Food: Too Good to Waste

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The Problem

- 1 in 6 Americans come from a food insecure homes
- 1/4 of all food we buy gets wasted = $115 billion/year
- On a lifecycle basis, wasted food accounts for 14% of domestic GHGs
- Citations: Feeding America, USDA, EPA
EPA Sustainable Food Management Program

**Commercial**
Food Recovery Challenge

**Residential**
Food: Too Good to Waste

www.epa.gov/smm/foodrecovery
Wasted Food vs. Inedible Scraps

Waste (Food or Packaging)

Avoidable

Prepared, served or cooked too much

Not used in time

Other

Possibly Avoidable (e.g. beet tops, stale bread for croutons)

Unavoidable (e.g. banana peels)
Source Reduction

RESIDENTIAL Program
Food: Too Good to Waste

www.epa.gov/smm
Community Based Social Marketing is not just dropping flyers!
Community Based Social Marketing

• **Step 1: Identify and Select Behaviors for Change**
  
  **Deliverable:** Background Research Report

• **Step 2: Identify Barriers and Benefits of Selected Behaviors**
  
  Background Research
  Focus Groups
  
  **Deliverable:** Strategies and Messaging

• **Step 3: Design Pilot**
  
  Pilot Interviews
  Social-psychological Tools
  Data Collection Methods
  
  **Deliverable:**
  
  Food: Too Good To Waste Toolkit

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**CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW**

www.epa.gov/smm
• **Planning Team:**
  - Tetra Tech and Subcontractors
  - EPA HQ
  - EPA R9
  - EPA R10 (Ashley Zanolli)

• **State and Local Government partners:**
  - CA: San Benito County, Oakland, San Francisco, Chula Vista, Cupertino
  - WA: Seattle, King County, WA Ecology, Tacoma, Redmond, Bellevue. Clark County, Snohomish County. Thurston County
  - OR: Dept. of Env. Quality, Portland, Oregon Metro, Gresham, Eugene, Washington County
  - MN State pollution Control Authority
  - ICLEI, Green Cities CA
5 Key Behaviors

- **Get Smart**: See how much food (& money) you’re throwing away
- **Smart Shopping**: Buy what you need
- **Smart Storage**: Keep fruits and vegetables fresh
- **Smart Prep**: Prep now, eat later
- **Smart Saving**: Eat what you buy

Can save a family of four about $1600 per year!
Community-Based Social Marketing Pilot Design

<table>
<thead>
<tr>
<th>Top 5 Strategies</th>
<th>Benefits</th>
<th>Barriers</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Smart – Measurement Matters</td>
<td></td>
<td></td>
<td>Measurement tool Instructions</td>
</tr>
<tr>
<td>Smart Shopping</td>
<td>Waste aversion</td>
<td>Dynamic lifestyle</td>
<td>Shopping list template</td>
</tr>
<tr>
<td></td>
<td>Saving money</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Automatic behavior</td>
<td></td>
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<tr>
<td>Smart Storage</td>
<td>Waste aversion</td>
<td>Knowledge</td>
<td>Storage guide</td>
</tr>
<tr>
<td></td>
<td>Saving money</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health</td>
<td>Not enough room in fridge</td>
<td></td>
</tr>
<tr>
<td>Smart Prep</td>
<td>Convenience</td>
<td>Skills</td>
<td>Website tips</td>
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<tr>
<td></td>
<td>Saving money</td>
<td>Knowledge</td>
<td>Social media platforms</td>
</tr>
<tr>
<td></td>
<td>Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Saving</td>
<td>Waste aversion</td>
<td>Gratification</td>
<td>Refrigerator prompt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convenience</td>
<td>Links to recipes</td>
</tr>
</tbody>
</table>

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

www.epa.gov/smm
Toolkit for Communities

**Goal:** To prevent household wasted food

- Research Report
- Implementation guide
- Message map
- Behavior Change Tools
- Outreach Tools
  - Infographic/poster
  - Factoids across the supply chain
  - Workshop presentation for community participants

1. Determine How Much You Waste
2. MAKE A LIST WITH MEALS IN MIND

SMART STRATEGY:
Make a Shopping List with Meals in Mind

- Think about how many meals you’ll eat at home this week and how long until you’ll go shopping.
- Note a quantity or the number of meals you’re buying for next to fresh items.
- Shop your kitchen first and note items you already have.

<table>
<thead>
<tr>
<th>FOOD ITEM</th>
<th>AMOUNT NEEDED</th>
<th>ALREADY HAVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salad Greens</td>
<td>Lunch for a week</td>
<td>Enough for one lunch</td>
</tr>
</tbody>
</table>

www.epa.gov/smm
3. KEEP FRUITS AND VEGETABLES FRESH

FRUIT AND VEGETABLE STORAGE GUIDE

INSIDE THE FRIDGE
- Apples, berries, and cherries
- Grapes, kiwi, lemons, and oranges
- Nectarines, apricots, peaches, and plums (after ripening at room temperature)
- Avocados, pears, tomatoes (after ripening at room temperature)
- Almost all vegetables and herbs

OUTSIDE THE FRIDGE
- Bananas, mangoes, papayas, and pineapples: store in a cool place
- Potatoes: store in a cool, dark place
- Basil and winter squashes: store at room temperature—once cut, store squashes in fridge

MORE STORAGE TIPS
- If you like your fruit at room temperature, take what you will eat for the day out of the fridge in the morning.
- Many fruits give off gases that hasten the spoilage of other produce. Store bananas, apples, and tomatoes by themselves and store fruits and vegetables in different bins.
- Check out storage bags and containers designed to help extend the life of your produce.
- To prevent mold, wash berries just before eating.

FOR MORE TIPS VISIT: http://makerecyclenowwaste.org/prevent-wasted-food
LEARN HOW TO STORE WITHOUT PLASTIC: http://ecologycenter.org/factsheets/veggie-storage.pdf
4. PREP NOW, EAT LATER

Grant Cochrane/FreeDigitalPhotos.net

www.foodfitnessandfamilyblog.com

TOO GOOD TO WASTE

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www.epa.gov/smm
5. “USE WHAT YOU’VE GOT”

- Soups
- Smoothies
- Frittatas
- Casseroles
Outreach and Engagement Tools for Municipalities and Businesses

- Leveraging Social Networks
- Creating Social Norms

Gresham, Oregon Tabling Display

Rhode Island Resource Recovery Face Book Post

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

www.epa.gov/smm
Food: Too Good To Waste
Pilots/Programs

2012 Implementing Partners:
• King County (WA)
• San Benito County (CA)
• Boulder County (CO)
• Seattle (WA) – baseline

2013-2015 Implementing Communities:
• City of Aurora (CO)
• Honolulu (HI)
• Iowa City (IA)
• Oakland (CA)
• Chula Vista (CA)
• Palo Alto (CA)
• Regional campaign in Gresham, Portland, WA County, Beaverton, and OR Metro (OR)
• King County scale-up (WA)
• City of Issaquah (WA)
• City of Seattle (WA)
• Thurston County (WA)
• Oak Park (IL)
• Alameda County (CA)
• Ann Arbor (MI)
• Minnesota Pollution Control Authority
• Rhode Island Food Policy Council
• University of Denver (CO)
• State of Vermont
• Sustainable Jersey City (NJ)
Different demographics:

- The “Friendlies”
- RIFPC email list
- The Promenade Apartments
- Providence Housing Authority (Hartford Park)
The FTGTW Challenge

Household Steps
1. Pre-Challenge Questionnaire
2. Baseline Measurement
3. Strategy Implementation
4. Post-Challenge Questionnaire

Increased awareness is likely due to both providing feedback and activating people’s natural waste aversion.
Food Waste Reduction in RI Pilot

- Friendlies - 65% reduction
- Listserv - 70% Reduction
- Upscale Apartments - 55% Reduction
- Housing Authority - 48% Reduction

Graph showing the pounds of preventable food waste over weeks for different groups with varying reduction rates.
<table>
<thead>
<tr>
<th><strong>Number of Campaigns</strong></th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time Period &amp; Season</strong></td>
<td>Fall 2012 through 2014; all seasons</td>
</tr>
<tr>
<td><strong>Partners</strong></td>
<td>Local solid waste departments and non-profits with broader missions</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Rural to urban across country</td>
</tr>
<tr>
<td><strong>Project Scale</strong></td>
<td>Small pilots to broad-scale media campaigns</td>
</tr>
<tr>
<td><strong>Target Populations</strong></td>
<td>Families with children; young adults; general population</td>
</tr>
<tr>
<td><strong>Outreach and Engagement</strong></td>
<td>Means adapted to needs of community and available resources</td>
</tr>
</tbody>
</table>
Impact Results

Per Capita Wasted Food Averages by Weight

Baseline Average vs Final Week Average

Reduction in Preventable Waste:
By Weight: -11% to -48%
By Volume: -27% to -39%

Reduction in Total Waste:
By Weight: +7% to -30%
By Volume: +7% to -27%

EPA
United States Environmental Protection Agency

www.epa.gov/smm
Key Findings

• There are strong indications that households have a significant interest in reducing their wasted food.
• FTGTW behavioral changes are relatively easy for households to make.
• Creating awareness is key to motivating people to sustain their behaviors.
• It is possible for households to reduce preventable food waste up to 50% and more by weight (~0.5lb/person/week).
Next Steps

• Scaling nationally
  • Tool of the Food Recovery Challenge
• Projects continue and scale-up
  • King County, Thurston County, Seattle, Issaquah
  • Rhode Island Food Policy Council
• New Projects
  • Sustainable America
• NRDC/Ad Council Campaign