



## Too much Christmas Turkey.

Only 25 days until the Big Day but more than almost any other time of year, it's a time for conspicuous consumption of food and other 'stuff'. Many businesses rely on Christmas to boost their trade and therefore profits but we rarely think of the consequences of all this activity. It's not surprising that people in the northern hemisphere make the most of the Festival. It brings light and warmth to an often cold and dark season but even in the warmer, sunnier South, people make the most of it. However, all this causes a spike in greenhouse gas emissions and creates a significant amount of waste.

A study published in 2004, calculated that the three days of Christmas, i.e. Christmas Eve, Christmas Day and Boxing Day, could release as much as 650 kg of CO<sub>2</sub> per person and it's likely that that figure has increased since that time. That's equivalent to 1000 Christmas puddings or 5.5% of our total annual carbon footprint.

Cost of Christmas in CO<sub>2</sub> (kg) and Christmas Puddings

	CO <sub>2</sub> per person (kg)	Equivalent in Christmas puddings
Christmas food	26	40
Christmas car travel	96	148
Christmas lighting *	218	335
Christmas shopping	310	477
TOTAL	650	1000

\* Changing to LED lighting may reduce this figure.

On average, the food that each of us (in the UK) eats will create 26 kg of CO<sub>2</sub>. But is possible to reduce that by going vegetarian, at least in part, and make a small reduction of 3 kg CO<sub>2</sub> per person. If half the food you eat is organic, you can save 2 kg of CO<sub>2</sub> each. A much bigger saving of 7 kg can be achieved but cutting out as much waste as possible. Combing these, that is going vegetarian, organic and cutting waste might save up to 8 kg CO<sub>2</sub>.

Christmas is a time when many of us travel to parties, go to stage shows, visit friends and relations and take a holiday. In 2007, we travelled an average of 121 miles each. That may have dropped somewhat recently but seems to be increasing again. If all those miles were by car, that would increase the CO<sub>2</sub> by more than 96 kg per person compared with other times of the year. The most effective way to cut this figure is by going by train, which would save 63 kg of CO<sub>2</sub> per person. Unfortunately, train travel is not always very practical, especially if you're carrying a lot of presents and it is expensive.

Since the report referred to was published, Christmas lights are now almost exclusively LEDs which have a much lower energy consumption than the old filament bulbs. A string of 160 LED lights will only result in 5 kg CO<sub>2</sub> per house. On the other hand, the displays are getting much more elaborate with illuminated figures of reindeer, Santas and others. So that 5 kg can very easily increase to 10 or more kg. In addition, we have to have the room lights on more during the long, dark evenings of winter with more rooms lit up when we have visitors.

Of course, Christmas is a time for giving gifts, eating and drinking more. According to the Bank of England, our spending on video and music equipment and books increases the most in December compared with the rest of the year but these categories only contribute to less than 2 % of our

annual household spending. We spend the most on clothing etc, followed by furniture, specialist foods, computers and phones. The spending on these increases by nearly 17 % in the run-up to Christmas. That's over 310 kg CO<sub>2</sub> per person or one fifth of our individual, annual consumables carbon footprint. Approximately £4 billion to £5 billion is spent on unwanted gifts and that's equal to 4.8 million tonnes of CO<sub>2</sub>.

The Carbon Trust gives very helpful advice to us to make Christmas more sustainable. Starting with the Christmas tree, if yours is an artificial one that you've had for many years, then you've saved quite a lot of emissions compared with buying a commercially grown one each year. When you do come to dispose of your artificial tree, dispose of it carefully. The metal in it may be recoverable but not the plastic and if that gets incinerated, it will release CO<sub>2</sub> into the atmosphere. If you prefer a real tree, get a locally grown one, preferably with roots and in a pot so you can use it several years running. When it gets too big, you may be able to plant it out somewhere, If you have a cut tree, the best way to dispose of it is to have it chipped and spread onto your garden. The chippings will not only retard weed growth but will decay slowly with much of the CO<sub>2</sub> being absorbed into the soil.

Christmas dinner with family and friends is the highlight for many of us. With a little forethought and planning, we can keep the carbon footprint a bit lower. Turkey is the main course though many people prefer beef or pork. Of these, turkey has the lowest carbon footprint. Beef has a carbon footprint of about 51 kg CO<sub>2</sub> per kg of meat and pork 10 kg, Turkey is around 4 – 10 kg CO<sub>2</sub> per kg of meat. So having turkey for Christmas will be better than having beef. If you're vegetarian, then that footprint can be cut further. Use your oven and stove carefully and avoid leaving them switched on for longer than needed but you may find that your central heating doesn't come on because the heat from cooking is keeping your house warm. When serving up the meal, you can cut some of the waste by letting people serve themselves instead of piling their plates high for them. Use left-overs as soon as possible afterwards or freeze away for a later date.

Take care with the gifts you buy, not only choosing them to suit the recipients but with a mind to how long they will last. Cheap toys are likely to have a short life and have to be thrown away soon. Buy good quality ones that will last and can be passed onto others or to charity shops. Check the energy use of electrical appliances and go for those with the lowest energy consumption. And then there's the wrapping paper! We use something like 227,000 miles of wrapping paper at Christmas. That's nearly 10 times around the Equator. Wrapping paper with metallic decoration cannot be recycled so will either be incinerated or go to landfill. Choose recycled paper or reusable bags instead.

Have a wonderful, low carbon Christmas!

The carbon cost of Christmas:

[https://www.researchgate.net/publication/263969440\\_The\\_Carbon\\_Cost\\_of\\_Christmas?channel=doi&linkId=0046353c77afbb3719000000&showFulltext=true](https://www.researchgate.net/publication/263969440_The_Carbon_Cost_of_Christmas?channel=doi&linkId=0046353c77afbb3719000000&showFulltext=true)

The Carbon Trust: <https://www.carbontrust.com/news-and-insights/news/the-carbon-trusts-tips-for-a-more-sustainable-christmas-0>

## **Richard Marshall**

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