



Source Reduction

Wasted Food

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U.S. Environmental Protection Agency



How much food is wasted in the U.S.?

Amount of food that goes uneaten each year:

1/3

Percentage of waste thrown away that is food:

21%

Cost of the food that goes uneaten each year:

**\$161
BILLION**

Amount of food waste that got diverted from landfills:

5%

Number of Americans from households that don't always have enough to eat:

**48
MILLION**

To grow uneaten food: We use about **25%** of our freshwater.



Photo: UC Davis



Source: <http://www.nrdc.org/food/files/wasted-food-IP.pdf>

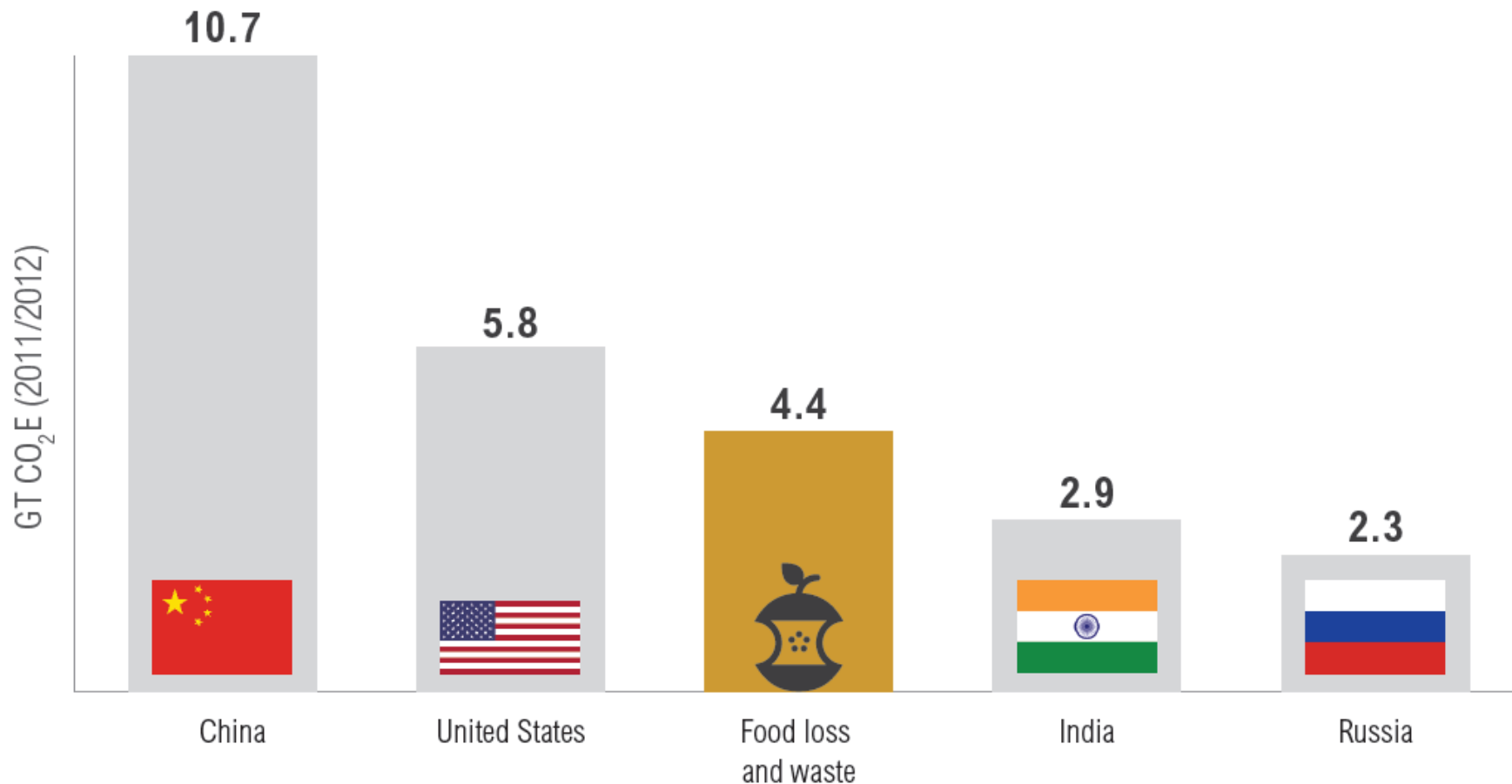
Photo: Pittsburgh Public Schools



Photo: CDC

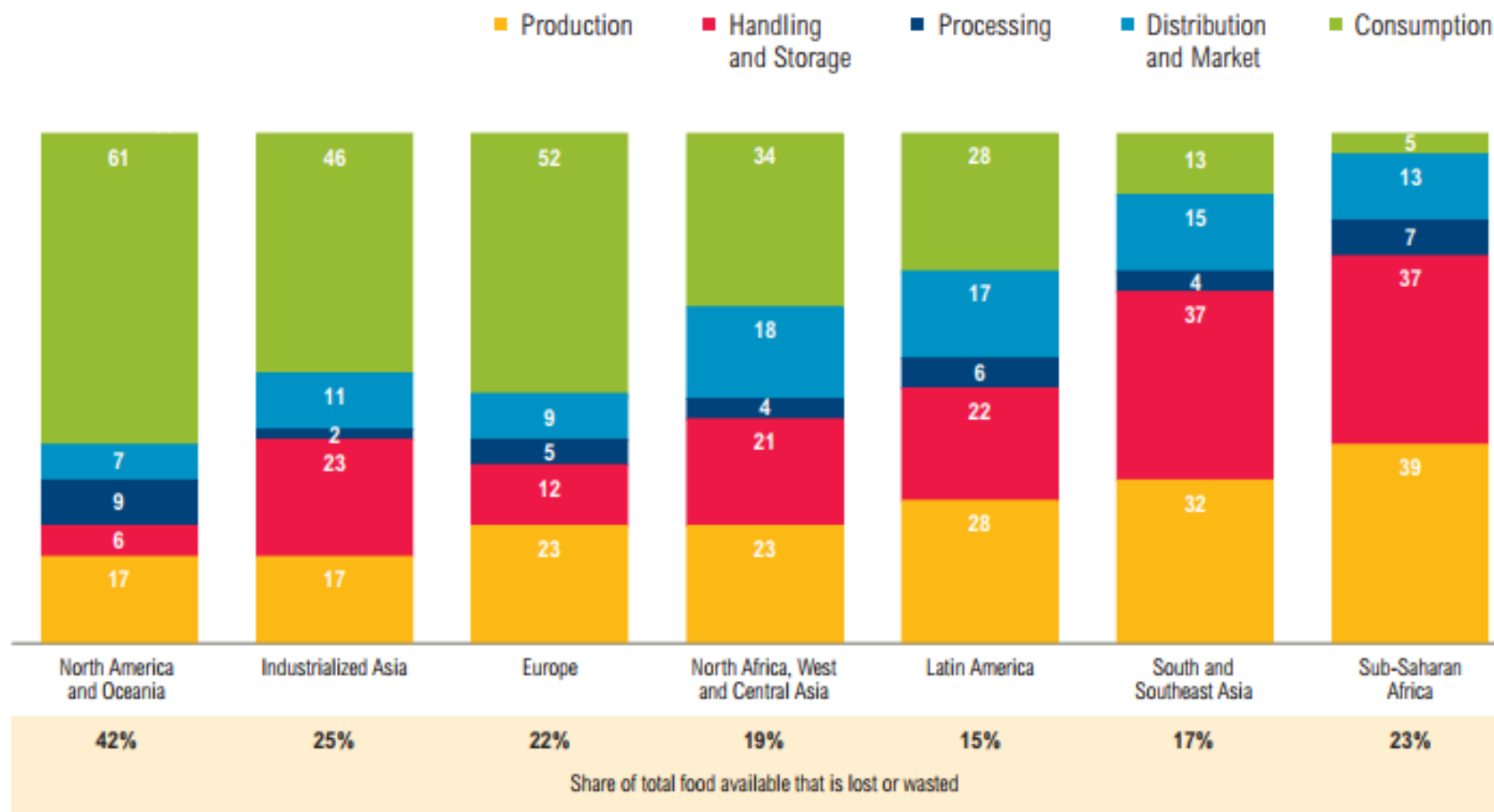


If food excess were a country: 3rd largest source of GHGs



Food Loss at Stages

Figure 6 | **Food Lost or Wasted By Region and Stage in Value Chain, 2009**
(Percent of kcal lost and wasted)



Note: Number may not sum to 100 due to rounding.

Source: WRI analysis based on FAO. 2011. *Global food losses and food waste—extent, causes and prevention*. Rome: UN FAO.





Food Recovery Hierarchy

Most Preferred

Source Reduction

Reduce the volume of surplus food generated

Feed Hungry People

Donate extra food to food banks, soup kitchens and shelters

Feed Animals

Divert food scraps to animal feed

Industrial Uses

Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

Composting

Create a nutrient-rich soil amendment

Landfill/Incineration

Last resort to disposal

Least Preferred

EPA 食物回收等級

減少來源
減少食物的剩餘量

給飢餓的人們
將多餘的食物捐給食物庫、貧民廚房和庇護中心

給動物
將食物残渣作為動物食料

工業用途
提供廢油和食物廢渣
用來回收和製造能源

堆肥
創造營養豐富的泥土

填埋／焚燒
最後一招是
填埋

最佳的選擇

EPA Jerarquía de Recuperación de los Alimentos

Reducir la fuente
Reducir el volumen excedente de comida generada

Combatir el hambre en la población
Donar la comida sobrante a bancos de alimentos, comedores comunitarios o refugios

Alimentar a los animales
Utilizar las sobras de comida para la alimentación de animales

Usos industriales
Destinar las sobras de comida y el aceite usado para su aprovechamiento energético

Composteo
Crear un abono rico en nutrientes

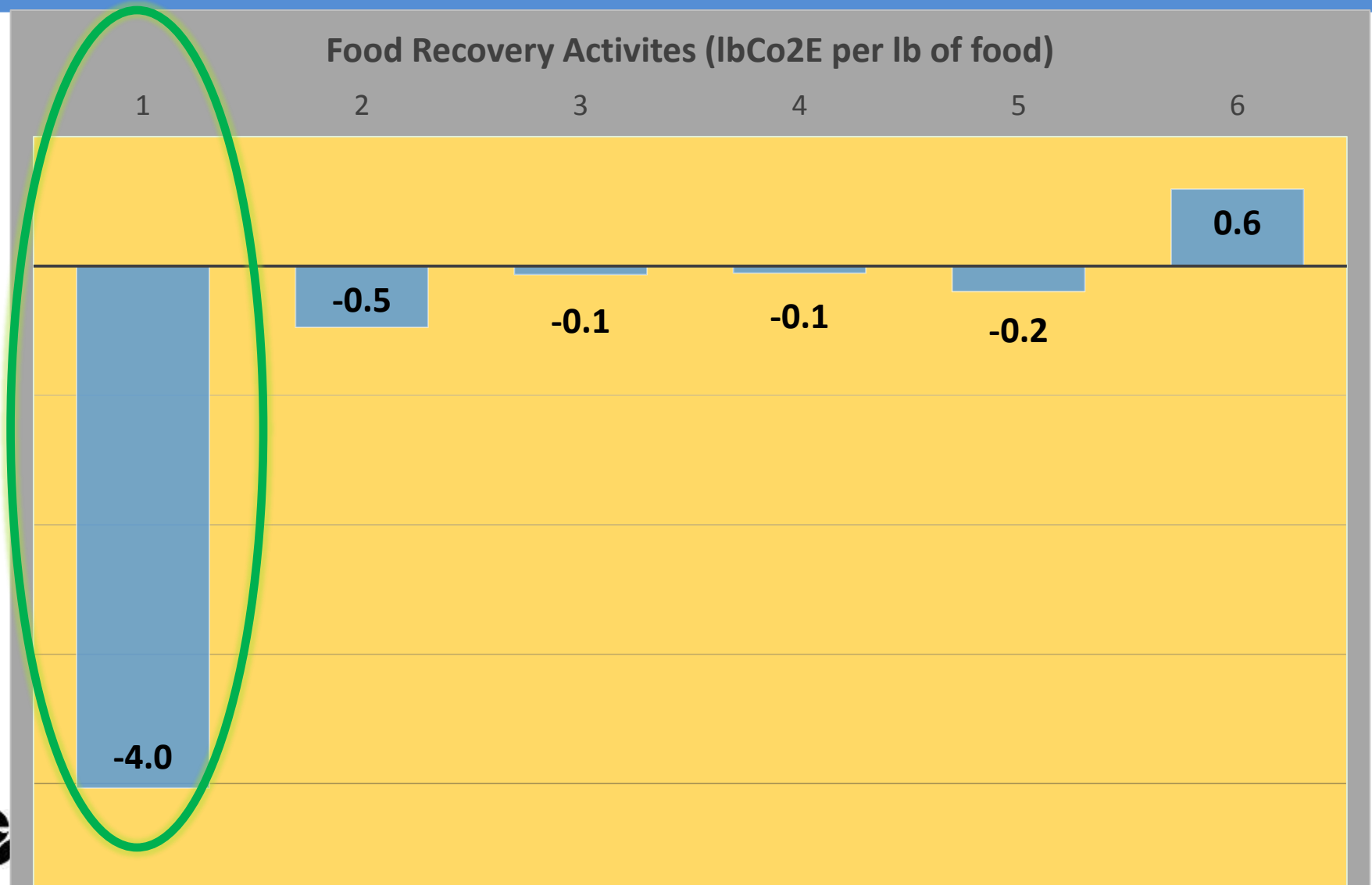
El basurero/incineración
Disposición al basurero

Más preferido

Menos preferido

Source Reduction - greatest GHG benefits

- calculated using EPA WARM model



Source Reduction:

Reduce the volume of surplus food generated

SAVING FOOD SAVES MONEY



**Reduce Over-Purchasing
Costs through
Waste Prevention**

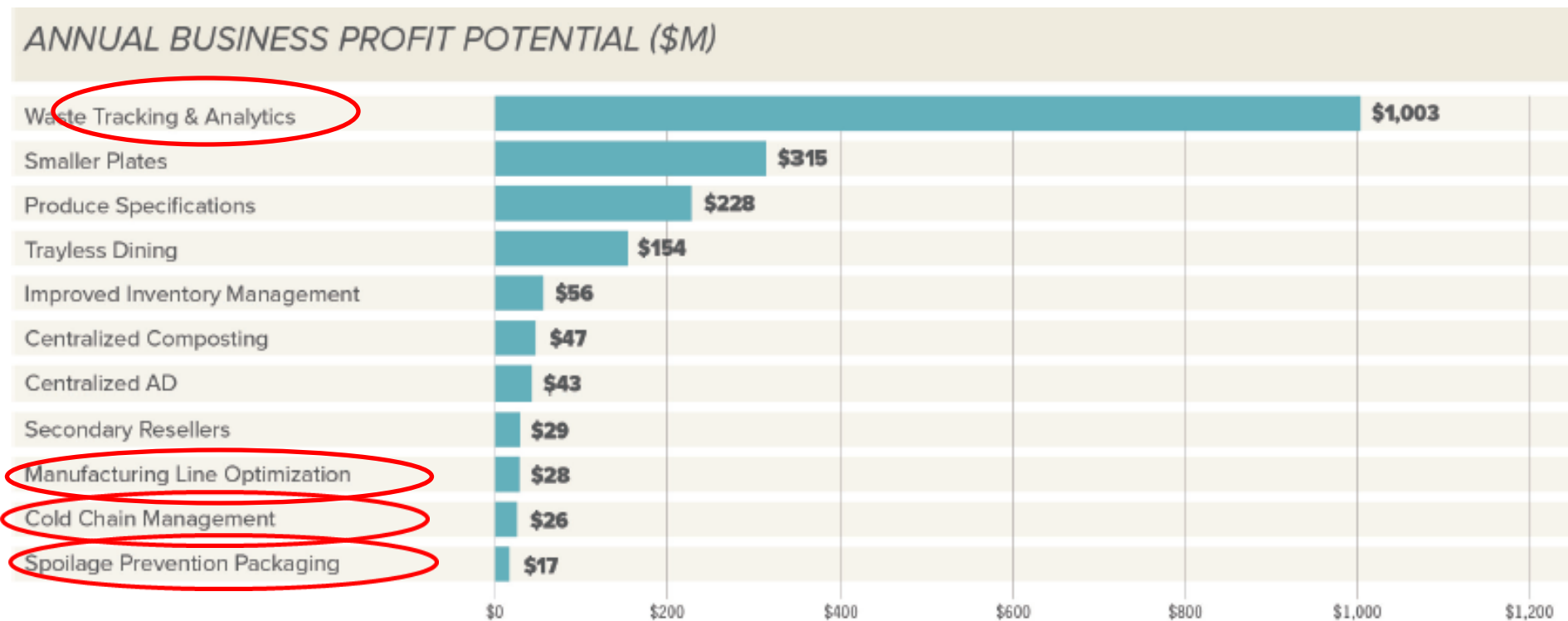


**Reduce Labor and
Energy Costs and
Increase Staff Efficiency**



**Reduce
Disposal
Costs**

Roadmap to Reduce U.S. Food Waste: \$1.9 billion in annual profit potential



Food Loss Prevention Tip Sheets

www.epa.gov/sustainable-management-food/food-loss-prevention-options-grade-schools-manufacturers-restaurants



Environmental Topics

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Sustainable Management of Food

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Guide to Conducting Student Food Waste Audits

- [Wondering how much food is wasted in your cafeteria and strategies to reduce it?](#)



Call to Action

- [Learn more about the Call to Action by Stakeholders United States Food Loss & Waste 2030 Reduction Goal](#)
- [Learn more about the 2030 Goal](#)



Understanding the Issues

- [Basic Information](#)
- [Food Recovery Hierarchy](#)
- [Upcoming Webinars](#)
- [Previous Webinars](#)



What Businesses, Institutions, and Other Organizations Can Do

- [EPA's Food Recovery Challenge](#)
- [Food Loss and Waste 2030 Champions](#)
- [Tools for Preventing and Diverting Wasted Food](#)



What Individuals Can Do

- [Reduce Wasted Food Tips](#)
- [Food: From Good to Waste Toolkit and Guide](#)
- [Donate Food](#)
- [Compost](#)

Food Loss Prevention Options for Manufacturers

Below is a list of ideas and activities that manufacturers may consider implementing to help prevent food loss and waste. Contact your local EPA representative for log sheets, signs, and other tools.

- ☐ **Perform a food waste audit.** See what's being thrown out and why. Pick a day and be there at the waste bin with a few volunteers, buckets, a log sheet, and a weight scale. Record the following:
 - o What is being thrown out,
 - o Weight or number of items,
 - o The reason the food is being disposed (if known),
 - o The expiration date of the product (when applicable),
 - o Whether the food was still wholesome/edible before being thrown out, and
 - o The most-wasted and least-wasted items.

Based on the results, consider changing procedures to minimize loss (e.g., reduce order quantities of low sold or otherwise tossed items).

- ☐ **Clarify date labelling and date encoding to reduce confusion to customers.** Some options might include:
 - o Improve readability of labels (e.g., color, font),
 - o Clearly label or define the difference between safety-based and quality-based dates,
 - o Make "sell by" dates invisible to the consumer,
 - o Use more "freeze by" dates where applicable so the customer knows they have that option,
 - o Remove "best before" or other quality dates from shelf-stable, non-perishable foods for which safety is not a concern, and
 - o Make sure all printed dates on products have descriptive language, not just a date.
- ☐ **Promote short supply chains.** Look for more local customers, thus reducing the distance and time the food has to travel. This can both increase the freshness of food and also reduce the greenhouse gases generated.
- ☐ **Increase regular communication with retailers and suppliers to reduce food waste** (e.g., schedule a meeting specifically to discuss reducing food waste; discuss minimum order quantities and/or large case sizes that may be causing unnecessary waste and talk through alternative options).
- ☐ **Evaluate size requirements** and other strictly cosmetic standards to determine any flexibility that may reduce waste.
- ☐ **Send order estimates more frequently** to better align production planning with order timings.
- ☐ **Send cuts, ends or other unused product back to the supplier.** This can encourage redesign or reuse.



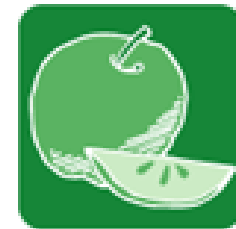
United States Environmental Protection Agency (EPA)
Washington, DC 20460
EPA-330-F-16-019-3
August 2016

For more information, including who your local EPA representative is, visit <https://www.epa.gov/foodrecovery>


Food Recovery Challenge (FRC)

www.epa.gov/sustainable-management-food/food-recovery-challenge-frc

- **Voluntary, confidential EPA program**
- **Participants:**
 - ◆ Track and measure their surplus food.
 - ◆ Move toward their food recovery goals.
 - ◆ Report annually
 - ◆ Receive recognition and technical assistance



**Join
the FRC**



[NATION'S FIRST-EVER FOOD WASTE GOAL]

CUT FOOD WASTE IN HALF BY 2030

- Measure your wasted food, then set goals.
- Leverage the Food Recovery Hierarchy.
- Participate in the Food Recovery Challenge.

Photo credit: USDA



Center for Food Loss
and Waste Solutions

WWW.EPA.GOV/SUSTAINABLE-MANAGEMENT-FOOD

WWW.FURTHERWITHFOOD.ORG

epa.gov/sustainable-management-food/forms/contact-us-about-sustainable-management-food

Sustainable Materials Management

Food Recovery Challenge



Changing how we think about our resources today for our children's tomorrow