



SUSTAINABLE DINING @ BRANDEIS

Mary Fischer

Manager, Sustainability Programs

MARCH 2021

About Brandeis & our dining program

- Located outside Boston
- Normally, approximately 3,500 undergrads, 1,500 grad students, 1,000 faculty and staff
- Currently, approximately 2,000 students on campus & subscribed to a meal plan (3,000 meal plans normally)
- 2 dining halls, including one with a kosher side, & several retail locations
- All-takeout-container-service since fall, in-person dining re-opened recently
- Compost bins all over campus, including at waste stations in residence halls
- Our food service partner is Sodexo

Background

2015 - today Manager, Sustainability Programs, Brandeis

2010 - 2015 Stonyfield Farm Inc. (subsidiary of Danone N.A.)

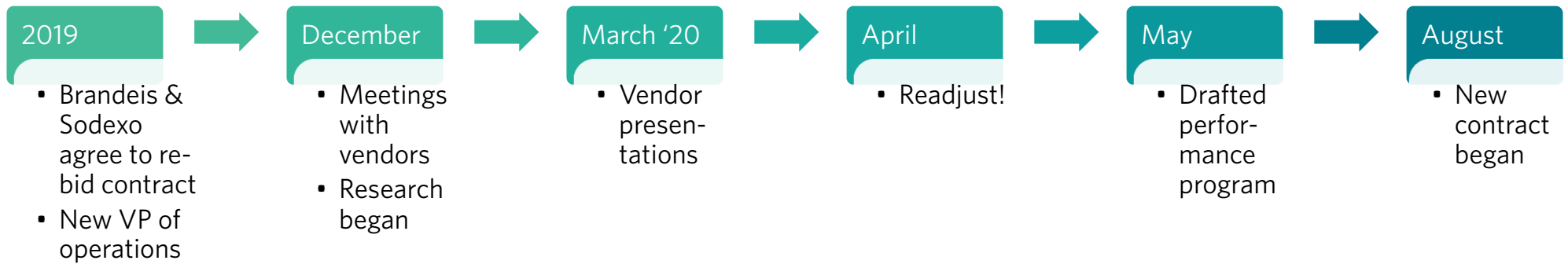
- Carbon Master: did farm-to-spoon footprints for 1,000+ SKUs for Stonyfield and Dannon



2008 - 2010 Yale School of Forestry and Environmental Studies

2002 - 2008 Contractor, US DOE Office of Renewable Energy & Energy Efficiency

Timeline leading up to Brandeis' new dining contract



Broad goals of our program

1. Reduce the carbon footprint of our food
2. Support New England agriculture
3. Reduce waste
4. Make sustainability a core value of dining

A New England Food Vision

*Healthy Food for All
Sustainable Farming and Fishing
Thriving Communities*



Brian Donahue, Joanne Burke, Molly Anderson, Amanda Beal, Tom Kelly, Mark Lapping,
Hannah Ramer, Russell Libby, Linda Berlin

Developing metrics: our approach

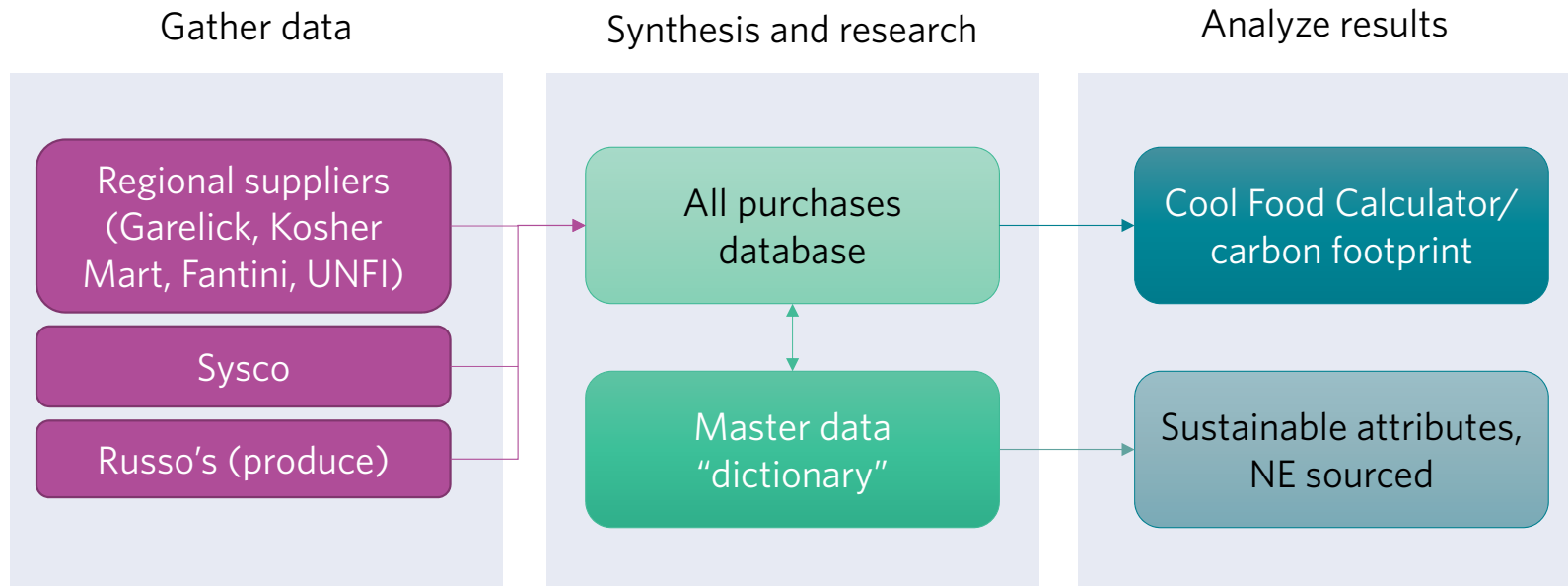
- Research, review, interviews
 - Other universities
 - Food to Institution New England, Roots of Change, Food Solutions New England
 - Existing programs
- Brandeis internal stakeholders & Brandeis' dining consultant



Metrics 1-4

	Metric	Benchmark description
1	Climate Impact: Reduction in greenhouse gas impacts food purchases, measured by Cool Food Calculator	2% annual reduction from 2019
2	New England-Sourced Food Purchases, defined as foods produced in New England.	2% annual increase from 2019
3	Sustainable Food Purchases, as defined by products purchased from approved sources of fair, ecologically sound and humane products, such as Future 50, Fair Trade, Certified Humane, Marine Stewardship Council, Fair Food Program, etc.	2% annual increase from 2019
4	Menu Innovation, Marketing and Education: Increase in annual consumption of plant-based foods	Change in ratio of meat-based to plant-based protein purchases from 2019

How we measure food-related metrics



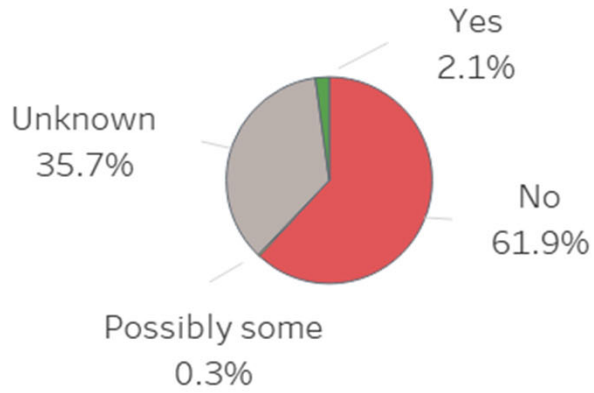
C-store items are not currently included

Data example

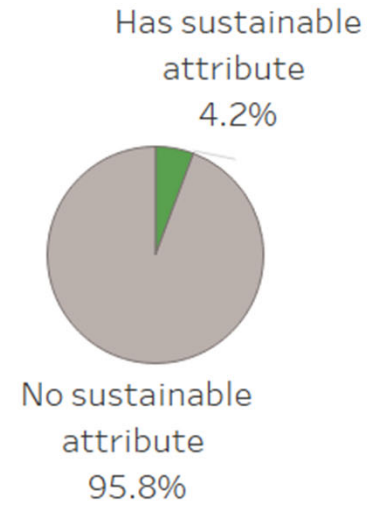
Provided by Sodexo			Research done by Brandeis						
Brand ID	Net Weight Lbs	Product Desc	Cool food calculator Type	Protein type (animal vs plant)	Raised (Location)	New England grown/raised?	Processing Facility (Location)	Locally or regionally processed?	Sustainable attribute
DALASOG	181	AMARANTH SEED ORGANIC	Grains/ cereals (except rice)	Plant	Likely Mexico	No	Unknown	No	Organic, Future 50
SUNRGRW	74	BLUEBERRY WILD MAINE IQF	Berries	Not a protein source	Maine	Yes	Maine	Yes	None

Example

New England-grown or raised by food category

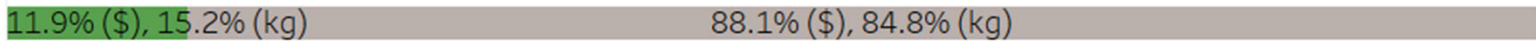


Sustainable attributes by food category



Protein purchases by type

- Protein type
- Animal
 - Plant



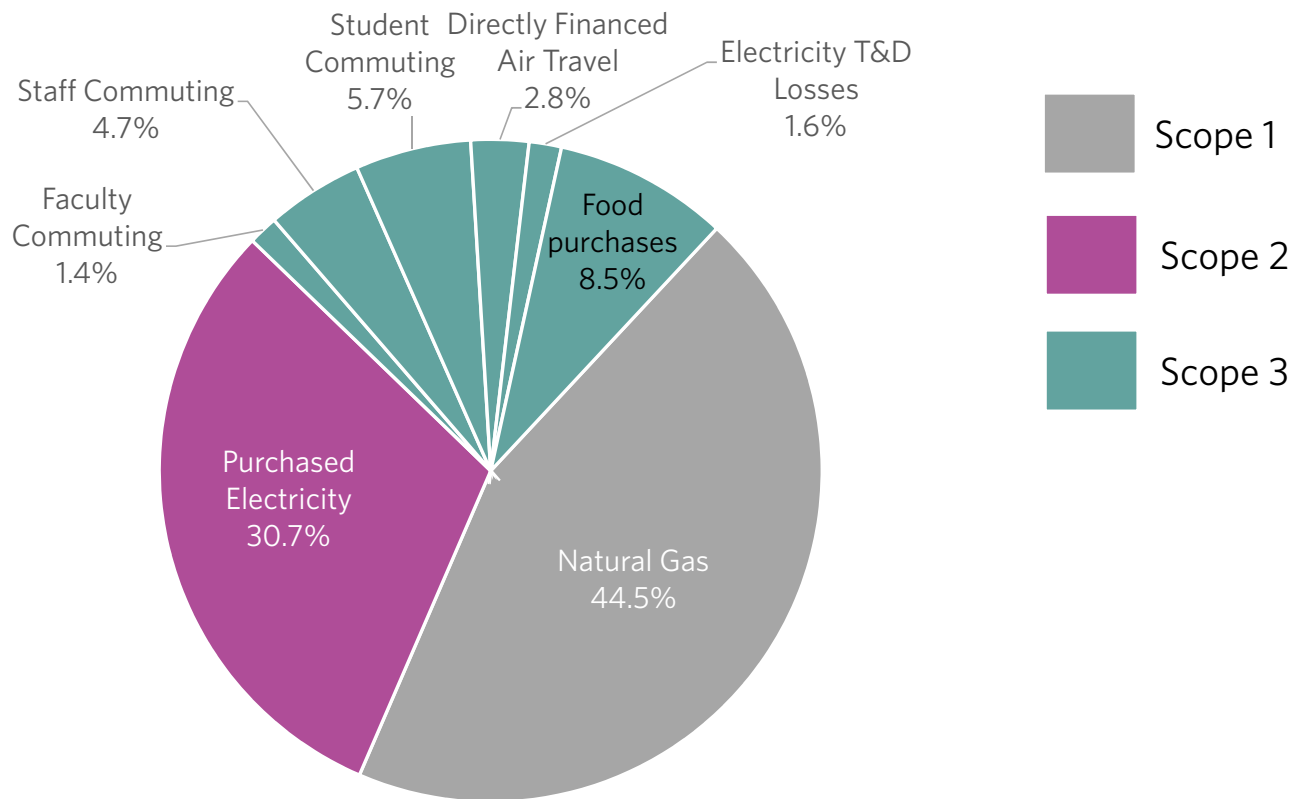


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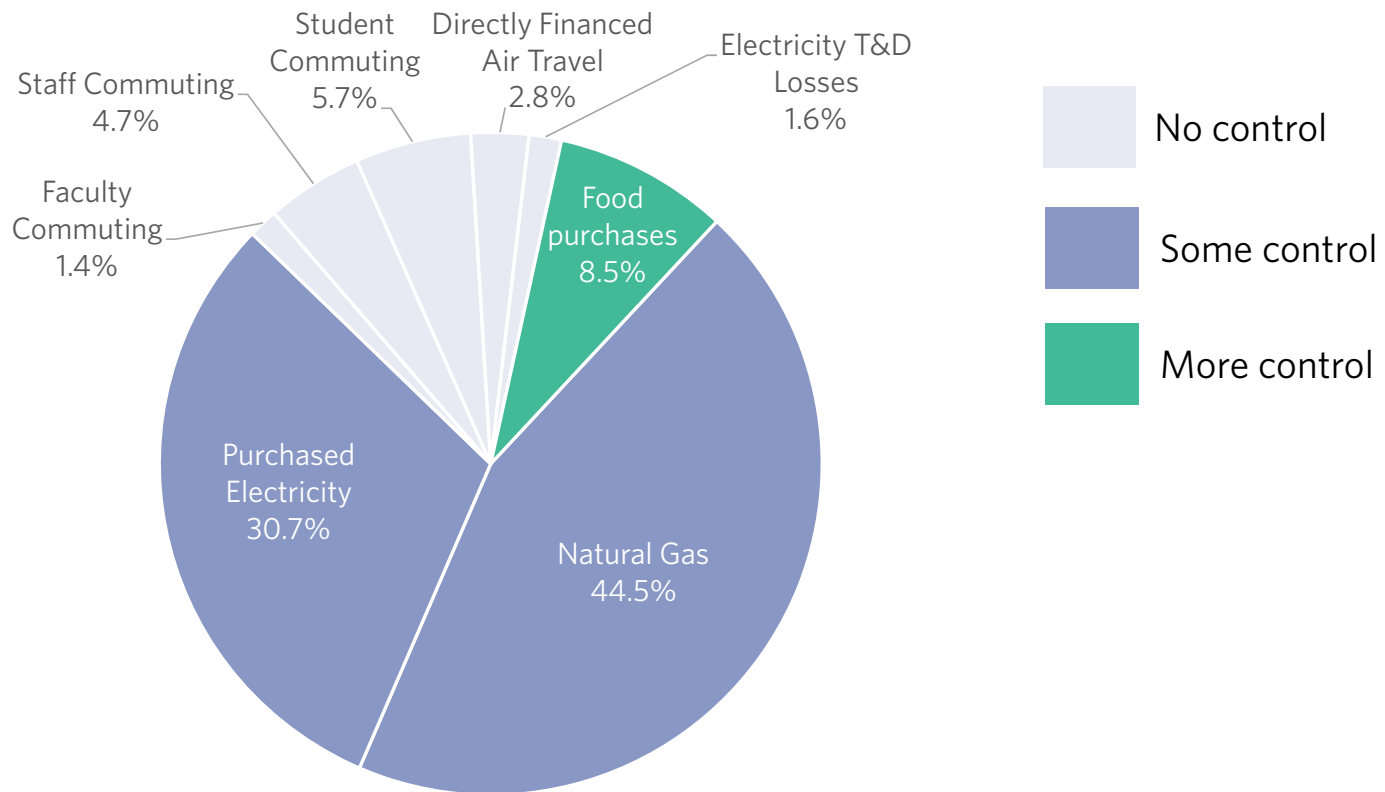
CARBON FOOTPRINT



Brandeis' carbon footprint by scope



Brandeis' carbon footprint by level of control



How can we footprint our food?

- Excel-based calculator
- 2 inputs: type of food, kg or l
- Provides estimates



		Food purchase weight (kg or l)	% boneless
2	Food type		
4	Animal-based foods		
5	Ruminant meats		
6	Beef & buffalo meat	36,704	100%
7	Lamb/mutton & goat meat	815	88%
8	Other meats		
9	Pork (pig meat)	1,045	100%
10	Poultry (chicken, turkey)	86,543	90%
11	Dairy		
12	Butter	1,697	
13	Cheese	16,854	
14	Ice cream	1,261	
15	Cream	4,710	
16	Milk (cow's milk)	29,046	
17	Yogurt	8,697	
18	Eggs	16,639	
19	Fish and seafood		
20	Fish (finfish)	14,418	100%
21	Crustaceans (shrimp/prawns)	-	
22	Mollusks	-	

Cool Food Calculator: Foods included/excluded from footprint

Included (Mandatory)

Animal-based foods

- Beef & buffalo meat
- Lamb/mutton & goat meat
- Other meats
- Pork (pig meat)
- Poultry (chicken, turkey)
- Dairy (yogurt, cheese, milk, etc.)
- Eggs
- Fish and seafood
- Animal fats

Plant-based foods

- Legumes (misc.)
- Beans and pulses (dried)
- Peas
- Peanuts/groundnuts
- Soybeans/Tofu
- Grains/cereals (except rice)
- Corn (Maize)
- Oats (Oatmeal)
- Wheat/Rye (Bread, pasta, baked goods)
- Rice
- Tree nuts and seeds
- Almond, Oat, Rice, Soy milks
- Meat substitutes (Impossible, Beyond, etc.)

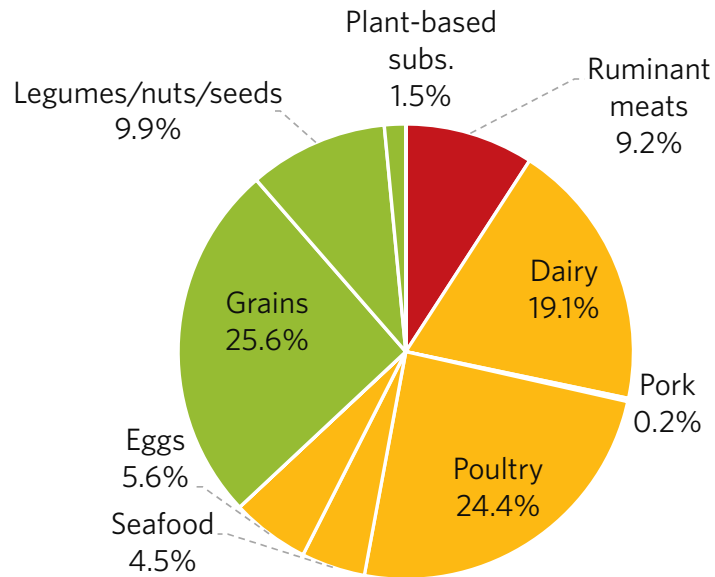
Excluded ("optional" food items)

- Fruits & vegetables
- Sugars and sweeteners
- Oils
- Alcohol
- Cocoa
- Coffee
- Other miscellaneous items

2019 Baseline Footprint

Food purchases, 2019 (boneless equivalent)

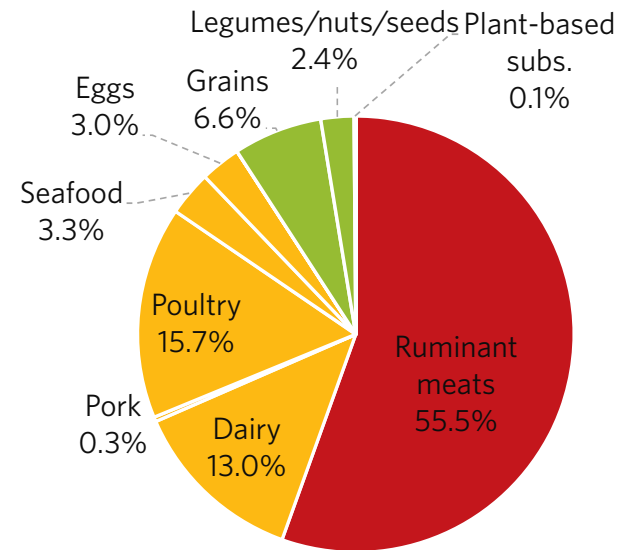
Total: 396,432 kg



Food-related GHG emissions from agricultural supply chains, 2019

Total: 2,704 MT CO₂e

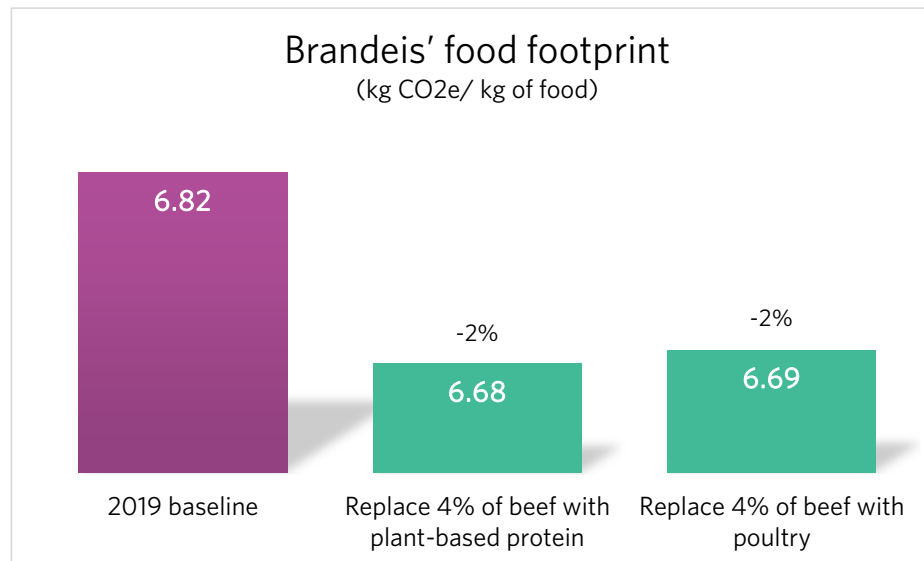
6.8 kg CO₂e/kg food



Goal: 2% reduction in food footprint per year

How?

- Model: How much beef would we have to reduce to gain a 2% footprint reduction every year?
 - **Answer: 4%**



What's 50 tonnes of CO2 worth?

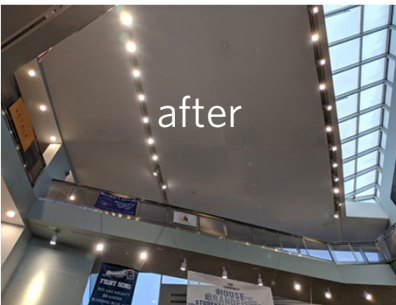


Shapiro Campus Center
LED lighting upgrade

Reduce food footprint

\$200,000

\$0






Carbon footprint reduction initiatives

1. Reduce beef in menus

Beef appeared 32x/week in fall

Will be 19x now

Default burger = mushroom-blended

A photograph of several black and white cows in a barn, looking towards the camera. They are standing in a row, and their heads are visible. The background is slightly blurred, showing the interior of the barn.

In Spring 2021, Beef Appears 13 times Less Times Per Week compared to Fall 2020

WEEKLY-50% less ground beef used



Carbon footprint
reduction
initiatives

2. More Meatless
Mondays

*2x/month instead of
1x/semester*

Resident Dining: Meatless Monday

Sherman Dining Hall





Carbon footprint reduction initiatives

3. Plant-based events

14 dining events planned around plant-based diets, health & nutrition (30% of events)




 brandeis_dining • Following
Brandeis, Waltham, Massachusetts


 brandeis_dining Salads with Attitude Event is happening now! We upgraded our Salad Bar at Lower Usdan and added a variety of fun fresh veggies to keep your salad game strong! We also offer a specialty Confetti Salad that has Nine nutrient-packed ingredients, including jicama, fresh leafy greens, red radishes, bright spring peppers, and fine homemade Cucumber Lime Cilantro dressing!
🥰🥬🥒🥕🍅🍷🥗

3d

👍🗨️📌

 Liked by brandeisdcl and 47 others

3 DAYS AGO

 Add a comment... [Post](#)



Carbon footprint
reduction
initiatives

4. 2 new plant-
based menu
concepts





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New England-sourced

Study led by Brandeis Prof. Brian Donahue
Call for NE to source 50% of its food by 2060

Examples from February:

- Squash
- Yams
- Mushrooms (mushroom-blended burger)
- Apples

Baseline: 1.9% of spend*

Goal: 3.9% of spend

**Subject to change; still analyzing data on produce supplier*

50 BY 60

A New England Food Vision

*Healthy Food for All
Sustainable Farming and Fishing
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Sustainable Attributes

What counts as “sustainable”

Definitions

- Certified Humane
- Cage-free
- Pasture-raised
- Organic
- Non-GMO
- MSC
- Future 50 foods

Baseline: 4.5% of spend

Goal: 6.5% of spend

Fall 2020: 6.9%





Sustainable
attributes
initiatives

Including Future
50 foods in menus

Cauliflower & Amaranth Risotto Bowl



- Provides high-quality protein, gluten-free
- Requires low water, fertilizer, and energy relative to traditional cereals (eg, corn, wheat, rice)
- Can grow under severe drought conditions when most modern grain crops fail



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Menu Innovation, Marketing and Education

Animal-based protein sources

Food	Protein type
Beef & buffalo meat	Animal
Lamb/mutton & goat meat	Animal
Other meats	Animal
Pork (pig meat)	Animal
Poultry (chicken, turkey)	Animal
Dairy	Animal
Butter	Not a protein source
Cheese	Animal
Ice cream	Not a protein source
Cream	Not a protein source
Milk (cow's milk)	Animal
Yogurt	Animal
Eggs	Animal
Fish and seafood	Animal
Fish (finfish)	Animal

Baseline: 10.7% plant-based

Goal: 10.7%<

Fall 2020: 12.4%

Plant-based protein sources

Food	Protein type
Legumes (misc.)	Plant
Beans and pulses (dried)	Plant
Peas	Plant
Peanuts/groundnuts	Plant
Soybeans/Tofu	Plant
Grains/cereals (except rice)	Plant
Corn (Maize)	Not a protein source
Oats (Oatmeal)	Plant
Wheat/Rye (Bread, pasta, baked goods)	Plant
Rice	Not a protein source
Tree nuts and seeds	Plant
Plant-based milk substitutes	Plant
Almond milk	Not a protein source
Oat milk	Not a protein source
Rice milk	Not a protein source
Soy milk	Plant
Impossible burger	Plant



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Resources for
promoting
plant-based
menu items

1. WRI Playbook



WORLD
RESOURCES
INSTITUTE



PLAYBOOK FOR GUIDING
DINERS TOWARD PLANT-RICH
DISHERS IN FOOD SERVICE



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Resources for
promoting
plant-based
menu items

2. Edgy Veggies Toolkit



EDGY VEGGIES TOOLKIT

HOW TO INCORPORATE TASTE-FOCUSED LABELING
TO ENCOURAGE HEALTHIER EATING



Developed by Stanford
Department of Psychology,
Menus of Change
Collaborative

Interactive tool:

<http://sparqtools.org/edgyveggies/>

PDF: http://sparqtools.org/wp-content/uploads/2019/10/20190925_EdgyVeggiesToolkit-1.pdf

Edgy Veggie Recipe Ideas With Labels ^

Vegetable	Edgy Label	Recipe
Asparagus	Ultimate Chargrilled Asparagus	Grilled asparagus with salt and pepper
Beets With Oranges	Twisted Citrus-glazed Beets	Beets roasted with olive oil and tossed with mandarin oranges
Broccoli	Sesame Garlic-roasted Broccoli With Creamy Tahini Sauce	Broccoli roasted with olive oil, drizzled with tahini sauce (garlic, sesame oil, tahini, red wine vinegar, salt) finished with sesame seeds



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Waste



Metrics 5-8

	Metric	Benchmark description
5	Waste Reduction: Changes in bulk waste disposal, quarterly in total weight and/or on a per-meal-served basis (on hold due to covid)	Change from Jan-Mar 2020
6	Recyclables: Rejections of recyclable material because of contamination	0 rejections by waste hauler
7	Waste Diversion: Changes in recycled and composted waste rates in Usdan and Sherman	30% compost 20% recycled
8	Disposables: Reduction in single-use items (on hold due to covid)	Change from 2019



Waste reduction initiatives

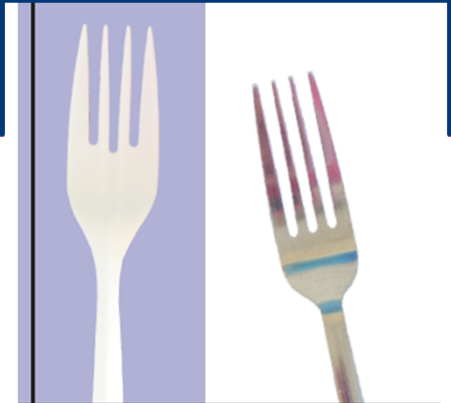
1. Leanpath implemented in January





Waste reduction initiatives

2. Swap utensil kits for compostable, single utensil dispensers



We're saying
“Fork You”
to **single-use plastics**



Please dispose of dining hall utensils in the **compost**, or bring your own **reusables**

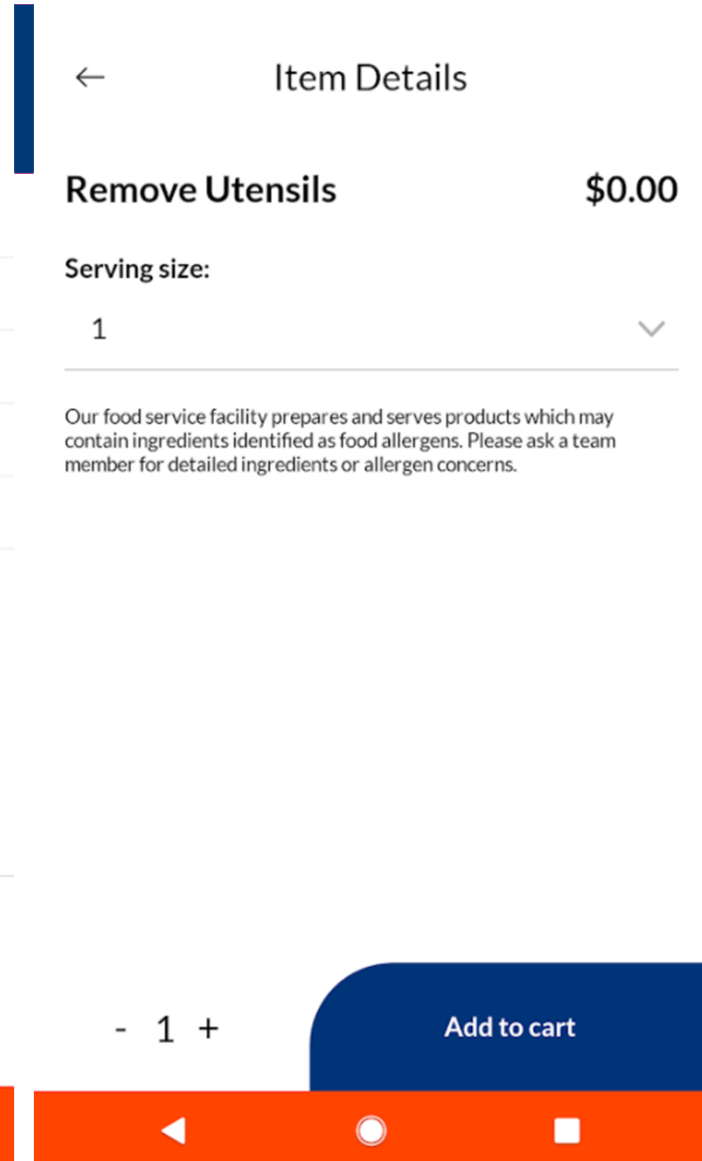
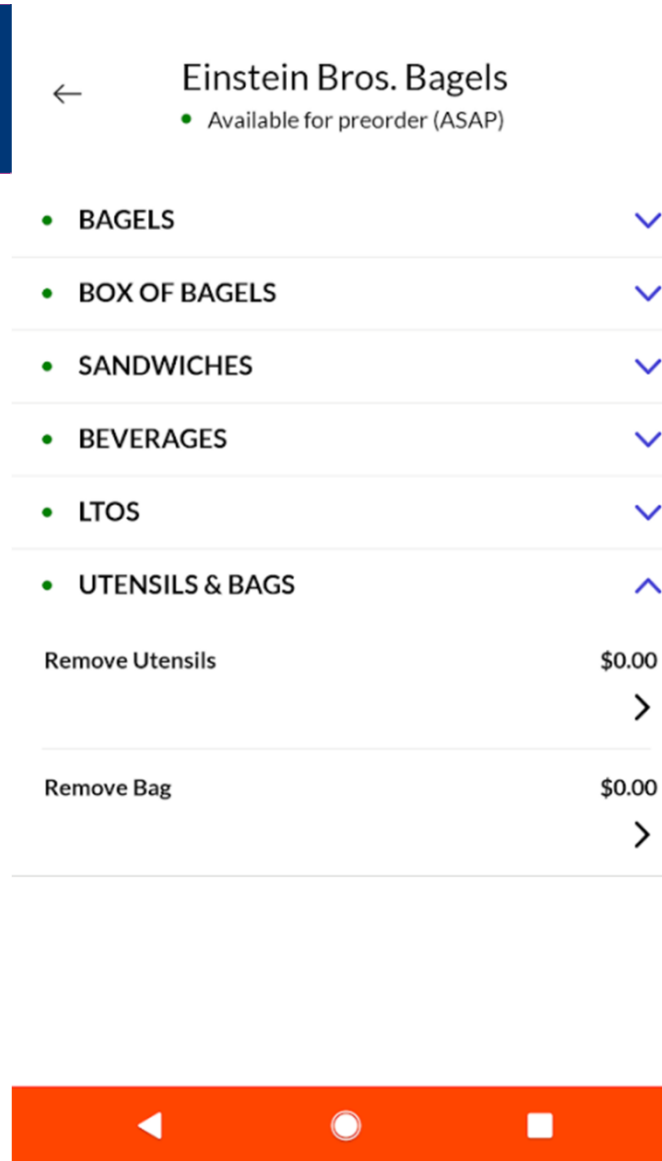


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Waste reduction initiatives

3. Utensil & bag opt-out added to Bite app

4. Eliminated plastic bags, using compostable containers



Moving forward

- Trialing compostable take-out bags
- Post-covid, return to initiative to eliminate bottled water, reusable dishware in dining
- Implement waste reduction goals put on hold
- Considering joining Cool Food



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THANK YOU

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