

Home-grown

A roadmap to resilient
fruit and vegetable
production in England



sustain





Executive Summary

Increasing the production and consumption of fruit and vegetables in the UK has been a persistent challenge for successive governments in recent years. We need to eat more fruit and vegetables, and given this new era of increasing global climatic and geopolitical instability, we can no longer rely so heavily on other countries for our imports. There is an urgent need for resilient domestic horticulture to ensure food security, public health, and environmental sustainability.

Today, England’s edible horticulture sector is facing a perfect storm of rising production costs, labour shortages, unpredictable weather patterns and low profit margins – with many growers on the brink of going out of business. This report emphasises the critical need to increase support for the sector, allowing agroecological fruit and vegetable production to be scaled up across the country, while transitioning away

from intensive cultivation of carbon-rich peat soils and exploring more sustainable, nature-friendly forms of production. It provides a strategic framework through seven steps and targeted policy recommendations to bolster the sector and ensure a thriving future for both the production and consumption of fruit and vegetables across the country. These include:

Image credit: Front cover & Left: Shillingford Organics, Right: Heart of BS13

Step one

Develop a cross-departmental approach to horticultural policy

- Develop a comprehensive, cross-departmental Horticulture Strategy
- Ensure horticulture is adequately supported through Environmental Land Management Schemes (ELMs) and the agricultural transition
- Launch a public campaign to boost the consumption of fruit and vegetables

Step two

Support a just transition towards farming on peat-free soils

- Implement a phased relocation of arable and horticultural production from lowland peat to mineral soils
- Provide resources to build capacity elsewhere for field vegetables and tackle barriers to diversification
- Finance sustainable farming practices across remaining lowland agricultural peatlands

Step three

Decentralise production and scale up agroecological horticulture

- Harness the Land Use Framework to double the land used for fruit and vegetable production
- Drive research to map out opportunities for future production
- Support a diverse and resilient workforce



Step four

Improve supply chain fairness and flexibility

- Reduce the fear preventing growers from reporting unfair practices
- Reform and expand the scope of the Groceries Code Adjudicator (GCA) and new supply chain regulations
- Build more farmer-focused routes to market

Step five

Harness the potential of public procurement

- Make improved Government Buying Standards mandatory and enforce them across the public sector
- Invest in dynamic procurement
- Align and improve School Food Standards and Government Buying Standards
- Expand the School Fruit and Vegetable Scheme

Step six

Boost urban and peri-urban horticulture

- Provide tailored support for small-scale farmers and growers
- Ensure planning policy safeguards local food production

Step seven

Invest in farmer-led research, collaboration, and innovation

- Increase investment in farmer-led research and innovation by 10%
- Improve the accessibility of Producer Organisations



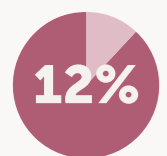
Introduction

Fruit and vegetables are the foundation of healthy and sustainable diets. Yet as a sector, edible horticulture is facing an unprecedented range of challenges – from rising production costs to limited labour availability, unpredictable weather conditions and low profit margins. The vulnerability this creates is pushing many growers to their limits, with 49% of growers worried they could go out of business in the next 12 months, as highlighted by Riverford's recent #GetFairAboutFarming campaign and subsequent parliamentary debate.¹ This situation is also having ripple effects across the wider population, and our environment.

Facts & figures



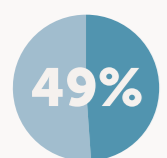
Less than **2%** of the UK's farmed land is used to grow fruit and vegetables



Only **12%** of children (aged 11 to 18) are eating their 5-a-day



Only **17%** of the fruit we eat is produced in the UK, and **55%** of our vegetables



According to Riverford's #GetFairAboutFarming campaign, almost half our growers fear they could go out of business within a year



£6.5 billion The estimated amount spent by the NHS on dietary-related ill health each year

Sources: Defra horticulture statistics; Riverford campaign; DHSC healthy eating guidance; Frontier Economics.

At a **landscape level**, horticulture represents less than 2% of England's farmed land, and production is declining year-on-year.² As a country that is already heavily reliant on imports for fresh produce – producing less than a fifth of the fruit consumed domestically, and just over half of our vegetables³ – this presents a serious challenge for our food security. Recent global shocks have highlighted the fragility of a globalised food system, emphasising the importance of resilient production on our island nation. Furthermore, simply offshoring the emissions, biodiversity loss, and water usage associated with this production to other, often climate-vulnerable countries represents a shirking of our own responsibility to produce food sustainably.

Meanwhile, domestic horticulture is facing its own environmental challenges. As it stands, a vast proportion of UK vegetables are grown on carbon-rich peat soils which need to be restored from carbon emission sources to carbon sinks. In Eastern England, for example, the Fens are a major hub for celery, lettuce, onion and potato production.⁴ These peatlands have been drained for agricultural use since the 17th century – once drained, their fertile soil provides optimal conditions for arable farming and horticulture. However, the draining of peat soils has devastating impacts on the climate and nature emergencies, releasing vast amounts of carbon into the atmosphere and causing severe soil erosion. Recent research from WWF has highlighted that lowland peat soils release the highest carbon emissions per unit area of any type of land use in the country.⁵ Maintaining current levels of vegetable production on this finite and precious resource is unsustainable – plans to expand horticulture to other parts of the country, and support for the sector throughout that transition, are urgently needed.

At a **dietary level**, a resilient supply of fresh fruit and vegetables is essential. With only 33% of adults eating the recommended 5-a-day,



Agroecology

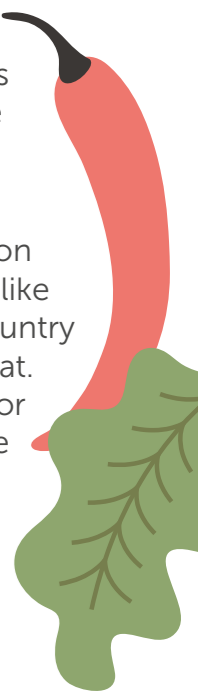
Agroecology is the application of ecological principles in the context of agriculture – farming with nature, rather than against it. An umbrella term encompassing a wide range of practices – including organic farming – agroecology is recognised for its holistic approach, which benefits people and the planet. Importantly, it relies on a healthy and resilient ecosystem instead of chemical inputs such as pesticides and artificial fertilisers.

a shift to healthier and sustainable diets is desperately needed – the National Food Strategy recommended a 30% increase in fruit and vegetable consumption by 2032.⁶ How the UK government plans to support that increase could have transformative benefits for the horticulture sector. As the innovative Peas Please programme demonstrated (a multi-stakeholder national programme coordinated by the Food Foundation from 2017 to 2023), hundreds of millions of extra portions of vegetables can be incorporated into the British diet when there is concerted effort to do so – through public and private sector commitments and procurement, catering standards, company product development and concerted customer promotion.⁷ Coupled with government

support for a strategic approach to putting more local produce on people's plates, this could help support both the consumption and production of British fruit and vegetables.

In this report, we call for the prioritisation of **local and agroecological systems**, like organic, to be developed across the country and transitioned away from lowland peat. This could help achieve multiple wins for food security, public health, wildlife, the environment and the economy.

To help guide this shift, we outline seven steps to restore the resilience of our horticulture sector, boosting the production and consumption of fruit and vegetables in England.



Step one: Develop a cross-departmental approach to horticultural policy

The UK's edible horticulture sector is struggling. A perfect storm of high energy costs, limited labour availability, tight profit margins and extreme weather patterns is pushing many British growers to reduce production or leave the industry altogether.^{8,9} The scale of this challenge was partially reflected at the second Farm to Fork Summit, held at No.10 Downing Street in May 2024, where fruit and vegetable production was a key focus.

The country's reliance on imports for this healthy produce is particularly high. The Government food strategy noted that the UK's overall self-sufficiency rate is around 75%, but for fresh fruit this figure drops to 17%.¹⁰ This leaves us seriously exposed to fluctuations in cost and supply. In February 2023, for example, three of the country's largest supermarket chains introduced limits for shoppers on some fresh produce categories, such as tomatoes and cucumbers, in efforts to prevent empty shelves.¹¹ Since a large proportion of our imports come from climate-vulnerable and water-scarce countries such as Spain and South Africa,¹² these fluctuations are likely to be exacerbated by the increasing impacts of climate change, impacting the availability and affordability of staple food items.¹³

This heightens an already pressing challenge for public health. Fruit and vegetable consumption is central to healthy and sustainable diets – The Eatwell Guide recommends five portions of fruit and vegetables a day, while others recommend seven, or more.¹⁴ Yet as it stands, just 33% of adults are eating their five-a-day, falling to 12% of children.¹⁵ A substantial increase in fruit and vegetable consumption is needed to support the nation's public health, and that will require a reliable supply of fresh fruit and vegetables. We should therefore be reducing our reliance on imports, not increasing it.

Supporting home-grown production is key to addressing these interconnected issues, and that starts by supporting our growers. The horticulture sector desperately needs a clear policy framework to support the country's production, trade and consumption of fruit and vegetables. This should include actionable steps to address both the short-term and long-term challenges faced by growers (which have been extensively outlined by the Fruit and Vegetable Alliance's report, *Cultivating Success*¹⁶), and join the dots between relevant government departments, including the Department for Environment, Food & Rural Affairs (Defra), the Home Office, the Department of Health and Social Care (DHSC), the Department for Education (DfE) and the Department for Levelling Up, Housing and Communities (DLUHC). This joined up approach would help frame horticulture as the golden thread linking public health, food security, green skills, rural economies, nature-friendly land use and climate adaptation.

Policy recommendations:

1. Develop a comprehensive, cross-departmental Horticulture Strategy

In June 2022, the Government food strategy committed to developing a 'world leading horticulture strategy for England'.¹⁷ This was to be co-produced with the sector, providing a framework for supporting the production and consumption of British-grown fruit and vegetables. In a disappointing U-turn, this commitment was dropped the following year. Since then, the UK government has produced a *Blueprint for Growing the UK Fruit and Vegetable Sector*, as part of a package of measures to support country's farming and food sector announced at the Farm to Fork Summit in May 2024.¹⁸ While this goes some way to address the challenges faced by the

sector, major gaps remain around increasing consumption, ensuring fairer supply chains and trade deals, supporting new entrants, access to land and shifting towards nature-friendly practices. To secure a resilient future for British horticulture while addressing the interconnected challenges of public health and environmental sustainability, the UK government should recommit to developing an ambitious, cross-departmental horticulture strategy, as recommended by the House of Lords Horticultural Sector Committee.¹⁹

2. Ensure horticulture is adequately supported through Environmental Land Management Schemes (ELMs) and the agricultural transition

Despite its essential role for healthy and sustainable diets, horticulture has historically been neglected in agricultural policy – the House of Lords Horticultural Sector Committee described the sector as 'under-prioritised and unappreciated by policymakers, leaving holes in the UK's food security and ability to meet net zero goals'. Moving forwards, it is crucial that fruit and vegetable production is given the right level of support, both through ELMs and the wider agricultural transition. This should include incentives that drive a sector-wide transition

to nature-friendly practices; advice, training and support to ensure farmers across the country can consider growing and marketing fruit and vegetables; capital grants which allow growers of varying scales to improve their efficiency and sustainability; and more thought around the accessibility of ELMs for edible horticulture.

3. Launch a public campaign to boost the consumption of fruit and vegetables

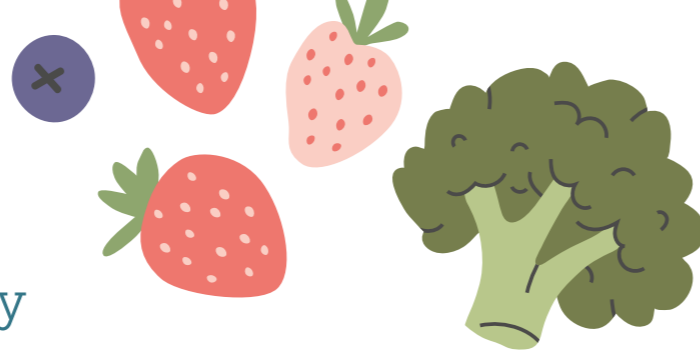
As it stands, 10 times more money is estimated to be spent on advertising foods high in fat, salt and sugar (HFSS) than on fruit and vegetables²⁰. Some local authorities²¹ are already taking steps to restrict the advertising of unhealthy foods – but what if that money was redirected towards the marketing of healthier options? Veg Power have run several campaigns to inspire children to eat more fruit and vegetables, including their recent 'Eat Them to Defeat Them' campaign,²² with evaluation data that confirms the campaign's potential to increased veg consumption over the long term. Stronger support for initiatives such as these could help boost the demand and consumption of fruit and vegetables, ensuring a reliable market for UK growers as a result.

Step two: Support a just transition towards farming on peat-free soils

Peatlands are vital nature sites, home to a variety of highly specialised species, including the carnivorous sundew plant and sphagnum mosses. Despite covering only 10% of UK land area, peatlands are our largest terrestrial carbon store, locking up more carbon than the forests of the UK, Germany, and France combined. However, after centuries of exploitation, just 20% of the UK's peatlands are in near-natural condition.²³

In England, damage to peatlands occurs disproportionately in lowland regions such as the Somerset Levels and East Anglian Fens.

In total, 90% of the UK's lowland peatlands have been drained to create some of the most intensively farmed agricultural and horticultural land in the UK.^{24, 25} They are currently used for pasture, the production of arable crops, for animal feed, and the production of vegetables for human consumption, such as lettuce, leeks, and onions. Lowland peatlands are also subject to commercial peat extraction despite a UK government commitment to ban sales of bagged horticultural peat by 2024. Key issues with this degradation include:



Climate change: 2.26% of UK farmland is on lowland peat but emissions from lowland peatlands make up 29% of total UK agricultural emissions. The emissions resulting from cropland (arable and horticulture) on peat are in excess of 7.5 million tonnes CO₂e per year.²⁶

Biodiversity loss: The degradation, and in some cases permanent loss of these habitats, largely due to the intensification of agriculture, is a key driver of nature's decline. One in six species are now at risk of extinction in Britain.²⁷

Soil subsidence and loss: When a peatland is drained, it can result in shrinkage, compression, oxidation, wind erosion, and increased instance of accidental burning.²⁸ Estimates suggest that farming and ploughing on drained peat in England results in the loss of between 10-30 mm of peat per year.²⁹

Hydrological changes: Peatland drainage impacts upon the hydrology of adjacent peatlands, whether they have been drained or not. This increases flood risk by reducing the ability of peatlands to absorb rainwater during storm surges and increases the vulnerability of landscapes to drought during dry periods.^{30 31}

A combination of interventions will be required to address the decline of the UK's lowland agricultural peatlands, alongside an ambitious drive towards landscape-scale restoration to recover their wider ecosystem function.

Policy recommendations:

1. A phased relocation of arable and horticultural production from lowland peat to mineral soils

Horticultural lowland peat soils provide 22% of the UK's total vegetable supply – approximately 950,000 tonnes per year.³² To maintain the UK's capacity to produce vegetables, we need a plan to support industry, with policies to support a transition covering a range of issues. A phased approach to this should be taken, beginning

with the relocation of crops which are not intended for human consumption, such as biofuels and animal feed, and gradually following with the relocation of horticultural production.

2. Resources to help build capacity elsewhere for field vegetables and tackle barriers to diversification including:

- Support for labour and infrastructure requirements such as storage, part processing and marketing and housing i.e. for decentralising veg production, and the skills and training needed to diversify.
- Payments for environmental benefits from the production of nature-friendly vegetables.
- Action to address unreasonable supermarket cosmetic specifications which require peat soils and are hard to replicate elsewhere.

3. Finance for more sustainable farming practices across remaining lowland agricultural peatlands

While the conventional cultivation of certain peatland areas for horticulture remains inevitable, we need **improved public investment in agricultural research** around how we might limit the damage it causes, and financial incentives to drive uptake of these practices. Paludiculture, for example, is a form of wet agriculture which seeks to combine the continued productive use of peatlands with the minimisation of carbon dioxide emissions and subsidence. Paludiculture sites may act as net carbon sinks within a narrow water table range and trials have included the growth of sphagnum moss as an alternative growing medium, and edible crops including for blueberries and watercress.



Case Study

Barley Wood Kitchen Garden

Barley Wood Kitchen Garden is based in a Victorian walled garden on the outskirts of Bristol, in Wrington, Somerset. On 4 acres, Mark Cox runs a diverse market garden including orchards, vegetables and cut flowers, with the help of one full-time and one part-time grower. Starting with just 13 veg boxes in 2010, they now deliver around 65 boxes weekly and 90 fortnightly, while also selling wholesale produce to restaurants, supplying local farmers markets, and running a small farm shop onsite. Like many other veg box schemes, they reached maximum capacity during the first Covid lockdown as the traditional supermarket supply chains were stretched and people turned to more local markets for their produce.

In addition to the significant amount of food they produce, they also provide many social benefits for the local community, offering volunteering opportunities for those who want to learn practical horticultural skills while spending time outdoors, thus providing significant mental and physical health benefits in a time in which the rates of those struggling with their mental health are at historic highs.

Their agroecological approach also provides a range of environmental benefits. They refrain from using agrochemicals and embrace a 'no-dig' approach, which involves cultivating the land with minimal soil disturbance. This helps protect and preserve good soil structure and soil biology, supporting greater biodiversity and soil moisture retention.

This focus on soil health, alongside the diversity of crops grown at Barley Wood, is key to building resilience against the changing climate.

Finian Bedwell, grower at Barley Wood Kitchen Garden said:

"It is going to get harder for large-scale farms to cope when an entire crop fails: we are not going to be able to rely on one field of just one crop. In that sense, diverse market gardens will help us mitigate the effects of climate change and disruptions within the supply chain."

However, the Barley Wood team have voiced their concerns about the sustainability of the operation without more government support. They highlight the challenge posed by the lack of financial support for farming enterprises smaller than 5 acres, which historically haven't qualified for assistance under the ELMs threshold. Furthermore, the inaccessibility of grants negatively impacts these small-scale farming enterprises. This lack of support inhibits investment in agricultural technology that directly impacts the productivity and efficiency of market gardens nationwide.

Mark Cox, founder of Barley Wood Kitchen Garden said:

"It seems like with many of the current grant systems for equipment, you need to pay upfront and then claim reimbursement. We simply don't have that extra money available to do so, and it impacts our productivity. Some sort of scheme where the government buys the equipment you need upfront, and you then pay it back at 0% APR would be very helpful to small-scale operations like ours."



Step three:

Decentralise production and scale up agroecological horticulture across the country

If we are to reduce the horticultural capacity of the Fens while maintaining, and indeed boosting our domestic production of fruit and vegetables, it will be crucial to support the development of horticulture elsewhere in the country. For some, the solution lies in commercial greenhouses and vertical farming, which promise high yields relative to growing space, and are unaffected by extreme weather conditions. But these farming methods are highly energy-intensive, with heating being essential to produce crops like peppers, cucumbers and aubergines out of season. The volatility of energy prices has forced many glasshouse growers to reduce production in recent years, as the cost of heating and lighting, alongside other inflationary pressures, has become increasingly unaffordable.³³ Unless farmers are supported in a widescale transition to renewable energy, these systems are unlikely to be a viable solution to national food security.

Often overlooked as an innovative solution is **agroecological horticulture**. This includes a broad spectrum of practices – from organic, to regenerative, no-dig, Community Supported Agriculture (CSA), and other

nature-friendly farming methods – and range from small-scale market gardens to medium and large-scale enterprises, as illustrated by our case studies. Although organic is the only one of these practices that is defined in law and independently verified, each share the common aims of restoring soil health, building resilience against climate change, supporting biodiversity, and producing nutritious food, while often providing additional benefits to local communities.

The multitude of benefits delivered by agroecological horticulture was illustrated by analysis from the New Economics Foundation, which found that every £1 spent on produce from Growing Communities – a community-led organisation in north-east London connecting urban communities with local, organic fruit and vegetables – generated a further £3.70 in social, economic and environmental value.³⁴ By helping to scale up initiatives such as Growing Communities, the UK government could have a transformational impact on the health and wellbeing of future generations, while securing fair and fulfilling jobs for growers.

The question, therefore, is **where can agroecological horticulture be scaled up in England?** When assessing soil types, topography, infrastructure and land availability, it becomes challenging to identify potential new hubs for fruit and vegetable production. A first step may be to boost opportunities for horticulture in urban and 'peri-urban' areas – areas located around the edge of a town or city. We explore the social, economic and environmental value of these production systems in more detail later in this report.



Another option could be to consider the regions which were historically important for the sector, but from which that production has declined in recent decades. A prime example of this is the Vale of Evesham, which was a major centre for horticultural production in the 19th and 20th centuries, before production sharply declined from the 1950s onwards due to a complex range of socio-economic factors.³⁵ With the right support, areas such as these could revive their horticultural heritage, and reclaim their role in supplying healthy and nutritious food.

Overall, it is worth remembering that the UK's current levels of fruit and vegetable production take up **less than 2% of our farmed landscape**.³⁶ Doubling the land used for horticulture could therefore have a huge impact on our fruit and vegetable production, while only marginally affecting overall land use. More work is needed to identify what kind of horticulture should be scaled up where, the results of which should be clearly reflected in the upcoming Land Use Framework.

Policy recommendations:

1. Harness the Land Use Framework to double the land used for fruit and vegetable production

The UK government has committed to producing a Land Use Framework for England, to help manage the competing demands on land use, and strike the best balance for people, food production, climate and nature. Integrating national and regional decision-making, this highly anticipated framework is expected to shape the future of land use in England – and, since almost 70% of the English landscape is farmland, this should have meaningful implications for agriculture. Given The Eatwell Guide's recommendation that **over a third of our diet should consist of fruit and vegetables**,³⁷ the Land Use Framework presents a unique opportunity to readjust the amount of land allocated to horticulture, simultaneously supporting public health and local producers.

2. Drive research to map out opportunities for future production

A target to double land used for fruit and vegetable production should be backed up by research to identify potential new areas for edible horticulture. This should identify the different categories of edible horticulture, before breaking down the key requirements for each one – from soil types to topography, infrastructure and access to land – and mapping out opportunities accordingly. Crucially, it should include a wide range of systems ranging from small-scale to large-scale, across urban, peri-urban and rural areas, and acknowledge agroecological production as a multifunctional, nature-friendly land use delivering a wide range of public goods.

3. Support a diverse and resilient workforce

Scaling up production will be impossible without a resilient and motivated workforce. We welcome the recent extension of the Seasonal Workers Scheme until 2029, which will help address labour shortages in the short-term*. However, for the long-term resilience of the sector, it is essential that new entrants are attracted to the industry, and that they have access to family-friendly working hours, relevant training, land and housing. Furthermore, with farming being the least diverse employment sector in the country, targeted efforts are needed to boost diversity in horticulture, and to address the barriers that have historically prevented certain demographics from accessing the sector.

**If the sector is to rely on migrant labour for a further five years, ongoing attention must be paid to how these workers are recruited, paid, and housed. See the Landworkers' Alliance's Debt, Migration, and Exploitation report for more detail.³⁸*



Image credit: Left: The Community Farm, Right: Jason Taylor





Riverford Organics

Founded by Guy Singh-Watson in 1986, Riverford is the UK's largest organic veg box scheme, delivering to over 70,000 homes each week. Alongside their original Devon farm, Riverford runs two regional sister sites and a farm in France, as well as working with around 75 suppliers across the country, many of whom have been involved with the business for decades.

The principles of organic farming are central to Riverford's ethos, and their broader vision of sustainable agriculture and environmental stewardship – everything they grow, make and sell is 100% organic. As such, they are supporting farmers to work in harmony with nature, protecting natural resources such as healthy soils, and avoiding pollution from chemical inputs.

Alongside this commitment to organic, Riverford is also taking ambitious steps to reduce their emissions and build resilience against the changing climate – from agroforestry and tree planting to swapping from diesel to electric vans, a transition which they aim to fully complete by 2025. They also never use air freight, and deliver all their fruit and vegetables loose or in compostable or paper packaging, where it is needed.



To support more farmers in taking steps to adapt and mitigate climate change, **Harriet Bell, the company's Regenerative Farming Lead**, called for more funding to be directed towards agroecological solutions:

'Agroecological farming practices are significantly under-researched', she argued, 'despite these being in the social interest, and in the interest of farmers. The UK government is trying to encourage tree planting on farms, for example, yet there's a real lack of research exploring the benefits this would bring to the sector – the nutrient value livestock get from different trees, or the interplay between certain tree species and horticultural crops. If more information was available on the benefits of these practices, more farmers might be willing to make that transition.'

Riverford is also a strong advocate for fairness in supply chains. Last year, they launched the #GetFairAboutFarming campaign, calling for all supermarkets to commit to fairer sourcing principles – from paying on time, to buying what they agreed to buy and paying what they agreed to pay. The campaign petition reached over 113,000 signatures, triggering a debate in Parliament and significantly raising the challenges of supply chain fairness on the public agenda.⁷⁴



Step four:

Improve supply chain fairness and flexibility

The UK's food supply chain has become highly concentrated, unfair, and inflexible, making it increasingly vulnerable to external shocks. With over 95% of our food sold through just 12 retailers, growers' options are severely limited when negotiating contracts and determining their produce's market. Their use of 'just in time' approaches puts huge pressure on growers. This power imbalance is pushing growers to the brink, with farmers often receiving less than 1p of the profit from their produce.³⁹ Recent research shows that 49% of growers fear going out of business in the next year, 75% of whom cite supermarket pressure as the main factor.⁴⁰

Growers cannot keep going if they are denied commitment and security and are not making a reasonable profit. The new government regulation – aimed at establishing clearer contractual frameworks within the sector – must protect all farmers from unfair treatment, and ensure a more equitable spread of the risks and rewards across the food supply chain.⁴¹ The UK government should also invest in building up more farmer-focused routes to markets, which are inherently fairer for farmers and bring more prosperity to the local economy.⁴²

Policy recommendations:

1. Reduce the level of fear which prevents growers from reporting unfair practices

Suppliers are hesitant to approach the Groceries Code Adjudicator (GCA) due to fear of repercussions and possible de-listing by retailers. The UK government should implement a system of randomised visits by the GCA to suppliers to proactively assess compliance with the Groceries Supply Code of Practice (GSCOP), thereby making it easier for suppliers to engage with the GCA, and helping to protect suppliers from direct retaliation.

2. Reform & expand the scope of the GCA and new supply chain regulations to cover regulatory gaps

Significant gaps in the food supply chain remain overlooked by current regulations.⁴³ The GCA's remit should be expanded and strengthened to include businesses with a turnover of over £500,000, with the GCA's golden rules legally incorporated into the GCA, and it should also adopt a more deterrence-based rather than compliance ('collaborative') orientated approach to enforcement, to reduce incentives for non-compliance. This could involve a greater use of its already existing fining and investigatory powers. It's also crucial that a formal mechanism be established for information sharing between the Agricultural Supply Chain Adjudicator, overseen by Defra, and the Groceries Code Adjudicator, overseen by the Department of Business and Trade.



Image credit: Left top & bottom: Stuart Everitt

Farmer-focused routes to market

Farmer-focused routes to market encompass various direct and retail sales channels that emphasise environmental sustainability, fair compensation for farmers, and worker welfare throughout the supply chain, including fair wages and good working conditions. The Better Food Traders (BFT) organisation, for example, accredits and supports enterprises using sustainable farming principles, fair trade practices with farmers, and customer transparency.⁷⁵ BFT-accredited enterprises include vegetable box schemes, food hubs, and independent retailers. Additional farmer-focused routes to market include direct sales options such as farmers' markets, farm shops, vegetable box schemes, and community-supported agriculture (CSA) programs. Overall, farmer-focused routes to market aim to provide farmers with greater control over pricing, improve their income stability, and foster a closer connection with their customers.⁷⁶



3. Build up more farmer-focused routes to market

Many farmers want access to locally-based infrastructure and to shift partly, or fully, into farmer-focused supply chains. In a recent survey, 56% of respondents said they want to supply into a different market, and a further 20% said they would consider this.⁴⁴ Government could help build up these kinds of routes to markets through investing in **food hubs** – which are enterprises that purchase food from local farmers and then

sort, package, sell, and distribute to local retailers, hospitality, or public services. This creates a connection between producer and consumer, and delivers nature, environmental, social, and economic benefits at a local and regional level.⁴⁵ We're calling for the UK government to pilot a £5 million Food Hub Fund to support the establishment of 15 new food hubs across England, helping more growers access farmer-focused routes to market.



Step Five: Harness the potential of public procurement

The UK public sector spends approximately £2.4 billion annually on food procurement and catering services.⁴⁶ This expenditure covers various institutions, including schools, hospitals, prisons, and government offices. As such, public procurement has the potential to transform the national food landscape – boosting demand for local, nature-friendly, sustainable produce, promoting biodiversity, contributing to climate targets and supporting healthy diets.

Government procurement rules should ensure that taxpayer money is spent on

healthy and sustainable food, including fruit, vegetables and pulses. Currently, however, compliance with the Government Buying Standards (GBS), which represent a series of sustainability standards for public procurement, is only around 50% across the sectors to which they are mandated⁴⁷ – meaning the potential for government buying power to shift supply and demand for local, sustainable produce is far from being fully realised.

The National Food Strategy called for a 30% increase in fruit and vegetable consumption

by 2032,⁴⁸ in line with The Eatwell Guide. With fruit and vegetable consumption in the UK having fallen to its lowest level in 50 years,⁴⁹ ensuring access to fresh, sustainable produce is more important than ever. Public settings, including schools, have a particularly crucial role to play, with figures suggesting that a third of children (5-10 years) are eating less than one portion of vegetables a day.⁵⁰

The situation is dramatically worse for families living in food insecurity, who are disproportionately affected by the cost-of-living crisis and widening health inequalities.⁵¹ With 2.6 billion meals served in the UK public sector each year – 1.9 billion in England alone – there is a significant opportunity to increase access to healthy, nutritious food and tackle diet-related poor health.⁵²

On the production side, public procurement is an opportunity to invest taxpayers' money in more sustainable food and local supply chains, supporting small and medium-sized enterprises (SMEs) and boosting local economies.

Policy recommendations:

1. Improved Government Buying Standards (GBS) should be mandated and enforced across the public sector

The GBS should become mandatory for all public sector entities, including schools, to drive innovation and maximise benefits for people and planet. This change is crucial as currently, GBS are only mandated to central government departments and the NHS, and 'recommended' for schools and local authorities.

The GBS should also be updated to drive healthy, planet-friendly diets, requiring that caterers source more UK-grown, seasonal, agroecological produce, including organic, supporting local supply chains wherever possible. The target proposed as part of the 2022 Government Buying Standards review,⁵³ for 50% of food spend to be on local and 'higher environmental standard' produce, would positively contribute to achieving

Image credit: Heart of BS13



this goal. Monitoring and enforcement should also be improved by requiring caterers to report publicly on compliance and social value, appointing independent inspection bodies, and establishing penalties for non-compliance.

2. Investing in dynamic procurement

Currently, a small number of larger suppliers dominates the market – many producers in the UK have struggled to enter the public sector market because of numerous barriers to entry, including the tendering and contracting approach, further highlighting the need for reforms to the system.

In addition to growing the market, investing in Dynamic Food Procurement, an open digital marketplace connecting food producers and buyers, has been shown to promote greater transparency and choice, removing many of the barriers to entry for suppliers.⁵⁴ A dynamic procurement pilot involving the provision of fresh school meals in Bath and North East Somerset generated savings of 6% on the previous contract and a saving of 6.01 tonnes of CO₂.⁵⁵

3. Align and improve School Food Standards and Government Buying Standards

School food makes up an estimated 45% of meals served in the UK public sector each year.⁵⁶ Integrating improved GBS with School Food Standards to support local, organic, and higher welfare food production would therefore have a significant impact on producers and diets, supporting the country's horticulture sector while increasing consumption of fresh, minimally processed foods. Schools provide an ideal environment in which to boost consumption and demand



4. Expand the School Fruit and Vegetable Scheme

Currently covering infant-age children, the School Fruit and Vegetable Scheme (SFVS) delivers 2.3 million pieces of fruit and vegetables to 16,600 schools across the country.⁵⁸ Evaluation indicates increased fruit consumption among younger children, with potential for continued benefits through longer and integrated interventions.⁵⁹ Expanding the School Fruit and Vegetable Scheme to include **all primary children** would provide valuable nutrition support and reduce inequalities in access to fresh produce among children. Furthermore, considering the low proportion of home-grown produce used in the scheme (less than 50%),⁶⁰ a new standard is needed to promote local, sustainable sourcing. The scheme should be revised to source more local and organic produce, boosting fruit and vegetable consumption and introducing children to a range of fresh, minimally processed foods from a young age.

for fruit and vegetables, benefiting children's immediate health and setting the positive eating habits of a lifetime. The School Food Standards should require two portions of vegetables or salad with all school meals, and more fruit for desserts. They should also encourage a 'whole school approach' to food, following the example of the Food for Life Schools Award.⁵⁷

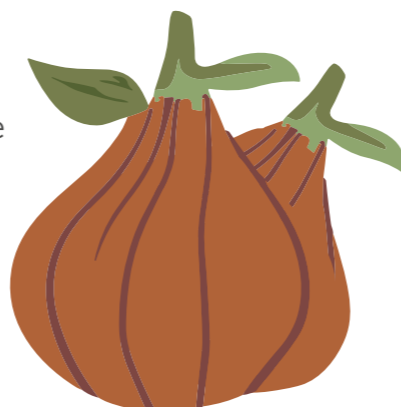
Schools and caterers currently face substantial pressure due to the aftermath of the COVID-19 pandemic and the ongoing cost-of-living crisis – it is crucial to ensure they have sufficient support and guidance in shifting to higher environmental and nutritional standards.

Step six:

Boost urban and peri-urban horticulture growing in non-profit, social and profit enterprises

Across the country, many of our towns, cities, and their surrounding areas are brought to life with diverse and resilient growing initiatives. These urban and peri-urban horticultural systems are often restricted to smaller spaces than their rural counterparts, but they are remarkably productive. In Aylsham (Norfolk), for example, **Eve's Hill Veg Co** covers less than half a hectare, yet in 2023 their turnover was £105,000. Alongside running various community-focused programmes and contract work, they supply fresh produce to eight shops and restaurants, and feed around 50 local families.^{61 62}

The diversity of enterprises encompassed by Eve's Hill Veg Co is a common feature of urban and peri-urban farming, particularly for those which are grounded in agroecological practices. As such, these spaces are renowned for delivering a significant range of public goods. Sustain's *Fringe Farming* report⁶³ identifies the following benefits of agroecological farming in and around urban settings:



- Increased access to local, nutritious, culturally-appropriate foods
- Generation of goods and services that support the local community
- Provision of jobs and training in a regional economy
- Access to green space and outdoor learning at the edge of built-up cities
- Recycling of green and food waste into growing practices
- Sequestration of carbon through farming approaches that work with natural cycles to create 'carbon-sinks' surrounding urban spaces
- Increased biodiversity
- Active building and protection of valuable fertile soils

Market gardens are a good example of peri-urban horticulture. These are typically small-scale farms selling a variety of fruit and vegetables directly to local consumers and/or restaurants throughout the year.⁶⁴ Historically, market gardening played a key role in supplying major cities with fresh fruit and vegetables – in London, for example, Deptford Park was primarily made up of market gardens until the late 19th century, reportedly famous for their celery, onions and asparagus.⁶⁵

Many of these sites have since disappeared from the urban and peri-urban landscape, but when considering the interlinked challenges of food security, public health, climate change and biodiversity loss, the need for such multi-functional spaces is clear. The Landworkers' Alliance and others have been calling for a '**market garden renaissance**' to help increase the resilience of our fresh produce supply while inspiring people to eat more vegetables, addressing pressing environmental challenges and creating fulfilling and skilled work opportunities.⁶⁶

While these systems could deliver significant volumes locally, they are not intended to

replace larger-scale production. That said, they play a critical role in complementing it – particularly considering the diversity of their outputs. But to maximise the full potential of urban and peri-urban nature-friendly horticulture, urgent support should be directed towards existing growing initiatives, and further efforts are needed to identify opportunities for recreating these models and prioritising their development across the country.

Policy recommendations:

1. Provide tailored support for small-scale farmers and growers

We welcome the removal of the 5-hectare rule in new financial support schemes, allowing any farming business to apply for Sustainable Farming Incentive and Countryside Stewardship from summer 2024. However, questions remain around how appropriate the existing payment system will be for farms below 5 hectares – payments per hectare would likely overlook the nutritional, community and environmental value of their outputs. Given the multitude of public goods delivered by small-scale horticulture, tailored support should be available to these farms, ensuring they are fairly rewarded, and have opportunities to grow. This could include low interest loans and development grants, for example, allowing agroecological growers to invest in expanding or diversifying their operation and building local markets for their produce, including through public procurement.

2. Ensure planning policy safeguards local food production

To safeguard the future of urban and peri-urban farming, the UK government should prioritise keeping appropriate land available for agroecological farming rather than for development – particularly when it comes to high grade soils, such as Grade 1 and 2. This would support local food production, as well as opportunities for new entrants in urban areas.



Case Study

G's

Founded by Guy Shropshire in 1952, G's is one of the UK's largest horticultural businesses. With farms across the country and further afield, the group supplies 70% of the UK market for celery and 60% for lettuce, alongside a variety of other staple products.

Of the 6 800 ha they cultivate for salad and vegetables in the UK, 7% of G's is organic, supplying to a range of national retailers as well as organic wholesalers such as Langridge Organic and Riverford. The rest of their land is farmed conventionally, although the group is increasingly shifting towards a regenerative approach – from increasing soil cover to reducing chemical inputs and restoring wildlife habitats.

This transition to more nature-friendly practices is driven by a range of factors: the Shropshire family's own interest in protecting and restoring the environment; a recognition of the increasing consumer demand for sustainably produced food; and an understanding of the tangible benefits that shift will bring to the farms' long-term

resilience and productivity. That focus on productivity is central to G's overall aim to integrate regenerative practices within an intensive horticultural business.

A similar emphasis is placed on the profitability of regenerative practices. As G's Future Farming Manager, Harry Winslet, explained:

'When adopting regenerative practices, we always ensure these are cost neutral. For example, the cost of sowing cover crops is offset by the savings from reduced cultivation and fertiliser use – and we're not losing any yields in that process.'

For G's, the key challenges for the sector moving forwards are around **skills** and **labour** – both in terms of attracting a new generation of growers and addressing the knowledge gap that exists for regenerative horticulture, which, they argued, is still missing from curriculum at most agricultural colleges. The lack of support in this area is a major barrier to the transition to regenerative practices across the sector.

Another urgent issue which the group is experiencing first hand is the future of farming on lowland peat. Although they have diversified to sites across the country and abroad, a central hub for G's production is their site in Ely, at the heart of the Cambridgeshire Fens. The region's dark, fertile soils have been integral to the productivity of horticultural businesses in the area, but the associated greenhouse gas emissions are a substantial barrier to meeting national climate targets.

G's remain optimistic that a transition to regenerative practices can minimise the degradation of peat soils, and are driving research in that area. But when considering the future of fruit and vegetable production in England more broadly, questions remain around how much production should be maintained on lowland peat, what the alternatives are, and how to minimise trade-offs between climate change, biodiversity loss, food security and local livelihoods.

Step seven:

Invest in farmer-led research, collaboration, and innovation

Restoring the resilience of our domestic fruit and vegetable supply to support healthier eating habits will require growers of all scales and diverse approaches to work together, each one playing to its own particular strengths. However, to ensure that our overall production of fruit and vegetables is aligned with the UK government's climate and nature targets, a sector-wide transition towards nature-friendly and agroecological farming will be vital – shifting away from the dependence on chemical inputs, and towards practices which work in harmony with nature, such as organic.

The efficiency of that transition will largely depend on the provision of independent advice – which is not tied to input sales – and the effectiveness of that advice. A growing body of research has highlighted the limitations of traditional advisory services, as the standardised solutions they offer are often unsuited to the specific context, conditions, and needs of each farm.⁶⁷ The issue of trust can also be a barrier to the implementation of farming advice.

Meanwhile, peer-to-peer knowledge exchange and farmer-led research models are increasingly recognised as powerful tools for agricultural innovation. These interactive approaches are more likely to inspire farmers and growers to try new practices, particularly when grounded within a supportive and inclusive network.⁶⁸

The **Innovative Farmers** network is a great example of the kind of innovation and research that is already being conducted by farmers and growers across the country.⁶⁹ Supporting and expanding these collaborative research models will be key to creating the transformative change we need to see across the sector.



Policy recommendations:

1. Drive a 10% increase in investment towards farmer-led research & innovation

Of the research funded by the public sector in 2021, which totalled at £12.8 billion, just 2% went to agriculture – compared to 21% for health and 13% for defence.⁷⁰ Given the central role farming plays in tackling the interlinked health, climate and nature crises, a major uplift in research funding should be redirected to agricultural research and innovation, with a particular focus on peer-to-peer knowledge exchange and farmer-led research models, allowing farmers and growers to collaborate to solve the challenges specific to their own context.

2. Improve the accessibility of Producer Organisations

The Producer Organisation (PO) model is another example of how growers can work collaboratively to strengthen their position in the marketplace, reduce their costs, and re-balance the buying power dynamic.^{71 72} When part of a PO, growers can access the EU-legacy Fruit & Vegetables Aid Scheme, unlocking funding for a range of actions aimed to improve productivity and collaboration.⁷³ We welcome the UK government's commitment to replace the Fruit & Vegetables Aid Scheme after it ends in 2025, and the more recent announcements made at the Farm to Fork summit which include doubling the budget and expanding accessibility to individual businesses. We hope this will help direct more funds to agroecological growers of varying scales, including urban and peri-urban initiatives. Similarly, increasing the accessibility of POs more broadly would create new opportunities for cooperation and knowledge-sharing across the sector, while enabling investment in environmental and productivity improvements.



Conclusion:

In conclusion, scaling up the country's fruit and vegetable production will be key to strengthening food security, public health, rural economies and the environment. Doing so will require increased support for growers of all scales, systems and backgrounds, to cultivate diversity and resilience across the entire sector. Similarly, all growers should be equipped with the knowledge, skills and tools to transition towards agroecological approaches, to ensure all our fruit and vegetables are produced in harmony with nature, and that the sector is reducing its reliance on expensive, fossil fuel-derived inputs.

Furthermore, efforts to boost production must be twinned with policies to increase consumption of home-grown produce – this is key to providing growers with the stability of a reliable market, and to maximising the public health benefits

of plentiful fresh produce. As such, a cohesive, cross-departmental approach to supporting domestic horticulture is vital, underpinned by an ambitious Horticulture Strategy for England that joins the dots between the production, trade and consumption of fruit and vegetables.

Finally, urgent action is needed to address the challenge of farming on lowland peat. Our current reliance on the area for vegetable production is a serious obstacle to the decarbonisation of horticulture, yet it also supports a primary part of the sector – along with centuries of skills, knowledge and traditions which cannot be overlooked. More research is needed to fully understand what a 'just transition' looks like on the Fens, and how to minimise the trade-offs between food production, environmental restoration, and local livelihoods.

Image credit: The Community Farm

References

1. Riverford 'Get Fair About Farming' campaign, available at: <https://getfairaboutfarming.co.uk/>
2. Defra (2023) [National statistics on agricultural land use in England](#).
3. EFRA Committee (2023) [Food Security: Seventh Report of Session 2022–23](#).
4. Lowland Agricultural Peat Task Force (2023) [Chair's report](#).
5. WWF (2023) [The Future of Vegetable Production on Lowland Peat for Climate, Nature and People](#).
6. National Food Strategy (2022) available at: <https://www.nationalfoodstrategy.org/>
7. The Food Foundation Peas Please project: <https://foodfoundation.org.uk/initiatives/peas-please>
8. The Grocer (2023) [Growers warn production plummeting due to economic challenges](#).
9. Defra (2022) [Horticulture statistics](#).
10. EFRA Committee (2023) [Food Security: Seventh Report of Session 2022–23](#).
11. The Guardian (2023) [Why are UK supermarkets facing fresh food shortages?](#)
12. World Integrated Trade Solution (2021) [United Kingdom Vegetable Imports by Country](#).
13. ECIU (2023) [Climate impacts on UK food imports](#).
14. The Food Foundation (2024) [Nourishing the Nation briefing](#).
15. DHSC (2023) [Guidance on Healthy eating: applying All Our Health](#).
16. The Fruit and Vegetable Alliance (2023) [Cultivating Success: Priorities for increasing sustainable production to meet growing demand](#).
17. Defra (2022) [Government food strategy](#).
18. Defra (2024) Press release: Government unveils major package of farming and food sector support.
19. House of Lords Horticulture Sector Committee (2023) [Sowing the seeds: A blooming English horticultural sector](#).
20. National Food Strategy (2022), available at: <https://www.nationalfoodstrategy.org/>
21. Sustain (2024) [One fifth of all London councils now have a healthy advertising policy; Newham passes restrictions](#).
22. Veg Power: [Eat Them to Defeat Them campaign](#).
23. IUCN Peatland Programme: [Peatland Damage](#).
24. UKCEH [lowland peatlands page](#).
25. UKCEH (2021) Policy briefing: [An Assessment of the Potential for Paludiculture in England and Wales](#).
26. Internal TWT calculations based on figures from Defra (2022) Agriculture in the United Kingdom statistics; ONS (2019) UK Natural Capital for Peatlands; Defra (2022) Agri-climate report.
27. State of Nature Report (2023) Available at: <https://stateofnature.org.uk/>
28. IUCN (2014) [IUCN UK Committee Peatland Programme Briefing Note No. 3](#).
29. ONS (2019) [UK natural capital: peatlands](#).



References

- 30 Shuttleworth, E.L. et al (2019) Restoration of blanket peat moorland delays stormflow from hillslopes and reduces peak discharge, Journal of Hydrology X, Volume 2.
- 31 Ramsar Convention on Wetlands: Wetlands reduce draught.
- 32 Internal TWT calculations based on figures from Defra (2022) Horticulture statistics; WWF (2023) Vegetable Production on Lowland Peat report.
- 33 The Guardian (2022) UK farmers warn soaring gas costs could cut food production.
- 34 NEF (2021) Farmer-focused routes to market: An evaluation of the social, environmental, and economic contributions of Growing Communities.
- 35 Ilbery, B. W (1985) Horticultural Decline in the Vale of Evesham, U.K., 1950–1980.
- 36 UK Parliament POST (2023) POSTnote 707: Future of Horticulture.
- 37 NHS: Guidance on eating a balanced diet. Available at: <https://www.nhs.uk/live-well/eat-well/how-to-eat-a-balanced-diet/eating-a-balanced-diet/>
- 38 LWA et al (2023) Debt, Migration, and Exploitation: The Seasonal Worker Visa and the Degradation of Working Conditions in UK Horticulture.
- 39 Sustain (2022) Unpicking food prices: Where does your food pound go, and why do farmers get so little?
- 40 Wicket Leeks (2023) Britain's fruit and veg growers 'may go out of business within a year'
- 41 Defra (2023) The UK fresh produce sector: review of the supply chain.
- 42 NEF (2021) Farmer-focused routes to market: An evaluation of the social, environmental, and economic contributions of Growing Communities.
- 43 Sustain (2024) Fairness in the Food Supply Chain: Analysis & Briefing.
- 44 Sustain (2021) Beyond the Farmgate: Unlocking the path to farmer-focused supply chains and climate-friendly, agroecological food systems.
- 45 NEF (2021) Farmer-focused routes to market: An evaluation of the social, environmental, and economic contributions of Growing Communities.
- 46 Defra (2014) A plan for public procurement: food and catering.
- 47 Sustain (2021) Green Paper: Transforming public procurement (response to public consultation).
- 48 National Food Strategy (2022), available at: <https://www.nationalfoodstrategy.org/>
- 49 The Food Foundation (2023) Cost of living crisis results in lowest vegetable purchases for 50 years.
- 50 The Food Foundation (2021) Veg Facts.
- 51 The Food Foundation (2024) Families stuck in food insecurity are buying less fruit and veg as UK's health divide widens.
- 52 Public Sector Catering (2023) The Future of Public Sector Catering 2023–2028.
- 53 Defra (2022) Public sector food and catering policy for England.
- 54 Sustainable Food Places (2022) Dynamic Food Procurement and role of food partnerships.
- 55 Dynamic Food Procurement National Advisory Board (2016) Case study for the provision of school food in Bath & North East Somerset.
- 56 Public Sector Catering (2023) The Future of Public Sector Catering 2023–2028.
- 57 Soil Association (2023) Learning to Eat: The role of schools in addressing ultra-processed diets.
- 58 NHS School Fruit and Veg Scheme fact file.
- 59 Leeds University (2007) The further evaluation of the school fruit and vegetable scheme.
- 60 Sustainable Food Trust (2020) Does the School Fruit and Veg Scheme need a re-think?
- 61 The Guardian (2023) 'Let's see what we can do': the market garden in a rewilding project.
- 62 Eves Hill Veg Co: <https://eveshillvegco.com/>
- 63 Sustain (2022) Fringe Farming: peri-urban agroecology towards resilient food economies and public goods.
- 64 Permaculture Association – Market Gardening page.
- 65 Lewisham Council – Public dedication Deptfork Park.
- 66 Landworkers' Alliance (2023) Horticulture Across Four Nations.
- 67 Ensor, J. & de Bruin, A. (2022) The role of learning in farmer-led innovation. Agricultural Systems, Vol 197.
- 68 Farm for Scotland's Future (2023) Sharing knowledge, sharing meals: a peer-to-peer learning approach to agroecology.
- 69 Innovative Farmers website. Available here: <https://www.innovativefarmers.org/>
- 70 House of Commons Library (2023) Research and Development spending.
- 71 Rural Payments Agency (2014) Introduction to producer organisations for growers.
- 72 Fruit and Vegetable Alliance (2023) Cultivating Success: Priorities for increasing sustainable production to meet growing demand.
- 73 Defra farming blog (2024) The current offer for horticultural growers and farmers.
- 74 Riverford's Get Fair About Farming campaign – available here: <https://getfairaboutfarming.co.uk>
- 75 Better Food Traders website – available here: <https://betterfoodtraders.org/>
- 76 Fruit and Vegetable Alliance (2023) Cultivating Success: Priorities for increasing sustainable production to meet growing demand.



Soil Association
Spear House
51 Victoria Street
Bristol
BS1 6AD
T: 0117 314 5000

www.soilassociation.org
Registered charity no. 206862

sustain

Sustain
The Green House
244-254 Cambridge Heath Road
London
E2 9DA
T: 020 3559 6777

www.sustainweb.org
Registered charity no. 1018643



The Wildlife Trusts
The Kiln
Mather Road
Newark
Nottinghamshire
NG24 1WT
T: 01636 677711

www.wildlifetrusts.org
Registered charity no. 207238