Innovations in Food Recovery

Ross Younger
Director of Food Resources
The Food Production Chain

PRODUCTION

PROCESSING

CONSUMER

RETAIL

DISTRIBUTION
“A typical food product is handled 33 times before it is ever touched by a consumer.”

Source: WI DNR: Recycling Facts and Figures
FOOD WASTE IN WISCONSIN
## WI Produce Surplus: 202+ Million Pounds

<table>
<thead>
<tr>
<th>CROP NAME*</th>
<th>ACRES PLANTED</th>
<th>AVERAGE YIELD (LBS)/ACRE</th>
<th>ESTIMATED SURPLUS (LBS)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEANS</td>
<td>75,322</td>
<td>1,700</td>
<td>7,682,844</td>
</tr>
<tr>
<td>CORN</td>
<td>72,149</td>
<td>11,970</td>
<td>25,908,706</td>
</tr>
<tr>
<td>POTATOES</td>
<td>53,195</td>
<td>43,000</td>
<td>137,243,100</td>
</tr>
<tr>
<td>PEAS</td>
<td>35,214</td>
<td>2,003</td>
<td>4,232,019</td>
</tr>
<tr>
<td>CABBAGE</td>
<td>4,571</td>
<td>40,000</td>
<td>10,970,400</td>
</tr>
<tr>
<td>CARROTS</td>
<td>4,008</td>
<td>7,800</td>
<td>1,875,744</td>
</tr>
<tr>
<td>CRANBERRIES</td>
<td>3,795</td>
<td>15,000</td>
<td>1,707,750</td>
</tr>
<tr>
<td>BEETS</td>
<td>3,329</td>
<td>14,000</td>
<td>2,796,360</td>
</tr>
<tr>
<td>PUMPKINS</td>
<td>2,124</td>
<td>22,000</td>
<td>2,803,680</td>
</tr>
<tr>
<td>CHERRIES</td>
<td>1,982</td>
<td>11,520</td>
<td>1,369,958</td>
</tr>
<tr>
<td>APPLES</td>
<td>1,802</td>
<td>9,600</td>
<td>1,037,952</td>
</tr>
<tr>
<td>CUCUMBERS</td>
<td>1,704</td>
<td>43,200</td>
<td>4,416,768</td>
</tr>
<tr>
<td>ONIONS</td>
<td>1,202</td>
<td>8,550</td>
<td>616,626</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>260,397</strong></td>
<td><strong>17,719</strong></td>
<td><strong>202,661,907</strong></td>
</tr>
</tbody>
</table>

*Filtered only edible crops that have at least 1,000 acres planted in Wisconsin

**Validated by Boston Consulting Group -- based on national ratio of harvested not sold to total production, range of 6-7%, assume 6%

**SOURCE: USDA 2012 Crop Acreage Data (January 2013) – Most Recent Census Data**
WISCONSIN LANDFILL WASTE

Table ES-1 Top 10 Most Prevalent Material Categories, 2002 and 2009

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Wood - Untreated</td>
<td>607,650</td>
<td>12.8%</td>
<td>Wood - Untreated [1]</td>
<td>383,638</td>
<td>8.9%</td>
</tr>
<tr>
<td>Food</td>
<td>486,619</td>
<td>10.2%</td>
<td>Roofing Shingles</td>
<td>247,349</td>
<td>5.8%</td>
</tr>
<tr>
<td>Roofing Shingles</td>
<td>284,752</td>
<td>6.0%</td>
<td>Composite/Other Plastic [2]</td>
<td>242,094</td>
<td>5.7%</td>
</tr>
<tr>
<td>Compostable Paper</td>
<td>228,310</td>
<td>4.8%</td>
<td>Mixed Recyclable Paper</td>
<td>238,126</td>
<td>5.6%</td>
</tr>
<tr>
<td>Mixed Recyclable Paper</td>
<td>204,715</td>
<td>4.2%</td>
<td>Plastic Film [3]</td>
<td>213,694</td>
<td>5.0%</td>
</tr>
<tr>
<td>Plastic Film</td>
<td>188,990</td>
<td>4.0%</td>
<td>Compostable Paper</td>
<td>172,554</td>
<td>4.0%</td>
</tr>
<tr>
<td>Cardboard - recyclable</td>
<td>188,176</td>
<td>4.0%</td>
<td>Bulky Items [4]</td>
<td>167,216</td>
<td>3.9%</td>
</tr>
<tr>
<td>Composite/Other Plastic</td>
<td>174,597</td>
<td>3.7%</td>
<td>Yard Waste - &lt;6&quot;</td>
<td>161,256</td>
<td>3.8%</td>
</tr>
<tr>
<td>Ferrous Metals</td>
<td>171,086</td>
<td>3.6%</td>
<td>Bottom Fines/Dirt</td>
<td>155,853</td>
<td>3.6%</td>
</tr>
<tr>
<td>Rock/Concrete/Brick</td>
<td>165,727</td>
<td>3.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2002 Total: 2,697,622 56.8%  2009 Total: 2,437,039 56.8%

Note: Totals may not sum due to rounding discrepancies.

[2] Composite/Other Plastic includes other plastic and composite/other plastic categories.
[3] Plastic Film includes plastic shopping bags, industrial film packaging, agricultural plastic film, and other plastic film.
[4] Bulky Items includes bulky items and wood furniture

910 Million pounds of Food ends up in WI landfills + 202 Million pounds of WI produce goes unharvested

MORE THAN

1.1 Billion Pounds of food goes to waste in Wisconsin. Each year.
LOVE FOOD, HATE WASTE

There are 687,370 Food Insecure People in Wisconsin

In need of over 54 Million Meals

Rescuing Just 5% Of WI Food Waste Would CLOSE THE GAP

Source: Feeding America: Map the Meal Gap
http://map.feedingamerica.org/county/2014/overall/wisconsin

Median Meals Per Person IN Need (MPIN) was 77.89 for FY2016.
Source: Feeding America: MPIN Compliance Indicator
The Food Production Chain

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The Food Recovery Model

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The Food Recovery Model
Old Food Banking Model was shelf stable focused
Better processes, Six Sigma, more quality control
Result is less “traditional” donations
We have had to change to meet the need
Our Work

Food is donated to Feeding America Eastern Wisconsin food banks.

Feeding America volunteers inspect and package the food.

Healthy food is distributed to 600+ members.

Members make food available to those facing hunger in eastern Wisconsin.

400,000 people have access to healthy food.
Why are products donated?
1. Batch Defect

- Many reasons the product will never go through processing
- As a result, there is a large amount of “bulk” available for donation
- We break down into consumer friendly sizes
Consumer Friendly
2. OUT OF SPEC

Purchased

GRADE 1

GRADE 2

Donated with PPO/VAP Fee

FEEDING AMERICA NETWORK

$ $$ $$

$ $$

$
3. PACKAGING DEFECT
OTHER

- Mislabling
- Food Dating Confusion
- Test Products
- Brand Integrity
- Underfills / Overfills
- Consistency
- The list goes on!
Source to EXCESS

- More than we can handle
- Feeding America is nationwide network
- We don’t have to say no
- More variety, less waste.
Together we can solve hunger.
70,000 Volunteer Hours
in calendar year 2017
The Food Recovery Model

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Consumers
Anything Else?
- Extra helpings
- Pig Farmers and Beyond
- WasteCap Exploration
- Composting
- Open to new ideas
“Grow to Donate” partnership with Del Monte Foods

Over 30 partners!
- Growers
- Trucking Companies
- Silgan Containers
- Del Monte Foods
- UW Institute for Sustainable Agriculture
- Second Harvest
- FAEW and FMP
Together we can solve hunger.