

Illustration 12.1 - Food's climate receipt

EVERY FOOD HAS AN INVISIBLE CLIMATE RECEIPT

Many steps are needed to get food from the farm to our plate. Each step creates greenhouse gases. Scientists add them all together as CO₂e – carbon dioxide equivalent.

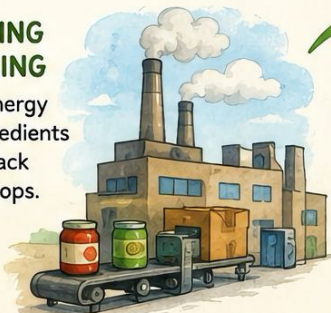
2. FERTILISER & FEED

Growing crops for animal feed uses land, water, fertiliser and fuel.



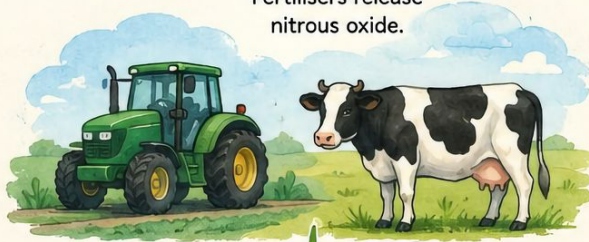
3. PROCESSING & PACKAGING

Factories use energy to turn raw ingredients into food and pack them for our shops.



1. FARMING

Machines use fuel.
Cows release methane when they digest food.
Fertilisers release nitrous oxide.



4. TRANSPORT & STORAGE

Trucks, ships, planes and refrigeration all use energy.



5. SHOPS & REFRIGERATION

Keeping food cold and on shelves uses electricity.



6. COOKING & EATING

Cooking uses energy. So does washing, heating and cleaning up afterwards.



7. WASTE

When food is thrown away, all the energy and resources used are wasted – and food rotting in landfill creates methane.



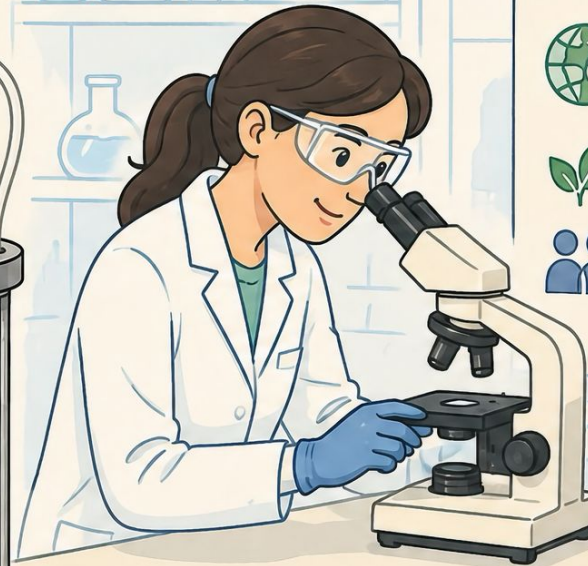
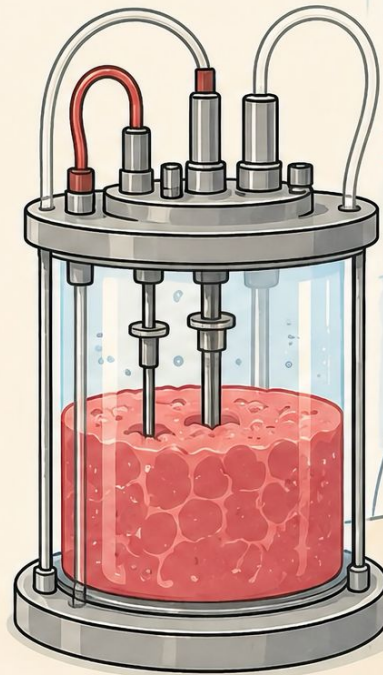
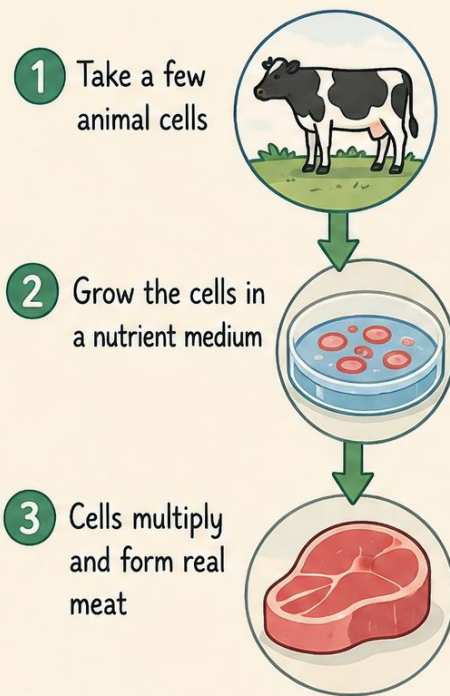
ALL TOGETHER = CO₂e

Different greenhouse gases. One warming number.



Illustration 12.6 - Cultivated meat

ONE BRIGHT THING CULTIVATED MEAT



A SUSTAINABLE FUTURE



Better for the planet



Fewer resources



Feeding more people

REAL MEAT
GROWN FROM
CELLS, NOT FROM
RAISING AND
SLAUGHTERING
ANIMALS.



USES LESS LAND



NEEDS LESS
ANIMAL FEED



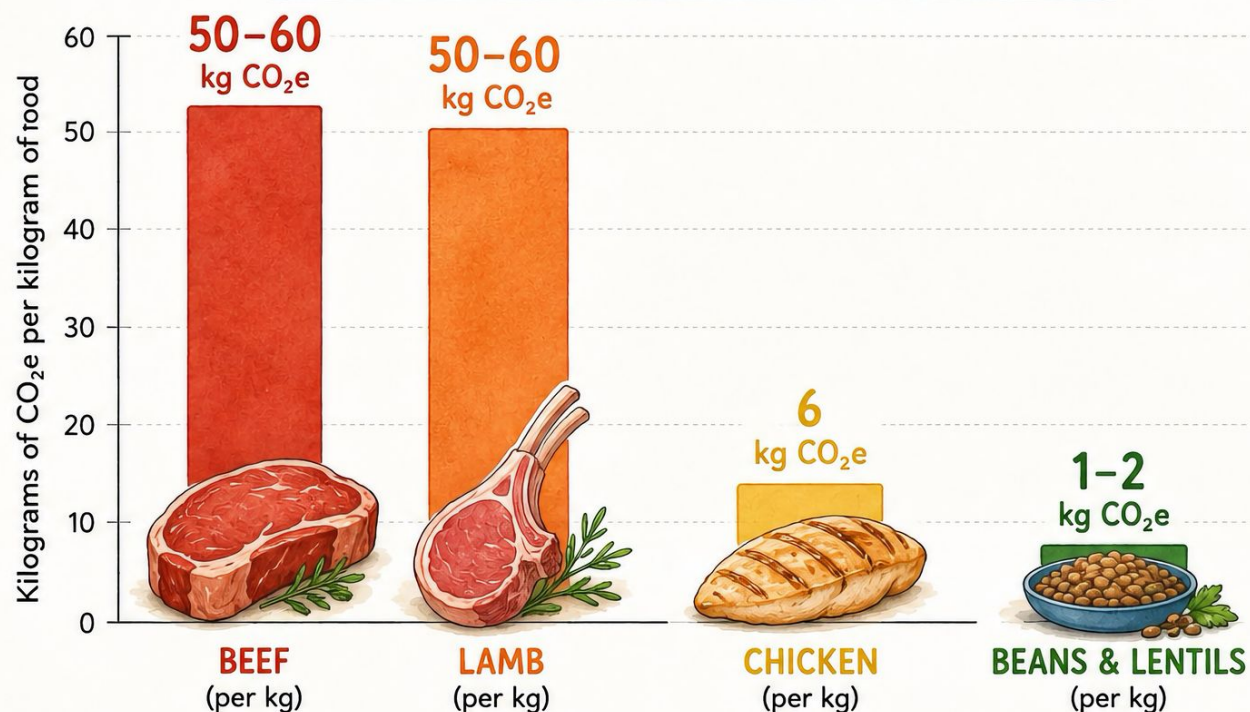
PRODUCES FAR
LESS METHANE

Illustration 12.3 - How foods compare

HOW FOODS COMPARE

Different foods create very different amounts of greenhouse gases when they are produced.

Average greenhouse gas emissions
(in CO₂e per kilogram of food)



WHAT DOES THIS MEAN?



Beef and lamb have the highest climate footprint.



Chicken is much lower.



Beans and lentils have the lowest.



Beef can create roughly ten times more emissions than many plant foods.

These are averages. The actual footprint can change depending on farming methods, feed, location and land use.



Small changes, made often, by millions of people, can make a big difference for our planet.
More plant-based meals + less high-impact meat + less food waste = lower emissions.



Sources: Our World in Data (Poore & Nemecek, 2018); IPCC Special Report on Climate Change and Land (2019); FAO (2021).

Illustration 12.4 - Food waste

FOOD WASTE: A BIG CLIMATE PROBLEM

When we throw food away, we also waste all the resources and energy used to grow, transport, store and cook it – and it harms the climate.

ONE OF THE EASIEST CLIMATE WINS

If food is grown but never eaten, all the emissions from farming, transport, refrigeration, packaging and cooking still happened for no reason.



Food loss and waste causes around **6%** of all global greenhouse-gas emissions.



Some scientists even say that if food waste were a country, it would be one of the world's biggest emitters.



THROWING FOOD AWAY MEANS WASTING...



WATER

All the water used to grow it.

=

CO₂e
emissions



ENERGY

Fuel and electricity used at every step.

=

CO₂e
emissions



LAND

Farms, soil and space that could grow other food.

=

CO₂e
emissions



TRANSPORT

Trucks, ships and planes that moved it.

=

CO₂e
emissions



LANDFILL METHANE

Food rots without oxygen in landfill and releases methane – a powerful greenhouse gas.

=

CH₄
methane

SIMPLE WAYS TO WASTE LESS FOOD



Plan meals so you buy and cook what you need.



Store food properly so it stays fresh.



Use leftovers in new meals.



Freeze extra food before it goes off.



Take sensible portions.



Understand date labels – “best before” doesn’t always mean “unsafe”.

LESS WASTE = LESS CLIMATE IMPACT

Saving food saves money, resources – and our planet.

