



Food's Impact on the Climate

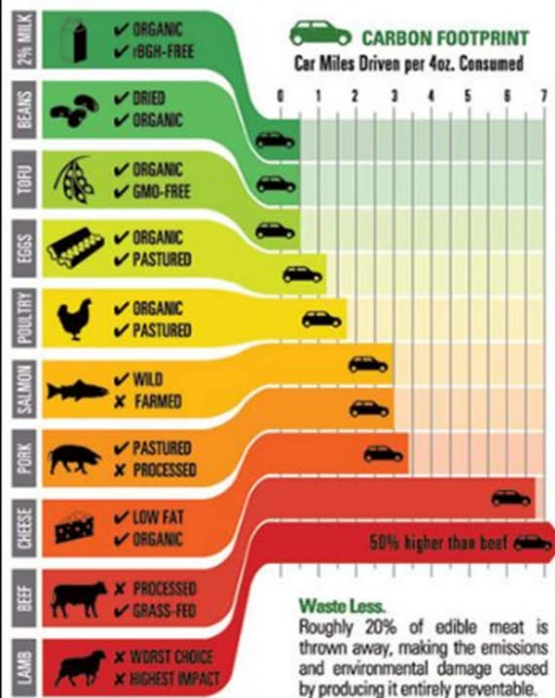
How our food choices and behaviors impact the environment



Overview

EAT SMART. YOUR FOOD CHOICES AFFECT THE CLIMATE.

Different foods have different impacts. Here's how the greenhouse gas emissions (GHGs) of ten common proteins compare:



Meat in moderation can be a good source of complete protein as well as iron, zinc, Vitamins B-12 and B-6, and niacin.

Follow these tips for healthy and environmentally friendly shopping: ✓ CHOOSE
✗ AVOID

Learn more at ewg.org/meateatersguide

GHG data based on lifecycle assessment by CleanMetrics. www.cleanmetrics.com

- Review impact of meat eating
- Food Alternatives
- Food Waste
- Making Beauty out of waste

“Most of us might believe it’s our energy or transport choices that cause the most serious environmental damage. In fact, it’s our food system that creates the biggest impact.”

Dr. Tony Juniper, CBE,
Executive Director for Advocacy, WWF-UK



Greenhouse Gases

- Carbon Dioxide

- Switch to a hybrid car = saves 1 ton of CO₂ per year
- Switch to vegan = saves 1.5 tons of CO₂ per year

- Methane

- Chickens, turkeys, pigs and cows collectively the largest producer of Methane in the US

- Nitrous Oxide

- The meat, egg and dairy industries produce 65% of worldwide nitrous oxide emissions
- 1 Calorie from animal protein requires 11 times as much fossil fuel as one calorie of plant protein
- The diets of meat eaters creates 7x the greenhouse emissions as vegan diets

If every American dropped one serving of chicken per week from their diet, it would save the **same amount of CO₂ emissions as taking 500,000 cars off the road.**



300x more powerful

Nitrus oxide is 300x more powerful at trapping heat in the earth's atmosphere than carbon dioxide.



20x more powerful

Methane is 20x more powerful at trapping heat in the earth's atmosphere than carbon dioxide.



Water



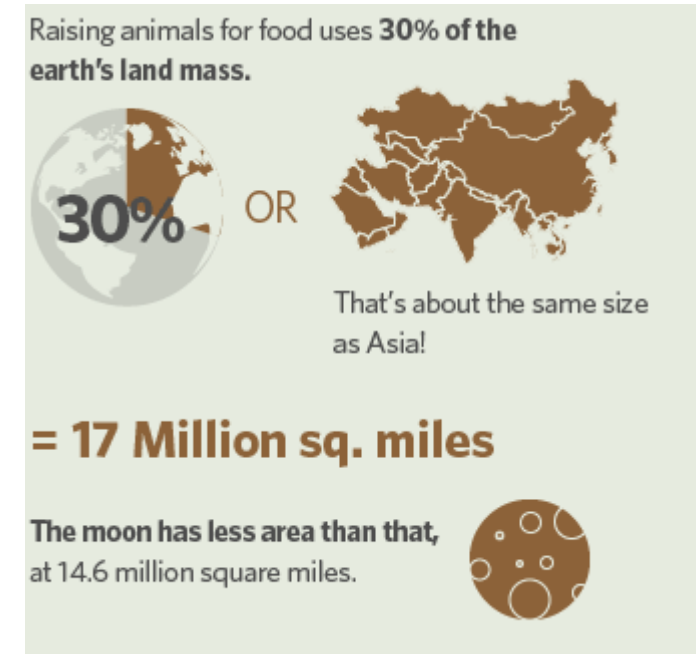
- It takes more than 2,400 gallons of water to produce 1lb of meat VS. 25 gallons to produce 1lb of wheat
- You'd save more water by not eating 1lb of meat than you would by not taking a shower for 6 months
- Animals raised for food create 89,000 lbs of excrement per second creating massive amounts of groundwater pollution
- Chicken, hog, and cattle excrement has polluted 35,000 miles of rivers in 22 states





Land

- More than 260 million acres of US forest have been cleared to create cropland to grow grain to feed farm animals
 - 16lbs of grain to produce 1lb of meat
 - 70% of the grain and cereals grown in the US are fed to farmed animals
- The equivalent of 7 football fields of land are bulldozed every minute to create more room for farmed animals
- Livestock grazing is the #1 cause of plant species becoming threatened or going extinct in the US



EATING TO IMPROVE THE FOOD SYSTEM

“Diversified diets not only improve human health but benefit the environment through diversified production systems that encourage wildlife and more sustainable use of resources.”

Peter Gregory, Research Advisor,
Crops For the Future

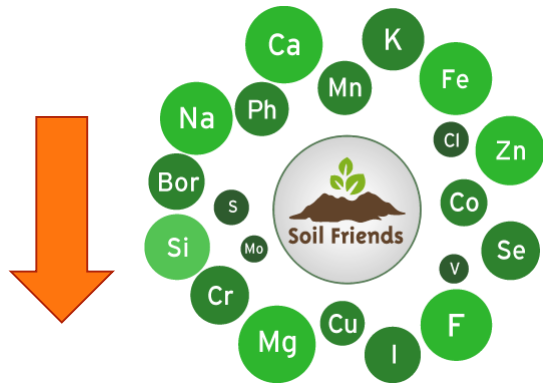


Food Alternatives

After consumption of animal products has been reduced



Monoculture Farming



Soil Nutrients



Pests & Pathogens



Fertilizers & Pesticides



Leach into Water



Damage to plants and wildlife



12 Plants and 5 Animals



60%

Sugar

Corn

Rice

Wheat

Potatoes

Soy

Cassava

Tomatoes

Banana

Onions

Apples

Grapes

Pig

Chicken

Cattle

Sheep

Goat



Future 50 – Eat more.....

Nutritious, lower impact, affordable, accessible*, taste good

- Algae
- Beans & Pulses
- Cacti
- Cereal & Grains
- Fruit & Vegetables
- Leafy Greens
- Mushrooms
- Nuts & Seeds
- Root Vegetables
- Sprouts
- Tubers

“The search for nutrient-dense plants has taken us toward ancient grains, heirloom plant varieties, and less commonly cultivated crops. There is a good reason for rediscovering some of the forgotten plants.”

Dr. Adam Drewnowski,
Director of The Center for
Public Health Nutrition,
University of Washington

Substitutions

- Instead of :
 - Lettuce
 - Fewer pesticides, resilient, denser in nutrients
 - White Rice
 - Requires less water, contains protein, fiber, iron, etc.
 - Acai
 - Acai from rain forest of S. America = big carbon footprint
 - Beef
 - Beans bring nitrogen to the soil, inexpensive, good for you
- Try:
 - Cabbage
 - Sorghum
 - Blueberries
 - Beans





Food Waste

#3 on Drilldown

So, the silver lining of addressing food waste is that everyone can dial up their self awareness and make a big impact. But Moreno, who points out that we don't need yet another food neurosis, cautions against putting all the onus on the individual consumer. Systemic efforts to do things like improve our food literacy, reimagine our grocery stores and kitchens, reform date labels, and rethink catered events can make it harder for us to mindlessly waste by adjusting our surroundings, and not guilting or shaming us.

“Just because food is wasted in a household doesn't mean it's caused by that individual person,” Moreno said. “There are a lot of factors at play.”

About food waste



- 30-40% of the entire supply wasted
- 80% of that traced back to homes and consumer-facing businesses
 - 1,250 calories per day per person
 - Average American tosses approximately 1 lb. per day
- Most often wasted = fruits and veggies
 - 2nd = leftovers
- If food waste were it's own country, it would be the 3rd largest emitter of green house gases *Food and Agriculture Organization of the United Nations (FAO)
- The land devoted to producing wasted food would be the 2nd largest in the world
 - Producing more food than we need also places croplands under pressure to over-produce, *fueling increased use of pesticides and unsustainable practices* that increase yield but cause long-term damage to soil, water supply, and sometimes even to food safety.
- Waste often tied up in love and good intentions



Creating a Waste-free Kitchen

- First – collect food you would normally toss for 1-2 weeks
 - Take stock of what you collected
- Create an “eat first” area for quick spoilers
 - Label items and reorganize after shopping (FIFO)
- Shop your fridge before you shop the store
- Create a realistic meal plan
 - Consider dinners out, Wasteless Wednesday



Shop Smart

Plan your meals

Buy what you need

Appropriate serving size
on your plate

Match what you're
buying with the cadence
of your shopping (can't
shop every two weeks
and expect to eat fresh)

Purchase from the bulk
section so you get
exactly the right
amount

- Store Food correctly
- Learn to Preserve
- Buy the Uglier – by single bananas
- Make soothies, stock, flavored water
- Freeze – but eat it soon (within a week)
- Buy frozen to start
- Use what's left to make soups ,
casseroles, pestos, sauces
- Bring your own containers



Understand Dates on Labels

#Food labels can be confusing. Different phrases have different meanings, and most food is still good to eat as long as it doesn't show signs of spoilage (an off odor, flavor, or texture).

To help clear things up, here's what each term means, according to definitions from the USDA:

“**Best if Used By / Before**” refers to when a product will be of best flavor or quality. *It's not a purchase or safety date.*

“**Sell-By**” tells the store how long to display the product for sale (for the purposes of inventory). *It's not a safety date.*

“**Use-By**” is the last date recommended for the use of the product while at its best quality. *It's not a safety date, except when used on infant formula.*



Things you can do with Coffee Grounds



Fertilize Plants

Mosquito deterrent

Exfoliating body scrub

Eliminate odors

Flea killer

Flavor enhancer

Clear up acne

Making Beauty Out of Waste

- **Avocado Mask**

- For hair and/or face; the hydrating, moisturizing properties of avocados is great for dry or tired skin and hair.
- **How to:** Blend the avocado with a little honey for the face or a few tablespoons of water to thin for a hair mask. Smooth onto the skin or hair and let the magic happen for 20 minutes.

- **Banana Mask**

- When you can't be bothered to use your brown bananas for baking, or you have ample banana skins – blitz them up and create a yummy face mask.
- Banana's have active enzymes that help to revitalize the skin, as well as nourishing the skin cells with vitamins, magnesium and potassium.
- **How to:** Whilst it works great as a lone mask, if you have other products to use up you could try adding natural yoghurt, a drop of honey or even oats. Apply to your face and rest for 15 minutes. Wash off with warm water.

- **Tea Bags for eyes**

- **How to:** Tea brands with all natural ingredients and blends such as chamomile, rose and green tea are perfect to freshen up tired skin and eyes. Simply place your cooled teabags onto your eyes and lay back for 10-15 minutes. Alternatively dip the bags in a little water and rub the chilled bag over the skin for a refreshing toner

- **Coffee Scrub**

- incredible for your skin, great for boosting circulation and for brunettes; an incredible scalp scrub too, which will leave your locks super shiny
- Mix with coconut oil or olive oil. Add in some sugar if you wish





Resources

- <https://www.eatortoss.com/>
- **There's an App for That**
- As with everything nowadays, there are apps to help you minimize your food waste.
- [ShareWaste](#) connects you with people who need food scraps for composting, worm-farming, or other uses, so you can pass on the extras from your fruits and veggies.
- [Olio](#) allows you to share excess food with your neighbors. Post a photo and pick-up details, and someone can come and take leftovers off your hands.
- And you can also check out this [Food Tank article](#) for a list of other helpful apps, some of which are specific to certain regions.