DMV Food Recovery Week is brought to you by:
Food Waste 101: A Roadmap to Achieving 50% Reduction by 2030

This event is hosted by:

[Logos of Environmental Law Institute, ReFED, and Montgomery County Food Council]
Moderator: Carol Adaire Jones
Montgomery County Food Council Environmental Impact WG
Environmental Law Institute
**Speaker:** Jackie Suggitt  
Director, of Capital, Innovation, & Engagement  
ReFED
The Roadmap to 2030 and the ReFED Insights Engine

October 17, 2022
Supply Chain Disruptions
Labor Shortages
Rise in Food Delivery

Less predictability
More instant

Increased chances of more food waste occurring
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Rising Food Prices
Trucker Shortage
Natural Disasters

Food seen as more precious

Increased motivation and payback of reducing food loss and waste
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Rising Food Prices  
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Natural Disasters

Food seen as more precious

Increased motivation and payback of reducing food loss and waste

Climate Change  
Consumer Anxiety  
COVID Rollercoaster

Increased attention toward food as a source of pleasure and control

Opportunity to influence food behavior
No Time – or Food! – To Waste
The Global Food Loss and Waste Overview
Global Food Waste

1/3 of all food produced ¹

$1T in value ²

8% of global GHG emissions ³

¹ FAO, Food Wastage Footprint & Climate Change, 2011
² FAO, 2014
³ Mbow et al., 2019
50%

National and international goal for the amount of food waste that must be reduced by the year 2030
What is “Surplus Food”? All food that goes unsold or unused by a business or that goes uneaten at home – including food and inedible parts (e.g., peels, pits, bones) that are fed to animals, repurposed to produce other products, composted, or anaerobically digested. It also includes food that is donated.

Depending on the definition, some consider these to be recycling/waste destinations.
Surplus food occurs across the supply chain.

CONSUMER-FACING BUSINESSES INCLUDE:

- RETAIL: 10M Tons | 43% | $37B
- FULL SERVICE RESTAURANTS: 5M Tons | 22% | $87B
- LIMITED SERVICE RESTAURANTS: 3M Tons | 13% | $26B
- OTHER FOODSERVICE*: 4M Tons | 17% | $39B
- OTHER: 1M Tons | 4% | $12B

*Other Foodservice Includes Healthcare, Assisted Living, Military, and Other

Source: ReFED
That surplus food was valued at $408 billion – nearly 2% of U.S. GDP.
Impacts of Uneaten Food: Environmental

- 4% of U.S. GHG Emissions
- 14% of all Fresh Water Use
- 18% of all Cropland Use
- 24% of Landfill Inputs #1 material (EPA Estimate)

Source: ReFED
Impacts of Uneaten Food: Hunger and Food Insecurity

1 in 8 Americans are food insecure

Source: Feeding America
Feeding More People with Less Resources

We estimate that reducing food loss and waste by 50% globally would reduce the food calorie gap by 24%, extrapolating from WRI, “Creating a Sustainable Food Future 2018.”

Estimated 24% reduction in supply needed if food waste is cut in half.

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The Roadmap to 2030
Our Mission

We’re a national nonprofit working to end food loss and waste across the food system by advancing data-driven solutions to the problem.

Our Vision

We envision a sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow.

DATA & INSIGHTS

Leveraging data and insights to highlight supply chain inefficiencies and economic opportunities

CAPITAL & INNOVATION

Catalyzing capital to spur innovation and scale high-impact initiatives

STAKEHOLDER ENGAGEMENT

Mobilizing and connecting supporters to take targeted action
A Blueprint for Action

The Roadmap to 2030 looks at the entire food system and provides a framework to focus waste reduction efforts. Powered by the Insights Engine, the Roadmap to 2030 is an indispensable resource for reaching our 2030 goal.

ReFED outlined seven key action areas for the food system to focus its efforts over the next ten years to prevent, rescue, and recycle food at risk of going to waste.
Key Action Areas

These are the seven areas where the food system must focus its efforts over the next ten years to prevent, rescue, and recycle food at risk of going to waste.

Solutions

Within each action area are a range of solutions, including those that we’ve modeled using key data points, promising solutions that we’re still gathering data on, and best practices that many organizations have already worked into their operations.

Levers

Key levers include important supporting efforts that enable or accelerate the adoption of solutions, including financing, policy, innovation, and engagement.

Policy

Policy and regulation are especially effective in overcoming challenges by 1) changing incentive structures, especially when there are misaligned incentives between who is funding a solution and who is receiving the benefit; 2) driving scaled adoption of early-stage technologies; and 3) bringing about changes that market forces alone don’t address. Additionally, federal policy plays an important role when differing state policies can make solutions implementation difficult (e.g., by standardizing conflicting date labeling requirements).
Tracks five food waste-related policies at the federal and state levels.

**Sample Use Cases:**

- **State Policy Makers** can find examples of policies passed in other states that better reduce food waste.
- **Food Businesses, Solution Providers, and Advocates** can read about policies that may affect their operations across several states with the Policy Matrix and Score Sheet.
- **Consumers** can learn about how policies in their own state aid in reducing waste.
The Roadmap to 2030 includes a set of 6 key policy areas for policymakers to focus their efforts in food waste reduction.

Improvements to Tax Laws
Laws can be adjusted to incorporate alternative tax credits for food donations by farmers, expand food donation tax deductions to include non-profit sales and transportation services, allow application of beginning inventory donations to current year losses, and eliminate tax deduction for edible food discards that incentivize waste.

Expanded Food Donation Policies
Federal and state governments can work to expand food donation programs, clarify guidance on food safety for donations, strengthen liability protections, and incorporate donation requirements into operational guidelines for government agencies and their contractors.

Consumer Education
Federal, state, and local governments can drive full-scale consumer education campaigns, changes to school lunch programs, and industry changes to address the confusion and lack of awareness that results in waste.

Better Organic Waste Management
Organic waste bans are one of the most powerful ways to not only require recycling, but act to incentivize preventative measures and food donations while also enabling measurement. Federal, state, and local governments can disincentivize, limit or ban food from landfills, and eliminate restrictions on food scraps in animal feed.

Funding for Infrastructure
Government-funded capital investments are critical for donation storage and capacity-building projects, temperature-controlled food distribution, and streamlined development of food waste reduction and waste management infrastructure.

Funding for Innovation
Government-funded research can support market expansion and product utilization. Recommended projects to fund include farm-level yield and loss research, crop preservation and post-harvest loss prevention technologies, spoilage-inhibition technologies, and upcycled food R&D.

Read more about these recommendations here
Explore ReFED's Policy Finder tool here
Local Governments also have a role

In addition to the general policy recommendations on the previous slide, there are other steps County and local governments can take, such as:

- Educate communities about food waste and food waste solutions

Create a school program, including:
- WWF grant support
- Education on food waste and tools for kids to take home
- Share table and donation procedures
- School food waste measurement, composting and gardening

Add food waste to the local climate action plan

Support rescue organizations with government grants

Pass a compost procurement ordinance
The ReFED Insights Engine
An interactive knowledge hub for food loss and waste launched in 2021, the Insights Engine lets users:

1. Understand the Problem
2. Explore the Solutions
3. Find Solution Providers
4. Calculate Impact
5. Track Capital
6. Review Policies

Launch the Insights Engine
Food Waste Monitor: Understand the Problem

80.6 million Surplus Food Tons were generated in All Sectors across All States in 2019.
Explore solutions to food waste

Solutions Database: Find Solutions
Active & Intelligent Packaging

Packaging to slow spoilage through technologies such as ethylene absorption, modified atmospheres, moisture absorption, etc., or adaptive materials that inform as to the quality/safety of the contents.

Overview

Fresh product naturally degrades overtime due to chemical changes and moisture. Technologies that help absorb these chemicals (e.g. inserts) are one way to combat these impacts. Sensors can help communicate remaining shelf-life. Another method is to apply barriers directly onto products or create a barrier directly between food and an outside environment.

Financial Cost Benefit By Stakeholder

<table>
<thead>
<tr>
<th>STAKEHOLDERS</th>
<th>$ &lt; 2B</th>
<th>$ 2B - $ 500M</th>
<th>$ 500M - $ 1B</th>
<th>$ 1B - $ 5B</th>
<th>$ &gt; 5B</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Stakeholders Combined</td>
<td></td>
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</tbody>
</table>
### Find food waste solution providers

Search our database of 850+ organizations offering products and services to help you reduce food waste.

Do you want to join the Solution Provider Directory?  
[Apply here](#)

<table>
<thead>
<tr>
<th>Solution Types</th>
<th>States</th>
<th>Tags</th>
<th>Sectors</th>
<th>Legal Status</th>
<th>Sort by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active &amp; Intelligent Packaging</td>
<td>All States</td>
<td>All Tags</td>
<td>All Sectors</td>
<td>All Status</td>
<td>Organization Name</td>
</tr>
</tbody>
</table>

21 Solution Providers fit this search criteria

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**AgroFresh Solutions, Inc.**

*SOLUTION TYPE: Prevention*

*LEGAL STATUS: For-profit*

*SOLUTIONS:*

- Active & Intelligent Packaging

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**Avery Dennison**

*SOLUTION TYPE: Prevention*

*LEGAL STATUS: For-profit*

*SOLUTIONS:

- Inventory Traceability
- First Expired First Out
- Minimized On Hand Inventory
- Waste Tracking (Foodservice)
- Active & Intelligent Packaging
$7.94 billion has been invested in food waste solutions over the last 10 years, including $379 million invested YTD.
Policy Finder: Explore Current Legislation

PREVENTION POLICY

Policy changes related to date labeling have the potential to prevent $82,000 tons of waste per year.

- **Date Labeling**
  - **Negative Policy**: States require date labels for certain foods and prohibit or limit the sale or donation of food after its label date.
  - **No Policy**: There are no laws pertaining to date labels on food products.
  - **Moderate Policy**: States require date labels for certain foods but do not prohibit or limit the sale or donation of food after its label date.
  - **Strong Policy**: States maintain standardized mandatory date labeling policy that clearly differentiates between quality-based versus safety-based labels and is in alignment with federal standards.
If not you, then who?
If not now, then when?

- Malcolm X
- Teddy Roosevelt
- Hillel the Elder
Thank you!

refed.com
insights.refed.com
Thank you for coming today! Join us at other sessions:

DMV Food Recovery Week

Learn more at:
dmvfoodrecoveryweek.org
Intro to Composting at Home
Hot & Worm Composting

October 18, 12:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
Making the Most of Food
Regrow, Reduce, Recycle

October 18, 6:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
Food Waste Policy: Pitfalls & Progress

October 19, 7:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
Taller del compostaje casero

October 20, 12:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
Launching Food Waste Action Movement In Public Schools

October 20, 7:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
No Waste, Big Taste Cooking Competition

October 21, 3:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org
H Street Food Waste Innovation Tour

October 22, 4:00 pm

Check out other FREE events
dmvfoodrecoveryweek.org