Industry partnership with the shared goal to reduce food waste
What is Food Waste?

Any solid or liquid food substance, raw or cooked, which is discarded, or intended or required to be discarded.

Organic residue generated by the processing, handling, storage, sale, preparation, cooking, and serving of foods.
| Economic Impact |
|-----------------|-----------------|-----------------|
| Growing, processing, and transporting food of which 25 – 40% is ultimately wasted |
| Disposal costs, retailer shrink, consumer out-of-pocket costs, etc. |

<table>
<thead>
<tr>
<th>Social Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 million Americans have food insecurity</td>
</tr>
<tr>
<td>Enough nutritious calories are grown and produced in the US each year to feed every American</td>
</tr>
</tbody>
</table>

| Environmental Impact |
|----------------------|----------------------|----------------------|
| Energy, water, and land use associated with food production |
| GHG generation when food scraps degrade in landfills |
Macro Trends: Why is this Important to Industry Now?

- Global population is growing
- Global food insecurity is already a problem
- Growing middle class will increase demand for food
- Supply of and Access to food must improve
  - Increasing production is only part of the solution
  - We also need to reduce waste and losses
OUR PRIMARY OBJECTIVES

Initially, the FWRA set two primary objectives: reduce food waste to landfills and increase food donation. As the Alliance has evolved, those objectives still ring true, although the objective to reduce food to landfills has expanded. Our current goals are to:

**GOAL #1:** Reduce the amount of food waste generated

**GOAL #2:** Increase the amount of safe, nutritious food donated to those in need

**GOAL #3:** Recycle unavoidable food waste, diverting it from landfills
FWRA Definition of Food Waste:
Any solid or liquid foods substance, raw or cooked, which is discarded, or intended or required to be discarded. Food waste is the organic residue generated by the processing, handling, storage, sale, preparation, cooking, and serving of foods.
INTRODUCTION TO THE FOOD WASTE CHALLENGE

BSR | FOOD WASTE STUDY—TIER 1 ASSESSMENT (GMA/FMI)

**Consumer 47%**
- Plate Waste
- Damage
- Expired/Spoiled

**Foodservice 48%**
- Plate Waste
- Over Prep
- Expired/Spoiled

<table>
<thead>
<tr>
<th>Sector</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>34,740</td>
</tr>
<tr>
<td>Industrial</td>
<td>2,411</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>1,664</td>
</tr>
<tr>
<td>Full-Service Restaurants</td>
<td>15,851</td>
</tr>
<tr>
<td>Quick-Service Restaurants</td>
<td>10,780</td>
</tr>
<tr>
<td>Institutional</td>
<td>8,000</td>
</tr>
</tbody>
</table>

www.FoodWasteAlliance.org
There are some tools you can leverage to get you started:

1. Conduct a Waste Characterization Audit
2. Establish Standard Operating Procedures
3. Develop and/or Strengthen Relationships
GETTING STARTED: BEST PRACTICES TO KEEP FOOD OUT OF LANDFILLS

BEST PRACTICES & EMERGING SOLUTIONS

FOOD WASTE REDUCTION ALLIANCE

www.FoodWasteAlliance.org
GETTING STARTED:
BEST PRACTICES TO KEEP FOOD OUT OF LANDFILLS

ASSESSING WASTE STREAMS TO IDENTIFY DIVERSION OPPORTUNITIES

CONDUCT A WASTE CHARACTERIZATION ASSESSMENT

CREATE A WASTE BASELINE
- Determine diversion rate baseline including historical waste/recycling data and seasonal fluctuations (i.e., all waste and recycling hauling service tonnage, by a vendor, for at least one year).
- This provides insight into WHERE you are starting and the point from which you can measure your performance to goal.

EXECUTE WASTE ASSESSMENTS
- Identify waste diversion improvement opportunities by looking at the various material streams in a sorted and weighed sample compactor load of solid waste.
- This provides a “snapshot” of WHAT is being disposed.

CONDUCT SITE ASSESSMENTS
- Conduct a site walk through to understand all policies, processes and employee actions related to the collection and disposal of waste materials.
- This explains WHY materials end up in the solid waste container. In addition, the site visit offers insight into how a company can improve its current diversion processes, programs and reveal new best practices.

THINK GREEN:

© 2013 Waste Management.

www.FoodWasteAlliance.org
Grocery Stores and Food Waste

• Source Reduction
• Donate Perishables
• Recycle w/Energy Recovery
To begin tracking year-to-year results, we identified the companies providing complete responses in both 2011 and 2013. The food waste diversion of these firms (which represent 7 percent of total projected sales for U.S. retailers and wholesalers) is shown below:

<table>
<thead>
<tr>
<th>Destination of Food Waste</th>
<th>2011</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donated</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>Recycled</td>
<td>30%</td>
<td>36%</td>
</tr>
<tr>
<td>Disposed of</td>
<td>57%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Food Manufacturers and Food Waste

106 million pounds of food donated
Manufacturers donate discontinued, mislabeled, bulk or otherwise safe but unsellable product to help feed hungry families

7.1 billion pounds of food waste generated

93.4% of food waste from manufacturing is recycled
Recycled material includes fruit and vegetable trimmings, peels and semi-finished products, such as sauces or leftover ingredients

86.8% Animal Feed
3.5% Fertilizer
2.0% Composted
1.7% Biofuel

How are Manufacturers Recycling Food Waste?

What are Manufacturers Doing to Continue to Reduce Food Waste?

- Industry Collaboration
- Policy Change
- Logistics

- Policy Change: Working with state and federal policymakers to make food donation and recycling easier.
- Logistics: Working with partners to overcome transportation and food storage limitations.

Biggest Opportunities:

- Source Reduction
- Non-Traditional Donations
- Recycle w/Energy Recovery

Restaurants and Food Waste

Food waste is rising to the top of restaurant operators' minds, both as part of environmental sustainability programs and community service efforts. A Food Waste Reduction Alliance survey of 27 restaurant companies suggests that between 10% and 60% donate leftover food or recycle food waste. It also hints at what stands in the way of expanding those efforts...

54% of small business respondents and 92% of larger company respondents said there are barriers to RECYCLING food waste.

64% of all respondents said there are barriers to DONATING leftover food.

TOP BARRIERS TO DONATION:
• transportation constraints
• insufficient onsite storage
• liability concerns
• regulatory constraints

TOP BARRIERS TO RECYCLING:
• insufficient recycling options
• transportation constraints
• management/building constraints

In addition, recent National Restaurant Association research shows that restaurants divert leftover food in the following ways.

What Happens to Food Waste once it’s Diverted?

75% regularly track their food waste

22% donate leftover food to food banks or other charitable organizations

74% recycle fats, oils and grease

17% compost food waste

Biggest Opportunities:

• Portions / Plate Waste
• Donation Options
• Collection for Recycling

What is the Industry Doing to Continue to Reduce Food Waste?

Industry Collaboration

Policy Change

Working with state and federal policymakers to make food donation and recycling easier.

Logistics

Working with partners to overcome transportation and food storage limitations.

The National Restaurant Association is part of the Food Waste Reduction Alliance, working with the Food Marketing Institute and the Grocery Manufacturers Association to reduce food waste generated; increase food donation; and recycle unavoidable food waste.
Respondent Profile

**Manufacturing Sector**
- 16 survey respondents
- $137B in annual sales
- Represents 17.0% of total projected sales for the industry segments represented

**Retail & Wholesale Sectors**
- 13 survey respondents
- $279B in annual sales
- Represents 31.8% of total projected sales for the industry segments represented

**Restaurant Sector**
- 27 survey respondents (13 over $20M revenue)
- $74B in annual sales
- Represents 15.2% of total projected sales for the industry segments represented

---

1 Based on 2011 U.S. food and beverage manufacturing revenue of US$805 billion (source: U.S. Census Bureau’s Annual Survey of Manufacturers, North American Industry Classification System Codes 311 and 3121).
3 Based on 2013 U.S. commercial restaurant and managed services revenue of US$486 billion (source: National Restaurant Association 2014 Restaurant Industry Forecast). This excludes bars and taverns, restaurants within hotels and retail outlets, and recreation and sports facilities, as there were no survey respondents from those segments.
Now for some case studies:

• The Retailer perspective:
  – Publix Supermarkets, Michael Hewett

• The Foodservice perspective:
  – Sodexo – Christy Cook

• The Restaurant perspective:
  – McDonald’s – Ian Olson

• The Manufacture perspective:
  – ConAgra Foods – Gail Tavill
• **Perishable Food Recovery**
  - Food safety is a top priority
  - Reliable network of Food Bank partners
  - Established criteria for perishable donations
  - Refrigerated vehicles pick up donations
  - In 2014 we donated more than **43 million pounds**
  - In the past 5 years we have donated more than **115 million pounds** through this program

• **Food Waste Recycling**
  - Most of our manufacturing operations recycle food scraps and byproducts to feed animals
  - Hundreds of Publix grocery stores are recycling food wastes – mostly composting and some animal feed
  - In 2014 we recycling over **20,000 tons** of food waste from stores and another **27,000 tons** from manufacturing
Give the GIFT of HOPE this Holiday Season

PROCEEDS BENEFIT COMMUNITY CHARITIES.

Thank you for your contribution.

$1 FOOD FOR ALL
Your contribution will be added to your grocery bill.

$3 FOOD FOR ALL
Your contribution will be added to your grocery bill.

$5 FOOD FOR ALL
Your contribution will be added to your grocery bill.

FOOD FOR SHARING
SODEXO’S COMMITMENT TO QUALITY OF LIFE INSPIRES OUR VISION OF ZERO WASTE TO LANDFILL
SODEXO AT A GLANCE

- €18bn revenues
- World leader in Quality of Life Services
- 420,000 employees
- 80 countries
- 75 million consumers served daily
- 18th largest employer worldwide
FINANCIAL PERFORMANCE

REVENUES by region

North America: 38%
United Kingdom & Ireland: 8%
Continental Europe: 34%
Rest of the World: 20%

€18 bn revenues
SODEXO REDUCES FOOD WASTE BY:

RAISING AWARENESS and influencing the behaviors of our customers and employees

IMPROVING PROCESSES and upgrading equipment in the kitchen

MEASURING OUR IMPACT to determine where we can improve

SHARING OUR EXPERTISE to reduce food waste throughout our communities
SODEXO REDUCES FOOD WASTE BY:

RAISING AWARENESS and influencing the behaviors of our customers and employees

In 2015, 82% of Sodexo North America sites separated organic and non organic waste.

*in North America in 2015
SODEXO REDUCES FOOD WASTE BY:

IMPROVING PROCESSES
and upgrading equipment in the kitchen

82% of accounts* are recovering used cooking oil, giving it a second life as sustainable biofuel.

92% of accounts* reduce food waste with better portion control and improved meal production forecasting.

In 2013, 81% of sites reduced organic waste through equipment and processes changes – ex. tracking kitchen waste.

*in North America in 2015
SODEXO REDUCES FOOD WASTE BY:

MEASURING OUR IMPACT to determine where we can improve

Our proprietary SMART dashboard tracks sustainability performance towards 125 best practices, guiding managers with the best opportunities for continuous improvement.

SODEXO HAS DONATED 4.7 MILLION POUNDS OF FOOD through our partnerships with Food Recovery Network and Campus Kitchens Project.
Sodexo reduces food waste by sharing our expertise to reduce food waste throughout our communities.

Sodexo partners with external organizations, sharing our industry experience and best practices to drive fundamental change on the issue of food waste.
What can YOU do?

- PREPARE a list
- AVOID impulse purchases
- MAKE SURE I’m not hungry
- CHECK what I already have
- USE older ingredients first
- RE-USE the leftovers I have
- MEASURE to reduce leftovers
- WHEN I COOK
- UNDERSTAND that choices may be limited
- AT RESTAURANTS
- ORDER according to my appetite
- ASK to take my leftovers home

Over 1,200 accounts* promote to customers the importance of reducing food waste and simple actions they can take, including initiatives like WasteLESS Week.
To learn more go to:

Christy Cook
Director Sustainability Performance and Field Support
Office of Sustainability and CSR
christy.cook@sodexo.com
EXAMPLE OF A U.S. RESTAURANT'S WEEKLY WASTE PROFILE

3% From outside McDonald's (68 lbs)
4% Other (91 lbs)
9% Cooking Oil (200 lbs)
10.5% Plasctics (233 lbs)
15% Paper (333 lbs)
2% Liquid (42 lbs)
0.5% Metal (12 lbs)
30% Corrugated Cardboard (667 lbs)
26% Organics (568 lbs)

A TYPICAL MCDONALD'S RESTAURANT WASTE PROFILE

PARKING LOT: Parking Lot Waste
FRONT-OF-COUNTER: Liquids, Plastics, Paper, Happy Meal Toys, Organics
BACK-OF-COUNTER: Cooking Oil, Plastics, Corrugated Cardboard, Organics, Other
When food is delivered to McDonald’s restaurants around the country, we want it to be done in an environmentally-friendly way. That’s why as part of our Waste At Work program, we have our used cooking oil recycled for after-market uses, including biodiesel that can be used as fuel in some delivery trucks.

Fast Facts:
92% of McDonald’s restaurants reported that they recycle used cooking oil for after-market uses, including biodiesel which helps run delivery trucks.
What you can’t finish helps crops flourish.

For everything farmers give us, the least we can do is provide a little something in return. That’s why as part of our Waste At Work program, we support converting uneaten food into compost. It’s just one more way we don’t let waste go to waste.

Fast Fact:
The composting process prevents the production of methane, a greenhouse gas that’s generated in landfills as food and other organic materials decay in the absence of oxygen. By converting food rather than sending it to landfills, we’re helping to combat climate change.

DRAFT
Not typical of every restaurant
We give away our used coffee grounds to help customers fertilize their home gardens. Want some? Just ask.

Fact: McDonald's has diverted hundreds of pounds of coffee grounds, including water, from landfills. We're converting those resources into valuable resources.

For everything farmers give us, the least we can do is provide a little something in return. That's why we support converting uneaten food into compost.

Fact: The composting process generates the equivalent of methane, a greenhouse gas, from the decomposition of food and other organic materials. By converting food waste to compost, we're helping to reduce climate change.

When food is delivered to McDonald's restaurants around the country, we want it to be done in an environmentally-friendly way. That's why we have our used cooking oil recycled for after-market uses, including biodiesel that can be used as fuel in some delivery trucks.

Fact: 80% of McDonald's restaurants reported that they recycle used cooking oil for after-market uses, including biodiesel which helps our delivery trucks.

Every day, we recycle paper, plastics, and metals behind the counter. And honestly, you'd be amazed by what they can turn into.

Fact: Just by recycling, a McDonald's restaurant can prevent up to 3,000 pounds of paper, plastics, and metals from entering a landfill every year.
ConAgra Foods
We’re talking about you, the person who loves our food. We want nothing more than to make safe, delicious and nutritious foods while providing the information you need to make choices for a healthy lifestyle.

- Food Safety & Quality
- Health & Nutrition
- Consumer Communication

This includes employees, investors, suppliers and business partners, as well as the communities where we live and operate.

- Our people
- Our customer & suppliers
- Giving back to our communities
- Ending child hunger

It’s all about changing attitudes about WASTES:

- Wasted Energy
- Wasted Water
- Wasted Material Resources

Internally and in our supply chain to assure long term access to food

Access our Citizenship report at:
http://www.conagrafoodscitizenship.com/
ConAgra Foods Endorses the US EPA Food Waste Recovery Hierarchy

Set a 2020 Vision to Reduce generation of waste by 1 billion lbs.

87% of our organic By-products are diverted to local farms for animal feed

Some materials are best suited for soil amendments via compost or direct land application

Segregating & donating semi-finished & bulk foods to Feeding America partners

Nearly tripled the materials sent for energy recovery from FY11 to FY12 and doubled again in FY13

Last resort is to destroy materials without any value recovered. In FY15, ConAgra Foods landfilled only 4% of organic wastes generated
Blended SKU—Good for Planet, Too

Waterloo, Iowa | Snacks

- Changeovers between flavors have historically generated considerable wasted product
- While the product was still safe, wholesome and delicious, the flavors mixed during changeover and could not be sold in traditional channels
- So the team developed a generic, blended label and marketed the product in secondary markets, now generating revenue from what used to be a waste stream

>1,000 tons of food waste eliminated annually

21.4% reduction in total waste generated

Source Reduction
Our frozen facility in Russellville, Ark. began a food rescue donation team to increase donations beyond finished product. Equipped with the slogan “We Share Because We Care,” the facility found opportunities to donate both semi-finished meal components and test product.
Canned Energy

Archbold, Ohio | Grocery

ConAgra Foods’ canning facility in Archbold, Ohio developed a partnership with CH4 Biogas to depackege unsalable canned product. CH4 separates the organics from the packaging, recycling the cans and sending the food into their anaerobic digester to create renewable energy from biogas.

945 tons of waste diverted
10% increase in diversion rate

Recycling – Energy Recovery
Preservation & Packaging Will Be Part of the Solution to the Root Causes of Food Waste in Home

Plate Waste
• Single Serve meals are right sized, so no guilt for a clean plate
• Portion Control packaging reduces losses due to over-consumption during “re-storage”

Damaged
• Packaging needs to be effective – get the product into the home
• And functional – it needs to work for the product: cooking features, EZO features, dispensing features – can all enable less product wastage

Expired/Spoiled
• Freezing, Aseptic Processing, Thermal Processing and other preservation techniques extend shelf life and protect food safety- allowing consumers more time and flexibility to enjoy our products
• Packaging technologies also extend shelf life via barriers and reclose features, also enabling less waste in home

Modern Processing & Packaging have already had positive impacts on the US Food Supply Chain. Continued innovations can reduce wastes in home.
Discussion & Questions