

SUSTAINABLE WH³DDON

Opportunities to enhance ecology and biodiversity
Opportunities to reduce our carbon footprint

Plant-based diets and the environment

Sue Sentence

In this issue, we thought we'd look at how what we eat can have a positive impact on the environment. There's been quite a lot of research reported in the media in recent years about the ways in which transitioning to a plant-based diet can significantly reduce our water footprint, mean more food can be produced from less land, and contribute to a reduction of greenhouse emissions.

What does the research say?

A recent study published in Nature Communications in 2024 ¹ examined vegan, vegetarian and flexitarian diets and found that diets rich in plant-based alternatives substantially reduce greenhouse gas emissions (30–52%), land use (20–45%), and freshwater use (14–27%), with the vegan diet showing the highest reduction potential. The study also highlighted that plant-based diets can meet most nutritional recommendations and may even improve the intake of certain nutrients, such as iron and fibre. Another study published in 2020 found that vegetation regrowth could remove as much as 9 to 16 years of global fossil fuel CO₂ emissions, if demand for meat were to drastically plummet in the coming decades along with its massive land requirements. That much CO₂ removal would effectively double Earth's rapidly shrinking carbon budget. ² Finally, the World Wildlife Fund (WWF) emphasises that increasing our consumption of plant-based foods relative to animal-source foods will reduce the pressure on biodiversity.³

So there are lots of positives to choosing plant-based alternatives to meat and dairy.

As shown in the following chart, food needs different amounts of water to grow. Growing vegetables uses the least amount of water, and is also an efficient use of land. Research suggests⁴ that if everyone shifted to a plant-based diet we would reduce global land use for agriculture by 75%. This large reduction of agricultural land use would be possible thanks to a reduction in land used for grazing and a smaller need for land to grow crops.

Finally, this link takes you to my favourite recipe for vegan chocolate brownies! <https://www.bbcgoodfood.com/recipes/vegan-brownies>

1 <https://www.nature.com/articles/s41467-024-45328-6>

2 <https://www.sciencefocus.com/news/global-vegetarianism-could-undo-16-years-of-fossil-fuel-emissions>

3 <https://planetbaseddiets.panda.org/actions>

4 <https://ourworldindata.org/land-use-diets>

5 <https://theecologist.org/2019/june/07/swapping-one-meal-day>

6 <https://www.bbcgoodfood.com/health/specialdiets/best-sources-protein-vegans>

BUG HOTEL

Over the May Day Bank Holiday weekend a Bug Hotel, planned by Sustainable Whaddon and built by Chris Selway, was assembled on the Recreation Ground against the railings to the churchyard. Many thanks to everyone who gathered for cones, wood, moss and airbricks, but the biggest thanks must go to the children who so enthusiastically filled the frame of the Bug Hotel with all these materials attractive to wildlife. They even helped a snail to become the first resident.

Jenny Grech on behalf of Sustainable Whaddon



The next meeting of Sustainable Whaddon is on Wednesday 18th June 7.00pm at 114 Bridge Street. Anyone is welcome to attend. You can get in touch with the group at sustainablewhaddon@whaddon.org