add A Row” function (on Data Entry page) to be as detailed as you want
  - Additions will also be added to Data Collection print out
- More detail = More useful information



# Varying Levels of Detail

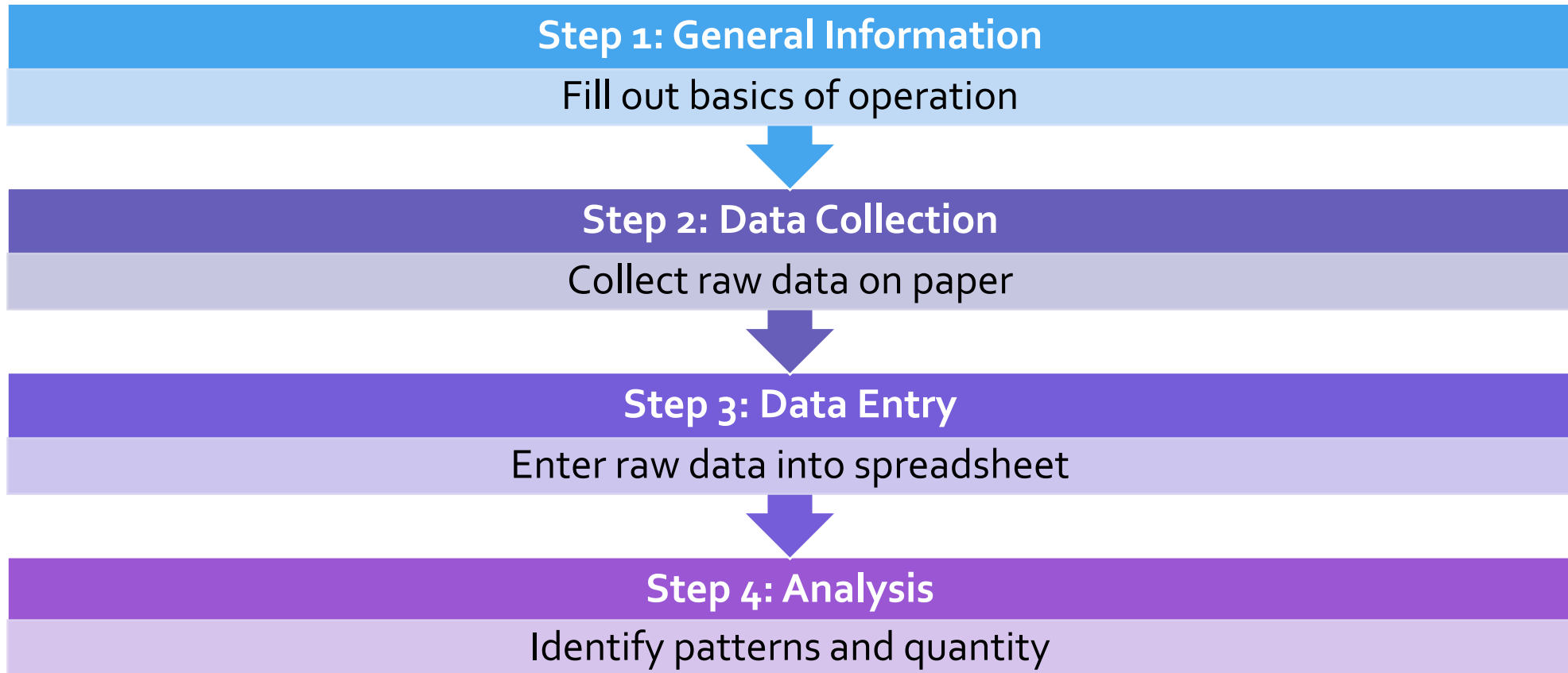
## Lowest Level of Detail

- Protein
- Grain
- Fruits & Veggies
- Dairy
- Other

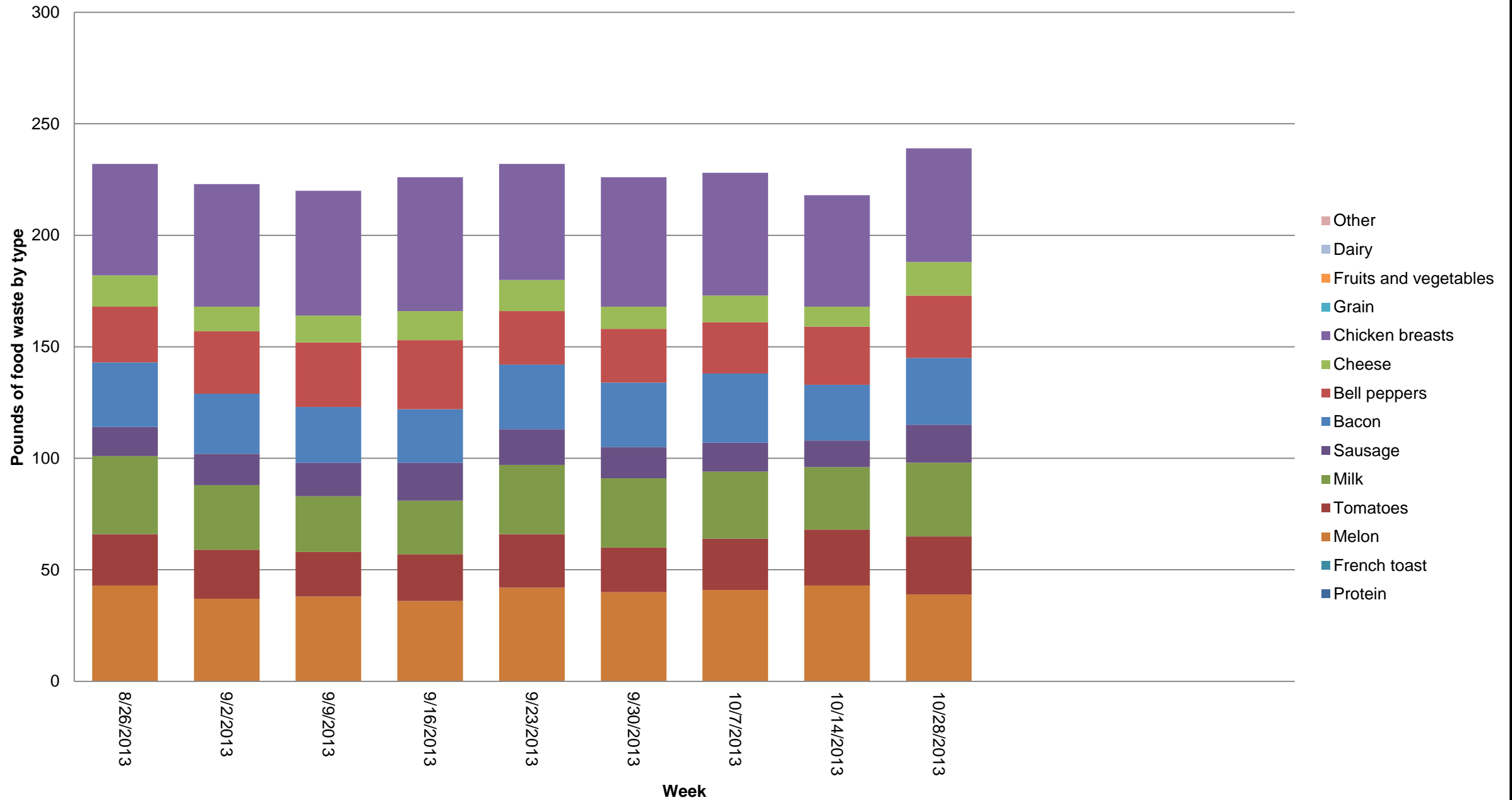
## More Detail

- Chicken Breast
- Bell Peppers
- Rice
- Pasta
- Lettuce
- Radishes

# The Process



# Kitchen Food Waste





## Helpful Tool: Conversion Helper

- When doing data collection, can be hard to know weight of every item. So, track using an easier measurement
  - # of chicken breasts
  - # of rolls
  - Gallons of milk



# The Toolkit

Resources for Action



# The Toolkit

- Helps tool users take the data collected and turn it into action
- Identifies opportunities for:
  - Pre-consumer source reduction
  - Post-consumer recovery
- Provides:
  - Case Studies
  - Instructions on how to calculate the potential cost savings
  - Checklists



Reducing Wasted Food & Packaging:  
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United States Environmental Protection Agency





## Reducing Wasted Food and Packaging: Strategy Checklist

This checklist identifies common strategies that can be used by food service establishments to reduce their wasted food and packaging. Some strategies are applicable for all types of food service establishments and others are specific to certain venue types. Choose strategies based on the opportunities that exist at your facility. Tracking food waste is always the first step.

### All Food Service Venues

- Conduct a wasted food and packaging assessment using the EPA's Food and Packaging Waste Prevention Tool or another waste tracking tool
- Adjust food purchasing policies to reduce excess food purchasing
- Use just-in-time purchasing software to reduce unnecessary purchasing
- Adjust menus to reduce frequently uneaten or wasted items
- Train staff to reduce prep waste and improper cooking (for example, refine knife skills to have more efficient food preparation)
- Modify food preparation methods to minimize waste (for example, heat soups or prepare food in smaller portions)
- Store food properly to reduce spoilage
- Use reusable service ware instead of disposable service ware
- Purchase items in bulk to reduce packaging
- Donate excess food

### Buffet

- Identify which buffet items are regularly wasted and reduce the quantity of those items prepared
- Implement tray-less system
- Reduce serving utensil size

### Made-to-Order

- Repurpose leftover kitchen food following food safety guidelines (for example, reuse day-old bread for croutons or leftover vegetables as a pizza topping)

### Grab-and-Go

- Identify which grab-and-go items are not regularly being purchased and reduce the quantity of those items prepared
- Reduce to-go item packaging
- Use packaging that is compostable or recyclable
  - Find out what can be recycled and composted in your area. Note that some compostable packaging on the market today is not suitable for backyard composting.
  - Work with your local government to expand recycling and composting services.

### Menu-Driven

- Identify which menu items are being wasted on a regular basis and reduce the quantity or portions of those items prepared
- Repurpose leftover kitchen food following food safety guidelines (for example, reuse day-old bread for croutons or leftover vegetables as a pizza topping)

### Quick Service

- Use recyclable or compostable packaging
  - Find out what can be recycled and composted in your area. Note that some compostable packaging on the market today is not suitable for backyard composting.
  - Work with your local government to expand recycling and composting services.



## 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
- Flating 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

# Thank You!

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