

Written submission from Nourish Scotland

Why Scotland's Climate Change Plan needs an organic target

Agriculture has to be part of Scotland's mission to address climate change. At the moment agriculture is lagging behind waste and energy in making significant reductions in greenhouse gas emissions.

Including a target of **5% of Region 1 land in organic management by 2020** in the Climate Change sets Scotland trajectory towards a more sustainable food system, which is good for the environment, and supports rural development too.

Environmental benefits of organic agriculture:

- Research consistently identifies that **organic farming uses less energy** and delivers lower greenhouse gas emissions per unit of area and in most cases per unit of product.¹
- A meta analysis found **higher soil carbon stocks** and sequestration rates in organically managed soils.²
- An FAO study calculated that **emissions from organic agriculture could be 20% lower** due to the absence of synthetic fertilisers. It also outlined the potential for the development of more resilient food systems through organic agriculture.³

Moreover, it is clear that there is **increasing demand for organic food**. This week, Tesco announced that organic sales were up 15% on the previous years. With interest in organic produce going beyond fruit and vegetables and now including fish, dairy produce and grocery items, such as olive oil, pasta and cooking sauces.⁴

In addition to reducing energy use and emissions, organic farming:

- Represents an opportunity for Scottish farming to be **more profitable**.⁵
- Uses very **few antibiotics**.⁶
- Supports **more biodiversity** above and below ground.⁷

Pete Ritchie, Director of Nourish Scotland

¹ Lynch, D. et al The Carbon and Global Warming Potential Impacts of Organic Farming: Does It Have a Significant Role in an Energy Constrained World? *Sustainability* 2011, 3, 322-362; doi:10.3390/su3020322

² Andreas Gattinger et al., (2012), Enhanced top soil carbon stocks under organic farming, <http://www.pnas.org/content/109/44/18226>

³ Nadia el-Hage Scialabba et al., (2010), Organic agriculture and climate change.

⁴ Organic food sales soar as shoppers put quality before price, 19.02.16 <https://www.theguardian.com/environment/2017/feb/19/sales-of-organic-food-soar-fruit-vegetables-supermarkets>

⁵ David Crowder et al., (2015), Financial competitiveness of organic agriculture on a global scale, <http://www.pnas.org/content/112/24/7611>

⁶ Tracy Misiewicz and Jessica Shade, (2016), Organic Food and Farming as a Tool to Combat Antibiotic Resistance and Protect Public Health, https://www.organic-center.org/wp-content/uploads/2016/07/TOC_Report_AntibioticResistance_FINAL.pdf

⁷ Organic Research Centre, (2010), The Biodiversity benefits of organic farming, http://www.organicresearchcentre.com/manage/authincluds/article_uploads/ORC%20Biodiversity%20benefits%20of%20organic%20farming%20v4.pdf