



Following the Roadmap to 2030

Taking Action to Reduce U.S. Food Waste by 50%

In partnership with foodtank

#HalveFoodWasteBy2030





In partnership with foodtank THE THINK TANK FOR FOOD

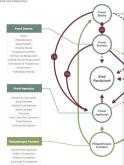
Scaling Food Recovery and Hunger Relief:

Learnings from ReFED's Nonprofit Food Recovery Accelerator









INFLUENTIAL FACTORS ON THE EC

RESEARCH & ADVOCA

Data and analytics that provide deep insights into the state of the food recovery system and

POLICY & LEGISLATION

legislation on food safety a incentives can impact the rela between food donors, food food recovery organization agencies, and other partners the amount of surplus food g

Case Study: Daily Tal



Daily Table, a non-profit grocery retailer with two locations in the Greater englishebnodes with large low-inceres peoplations, offers fresh produce otherwise been wasted, as well as prepared meals at diredable prices to membership. This class came about when Daily Table founder Doug Raud eligible for food storage, were not using them because they feel ashamed and appropriate the second production of the second them to be appropriate for proper to the second them to be considered appropriate the second production of the second that the description of the second them to the second that the description of the second that description of the description of d

This business model not only provides end recipients with the dignity of the opportunity to make purchasing decisions based on their individual frailies reliance on philanthropic funding. Both Daily Table locations cover through reverse and/or in-kind donations and only need philanthropic di open a third location and have the potential to cover up to 90%-100% of dising so, Daily Table's retail model is an example of a model that could a communities across the country?

/ Ref ED, 2019. Accelerator Export National Knowledge Series, Daily Table: How a Former Trader Jos's Executive is C Dignified Experience - to Combat Hunger, Web, https://www.nrfed.com/downsbabls/scorierator-expert extwork-br



"Step back and look at where there are democratize access to nutrition? It shou that get to eat a healthy diet. It's going entrepreneurs to get out there and lear the risk and do the hard stuff."

Doug Rauch | Former President of Trades

Scaling Food Recovery and Hunger Relief: Learnings from ReFED's Nonprofit Foo

Accelerator Overview

ReFED selected ten U.S.-based nonprofits out of more than 125 applicants that met the following criteria to make up its cohort:

- A new and innovative approach to food recovery and hunger relief
 Interest in designing solutions using a human-
- Interest in designing solutions using a humancentered approach to ensure that food is delivered in a dignified and convenient way
- A belief that earned revenue models and technology solutions could help drive scale
- A willingness to share best practices and partner with others across the nation to drive more impact

During the three-month program, participants prototyped new products and services in order to drive mission-aligned revenue, learned how to incorporate principles of human-centered design that can create a more dignified experience for end beneficiaries, and adopted the use of innovative technologies to increase capacity, A total of \$400,000 in eauly-five, unstricted funding was provided (each participating organization received \$30,000, plus an additional \$800,000 was awarded to \$400.000.

Participants also received mentorship from and galmed access to ReFEVS Accelerator Expert Network, a world-class group of 50 food businesses, technology esecutives, capital providers, government agencies, and subject matter experts. Collectively, this Expert Network connected the cohort with potential strategic partners, clients, and additional sources of capital.

ACCELERATOR EXPERT NETWORK												
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Who We Are

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

Our Vision

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



ReFED Insights Engine and Roadmap to 2030:
Reducing US Food Waste

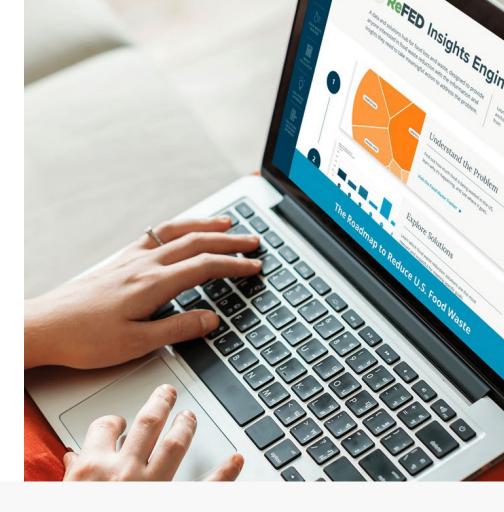


ReFED Insights Engine: Your Source for Food Waste Data and Solutions

A knowledge hub for food loss and waste, designed to provide anyone interested in food waste reduction with the information they need to take meaningful action.

Insights Engine tools let users:

- Understand the Problem
- Explore Solutions
- Find Solution Providers
- Calculate Impacts





Roadmap to 2030: 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.

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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.







Acti	ion Areas OPTIMIZE THE HARVEST	OPTIMIZE THE HARVEST	ENHANCE PRODUCT DISTRIBUTION	REFINE PRODUCT MANAGEMENT	MAXIMIZE PRODUCT UTILIZATION	RESHAPE CONSUMER ENVIRONMENTS	STRENGTHEN FOOD RESCUE	RECYCLE ANYTHING REMAINING
	Avoid over-production, then harvest as much as possible. For wild caught products,	Buyer Spec Expansion	Decreased Transit Time	Assisted Distressed Sales	Active & Intelligent Packaging	Meal Kits	Donation Coordination & Matching	Centralized Anaerobic Digestion
	SOURCE ONly What is needed. ENHANCE PRODUCT DISTRIBUTION Everage technology to create smart systems that help efficiently move products to maximize freshness and selling time.	Gleaning	First Expired First Out	Decreased Minimum Order Quantity	Manufacturing Byproduct Utilization (Upcycling)	Buffet Signage	Donation Education	Community Composting
		Imperfect & Surplus Produce Channels	Intelligent Routing	Dynamic Pricing	Manufacturing Line Optimization	Consumer Education Campaigns	Donation Storage Handling & Capacity	Centralized Composting
		Partial Order Acceptance	Temperature Monitoring (Pallet Transport)	Enhanced Demand Planning	Edible Coatings	K-12 Lunch Improvements	Donation Transportation	Co-digestion at Wastewater Treatment Plants
	REFINE PRODUCT MANAGEMENT	Field Cooling Units	Reduced Warehouse Handling	Increased Delivery Frequency	Improved Recipe Planning	Package Design	Donation Value-Added Processing	Home Composting
	Align purchases with sales as closely as possible and find secondary outlets for surplus. Build out systems and processes for optimal on-site handling.	In-Field Sanitation Monitoring	Advanced Shipment Notifications	Markdown Alert Applications	In-House Repurposing	Portion Sizes	Blast Chilling to Enable Donations	Livestock Feed
(+	MAXIMIZE PRODUCT	Innovative Grower Contracts	Early Spoilage Detection (Hyperspectral Imaging)	Minimized On-Hand Inventory	Precision Food Safety	Small Plates	Donation Reverse Logistics	Waste-Derived Agricultural Inputs
	UTILIZATION Design facilities, operations, and menus to use as much of each product as possible. Upcycle surplus and byproducts into food products.	Labor Matching	Inventory Traceability	Temperature Monitoring (Foodservice)	Discount Meal Plates	Standardized Date Labels	High-Frequency Reliable Pickups	Insect Farming
		Smaller Harvest Lots	Modified Atmosphere Packaging System	Waste Tracking (Foodservice)	Employee Meals	K-12 Education Campaigns	Established Relationships with Businesses	Rendering
盎	RESHAPE CONSUMER ENVIRONMENTS Drive consumers towards better food management and less waste by creating shopping, cooking, and eating environments that promote those behaviors. Shift culture to place more value on food and reduce waste. STRENGTHEN FOOD RESCUE Further the rescue of high-quality, nutritious food by increasing capacity, addressing bottlenecks, and improving communication flow. RECYCLE ANYTHING REMAINING Find the highest and best use for any remaining food or food scraps in order to capture nutrients, energy, or other residual value.	Improved Communication for Planting Schedules	Vibration & Drops Tracking	Low Waste Event Contracts	Larger Quantities for Take Home	Trayless	Culling SOPs	Waste-Derived Processed Animal Feed
&		Sanitation Practices & Monitoring	Optimized Truck Packing, Loading & Unloading (e.g., Cross-Docking)	Direct to Consumer Channels	Small and Versatile Menus	Home Shelf-life Extension Technologies		Waste-Derived Bioplastics
		Optimized Harvesting Schedules	Enforcing Cold Chain SOPs	Online Marketplace Platform	Sous-Vide Cooking	Smart Home Devices		Waste-Derived Biomaterials
		On-Farm / Near-Farm Processing	Regular Maintenance on Refrigerated Trucks	Online, Advanced Grocery Sales		Waste Conscious Promotions		Enabling Technologies (e.g. depackaging and pre-treatment)
		Local Food Systems	Cross-Docking	Precision Event Attendance		Frozen Value-Added Processing of Fresh Produce		Separation & Measurement
		Clear Product Ownership		Repackaging Partially Damaged Products		Customizable Menus/ Options		Relationships with Waste Haulers
				Retail Automated Order Fulfillment		To-Go Offerings		Waste Audits by Waste Haulers
				SKU Rationalization		Free Items Offered Upon Request (e.g., bread, chips)		
Modeled Solutions				Markdowns		Storytelling (e.g. product impact, source, upcycled ingredient components)		
Unmodeled Solutions				Optimal Storage				
Best Practices				Reduced Displays				
				Optimized Walk-In Layouts				

WHAT'S NEEDED

WASTE REDUCTION

IMPACT PER YEAR

40+

\$14B

INVESTMENT ANNUALLY

POLICY CHANGES

INNOVATION

ENGAGEMENT

45M

ANNUAL FOOD WASTE DIVERSION (TONS)

\$73B net financial benefit

 \Diamond

4T GALLONS IN WATER SAVINGS

Q

 $75M\,$ tons GHG emission reduction potential (MT cO2e)



4B meals for people in need



51K jobs created through solution implementation over 10 years



"Strengthening food rescue" means furthering the rescue of high-quality, nutritious food by increasing the capacity of food relief agencies, addressing distribution bottlenecks, overcoming donor hesitation, and improving communication flow – all in a way that emphasizes the health and dignity of end recipients struggling with food insecurity.



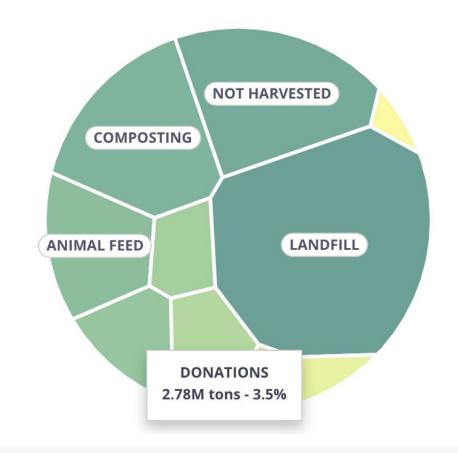




ACTION AREA #6

Strengthen Food Rescue

- Landfill27.6M Tons 34.2%
- Not Harvested
 13.9M Tons 17.2%
- Composting12.9M Tons 16%
- Animal Feed7.66M Tons 9.5%
- Donations2.78M Tons 3.5%







ACTION AREA #6

Strengthen Food Rescue

KEY INDICATORS (ANNUAL)

2.3M

FOOD WASTE TONS DIVERTED

\$8.8B

\$1.4B

INVESTMENT NEEDED

2.7M

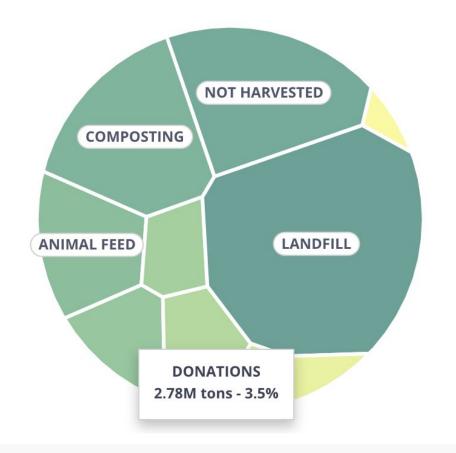
MT CO2E REDUCTION

298.7B

GALLONS WATER SAVED

3.9B

MEALS SAVED







Top Solutions

1/ Donation Education

1.1M Wasted Food Tons Diverted

1.84B Meals Recovered

2/ Donation Transportation

643K Wasted Food Tons Diverted

1.07B Meals Recovered

3/ Donation Storage Handling & Capacity

265K Wasted Food Tons Diverted

442M Meals Recovered

4/ Donation Value-Added Processing

191K Wasted Food Tons Diverted

318M Meals Recovered

5/ Donation Coordination & Matching

144K Wasted Food Tons Diverted

239M Meals Recovered









Policy

Expand federal food donation enhanced tax deduction or create state-level tax incentive for nonprofit sales and transportation services – [Federal, State; Legislative]

Clarify guidance on food safety for donations – [Federal, State, Local; Legislative, Regulatory]

Strengthen liability protections for food donation - [Federal, State; Legislative]

Require government agencies and their contractors to report food donations - [Federal, State; Legislative]



Karen Hanner

Director, Product Sourcing & Strategic Partnerships

GLOBAL FOODBANKING NETWORK





Jasmine Crowe

Founder & CEO GOODR





Nell Fry

Director of Sustainability SODEXO





Sueli Shaw

Head of Social Impact doordash







ReFED ReFED

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Stay Connected!



refed.org insights.refed.org

Questions/Feedback: insights@refed.org

Food Waste Action Network: bit.ly/JoinReFEDFWAN