# EPA Sustainable Materials Management Web Academy

## Preventing Food Waste Upstream: A Source Reduction Approach

November 16, 2017

https://www.epa.gov/smm/sustainable-materials-management-web-academy



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## Preventing Food Waste Upstream: A Source Reduction Approach

November 16, 2017

### Sustainable Materials Management Web Academy



U.S. Environmental Protection Agency

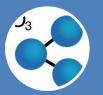


# EPA mission: To protect human health and the environment.









## 1971-2016: Cut air pollutants by 70%



93% compliance with drinking water standards.



>9 million tons of virgin materials avoided.

### 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:

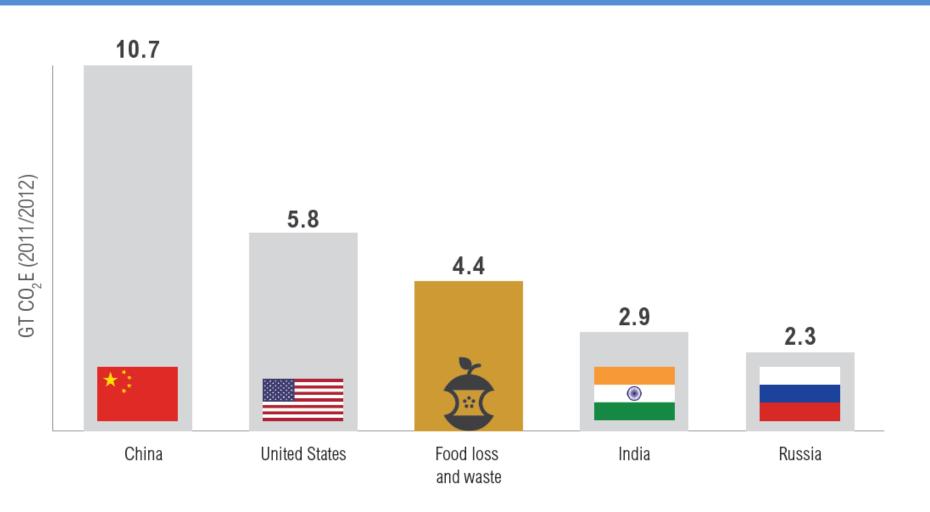
48 MILLION





#NoWastedFood

## If food excess were a country: 3<sup>rd</sup> largest source of GHGs





Source: Sdg target 12.3 on food loss and waste, 2017 progress report; Climate analysis indicators tool 2017; FAO 2015.





# [NATION'S FIRST-EVER FOOD WASTE GOAL] CUT FOOD WASTE IN HALF BY 2030

epa.gov/sustainable-management-food/united-states-2030food-loss-and-waste-reduction-goal

USDA



## **Food Recovery Hierarchy**

Source Reduction Reduce the volume of surplus food generated

**Feed Hungry People** Donate extra food to food banks, soup kitchens and shelters

> Divert food scraps to animal feed Industrial Uses Provide waste oils for rendering and

**Feed Animals** 

fuel conversion and food scraps for digestion to recover energy

> Composting Create a nutrient-rich soil amendment

Landfill/ Incineration Least Preterred Last resort to disposal

SEPA 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 refugio

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

> > El basurero

### ♣EPA 食物回收等級 減少來源 東田市港博

Most Preferred

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 將食物餘渣轉為動物食料

工業用途

堆肥

|造營養豐富的泥:

埴埋/焚燒 最後一招是 東北的通信 埴埋

## 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



## The Business Case for Reducing Food Loss & Waste: \$1 invested → \$14 saved!



https://champs123blog.files.wordpress.com/2017/03/report\_-business-case-for-reducing-food-loss-and-waste.pdf

SEPA United States Environmental Protection Agency Champions 12.3

WRI and WRP

## Food Loss Prevention Tip Sheets

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



**Vegetable Trimmings** Base for soups, sauces and stocks





#### Food Loss Prevention Options for Manufacturers

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

Perform a food waste audit. See what's being thrown out and wity. Pick a day and be there at the

Weight or r

low sold or othera

chain to clearly lab

options relefs inclu

Make "sell!

Remove "b

Make sure:

Call a meeting to d

Share practices with

Take an accurate it

Buy surplus or odd

Send order extirnal

G Start or increase ru

Revise your supply

timings.

sell them at a discs

**Purchasing Tips** 

safety is no.

Use more?

Carify data labelli

waste bin with a few volunteers, buckets, a log sheet, and a weight scale. Record the following: What is being through

- Weight or number
- The reason the foc
- The expiration data
- Whether the food
- The most-wested a

filmed on the results, corn

low sold or otherwise tool

#### Carify date labeling and

include:

- Improve readabilit Clearly label or def
- Make "sell by" slat.
- 4 Use more "beared"

Remove "best belt;

safety is not a core Make sure all print

Promote short supply cha fixed has to travel. This ca

provided.

Increase regular community meeting specifically to she care sizes that may be cau

Dustante size requirement

reduce waste.

Send order estimates mo

Send cuts, ends or other s

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program. Change contracts ( packaging such as

SEPA

Perform a food wante audit. See what's being thrown out and why. Pick a day and be there at the source bin with water

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

Food Loss Prevention Options for Grocery Stores

daars huckate a burshaat a table, and a sasket scale. Becout the following
Food Loss Prevention Options for Universities
Below is a list of ideas and activities that university food services may consider implementing to help prevent food ious and works. Contact your local EPA representative for log sheets, sigm, and other tools.
<ul> <li>Perform a food waste audit. See what's being thrown out and why.</li> <li>Picks day and be there at the dish return line with a few volunteen, buckets, log sheet and a weight scale. Record what is he'rig thrown out, how much his heing discarded and the reason food is being disposed (ask students for detailed reasons why they dish's finish their food).</li> <li>In the kitchen, have only one food waste it their tation. Before they entry their container, have tail weigh it and record the amount, hype and reason the waste is being discarded on a log sheet located near the task-reason and provide waste it being discarded on a log sheet located near the task-reason and reason the waste is being discarded on a log sheet located near the task-reason as a partners gast partice size.</li> </ul>
Call a meeting to discuss food waste prevention strategies with kitchen staff and/or interested student groups. Get their thoughts and ideos.
Prep and Storoge Tax
Reduce botch sizes. Eatch cooking is preparing result alward of time and storing them for future uses
Provide cost-to-order instead of balk-cooking either all day or toward the end of the day.
Replace a buffet line with a cosk-to-order line. This shows you to prepare only shall is ordered to minimize influence.
Due enabler serving containers toward the end of the day for the remaining partians of prepared foods.
Use leftowers from the day before. Struk one day can be used for beef stew the next day.
Train staff on knife skills to make more efficient brife cuts to use more of the food being prepared.
Use as much of the food as possible. Cook up carrot growns and don't peel cucumbers or potatoes.
<ul> <li>Reconstitute stally vegetables that have wited by increasing them in warm water (100%) for 15 minutes.</li> </ul>
Freeze surplus and near-to-spail fresh fruits and veggies instead of throwing them assay.
Finish preparation at the line. Co not finish the food item until it's ready to go on the line so you can more easily use leftower ingredients in different reciper later on.
Offerent foods like different storage conditions. Refresh staff on storage techniques for different foods (e.g., don't store tornatoes and lettace in the same container or near each other).
Due we through storage containers to allow staff to see what is available and to keep an eye on freshness.
A PRA

For mon-information, including who your local IPA representative it, visits

### What is beilt

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ts, signs, and other tools, Based on the result

- rs, buckets, kag sheet and a discarded and the reason the Bately Redshifting Sound
- fame a sedmen Table d y their container, have staff g discarded on a log sheet

- e and of the day e only what is ordered to re portions of prepared rathened day. the food being prepared il cacumbers or potatoes arm water (100'7) for 15 ing them away. to go on the line so you can techniques for different
- ar each other). and to keep as eve on

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# Food Recovery Challenge

### • Participants:

- Track and measure their surplus food.
- □ Move toward their food recovery goals.

### **Endorsers:**

- Educate on the sustainable management of food.
- Conduct Food Recovery Challenge outreach.

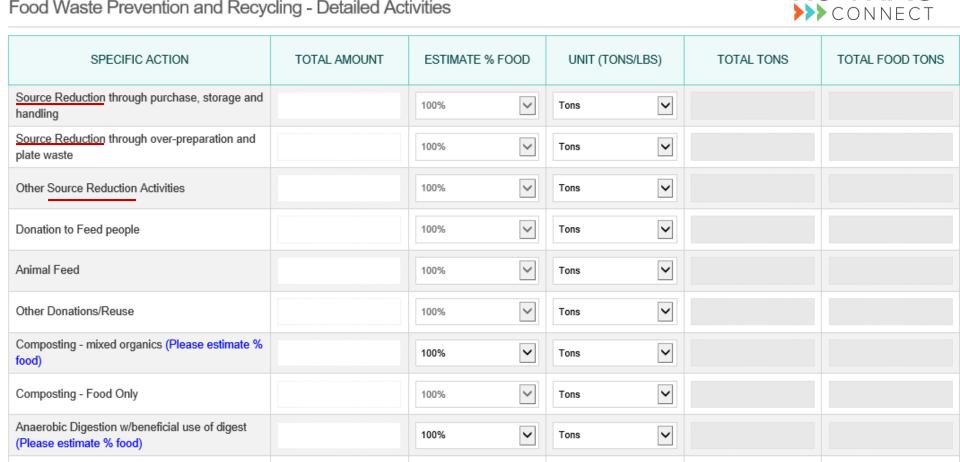




# Track your Source Reduction in the Food Recovery Challenge

**Re-TRAC** 

Food Waste Prevention and Recycling - Detailed Activities





# **Food Recovery Challenge**

### **National 2015 Results**

Over 691,000 tons of food were diverted in 2015

- More than 313,000 tons were composted
- Almost 302,000 tons were donated
- Nearly 75,000 tons were anaerobically digested
- Over 1,000 tons were reduced at the source

# epa.gov/foodrecoverychallenge



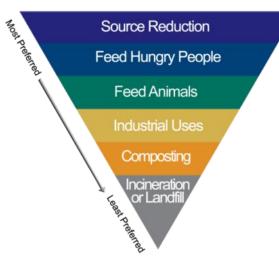


- Measure your wasted food and set goals.
- Implement source reduction.
- Participate in the Food Recovery Challenge.



#### Food Recovery Hierarchy







### 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