

US EPA ARCHIVE DOCUMENT

# Prevent Food Waste It Makes Dollars and Sense

More food waste is landfilled or burned than any other material in municipal solid waste. Up to 40% of all food produced in the U.S. is thrown out, nearly all of which is landfilled where it creates methane, a potent greenhouse gas. Preventing food waste saves money and reduces impacts to your community and the planet. Food service operations throw away 4-10% of food before it reaches a customer's plate, \$4,000 to \$10,000 of food for every \$100,000 in food purchases! Read on to discover how much food waste is costing you and learn about some great alternatives for your facility to reduce, donate or recycle food which would otherwise be wasted.

## SAVING FOOD SAVES MONEY



## Why Reduce Food Waste?

### Economic Benefits

- Lower Purchasing Costs
- Lower Disposal Costs
- Receive Tax Benefits

### Social Benefits

- Feed People, Not Landfills
- Support Local Charitable Groups and Communities

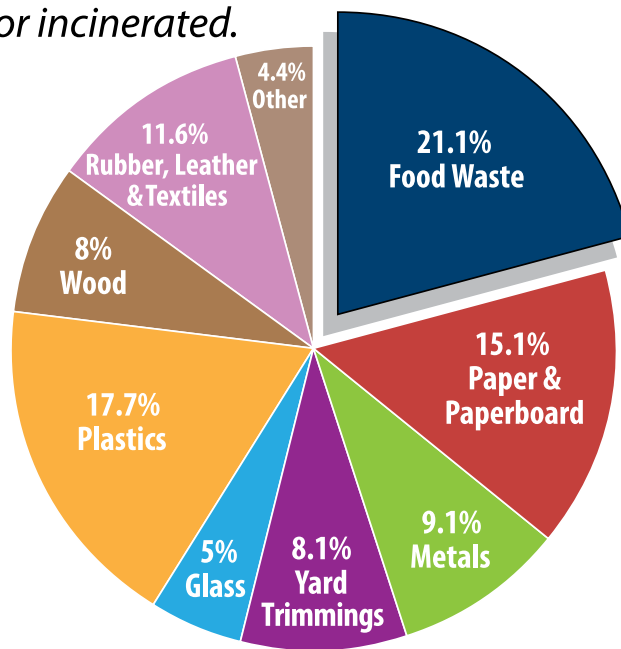
### Environmental Benefits

- Reduce Food Production Impacts
- Reduce Greenhouse Gas from Landfill Methane Emissions

Wasting food also wastes all the resources for growing, manufacturing, and transporting food. Cultivation of crops and livestock alone, causes 10% of all U.S. greenhouse gas emissions.

EPA 1990-2012 GHG Inventory and Sources of Emissions: [www.epa.gov/climatechange/ghgemissions/usinventoryreport.html](http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html)

**FOOD** makes up the single largest percentage of waste that's landfilled or incinerated.



Data from the EPA 2013 Municipal Solid Waste Characterization Report

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## Food Waste Reduction Options:

Alternatives that reduce or reuse excess food are better than those that recycle or reprocess. The goal is to first reduce, then reuse, then recycle. The EPA's Food Recovery Hierarchy prioritizes these food waste strategies from most to least preferable.

**1 Source Reduction – Buy the Right Amount:** Preventing food waste in the first place saves the most money and has the largest environmental impact.

### Benefits:

- Reduce food costs from over-purchasing.
- Reduce food and packaging waste disposal costs.
- Reduce labor, water, and energy use from excess food production.

It takes about 52 gallons of water to produce one egg. Throwing out a dozen eggs is like letting your low-flow shower run for 2 hours and 36 minutes!

*Water Education Foundation, U.C. Agricultural Extension & Ecological Integrity: Integrating Environment, Conservation and Health*

### Strategies:

- Measuring your waste is a critical first step to reducing it. Conduct a Food Waste Assessment to identify the quantity, reasons for, and type of food waste in the kitchen. (See EPA's "Toolkit for Reducing Wasted Food and Packaging.")
- Reduce Kitchen Waste: Adjust purchasing to avoid spoilage and reduce excess; train staff in inventory rotation, food prep and proper cooking skills.
- Reduce Plate Waste: Design your menu to reduce uneaten food; encourage guests to take only the food they can consume; change plate size, serving sizes and garnishes; go "trayless" for buffets and "all you can eat" food service.

USDA estimates that 31% of food at the retail and consumer level goes uneaten equating to 1,249 calories per day per person – enough to a 4-year old child.

*USDA Child Caloric Intake: [www.choosemyplate.gov/weight-management-calories/calories/empty-calories-amount.html](http://www.choosemyplate.gov/weight-management-calories/calories/empty-calories-amount.html)*

**2 Food Donation – Give It to Neighbors in Need:** Donating excess food to soup kitchens, food pantries, and food banks helps feed the 1 in 6 Americans without access to enough food.

### Benefits:

- Food donations can provide donors significant tax deductions.
- Federal law provides tax deductions for food donations.
- Donate to a food bank or other charity to help feed the 1 in 6 Americans without access to enough food.
- Reduce food sent to landfills

### Strategies:

- Find local food rescue organizations who coordinate donation and delivery.
- Learn which local charities can accept your excess food; understand what they need in terms of frequency, types of foods, and timing.
- Work with nearby food service facilities to combine donations and make pickup/delivery easier and more effective.
- Ensure staff are trained in safely handling food for donation.

### Who Will Take Donations?

- Food Pantries: [foodpantries.org](http://foodpantries.org), [ampleharvest.org/find-pantry.php](http://ampleharvest.org/find-pantry.php)
- Food Banks: [feedingamerica.org](http://feedingamerica.org) note if they will not take perishables
- Food Rescue Programs - Typically local organizations such as:
  - SF Bay Area: [foodrunners.org](http://foodrunners.org)
  - Phoenix: [wastenotaz.org](http://wastenotaz.org)
  - Las Vegas: [threesquare.org](http://threesquare.org)
  - Honolulu: [alohaharvest.org](http://alohaharvest.org)

**The Good Samaritan Act** was created to encourage donations and prevent good food from going to waste; highlights include:

- Protects all donors from liability surrounding their donations.
- Protects all food and grocery donors.
- Includes exceptions for gross negligence.
- Covers all states in U.S.

### 3 Feeding Animals: Leftover food and food scraps unsuitable for human consumption can often be used to feed animals.

**Benefits:**

- Divert food waste from the landfill to beneficial use as animal feed.
- Reduce disposal costs.

**Strategies:**

What Types of Food Can Be Donated to Feed Animals?

- State regulations vary on the types of food that can be fed to animals, pig farmers can accept many types of food scraps.

What Laws Govern Feeding Animals Food Discards?

- The Federal Swine Health Protection Act requires that food containing, or that comes in contact with meat or animal materials must be boiled before being fed to hogs.
- If surplus food provided to animals does not contain meat or animal materials, federal laws or regulations do not apply; state laws that regulate such feeding vary by state.

Food decomposing in a landfill creates methane - a potent greenhouse gas with 21 times the global warming potential of carbon dioxide. Landfills account for more than 18% of all U.S. methane emissions.

Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012.

### 4 Industrial Uses: Fats, Oils and Grease (FOG): Most municipalities require some kind of FOG management and discourage or ban disposal down the drain. Biodiesel companies convert FOG into biodiesel fuel. Rendering companies recycle FOG into animal food, cosmetics, soap, and other products, or process it for energy content.

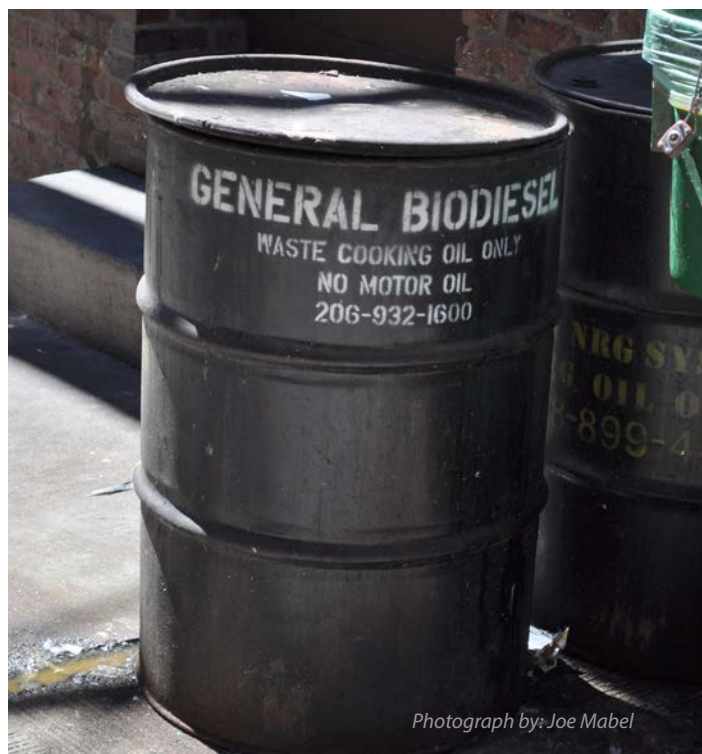
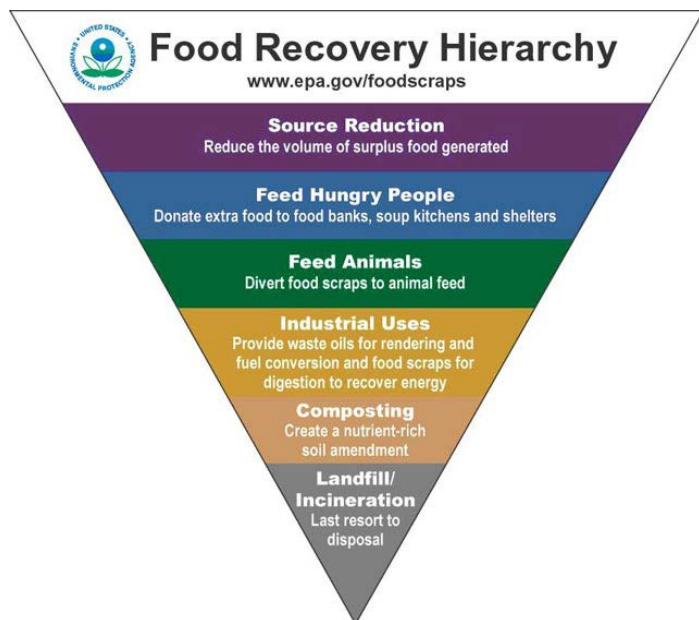
**Benefits:**

- Help prevent clogged drains by collecting FOG.
- Comply with local requirements and bans.
- Recycle FOG into other products and reduce environmental footprint.

**Strategies:**

- Contact local rendering and biodiesel companies to learn how to recycle FOG in your area.
- Dedicate the space and labor needed to properly and safely collect and store FOG; obtain needed containers (often from FOG collection companies).

If 50% of the food waste generated each year in the U.S. was used to create biogas, 2.5 million homes could be supplied with electricity for a year.



Photograph by: Joe Mabel

**5 Anaerobic Digestion:** Many wastewater treatment plants, stand-alone digesters and manufacturing facilities process food scraps to create renewable energy and a nutrient-rich soil amendment.

**Benefits:**

- Reduce disposal costs.
- Converts food waste into energy and beneficial soil amendments.

**Strategies:**

- Food scraps can be digested alone at stand-alone anaerobic digesters, or co-digested at some wastewater treatment plants and dairy digesters – learn what is available in your area.
- Eliminate contaminants like plastics and foil that cause problems during handling and digestion.



**6 Composting:** Composting turns food scraps into a nutrient-rich soil amendments. Many cities now collect organic wastes for commercial composting.

**Benefits:**

- Divert food waste from the landfill to beneficial use as compost.
- Reduce disposal costs.
- Can be used for onsite and local gardens or processed into a marketable agricultural product.

**Strategies:**

- Onsite Composting: Self-contained composting and vermicomposting systems can be used onsite, but require labor and maintenance.
- Offsite Composting: Commonly provided as part of the trash hauling service in many large cities. Learn more about composting opportunities in your area.



**For More Information:**

EPA Food Waste website:  
<http://epa.gov/foodrecovery>