



GREENER BY DEFAULT

RESOURCE GUIDE

greenerbydefault.org



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Introduction: Greener by Default Defined

What is Greener by Default?

Greener by Default is a simple and inclusive strategy to offer healthier and more sustainable meals. A Greener by Default menu features plant-based meals as the default, while giving diners the choice to opt into meat and/or dairy. Simply by changing the default, consumers are much more likely to choose a plant-based meal, even when meat and dairy options are available. Greener by Default helps you achieve sustainability goals, reduce catering costs, and serve more inclusive meals.

Why is Greener by Default good for YOU?

- **Meet the demands of your diners** who are increasingly calling for healthier, more sustainable, plant-based dining options,² while still giving diners the option to eat animal products.
- **Meet the demands of your institution**, which likely has a goal to reduce greenhouse gas emissions. Play a key role in meeting that goal by offering more plant-based meals. We'll help you quantify your impact!
- **Increase inclusivity** by meeting the needs of those with more restrictive diets, thereby including everyone else, by default.
- **Improve employee health** with low-fat, high-fiber meals³.
- **Look out for your bottom line.** Greener by Default is net neutral and in many cases saves you money.
- **Implement this new default easily** with our expert assistance if you ever need it. Free!

Who Are We?

The idea behind Greener by Default originated in Europe and was brought to the U.S. by Farm Forward and the Better Food Foundation, sister organizations that collectively have more than a decade of experience working at the intersection of food, farming, and policy.

1 Adam Meier, "Workshop on Behavioral Insights and Health," Harvard School of Public Health, 2016.
2 Michael Whiteman, "Consultants Predict 11 Hottest Food and Beverage Trends in Restaurant and Hotel Dining for 2018," Baum+Whiteman Trend Reports, accessed October 3, 2019, https://docs.wixstatic.com/ugd/Oc5d00_90935d6fda344991a8fc2452eb112c83.pdf
3 See Menu Analysis in appendix



Implementation: How to Go Greener by Default

Greener by Default for any Dining
Setting: A How-To Guide

Celebrating Greener by Default

Greener by Default for any Dining Setting: A How-To Guide

A CATERED MEETING OR PLATED MEAL

Institutions can implement Greener by Default in a variety of settings. Lunch at the office or a catered conference are great opportunities to go Greener by Default. Depending on how you order food, there are several ways to make your next meeting or event Greener by Default.

For Individual Ordering with a Caterer:

If everyone is asked to order from a set menu, adopting Greener by Default may mean redesigning the menu to nudge people toward plant-based options. For example, in some cases you can work with your caterer to create a Greener by Default menu filled with delicious and exciting plant-based options, with a few meat options. We can help you redesign menus or work with your caterer!

For the meat options offered, encourage your caterer to use recipes that make the animal products a garnish rather than the main portion of the meal. Use appealing [language](#) to describe the plant-based options and make sure the plant-based options are listed first and aren't [segregated in a section by themselves](#).

For Individual Ordering from a Restaurant:

If you normally order from a restaurant, you can create your own Greener by Default menu by flipping the ratio of choices on any given menu. For example, if you're ordering sandwiches and the restaurant you're ordering for has 7 meat options and 3 veggie options, offer people a choice of 4 total options: 3 veggie sandwiches and 1 meat sandwich. In this way, you're switching the ratio of veggie to meat sandwiches from 3:7 to 3:1, making plant-based sandwiches the default. Tip: Don't forget to list the plant-based items first!

For Group Ordering:

If you order food for a group meal, inform the group that the meal will be Greener by Default and that they can apprise you if they would like to opt into meat. If there is currently a mechanism for people to RSVP for a vegetarian option, flip it so that people can RSVP for the meat option instead. Talk with your caterer to ensure they can provide

delicious plant-based meals that are full of flavor and protein. International cuisines that are naturally plant-forward, such as Indian or Middle Eastern, are a great way to make sure everyone is satisfied. When the food arrives, meals with meat should come separately marked (similar to meals for those with allergies or other dietary restrictions). If attendees will pick up their food themselves, bring the catered food to the designated area with the meat option labeled and off to the side (similarly to how vegetarian options may be placed currently). If the food will be served to seated diners, use the same system that you currently use for people who requested vegetarian meals, but to identify those who requested meat.

Alternatively, if you are serving food in a buffet or "build your own" style, you can offer predominantly plant-based options and make meat and dairy add-ons available at the end of the line.



Example Chipotle Menu:

Fajita Veggie and Guacamole Burrito Bowl, Tacos or Burrito
Sofritas and Fajita Veggie Burrito Bowl, Tacos or Burrito
Beans & Rice Burrito Bowl, Tacos or Burrito
Chicken & Fajita Veggies Burrito Bowl, Tacos or Burrito (contains chicken)

Example Panera Menu:

Vegetarian black bean soup
Mediterranean Sandwich
Vegetarian garden vegetable soup
Fuji apple salad (contains chicken)

Example Sweetgreen Menu:

Shroomami Bowl
Spicy Thai Salad
Lentil and Avocado Salad
Hollywood Bowl (contains dairy)

Example Whole Foods Menu (all plant-based):

Vegan signature sandwiches and wraps
Falafel Duo with Hummus
Mediterranean Vegan Platter
Chicken or Vegan Mexican Fiesta

Example Veggie Grill Menu (all plant-based):

VG Beyond Burger
Quinoa Power Salad
Masala Bowl
Beyond Burger Cheesesteak Sandwich

Example Olive Garden Menu:

House Salad
Traditional Marinara Pasta
Breadsticks
Bruschetta Caprese (contains dairy)
Peach Mango Smoothie

AT A CAFÉ

A cafe is a great place to go Greener by Default. A few simple changes to your menu can provide the benefits of plant-based eating while still guaranteeing your customers the freedom to opt into a meat option.

Climate-Friendly Ratios

Offer a minimum 2:1 ratio of plant-based to non-plant-based items, and make sure that every meat-based meal has a similarly-appealing plant-based alternative. For dishes that use animal products, encourage your chef to find recipes that make the animal products a garnish rather than the main portion of the meal. As you know, how your menu presents and describes your café's offerings influences your diners' choices a great deal. Feature plant-based options prominently, rather than segregating them in a separate section and describe them with appealing language focused on flavor and provenance rather than health or plant-based. "Roasted butternut and sage risotto" will be more popular than "Low-fat vegan risotto."

Make Your Base Plant-Based

Another option is to serve entirely plant-based entrees and include the option to add meat or dairy to any meal, potentially at an additional cost. Ensure that the base dish is hearty and protein-packed. Diners are already used to this model for bowls and salads.

Subtle Substitutions

Serve plant-based condiments, desserts, milks and breads by default. This is more inclusive because it also meets the needs of those with lactose intolerance, allergies, and religious restrictions. The quality of plant-based products nowadays ensures diners won't even notice the difference.





FOR A CONFERENCE OR A BUFFET

Conferences are a wonderful place to adopt Greener by Default. Through either an adjustment to the registration site or a change in the buffet format, conferences can simply and effectively go Greener by Default. Try one or more of these methods at your next conference:

Pre-register for meals with animal products

On the registration site, inform attendees that the conference will be Greener by Default and that they can opt into a meat meal in the dietary preferences and restrictions section. With this simple change, one conference went from serving only 24% vegetarian meals to over 67% vegetarian meals¹, while another conference increased their vegetarian meals served from less than 15% to over 70%,² with both conferences going on to receive positive feedback about the food from the attendees. Once attendees arrive at the conference, those who requested a meat meal receive a ticket they can give to a staff member in exchange for a meat meal.

Buffets

Here are several ideas for how to make your buffet Greener by Default:

Create a plant-based buffet with a meat option or add-on at the end

Create a plant-based buffet and include a meat option or add-on at a different station

Create a plant-based buffet with a sign at the end of the buffet that tells attendees where to go or who to ask for a meat option

These three methods are simple ways of changing the structure of the buffet while ensuring that attendees are happy with what they are eating!

¹ Meier, Adam. "Workshop on Behavioral Insights and Health." (Harvard School of Public Health, 2016).

² Case Study: Society for the Study of Theology Conference. (Society for the Study of Theology, 2019).

ALL YOU CARE TO EAT DINING

From small changes in the type of food served, to larger structural changes of the layout, Greener by Default can be implemented in many ways at an All You Care to Eat dining facility.

Swap plant-based products for animal products

Certain products (e.g., milk, butter, mayonnaise) can easily be changed to plant-based, allergen-friendly options. Today's plant-based options are so tasty, most people can't tell the difference!

Swap the Ratio

Work with the chefs to ensure that every station has a minimum 2:1 ratio of plant-based to non-plant based items, and that every meat-based meal has an appealing and satisfying plant-based alternative. Place plant-based meals first in line and on the menu, and serve plant-based items with large spoons to encourage people to take larger portions. Place animal-based foods last in smaller containers served with tongs to encourage smaller portions. If there is an all plant-based station, position it in a prominent location towards the front of the dining facility.

Labels

[Research has shown](#) that the way we label food impacts consumer's food choices. Rather than marking dishes as "vegetarian" or "vegan", which tends to make omnivores feel it's not meant for them, label dishes that contain meat, dairy, eggs, and other common allergens, and indicate plant-based with a small (v). Use descriptors focused on flavors, textures, and ingredients, rather than focusing healthy or plant-based, i.e. "Cuban black bean soup," rather than "Vegetarian black bean soup." These simple changes can increase the number of plant-based options served.³

Make Your Base Plant-Based

Another option is to serve entirely plant-based entrees with meat and dairy available on the side or upon request. You can also establish a small, separate station where diners can go if they would like to add animal products to their meal.

Visit www.greenerbydefault.org or email info@betterfoodfoundation.org for more assistance.



Celebrating Greener by Default

Description of Greener by Default

Greener by Default can be implemented discreetly or promoted publicly, depending on your company's needs. Here's a sample paragraph if you would like to communicate your policy.

The <insert name> is going [Greener by Default](#) because making plant-based meals the default nudges all of us to choose delicious food that's better for the environment and our health. By simply going Greener by Default, <insert name> will reduce our carbon footprint, offer more inclusive and sustainable food, and increase the overall health of our meals, while still preserving diners' freedom of choice to opt in for animal products. <Insert name> champions Greener by Default because it makes it simple to make decisions that align with our values.



Impact: Why Go Greener by Default

Carbon and Water Calculations

Why Defaults Work

Inclusivity

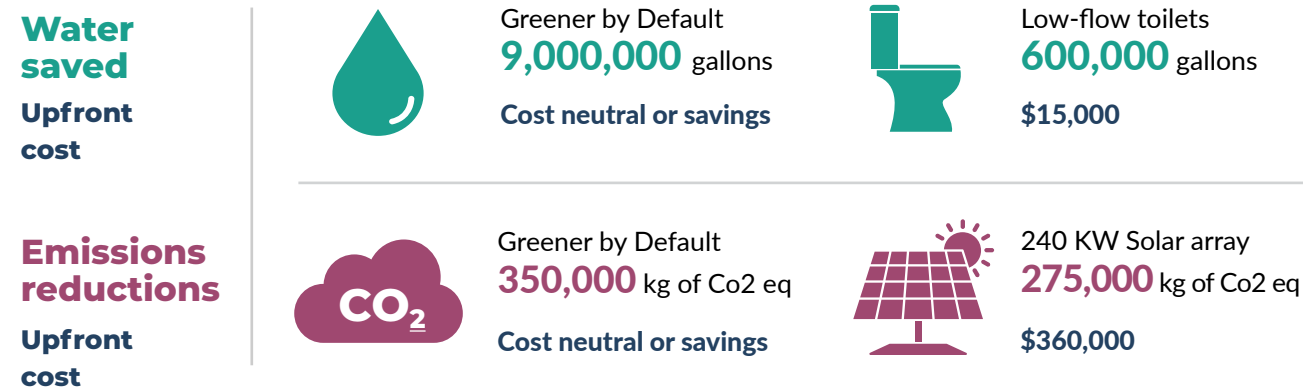
The Impact of Greener by Default

Our food system accounts for one-third of all global greenhouse gas emissions (GHG)¹. Animal agriculture alone is responsible for more greenhouse gas emissions than all transportation combined². Animal agriculture also accounts for over 70% of agricultural land use (a leading driver of deforestation and habitat destruction) while producing only 18% of the world's calories³. [Several studies](#) have shown that the only way we will meet the Paris Climate Agreement is for Western countries to adopt more plant-forward diets⁴.



Greener by Default is one of the most effective ways to encourage people to eat more healthy plant-based foods while respecting freedom of choice and fostering a more inclusive eating environment. Here we show the impact of Greener by Default in three ways. First, we conducted research to measure the water and greenhouse gas emissions saved by switching from meat meals to plant-based meals. Second, we surveyed how changing the default can significantly affect human behavior without limiting choice. Third, we examined the often-overlooked ways that food policies can positively contribute to inclusivity.

In a company with 1,000 employees serving lunch every week day⁵:



Note: See appendix for menu and calculation analysis

The Impact of Defaults: Behavioral Research

Defaults can have a powerful effect on individual and group behavior. People tend to go with the status quo rather than opting into a different choice, since opting in or out of a condition requires more time and effort. Subtle changes to the default can affect behavior in ways that advance the public good without removing an individual's autonomy.⁶

One example that highlights the power of defaults is organ donation. Germany, which requires citizens to opt into donation, has a participation rate of 12%, while Austria, which has an opt out system, has a participation rate of 99%.⁷

Another example is retirement savings. One study found that with an opt in approach, participation rates began at 20% and gradually increased to 65%. With an opt out approach, participation rates began at 90% and grew to 98%.⁸

Discreet changes in the default have been shown to impact diners' food choices. Harvard School of Public Health conducted a field experiment to test the effects of defaults on meat consumption. The control group was presented with a meat option as the default, and the experimental group was presented with a vegetarian option as the default. Results showed that when the default meal was changed from meat to vegetarian, the percentage of people who ate vegetarian increased 43 percent (from 24 percent to 67 percent). A similar peer reviewed study conducted at a conference in Denmark found even greater impacts, with the average percentage of people who ate the vegetarian option increasing from 7 percent to 87 percent.⁹

Based on the promising results of this research and anecdotal evidence from other institutions, we believe Greener by Default is a highly effective way to encourage people to eat more plant-based meals.

- 1 "Food systems account for over one third of greenhouse gas emissions." UN News digital. March 2021
- 2 "Key Facts and Findings." Food and Agriculture Organization of the United Nations digital. <http://www.fao.org/news/story/en/item/197623/icode/>
- 3 "Livestock's Long Shadow." Food and Agriculture Organization of the United Nations digital. 2006. <http://www.fao.org/3/a0701e/a0701e00.htm>
- 4 Michael A. Clark, Nina G. G. Domingo, et al, "Global food systems emissions could preclude achieving the 1.5" and 2"C climate change targets." Science vol. 370, issue 6517. Nov 2020.
- 5 Assuming 60% DV participation rate, based on average participation rate in previous studies, and assuming 260 working days per year
- 6 Richard H. Thaler and Cass R. Sunstein, Nudge: Improving Decisions About Health, Wealth, and Happiness (New Haven, CT: Yale University Press, 2008).
- 7 E. Johnson and D. Goldstein, "Medicine. Do defaults save lives?," Science, no. 302 (November 2003): 1338-1339.
- 8 Brigitte Madrian and Daniel Shea. "The Power of Suggestion: Inertia in 401(K) Participation and Savings Behavior." The Quarterly Journal of Economics vol. 116, issue 4. November 2001.
- 9 Pelle G Hansen, Mathilde Schilling, Mia S Malthesen, "Nudging healthy and sustainable food choices: three randomized controlled field experiments using a vegetarian lunch-default as a normative signal," Journal of Public Health , fdz154, <https://doi.org/10.1093/pubmed/fdz154>

Fostering Inclusivity: The Power of Food

Having to request special accommodations, rather than being able to simply enjoy a meal with coworkers, can be alienating. Serving plant-based foods that meet the needs of those with more specific diets includes everyone, by default.

Allergies & Sensitivities: Ability to digest lactose in adulthood is the result of a European genetic mutation; a majority of the global population - 60 to 75 percent - is lactose intolerant¹⁰ (or, as some people refer to it, "lactose normal"). Approximately 30-50 millions Americans experience some degree of lactose intolerance, the majority of whom are people of color.¹¹

Religious & Cultural Dietary Needs: Several religious traditions, including Buddhism, Hinduism, Jainism, Sikhism, Rastafarianism, and Seventh Day Adventism, mandate or encourage vegetarianism. Others, such as Islam and Judaism, prohibit certain animal products. Serving plant-based foods satisfies these restrictions by default.

Appealing to a Broader Base: Consumption of plant-based products is skyrocketing, particularly among young people and communities of color. More than half of Millennials identify as flexitarians¹², 60 percent of Gen Zers want to eat more plant-based foods¹³, and 31 percent of non-white Americans reduced their meat consumption in the last year, compared to 23 percent of Americans overall¹⁴.

10 [1] Storhaug CL, Fosse SK, Fadnes LT. Country, regional, and global estimates for lactose malabsorption in adults: a systematic review and meta-analysis. *The Lancet. Gastroenterology & Hepatology*. 2017;2(10):738-746.

11 Eunice Kennedy Shriver National Institute of Child Health and Human Development. n.d. "Lactose Intolerance: Information for Health Care Providers."

12 Joseph Staples, "Research reveals young Americans are likely to shift away from meat, many identifying as 'flexitarians,'" *SWNS digital*, January 15th, 2021.

13 Aramark, 2018

14 Justin McCarthy and Scott DeKoster, "Nearly One in Four in U.S. Have Cut Back on Eating Meat," *Gallup digital*, January 27, 2020. <https://news.gallup.com/poll/282779/nearly-one-four-cut-back-eating-meat.aspx>

04

**Culinary
Resources:
Greener by
Default is
Delicious!**

Making Greener by Default Easy and Delicious!

We want to make it as easy as possible for you to implement Greener by Default in your institution.

Contact us today for free assistance, including:

- One-on-one consultation
- Implementation guides
- Menus and recipes
- Sourcing assistance
- Marketing and educational materials
- Impact calculations

Simply visit www.greenerbydefault.org or email info@greenerbydefault.org to get started.

There are also lots of wonderful resources available for chefs looking to expand their plant-based repertoire:

- For institutions, Forward Food offers a [recipe database](#) and ample [resources](#), including toolkits and a guide to hosting culinary trainings
- For athletes, The Game Changers offers [high protein recipes](#) that Olympic athletes swear by.
- For allergen-friendly recipes, Physicians' Committee for Responsible Medicine offers the [Universal Meals program and recipes](#)
- For culturally-relevant food, [Oldways](#) offers a variety of recipes drawn from cultural food traditions.



05

Appendix

Greenhouse Gas Impact: Sample Menu Analysis

TOTAL SAMPLE MENU COMPARISON					
	GHG Per Serving (kg CO ₂ eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Breakfast	1.0	2.0	9.2	253.8	95
Lunch	1.3	5.5	8.2	102.4	480
Dinner	2.6	0.5	5.2	111.4	-102.66
Avg. for All	1.6	2.6	7.5	155.9	157.44667
Avg. % Change	-63.02%	-5.89%	-42.76%	-100.00%	-0.42%

Summary

In order to measure the environmental impact of going to a Greener by Default food policy, we compared plant-based meal options to similar meat options. Surveying breakfast, lunch, and dinner, we found that the greenhouse gas (GHG) emissions of plant-based meals are, on average, 63 percent lower than the GHG emissions of animal-based alternatives. We also found that plant-based meals contained less saturated fat, cholesterol, and sodium, and more fiber, than equivalent meat options.

We determined that, on average, a Greener By Default policy can increase the amount of plant-based meals chosen by around 60 percent. This was calculated by averaging the results of several case studies that tested vegetarian defaults in conference settings.

Calculations for businesses were made with the assumption of a 1,000 person company that is open for 260 days out of the calendar year.

Methods

We chose recipes that most closely resembled meals that universities, conferences, or meetings provide for breakfast, lunch, and dinner. We accounted for serving size in our calculations; all findings indicate one serving size of about 650 kilocalories. We calculated the nutritional content of each meal by inputting the quantities of each option on [Nutritionix](#). This large portion size accounts for some of the nutritional values, especially fiber, seeming particularly high for some dishes.

We used The University Caterers Organization's (TUCO's) [Greenhouse Gas Footprint Calculator](#) to compare the greenhouse gas (GHG) emissions from sample plant-based meals and sample animal-based alternatives. Total GHG emissions for each meal were calculated by inputting the ingredients and quantities for each recipe. If a product was not present in the TUCO database, we used a similar or alternative product (e.g., swapping tomato paste for the equivalent volume of tomatoes that would be required for tomato paste).

Water:

To calculate the water saved per plant-based meal, we took the water usage from an average omnivorous diet and an average plant-based diet as calculated by [two studies](#). Both studies revealed that after subtracting water usage of a plant-based diet from an omnivorous diet, plant-based diets save around 686 liters of water per day. Assuming that someone eats three meals a day, 229 liters or 60 gallons of water per meal are saved by a plant-based diet.

The approximation of 9,000,000 gallons of water saved per year was obtained by multiplying the number of gallons saved per meal by 1,000 meals, for a 1,000-person company, then multiplying that figure by 60 percent, the estimated Greener By Default participation rate as determined by several case studies. Lastly, we multiplied that figure by 260, the estimated number of working days per year.

Low-Flow Toilets:

To determine water saved from the introduction of low-flow toilets for a year, we assumed, based on this [Washington Post analysis](#), that one low-flow toilet saves around 20,000 gallons of water per year (depending on the age and tank capacity of the toilet which it is replacing). Based on [OSHA's recommended](#) number of toilets per employee, we assumed that a company of 1,000 employees would need approximately 30 toilets. Multiplying these numbers together outputs 600,000 gallons of water per year.

Emissions:

We used the [Environmental Protection Agency's Greenhouse Gas Equivalencies](#) calculator to establish the emissions saved from a Greener By Default policy. We determined that such a policy, which saves around 1.6 kilograms of carbon dioxide equivalent per meal, would save the same amount of emissions that are produced by approximately 45 average-sized American households in a year. Emissions were calculated by converting the corresponding energy usage (in kilowatt-hours) directly into carbon dioxide equivalent with the EPA's equivalencies tool.

Solar Panels:

Estimates for solar panel cost and energy usage were obtained from a conversation with an expert in solar energy who shared that the output from a residential solar array in Lafayette, California that faces South at 24-degrees tilt and is 3360w that delivers about 5,500kWh per year. Those figures were then applied to a large business array in Mountain View, assuming roughly similar weather and orientation, to conclude that a 240,000w system would deliver 392,857 kWh per year. Plugging this number into the [Environmental Protection Agency's Greenhouse Gas Equivalencies](#) tool gave us an estimate for its equivalent emissions.

BREAKFAST SAMPLE MENU					
Meat Options	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Cheese and Sausage Om-lette	2.12	30.9	19.8	594.3	982
Yogurt and Granola	1.3	22.8	3.75	10	157
Pancakes	0.612	18.6	12.4	157	2,073
LUNCH SAMPLE MENU					
	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Beef Burger	2.96	31	23	127	1324
Turkey Sandwich	1	29	9.2	67.6	1277
Cream of Chicken with Wild Rice	1.76	37	8	95	490
Canitas Burrito	2.09	43.8	16.25	120	1085
DINNER SAMPLE MENU					
	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Farmed Salmon w/ Rice Veggies	1.76	52	3.25	107.25	597
Chicken Caesar Salad	1.5	38	9.6	91	602
Beef Lasagna	7.41	37.5	16.5	136	1,993

PLANT-BASED BREAKFAST SAMPLE MENU					
DV Options	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Tofu Scramble	0.282	21	3	0	1,656
Oatmeal with Soy milk	0.37	25	3	0	136
Vegan Pancakes	0.31	20.4	2.5	0	1,134
PLANT-BASED LUNCH SAMPLE MENU					
	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Vegan Burger	0.47	31.5	6.5	0	596
Roasted Veggie Sandwich	0.648	26	4.2	0	909.12
Lentil Soup	0.862	34	1.8	0	244
Black Bean Burrito	0.728	27.4	11	0	504
PLANT-BASED DINNER SAMPLE MENU					
	GHG Per Serving (kg CO² eg)	Grams Protein	Grams Saturated fat	Miligrams Cholesterol	Miligrams Sodium
Spicy Peanut Butter Tempeh & Rice	0.66	46	7.09	0	919
V Beyond Meat Chicken Caesar Salad w/ Chick-pea Croutons	0.916	40	4.17	0	1,215
Vegan Lasagna	1.37	40	2.5	0	1,366