

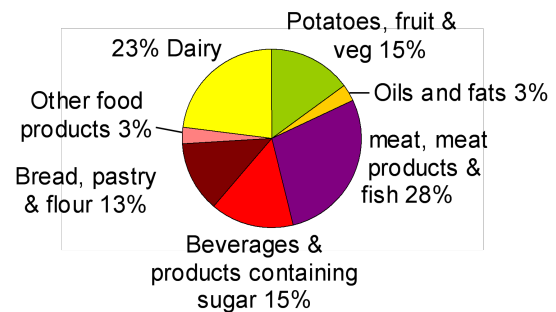


# Carbonbusting: food

**Food accounts for between 20-30% of our household greenhouse gas emissions. It is also the leading cause of deforestation and biodiversity and accounts for 70% of all human water use.<sup>1</sup>**

**Food is a necessity – we can't choose not to eat, but we can choose what we eat, and these choices can make a big difference.**

**Food creates greenhouse gas (GHG) emissions at every stage of the food chain: starting with production on farms, then manufacturing and processing, and transportation (possibly refrigerated) to distribution hubs and on to supermarkets and finally to our kitchens. As well as CO<sub>2</sub>, nitrous oxide from fertilisers and methane from belching ruminants (cows and sheep!) contribute heavily to the GHG emissions.**



Pie chart showing the relative GHG emissions of different food groups in a sample of a typical European diet.<sup>2</sup>

## TAKE ACTION

### Eat what you buy

As a country we waste about 25% of the food we buy. Cut down on food waste by planning a weekly menu, using a list when you shop, and eating up leftovers. The WRAP 'Love Food Hate Waste' website (<http://www.wrap.org.uk/>) has lots of good advice and recipes for leftovers.

### Eat seasonal, locally-produced food wherever possible

Air-freighted and hothouse-grown food contributes hugely to GHG emissions, so check labels for country of origin and how food is produced and transported. If it is grown in the UK but is not in season, it is likely either to have been refrigerated for a long time or grown in heated greenhouses. When buying food from overseas, choose products that have been shipped. The vast majority of Fair Trade foods are shipped, and farmed using high environmental and social standards. Growing your own fruit and vegetables can be very rewarding, saves money and cuts GHG emissions. Eat seasonal, field-grown food such as pulses, peas and beans rather than Mediterranean vegetables (eg aubergines and peppers) which are often produced in heated greenhouses.

### Reduce consumption of meat and dairy products

Meat and dairy produce contributes around 50% of all food-related GHG emissions. Try having one or more meat (and cheese) free days a week.

### Shop online

Many foods can be delivered to your door. Supermarkets deliver online orders; fresh fruit and vegetables from nearby farms have local drop-off points; and milk can be delivered three times a week.

<sup>1</sup> Why food and climate? <https://fcrn.org.uk/about/why-food-and-climate> (Accessed 08/06/2018).

<sup>2</sup> Quoted in *Cooking up a Storm* Tara Garnet, Food Climate Research Network, 2008. Kramer K.J., Moll, H.C., Nonhebel, S. and Wilting, H.C. (1999) Greenhouse gas emission related to Dutch food consumption, *Energy Policy* 27 (1999) 203-216.

## Adjust expectations

In general, we eat more protein than we need, and we expect all varieties of food to be available at all times. Adjusting our expectations is difficult – but it perhaps the most important thing we can do.

## YOUR QUESTIONS ANSWERED

### Is organic better?

There is substantial evidence that organic farming methods produce fewer GHG emissions. This is achieved in part by enriching the soil so that it will hold more carbon. For example, the Soil Association argues that, 'The widespread adoption of organic farming practices in the UK would offset 23% of UK agricultural emissions through soil carbon sequestration alone.' Also, better soil structure means that less water is needed for plants.

### Which is better: dried or tinned chickpeas?

This question shows how complicated food choices can be. On a supermarket shelf, a tin of chickpeas has a much higher footprint than its dried neighbour – there is more processing involved, the tins are much heavier to transport, and producing the tins themselves will have a carbon cost. However, once you include the carbon emitted by cooking the dried chickpeas at home, the dried chickpeas actually end up with a higher footprint. Unless, that is, you use a pressure cooker or your house is powered by renewable energy!

### Home cooking or ready meals?

A study from Manchester University calculated that a lamb curry ready meal had a carbon footprint of 4.2kg CO<sub>2</sub> e, compared with a home-cooked version, which had a 20% lower carbon footprint. This was mostly due to eliminating the refrigeration stage.

### I don't have an allotment or big garden – how can I grow my own food?

Even with limited space it is possible to start growing your own food. Herbs can be grown on a windowsill and cherry tomatoes in hanging baskets. Climbing plants like beans and even squash can be grown up supports, taking up little room in your flowerbeds.

## MYTHBUSTING

### Food miles are always important

GHG emissions from transportation make a significant contribution – around 12% – to the overall total from the food supply chain. However, other stages play a greater or similar role: farming (44%), manufacturing and processing (11%) and retail (13%). Food that has been grown naturally and is transported by boat can have a relatively low carbon footprint. For example, an apple shipped to the UK from New Zealand has a carbon footprint of 80g CO<sub>2</sub>, whereas an apple from a cold store in the UK incurs 150g CO<sub>2</sub>. However, a local and seasonal UK apple has a carbon footprint of just 10g CO<sub>2</sub>.

## FIND OUT MORE

*How bad are bananas?* by Mike Berners-Lee. This entertaining and informative book explores the carbon footprint of a host of everyday foods and other items.

*How to live a low-carbon life* by Chris Goodall has a section devoted to food.

The Garden Organic website is full of ideas for those trying to develop green fingers: [www.gardenorganic.org.uk](http://www.gardenorganic.org.uk)

This document is available from [www.lowcarbonwestoxford.org.uk](http://www.lowcarbonwestoxford.org.uk).

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