

SOIL ASSOCIATION – WRITTEN EVIDENCE (HSI0040)

What is the future of the horticultural sector?

The Soil Association is a membership charity, formed in 1946 by a group of farmers, scientists, doctors and nutritionists who were determined to pioneer a world where we can live in health and in harmony with nature. Our founders were rooted in the belief that healthy soil is the foundation of a healthy and productive food and farming system, a belief we still share today. Our vision is good food for all, produced with care for the natural world.

Today, the Soil Association is both campaigning and scaling up the solutions, collaborating with food procurers from schools to hospitals and restaurant chains, and with organic and non-organic producers to innovate and implement practical solutions. We understand the importance of grounding research and development within the farm setting – our Innovative Farmers Programme connects farmers and researchers to develop on-farm field trials, championing farmer-led research across the country.

Through our trading subsidiary, Soil Association Certification, we work with over 6,000 businesses including organic farmers and growers, foresters, caterers, food processors and manufacturers across more than 50 countries, and certify over 14 million hectares of forest globally.

Soil Association Response

What are the key challenges, risks, and opportunities facing the sector?

The UK's horticulture sector is vulnerable to a wide range of pressures, as highlighted by the empty supermarket shelves earlier this year. As it stands, we rely on exports for over 80% of our national fruit supply, and almost half of our vegetables, with horticulture using only 1% of total farmland in the UK¹. There is an undeniable need to need to boost fruit and vegetable production in the UK – to provide healthier diets, build resilience into our supply chains, support local food economies, and reduce our global environmental footprint.

¹ [PowerPoint Presentation \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

The Soil Association believes that a thriving horticulture sector will rely on four parallel pathways:

- i. **Increasing fruit and vegetable consumption.** While we all know they are fundamental to our health, the UK's fruit and vegetable consumption levels are far below the recommended below the 5-a-day. The statistics are particularly worrying for children - almost a third of 5–10 years olds eat less than one portion of veg a day². We would therefore urge the Committee to revisit Henry Dimbleby's recommendations from the National Food Strategy on increasing fruit and vegetable consumption, particularly for children, such as through the School Fruit and Veg Scheme.
- ii. **Supporting regional, agroecological production of fruit and vegetables.** Higher consumption levels will require a significant boost in fruit and vegetable production, but *where* and *how* that produce is sourced matters. There is a unique opportunity to simultaneously address the climate and nature crises while improving public health, by supporting lower input, agroecological growing methods, such as organic. Similarly, in order to make progress in decarbonising the horticulture sector, some of this production will gradually need to shift away from lowland peat soils such as the Fens. This will require government support for more regional, agroecological horticulture across the country, including small-scale and peri-urban projects, alongside the development of alternative, sustainable land management practices on lowland peatlands.
- iii. **Rethinking supply chains.** For the above to be feasible, supply chains will need to become more accessible to a wider range of producers, including the smaller-to-medium scale and those serving only their local markets. Boosting dynamic procurement models would help facilitate more localised supply chains, and there is a huge opportunity for these to be developed within the public sector. These would also play a major role in providing routes to market for organic and agroecologically grown produce.
- iv. **Joining up policy for a fairer, healthier, and more sustainable food system.** We need cross-departmental policies to join the dots between the public health, climate and nature crises. These must link the work across DEFRA (horticulture sector, supply chains and food retail), the Department of Health and Social Care (public health, food welfare and diets), the Department of Education

² <https://foodfoundation.org.uk/sites/default/files/2021-09/Peas-Please-Veg-Facts-2021.pdf>

(school meals) and the Department for Communities and Local Government (planning policy). A more cross-cutting approach to policy is required if an increased supply of fruit and vegetables is to occur in tandem with an increase in demand and consumption.

Furthermore, as a member of the Fruit and Vegetable Alliance (FVA), the Soil Association endorses the findings of their joint proposal paper '*Cultivating Success: Priorities for increasing sustainable production to meet growing demand*'³. The FVA is a consortium of bodies representing a diverse range of growers' organisations and interests. The Cultivating Success paper was presented in final draft to the DEFRA Horticulture team at the Edible Horticulture Roundtable Group on 29thth March and will be published later in April. A copy can be made available by the DEFRA Horticulture team, or from Soil Association on request.

When considering the evidence, we would urge the Committee to take note of the findings and recommendations in '*Cultivating Success*' as a representative consensus of the views from across the sector on the key challenges, risks and opportunities facing horticulture in the UK.

Therefore, we would echo the FVA's call for:

- A 'Horticulture Strategy for England' as announced in the Government Food Strategy policy paper in June 2022⁴. The sector has long been lacking a clear policy framework from Government which supports growers in their ambitions to increase domestic production, invest for the future and improve their environmental sustainability.
- For action to be taken on the urgent priority areas in the next 1 to 2 years, in order to secure the future of the sector and prevent a further decline in domestic production of fruit and vegetables, including **labour; supply chain fairness; productivity investment**, and **environment**.
- Longer term, that action is needed across these strategic themes identified in '*Cultivating Success*':
 - a) **A cross-departmental approach**, whereby the potential health savings to be made from improved dietary choices might be

³ This report is still in draft form, but will be published later this month.

⁴ <https://www.gov.uk/government/publications/government-food-strategy/government-food-strategy> (1.3.3)

connected with the immediate need for investment in a productive and sustainable horticulture sector.

- b) An **Environmental Land Management Scheme** that better meets the needs of a diverse and complex horticulture sector.
- c) A greater role for **small to medium scale (SME) organic and agroecological growers** selling through **farmer-focused routes to market**.
- d) A **'horticulture renewal programme'** to foster a new generation of UK growers through recruitment, training, capital grants and access to land, and improving the financial viability of the sector.
- e) Establishing a **coherent research and innovation funding pipeline**. The sector requires great support from research which supports a transition to more agroecological principles including the reduction of chemical herbicide, pesticide and fertiliser inputs and for climate change adaptation and mitigation.
- f) **Greater public engagement** so that consumers are better motivated to buy predominately seasonal produce from the UK.

What will be the impact of climate change on the sector, and how it can be mitigated?

The horticulture sector is both vulnerable to and a contributor towards a range of climate change impacts, but one issue which we are particularly concerned about is the concentration of the country's horticulture on lowland peat soils.

The Fens, in Eastern England, produce a third of our fresh vegetables, despite representing just 4% of our farmland. The area is crucial to our national food security. However, the process of draining peatlands for agriculture leads to severe soil erosion, and releases huge amounts of carbon into the atmosphere. When peat is dried out, it turns from a carbon sink to carbon source – the Office for National Statistics estimates that croplands on peat emit 7600kt of CO₂ per year⁵, the equivalent of two coal-fired power plants. Peatland restoration is therefore key to reducing our greenhouse gas emissions and reaching our urgent climate targets, and part of that will require shifting production away from peatland soils.

⁵<https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalforpeatlands/naturalcapitalaccounts>

That said, we do not envisage an immediate or complete shift away from conventional horticulture on the Fens; this would only increase our reliance on imports and could have a devastating impact on rural livelihoods in the area. There would need to be programme of strategic removal of some lowland peat soils from cultivation, such as where it is more difficult to raise the water table. However, if we are to increase overall the UK's production of fruit and vegetables and rethink the horticultural capacity of lowland peatlands, this means there is an urgent need to support the development of horticulture elsewhere in the country.

For some, the solution lies in commercial greenhouses and vertical farming⁶, which promise high yields relative to growing space, and are sheltered from extreme weather conditions. However, these farming methods are highly energy-intensive⁷, requiring vast amounts of electricity to maintain optimal growing conditions. This presents a major financial barrier for many British growers, leaving them vulnerable against the volatility of energy prices.

We believe the best pathway to a resilient and sustainable horticulture sector is **a widescale transition to agroecological practices, such as organic and agroforestry**. These approaches can help restore soil health, sequester carbon, boost biodiversity, and reconnect communities to the food they eat, while delivering multiple benefits for farm productivity⁸.

It is feasible to substantially increase our domestic production of fruit and vegetables by making use of good quality agricultural soils in other areas of the UK. Horticulture is highly productive per Hectare and requires a relatively small land footprint compared with other forms of agriculture; a 50% increase in horticulture production would require less than 2% of current agricultural land⁹. By decentralising horticulture, and incentivising agroecological practices across the country, we can relieve some of the pressure from the lowland peatlands and open up new opportunities for boosting regional

⁶<https://www.forbes.com/sites/briankateman/2020/07/14/is-the-future-of-farming-indoors/?sh=ddef1442cc0c>

⁷ <https://www.ox.ac.uk/news/2022-03-03-hidden-footprint-low-carbon-indoor-farming>

⁸ https://www.fwi.co.uk/arable/land-preparation/soils/the-benefits-of-integrating-trees-into-productive-arable-land?dm_i=6LRU,RBPJ,2ZMX3P,3EMCD,1

⁹ [Growing British – a strategy paper for promoting fresh produce production in the UK \(warwick.ac.uk\)](http://www.growingbritish.org.uk/wp-content/uploads/2017/07/Growing-British-a-strategy-paper-for-promoting-fresh-produce-production-in-the-UK-warwick.ac.uk)

horticulture. This would allow a transition to land management practices which restore and protect peat soils and reduce the greenhouse gas emissions for which they are currently responsible.

There is also scope for expanding food and vegetable production beyond the existing farmed landscape. Sustain's recent Fringe Farming report¹⁰ explores the potential for boosting agroecological food production on the outskirts of UK cities, for instance, from market gardening to allotments and community gardens. The report highlights the ability of such spaces to deliver a wide range of public benefits, including the supply of more fruit and vegetables to local communities, the provision of regional jobs and training and improved access to green spaces and outdoor learning opportunities.

How can horticulture contribute to mental and physical health?

Research, including the report compiled by the Food Growing in Schools Taskforce¹¹ commissioned by Defra, demonstrates that hands-on learning about the growing of food can have significant mental and physical health benefits through various mechanisms.

In school settings, it can boost academic achievement and broader development, enabling children to link different subjects together as well as develop language, vocabulary and literacy¹². Findings from the Soil Association's Food for Life program show that growing as part of the curriculum supports a whole school approach to food that has impact, beyond the classroom, on positive healthy eating behaviours, such as encouraging higher fruit and vegetable consumption¹³. Higher fruit and vegetable consumption in turn will support longer term physical and mental health and wellbeing.

Community growing projects also have found similar positive impacts on health and wellbeing, a summary of which can be found within the *Benefits of Gardening and Food Growing for Health and Wellbeing* report by Garden Organic and Sustain¹⁴. In summary, growing

¹⁰ <https://www.sustainweb.org/reports/feb22-fringe-farming/>

¹¹ <https://www.gardenorganic.org.uk/expert-advice/growing-in-your-space/schools/schools-growing-past-projects>

¹² <https://gardenorganic-assets.s3.eu-west-2.amazonaws.com/documents/FGIS-Final-Full-report.pdf>

¹³ <https://www.foodforlife.org.uk/~media/files/evaluation%20reports/good-food-for-all--may-2014.pdf>

supports physical health through physical activity and higher consumption of fresh fruit and veg. Studies show that horticulture can be therapeutic and support those with chronic pain, recovery from trauma or helping those with serious health problems. It also supports mental health both from being in a green space but also through feelings of achievement or being part of a community.

There are great opportunities that could support development of the horticulture sector, mutually benefitting the UK economy, boosting food security whilst also benefitting public health. For example, as recommended in the National Food Strategy, a re-specification of the school fruit and vegetable scheme could provide these mutual benefits. In a 2019 Freedom of Information request, the Soil Association discovered that only 30%-40% of produce entering the scheme was British. In research that the Soil Association carried out, the quality of the produce was poor and 92% of teachers surveyed thought that fresher and more appetising produce would result in increased consumption and decreased waste. In addition, Defra data shows that fruit and veg supplied into the scheme generally contains more pesticide residues than equivalent produce found in supermarkets, which includes pesticides that have been linked negatively to children's cognitive development¹⁵. The National Food Strategy team recommend a doubling of the current level of funding for the scheme (from £40.4m to £80.8m) and move away from central administration to enable schools to procure higher quality produce and explore possibility to support local producers and local economies. Re-specifying the School Fruit and Veg Scheme has the opportunity to further improve the health and eating habits of 4-6-year-olds whilst also supporting UK producers.

The availability of funding for science, research and development to enable innovation

In order to address the climate and nature crises, while also supporting productive and viable business models, farmers and growers need on-farm research and innovative solutions to help a shift to agroecological and nature-friendly systems. A 2020 policy briefing by the 'Coopération Internationale pour le Développement et la Solidarité' (CIDSE)¹⁶

¹⁴ https://www.sustainweb.org/reports/the_benefits_of_gardening_and_food_growing/

¹⁵ <https://www.soilassociation.org/news/2017/september/123-pesticides-found-on-school-childrens-fruit-and-veg/>

¹⁶ <https://www.cidse.org/wp-content/uploads/2020/09/CIDSE-Agroecology-and-Finance->

highlights the lack of funding directed at projects that will help to scale-up agroecological practices – and a similar picture applies to the UK.

In 2012, the Soil Association instigated Innovative Farmers¹⁷, which remains the only programme in the country pioneering and facilitating a culture of innovation and research at the farm level. We believe that supporting innovative practices developed from the ground up, led by farmers and land managers themselves, is key to increasing farmer engagement and uptake of nature-friendly and agroecological practices. We therefore urge the Government to direct more funding to farmer-led research, particularly to projects which explore nature-friendly and agroecological solutions for the horticulture sector.

6 April 2023