FIGHTING CLIMATE CHANGE WITH FOOD

A Toolkit to Encourage Climate-Friendlier Eating

"The wonderful thing about food is you get three votes a day. Every one of them has the potential to change the world." – Michael Pollan

YOU ARE: A restaurant manager, chef, institutional dining director, dietitian, sustainability manager, plant-based food advocate, or anyone else who influences what other people eat.

THE PROBLEM: Animal-based foods have a tremendous impact on both human and planetary health. Food production is responsible for 25-30% of global greenhouse gas (GHG) emissions. The livestock sector alone contributes 14.5% of GHG emissions—more than the entire transportation sector. According to the EAT-Lancet Commission, "Without action, the world risks failing to meet the UN Sustainable Development Goals (SDGs) and the Paris Agreement, and today's children will inherit a planet that has been severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease." Substantial dietary change must occur to support climate stability and improve health.

THE SOLUTION: Make it attractive, easy, and rewarding for customers to choose climate-friendlier foods—including more plant foods and few animal foods, especially beef. Decades of public health research tells us that theory-driven interventions targeting both supply and demand tend to work best. Here's how to do it: 1) Serve delicious climate-friendlier plant-based options, and 2) Implement a social marketing campaign about food and climate change rooted in behavior change theory to drive consumer choice. **At UCLA we observed a 54% increase in sales of low carbon footprint menu items following the introduction of new climate-friendlier menu items and a social marketing campaign. You can see the full research article here: https://doi.org/10.1086/720450**

THE RESULT: People consume more climate-friendlier foods, which supports planetary health and also human health especially if unprocessed, whole plant foods are chosen.

How to Use This Toolkit

This toolkit is designed to support operators in promoting climate-friendlier food choices through social marketing. Campaign materials are rooted in behavior change theories—expectancy value/exchange theory and behavioral economics/nudges—which emphasize the exchange of positive outcomes for behavior and communicate messages in eye-catching, intuitive ways. In other words, materials clearly highlight the benefits of choosing climate-friendlier foods. The posters and graphics included in this toolkit can be used in restaurants and on websites. Posters are formatted so you can include your logo or name.

Carbon footprint icons are provided to help consumers easily identify low (green earth) and high (red earth) impact foods. Criteria are provided for operators to apply the icons. Criteria are informed by both academic research and real-world experience.

Low Carbon Footprint

High Carbon Footprint

Delicious and satisfying plant-based menu options are a pre-requisite: Before launching the social marketing campaign, you must ensure your menu includes attractive climate-friendlier options that meet the low carbon footprint criteria below. Using innovative recipes and taste-focused labels can make people more likely to choose plant-based foods. See Edgy Veggies Toolkit for more information on labeling: http://sparqtools.org/wp-content/uploads/2019/10/20190925_EdgyVeggiesToolkit-1.pdf

STEP 1: Apply the Criteria and the Low and High Carbon Footprint Icons

1. Identify low and high carbon footprint menu items using the science-based criteria.
The criteria were determined using peer-reviewed food group lifecycle analyses and food intake recommendations from the Planetary Health Diet. The daily value dietary carbon footprint of 1,780 grams CO2-equivalent was calculated using the Planetary Health Diet recommendations. Foods that contribute up to 25% of the daily carbon footprint are considered low carbon footprint and food that contribute over 50% are considered high carbon footprint. Criteria were streamlined to ensure ease of implementation and sustainability in day-to-day operations. You can see the full spreadsheet with criteria and background here: https://ucla.in/3KPZkbH

Criteria

Low Carbon Footprint

a) All vegan menu items

b) Vegetarian menu items containing no more than one of the following:

- **Cheese < 1.5oz**
- **Eggs < 2 or Liquid Eggs < 4oz**
- **Yogurt < 6oz**

c) Seafood menu item containing:

- **Mollusks < 8oz**
- **Certified Sustainable Fish < 4oz**

You can download a Monterey Bay Aquarium Seafood watch Guide for more information on sustainable fish: www.seafoodwatch.org/recommendations/download-consumer-guides

STEP 1: Apply the Criteria and Low and High Carbon Footprint Icons *(continued)*

High Carbon Footprint

Menu items containing:

- Beef
- Lamb
- Cheese > 3.5oz

Food Category	GHG/g	GHG/4oz	% DV Footprint
Vegetables	0.73	83	5%
Beans & lentils	0.78	88	5%
Rice	1.14	129	7%
Plant-based chikin'	1.50	170	10%
Mollusks (clams, mussels)	2.00	227	13%
Plant-based cheese	2.00	227	13%
Certified sustainable fish	2.80	318	18%
Yogurt (6 oz.)	1.50	367	21%
Impossible™ plant-based meat	3.50	397	22%
Eggs	3.54	401	23%
Poultry	5.05	573	32%
Pork	6.87	779	44%
Shrimp	7.80	885	50%
Cheese (3.5 oz)	9.78	970	55%
Lamb	22.90	2597	146%
Beef	26.45	2999	169%

Green (Low): 0-25% DV Dietary Carbon Footprint
Yellow (Medium): 26-50 % DV Dietary Carbon Footprint
Red (High): > 50 % DV Dietary Carbon Foodprint

Source for DV Footprint: 1,780, calculated based on Willett et al. (2019) Planetary Health Diet

2. Once you have identified menu options that fit into the low and high carbon footprint criteria, add the icons to menu items at point of service, online, or on printed materials. You can find the icons here: https://ucla.in/3KPZkbH

Low Carbon Footprint

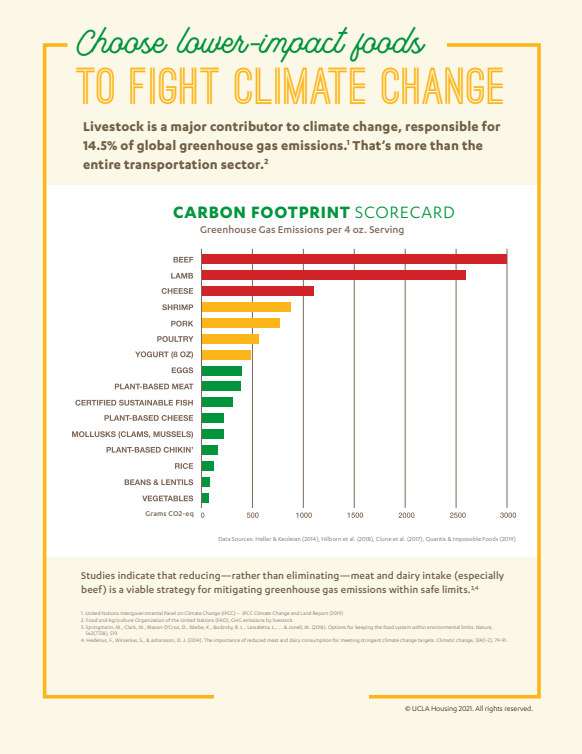
High Carbon Footprint

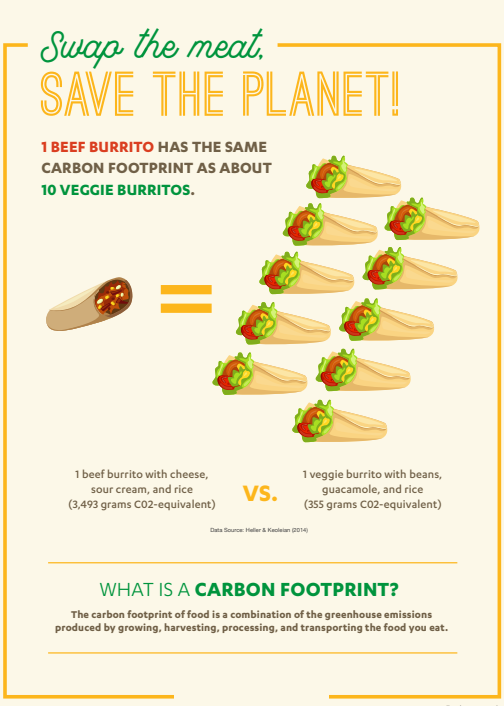
STEP 2: Implement Social Marketing Tools

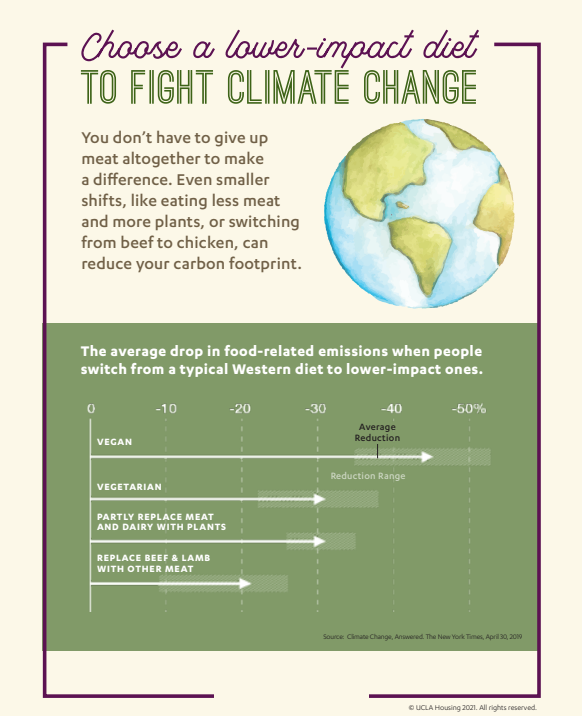
Select and implement the following tools for your social marketing campaign. Change signs every 2 to 3 weeks.

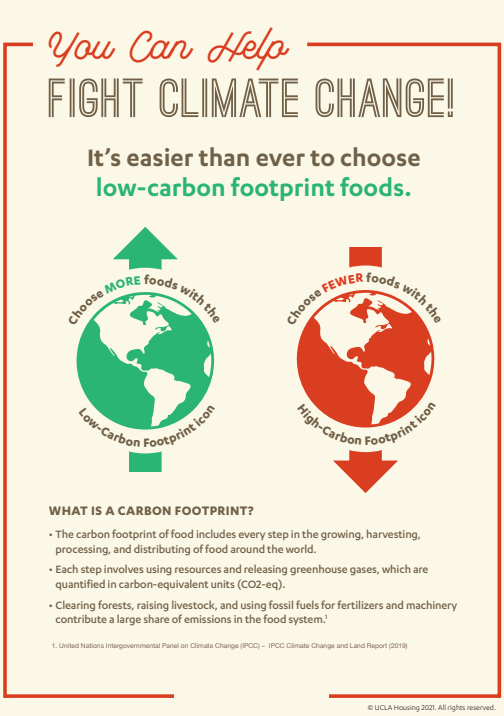
1. Posters (8½" by 11")

You can add your logo in the empty space at the bottom of each poster using MS Word or MS PowerPoint). You can find all the posters here: https://ucla.in/3KPZkbH







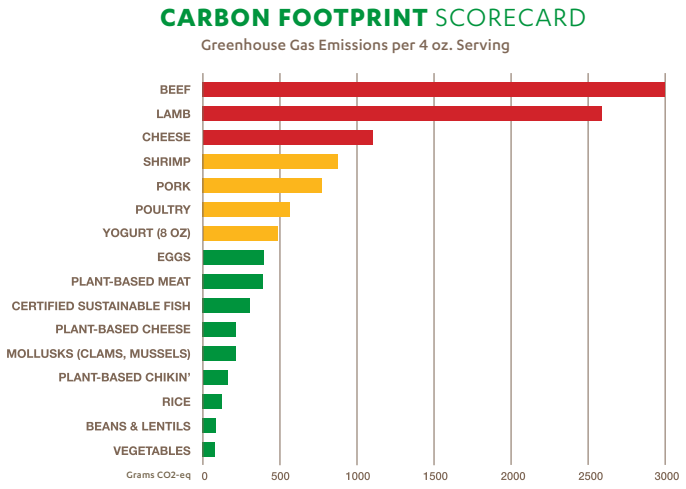


2. Graphics (PNG format with transparent background)

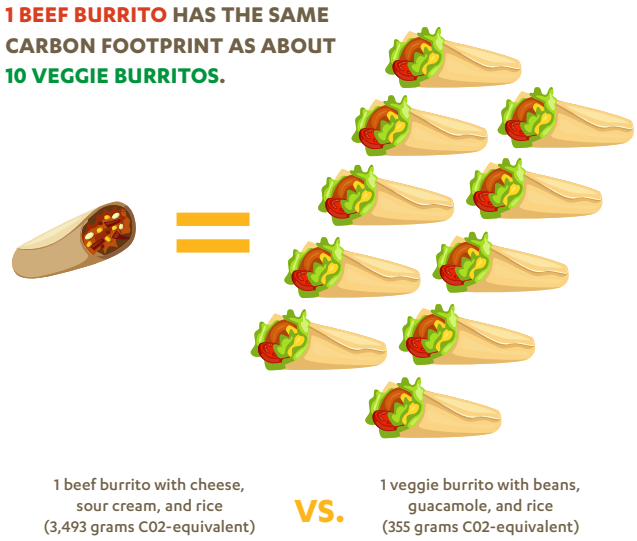
These graphics can be added to other pieces such as posters or websites, but must include the following wording:
Used with permission from UCLA Housing and UCLA Department of Community Health Sciences

You can find all the graphics here: https://ucla.in/3KPZkbH

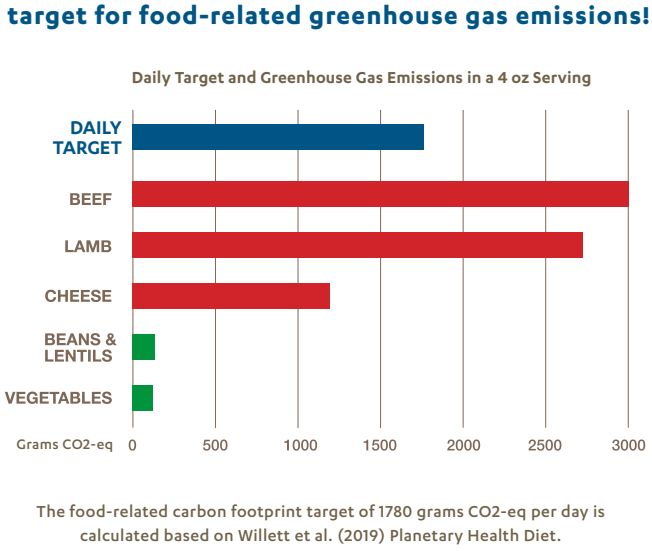
Graphic: Carbon Footprint Scorecard



Graphic: Beef Burrito vs. Veggie Burrito



Graphic: Daily Target and Greenhouse Gas Emissions

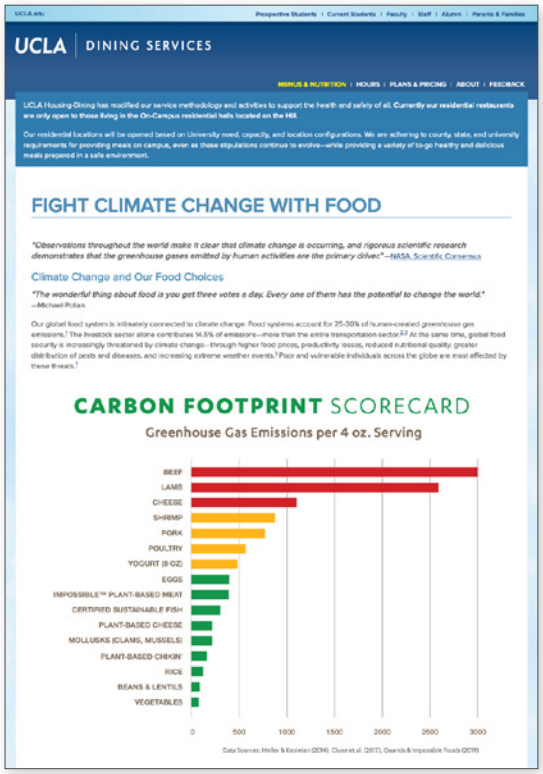


Graphic: Lentils vs. Beef

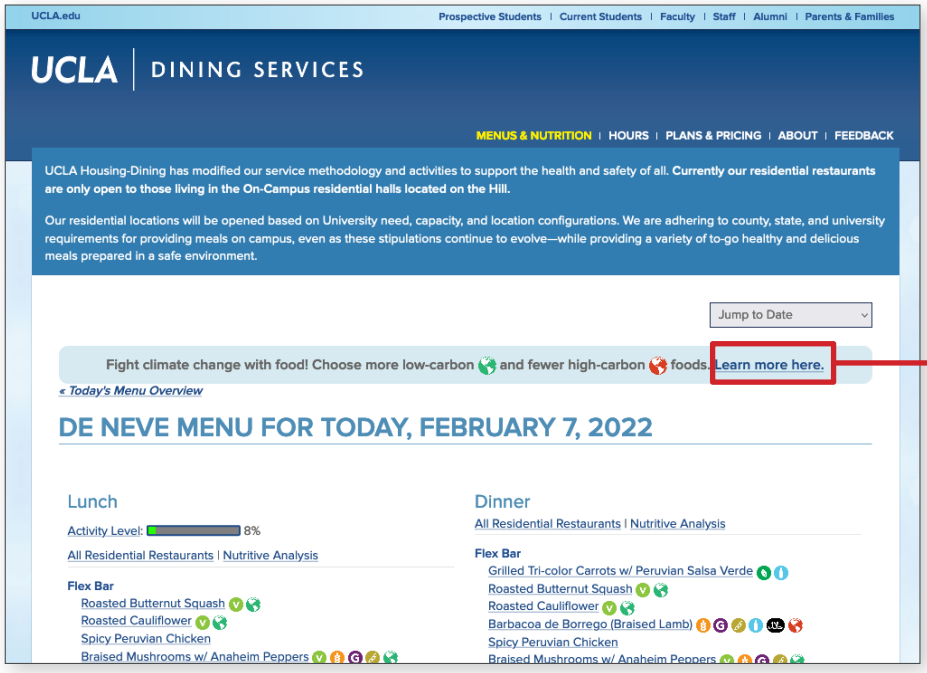
18 g	PROTEIN	**21 g**
0.1 g	SATURATED FAT	**7.2 g**
15.5 g	FIBER	**0 g**
6.6 mg	IRON	**1.2 mg**
230	CALORIES	**250**
177 g CO2-eq	CARBON FOOTPRINT	**3,000** g CO2-eq

STEP 3: Create a webpage with background information

A webpage with information and graphics about food and climate change can support your campaign. See example here: https://menu.dining.ucla.edu/Pages/CarbonFootprint



You can link to it from your online menu website. Add a link to your food and climate change website to your online menu. See example here: https://menu.dining.ucla.edu/Menus/DeNeve



Add a link to your food and climate change website to your online menu.

STEP 4: Evaluation

You can work with restaurant managers to track menu item sales before and after implementing the intervention. See the original research article for more information: https://doi.org/10.1086/720450

THE EVIDENCE

INTERVENTION

New menu items with Impossible™ plant-based meat

Social marketing campaign framed around climate change including:

- Low Carbon Footprint menu icon
- Promotional signage
  - Carbon footprint scorecard
  - Posters at entryway, checkstand, and tables
  - LCD screens
- Website

RESULTS

54% Increase
in Low Carbon Footprint entrees sold*

8% Decrease
in average Carbon Footprint of entrees sold*

*n=645,822 entrees sold during study period, both p<.001

IMPACT

A decrease of approximately 16.4 metric tons of CO2*—the equivalent of driving 11 times across the USA

*When considering all entrées sold during the intervention period

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Original research conducted in collaboration with: Hannah Malan, PhD, UCLA Dining Services, UCLA Housing, UCLA Fielding School of Public Health, UCOP Global Food Initiative, and UCLA Department of Civil & Environmental Engineering. You can see the full research article here: https://doi.org/10.1086/720450

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