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Mission

Greener by Default consults with institutions to apply behavioral science to food policy, nudging diners towards sustainable plant-based food while preserving freedom of choice.

GEC/GBD Partnership Objective

To develop and deliver training materials from top leaders to frontline staff in order to:

- **Cement** GEC's position as a plant-forward industry leader

- **Empower** GEC chefs to be the best plant-based culinarians

- **Achieve** Sodexo's ambitious net zero carbon target

- **Reach** goal of 40+% plant-based this fiscal year, and 50% by 2025
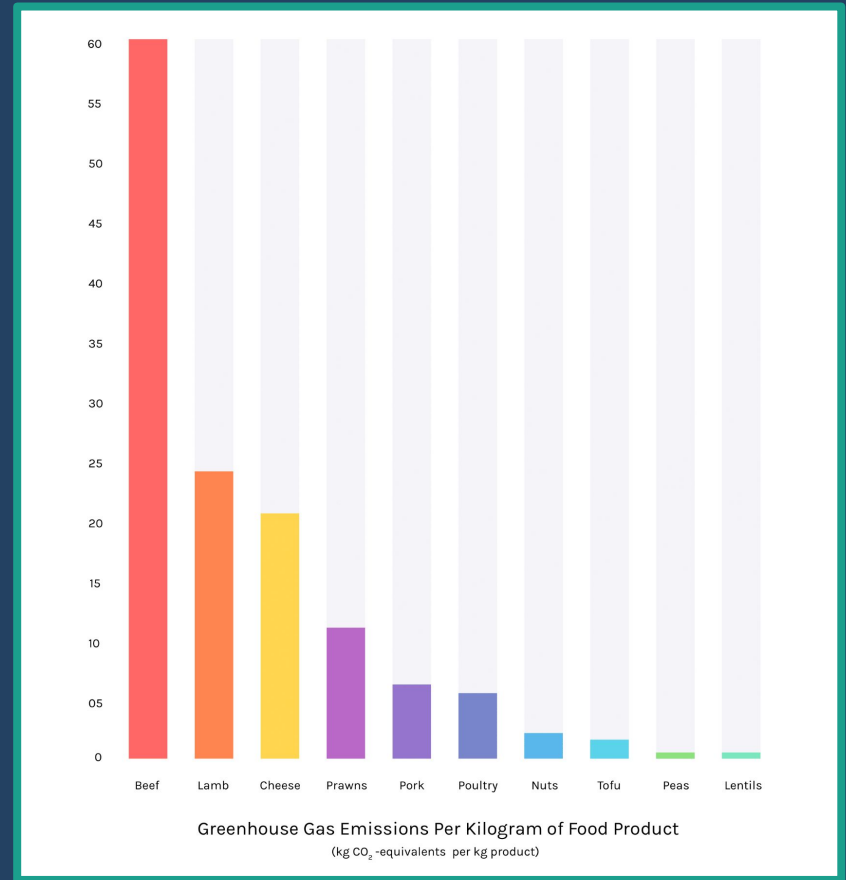
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Outline

- Why Plant-Based
- Market Demand
- Behavioral Science Strategies
- Culinary Strategies

"When we think about threats to the environment, we tend to picture cars and smokestacks, not dinner. But the truth is, our need for food poses one of the biggest dangers to the planet."
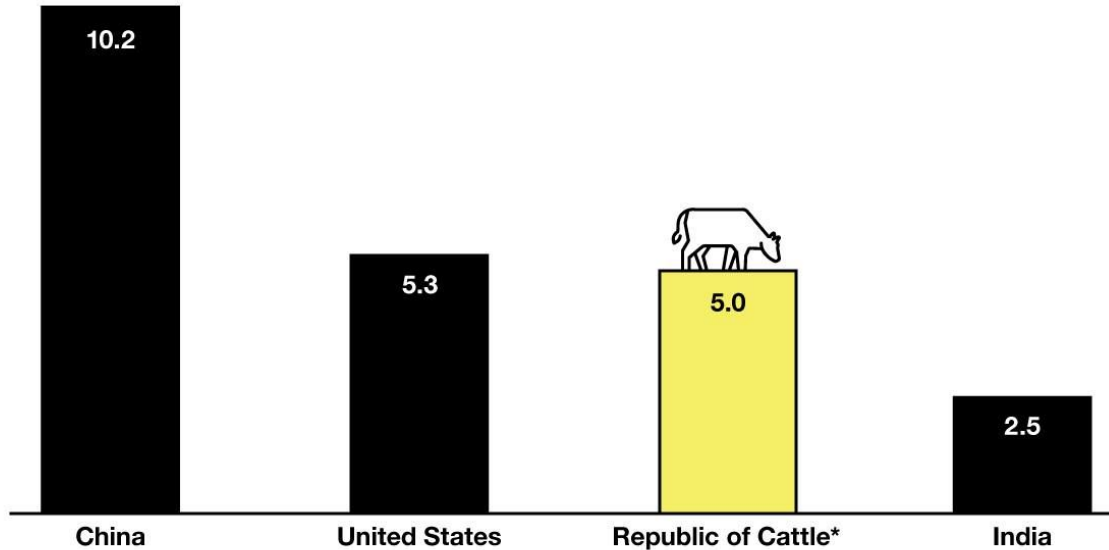
-DR. JONATHAN FOLEY, NATIONAL GEOGRAPHIC

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Not All Protein is Created Equal

Greenhouse Gas Emissions Per Kilogram of Food Product

(kg CO_2-equivalents per kg product)

If cattle were a country, they would rank third in greenhouse gas emissions.

gates notes

Gigatons of CO_2 emissions per year

10.2	5.3	5.0	2.5
China	United States	Republic of Cattle*	India

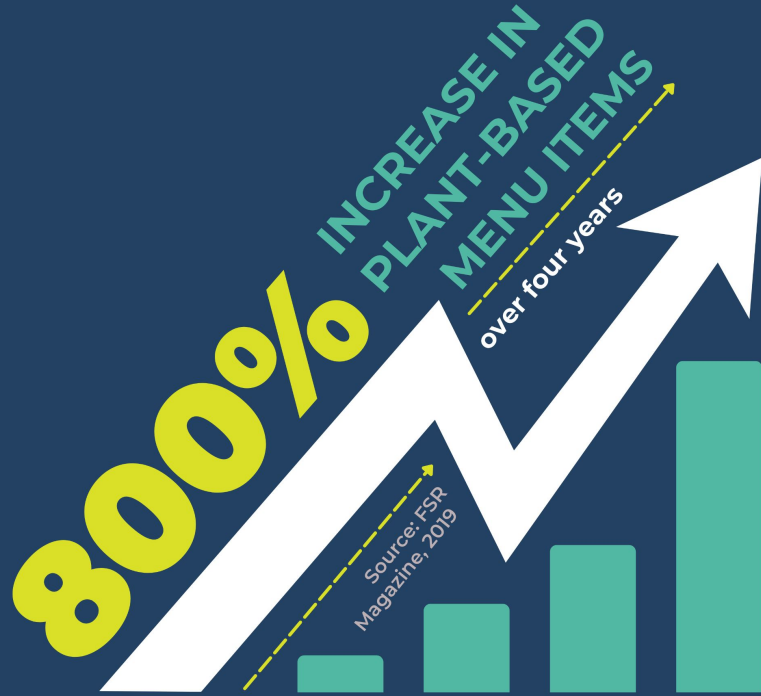Source: UNFCCC, European Commission, UNFAO

*Cattle figure represents CO_2 equivalent

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Small changes add up! **Choosing a plant-based meal just once a week for a month** can spare emissions equivalent to charging your **iPhone for 2 years.**

A plant-based meal once a week for a month

=

equivalent to charging your iphone for 2 years
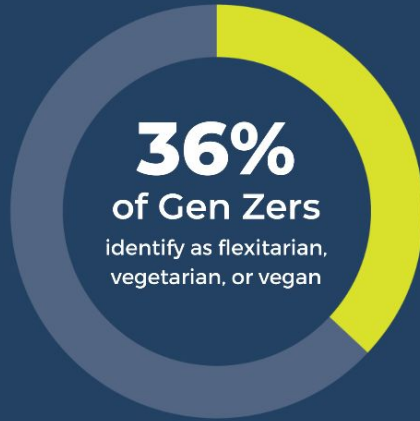
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Good News: Plant-Based Demand is Booming

- Over the last four years, plant-based menu items have increased 800%

- In 2021, 62% of households bought plant-based products

- In 2021, 36% of Americans reported having recently reduced their meat consumption

800%

INCREASE IN PLANT-BASED MENU ITEMS

over four years

Source: FSR Magazine, 2019

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Who's Driving This Trend?

29%
of Americans
identify as flexitarian, vegetarian, or vegan

36%
of Gen Zers
identify as flexitarian, vegetarian, or vegan

57%
of Americans
are trying to eat more fruits and vegetables

98%
of consumers
who buy plant-based meats also buy animal meat

Source: Dataessential, 2022

Source: Plant Based Foods Association; Nielsen, 2019

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Flipping the norm to make plant-based the default and give people the choice to opt into meat & dairy.

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Inclusivity

Allergies: 30-50 million Americans are lactose intolerant.

Religion: Many religions encourage vegetarianism, and some restrict certain animal products.

Communities of Color: BIPOC are three times more likely to identify as vegetarian than white Americans.

Less Meat/Better Meat

"Having a plant focused menu helps me control food costs and easily stay in budget."

-Chef Alicia Jenish-Mc Carron

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Efficacy

Meat Default

18.4% selected plant-based

■ % of participants who **selected plant-based**

■ % of participants who **selected meat**

Percentages of plant-based and meat meal selection among control (meat default) and intervention groups (plant-based) for events.
Plant-based default nudges effectively increase the sustainability of catered meals on college campuses: Three randomized controlled trials

Efficacy

Meat Default

18.4% selected plant-based

Plant-Based Default

65.5% selected plant-based

- % of participants who **selected plant-based**
- % of participants who **selected meat**

Percentages of plant-based and meat meal selection among control (meat default) and intervention groups (plant-based) for events.
Plant-based default nudges effectively increase the sustainability of catered meals on college campuses: Three randomized controlled trials

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Opportunity for Impact

meat lovers

flexitarians

vegans
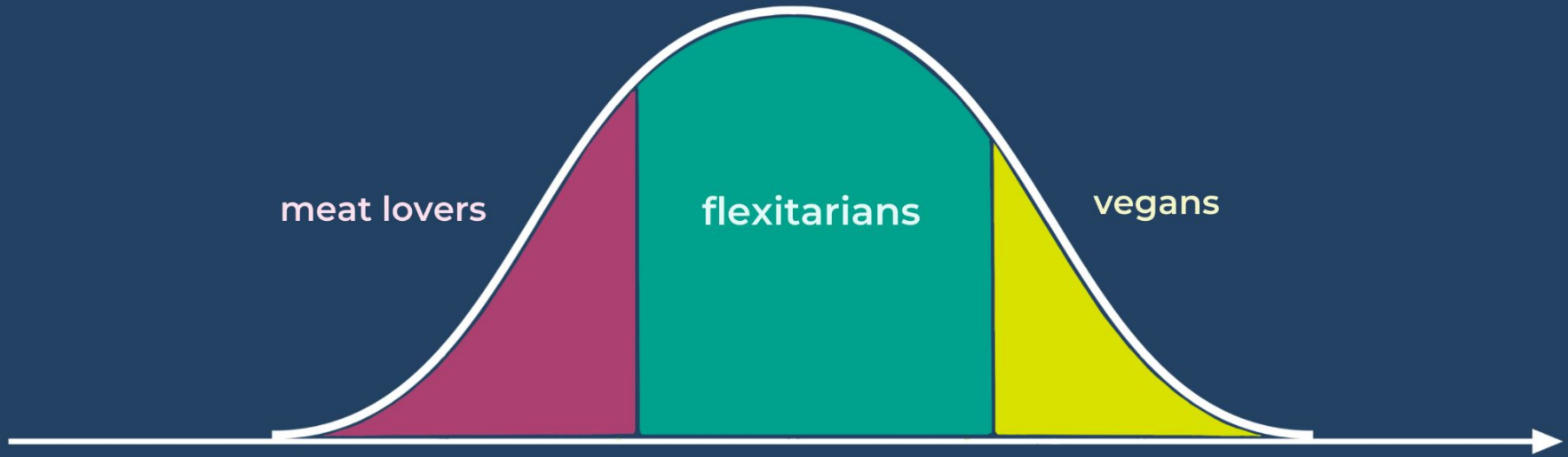
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Behavioral Science Strategies

Plant-Based Defaults

Serve plant-based with the option to opt into meat/dairy

- Salads & Bowls

- Global Stations

- Grill Stations

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Climate-Friendly Ratios

Offer at least 2 plant-based options for every animal-based option

- When the menu shifts from 2/3 meat entrees to 2/3 vegetarian entrees, selection of veg meals increases by 22 percentage points, or 56% overall.[44]

Inclusive Menus

- Include veg options in the main menu, and at all main stations

- Ensure the first & last options are veg

A World Resources Institute study showed that these two simple changes increase veg orders by 56%

% SELECTING A PLANT-BASED DISH

13.4% "CONTROL" MENU

5.9% "VEGETARIAN" MENU

56% LESS LIKELY TO ORDER
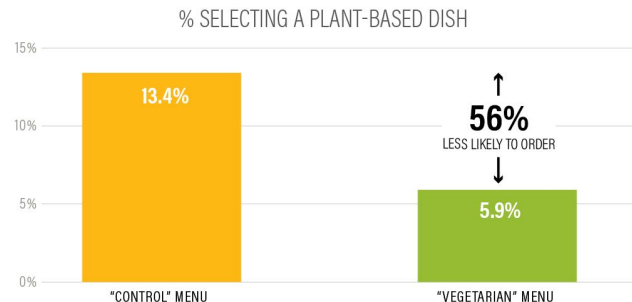
"CONTROL" MENU

Risotto primavera (v)
Peas, mushrooms, lemon 14.00

Lobster & crab roll
Avocado, lettuce, lemon mayonnaise 17.00

Sautéed king prawns
Chili, garlic & parsley, basmati rice 22.50

Deep fried haddock
Minted peas, hand cut chips, sauce tartar 15.50

Chicken cacciatora
Roasted chicken breast, mushrooms, tomato, olives 14.50

Steak frites
Rump pavé, hand cut chips, béarnaise sauce 19.50

Hamburger
Relish, hand cut chips 13.50

Ricotta & spinach ravioli (v)
Asparagus, butter & sage sauce 13.50

v – suitable for vegetarians

"VEGETARIAN" MENU

Lobster & crab roll
Avocado, lettuce, lemon mayonnaise 17.00

Sautéed king prawns
Chili, garlic & parsley, basmati rice 22.50

Deep fried haddock
Minted peas, hand cut chips, sauce tartar 15.50

Chicken cacciatora
Roasted chicken breast, mushrooms, tomato, olives 14.50

Steak frites
Rump pavé, hand cut chips, béarnaise sauce 19.50

Hamburger
Relish, hand cut chips 13.50

VEGETARIAN DISHES

Risotto primavera (v)
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Ricotta & spinach ravioli (v)
Asparagus, butter & sage sauce 13.50

Tasty Titles

- Taste
- Texture
- Provenance

Avoid: Vegetarian/vegan/meatless/healthy

"Vegetarian Hummus Wrap"

vs.

"Tierra Farms Roasted Red Pepper, Avocado, Garlic Herb Hummus Wrap"

Subtle Substitutions

Serve plant-based condiments, milks, desserts, and breads by default

- Inclusive

- Indistinguishable

- Inexpensive

Vegan carrot cake by Chef Efrain

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Oat Milk by Default

- LinkedIn San Francisco cut dairy milk from 70% to 18% of milk served by serving oat by default, reducing carbon footprint by 50%

- Idea catching on nationally, Blue Bottle and Stumptown serve oat milk by default at all locations

Water Use

Milk vs. 'Milk'

Environmental impacts of different types of milk, per liter.

	Emissions (kilograms CO_2)	Land Use (square meters)	Water Use (liters)
Cow	3.2	9.0	628
Rice	1.2	0.3	270
Soy	1.0	0.7	28
Oat	0.9	0.8	48
Almond	0.7	0.5	371

Source: Poore and Nemecek, Science

Image credit: New York Times

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Small changes add up! Switching to **oat milk in your latte just once** saves enough water for **two showers.**

Oatmilk in your latte = saves water for two showers

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Culinary Strategies

"Plant-based cooking doesn't need to be complicated. It's just utilizing plant-based ingredients and applying fundamental culinary technique; we are not reinventing the wheel."

-Chef Matthew Ward

Executive Chef of Residential Dining, University of North Texas

Co-Chair of MCURC Executive Chefs' Committee

International Cuisines

Draw inspiration from international cuisines that naturally incorporate plant-based proteins

- Vietnamese
- Mexican
- Middle Eastern
- Ethiopian
- Indian

Ponzu-Marinated Watermelon Poke Bowl by Chef Rhonald Conlu

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A Long History

- Vegetarian mock meats date back over a thousand years, to the Tang Dynasty (600-900 AD)

- Almond milk was popular in Medieval France; researchers translated a recipe for it in a cookbook written in the 1300s by the Master Chef to King Charles VI.

Twin Dishes

Avoid offering alternatives with the same flavor profile.
- Chicken Enchiladas
- Black Bean Enchiladas

Instead, offer two distinctly different options, so decisions are based on flavor rather than meat vs. veg
- Black Bean Enchiladas
- Chicken Tacos

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Nutritious and Filling

Ensure that plant-based options are filling & satisfying with carbs, protein, and fat.

- Use beans, tofu/tempeh, lentils, or veg meats

- Serve a side dish with protein

- Use nutritional yeast and/or cashews for sauces

- Garnish with avocado or nuts

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Lean Into Familiar Flavors

The top motivator for consumers trying new plant based foods is "If it used flavors I love" (Datassential 2023)

- Feature beloved flavors in plant-based dishes

- Wrap unfamiliar ingredients in crowd favorites
  - *Breakfast Burrito with Tempeh Bacon*

Find Your Staples

Versatile plant-based staples allow for creative menuing

- Lentil walnut meat
  - Tacos
  - Lasagna
  - Meatloaf

- Cashew cheese sauce
  - Mac & cheese
  - Quesadillas
  - Baked potatoes

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Tempt Yourself

- Aim to make plant-based dishes the most appealing, delicious options on the menu for *all* diners

- Ask yourself, "Would I be excited to order this at a restaurant?"

Create a more resilient world, by default
Visit: www.greenerbydefault.org
Contact: katie@greenerbydefault.org

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Carbon footprint of meats and meat substitutes per 100 grams of protein

Emissions based on life-cycle analyses which include agricultural production, animal feed, raw materials, processing, transport, and packaging. This is measured in kilograms of carbon dioxide-equivalents per 100 grams of protein.
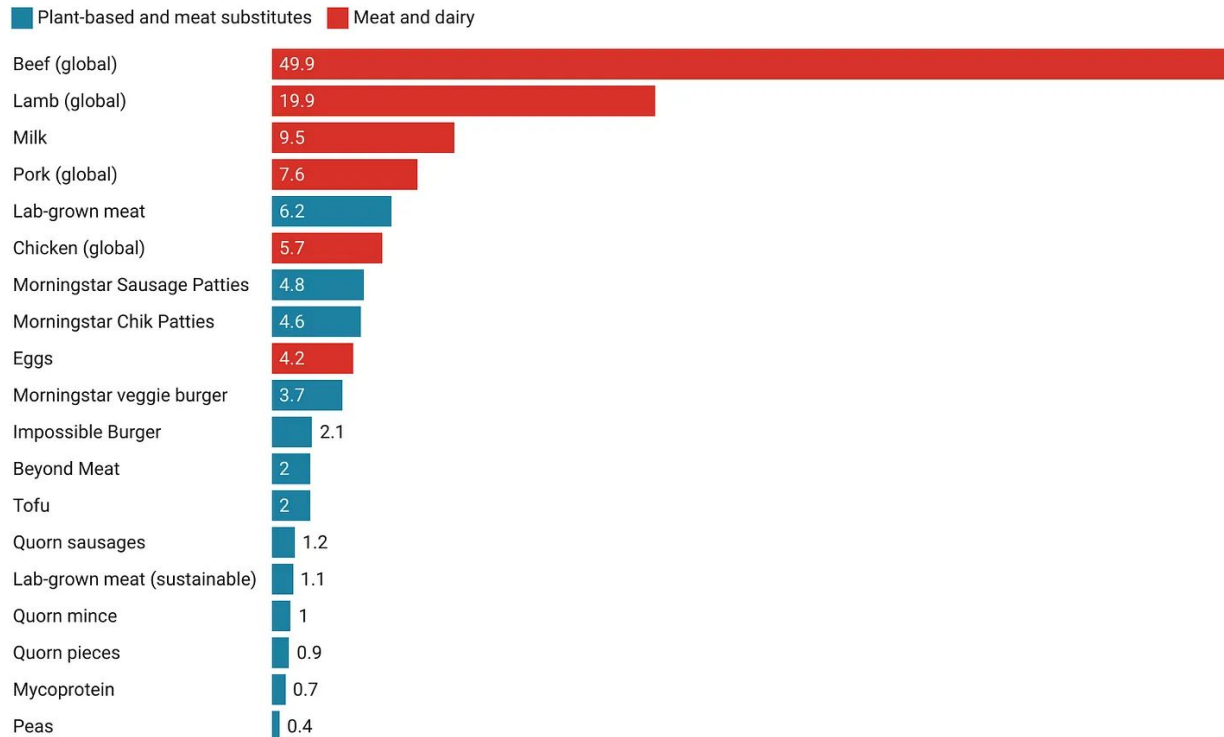
■ Plant-based and meat substitutes ■ Meat and dairy

Food	Value
Beef (global)	49.9
Lamb (global)	19.9
Milk	9.5
Pork (global)	7.6
Lab-grown meat	6.2
Chicken (global)	5.7
Morningstar Sausage Patties	4.8
Morningstar Chik Patties	4.6
Eggs	4.2
Morningstar veggie burger	3.7
Impossible Burger	2.1
Beyond Meat	2
Tofu	2
Quorn sausages	1.2
Lab-grown meat (sustainable)	1.1
Quorn mince	1
Quorn pieces	0.9
Mycoprotein	0.7
Peas	0.4

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