

A Realistic Route to Health and Harmony: Landworker’s Alliance and Growing Communities’ Proposals for a Strategy to Increase UK Fruit and Vegetable Production



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Executive Summary

The Landworkers' Alliance is a grass-roots union, representing the interests of nearly 1000 small scale, agroecological growers, farmers and woodland workers, about half of whom are involved in fruit, vegetable or cut flower production. Growing Communities is a community led initiative supplying 1000 households in Hackney with a weekly fruit and vegetable bag, the contents of which are sourced mainly from market gardens on the periphery of London and neighbouring counties in the South East. Growing Communities also run an organic farmers' market, urban market gardens and train new growers.

Multiple benefits would arise from increasing UK supply to meet more of our domestic demand for fruit and vegetables. We believe that "Health and Harmony" provides an opportunity to address this undersupply. Defra could help meet Government health targets to increase fruit and vegetable consumption, by investing in a "Horticulture Renewal Programme" to recruit and train a new generation of growers and boost UK production.

Local and small-scale horticulture operations, selling direct to the customer are able to supply much fresher and more flavoursome produce, while providing opportunities for communities to increase skills and fitness by becoming involved in production. Agroecological production methods, diversity of work and a convivial work environment are attracting a new generation of entrepreneurial, motivated and educated growers, yet lack of training and start-up opportunities, combined with limited capital to invest in infrastructure constrains the productivity of many new businesses. There is potential for a significant proportion of the current imports of fruit and vegetables to be replaced by domestic production and we believe that the UK economy and environment should be benefitting from the increased demand for organic produce. Supporting the development of a strong, organic horticulture sector would result in delivery of all the public goods listed in "Health and Harmony", as well as a reduction in food waste. Significant barriers, including access to affordable land and accommodation, lack of start-up capital and insufficient research and development into appropriate scale technologies currently inhibit the development of this sector.

This submission focusses on the multiple benefits that would arise from a Green Post-Brexit agricultural policy placing significant emphasis on the development of a strong organic horticultural sector to provide fresh fruit and vegetables to local households through short supply chains.

A Realistic Route to Health and Harmony: Landworker's Alliance and Growing Communities' Proposals for a for a Strategy to Increase UK Fruit and Vegetable Production

1) Introduction – The Landworkers' Alliance and Growing Communities' Horticulture Campaign

The Landworkers' Alliance (LWA) is a grass roots union of small scale, ecological and family farmers across the UK. We campaign for the rights of producers and lobby the UK Government for policies that support the infrastructure and economic climate central to our livelihoods, whilst offering training, farmer-to-farmer knowledge exchange opportunities and support networks to our members. Our membership numbers nearly 1000 growers, farmers, woodland workers and land-based crafts people and represents a younger than average demographic for UK farmers. This reflects the fact that many are new entrants and come from a non-farming background.

Over half of our members practice horticulture including vegetable, fruit and cut flower production, at varying scales. Often, horticulture is one enterprise on a mixed farm, either managed as part of the farm or on rented land. All our members use organic or agroecological methods of production, since one of our membership criteria is that they adhere to the principles of Food Sovereignty. These principles include working with nature, localising food systems and focussing on food for people. Our membership is therefore also characterised by direct marketing and short supply chains, through vegetable box schemes, farmers' markets, community supported agriculture and sales to restaurants or independent shops. While many of our members are located in rural areas, a large number are also practicing urban and peri-urban horticulture, with a strong community dimension. Such market gardens offer not only high value fresh salad and other crops, but training, education and therapeutic opportunities.

Landworkers' Alliance have teamed up with Growing Communities, a community-led organisation which provides healthy, affordable food to 1000 households in Hackney, North London (see text box on page 15) to campaign for a "Horticulture Renewal Programme". Such a programme would support recruitment, training and start-up provision for new and expanding growers, as well as the development of localised short supply chains. This submission for the "Health and Harmony" consultation therefore focusses on the horticultural dimension of the Landworkers' Alliance's work, and the way we envisage that our members could play a much more significant role in the production of UK fruit and vegetables if given better, more targeted support from Defra. We can clearly show that existing examples of successful horticultural enterprises and distribution models from within our membership point to the potential for a dramatic increase in production, were some of the barriers we face, removed.

Our document "A New Deal for Horticulture: Ideas for a horticulture renewal programme and illustrative case studies" sets out the vision for how small and organic market gardens could contribute to meeting the UK demand for fruit and vegetables.

<https://drive.google.com/drive/folders/1LGB-dFBroQtYhIa91n-3Ircsh0kr17b>

It is accompanied by six case study sheets showing the types of training, start-up schemes, enterprises and distribution models that are already in operation, and could be scaled up were greater support available.

<https://drive.google.com/drive/folders/1LGB-dFBroQtYhIa91n-3Ircsh0kr17b>

This submission pre-supposes that the current agricultural budget of at least £3 billion will be secured beyond the transition period ending in 2022, and that the “Public money for public goods” message that underlies Defra’s post-Brexit agricultural policy thinking includes prioritisation of health outcomes, alongside the emphasis on environmental goods. It seemed clear from The Right Honourable Michael Gove’s speech at the first Defra Consultation, on 10th April, co-hosted with Sustain, that the links between food production and health, good quality food and connection with the natural world, are understood as principles that should underpin Post-Brexit Agricultural Policy. Small and medium scale organic and agroecological growers are well placed to provide ultra-fresh, healthy food, and to connect the public with how their food is produced within a diverse and natural environment. The main body of this submission (sections 2-8) addresses how such benefits are delivered, in a way that meets key objectives of the “Health and Harmony” consultation paper. In section 9 we address the barriers faced by many of our horticultural members, which prevent them from fulfilling their potential.

2) Health and Harmony

“Market dynamics are externalising costs onto health and society. This is policy failure”¹

Despite being entitled, “Health and Harmony”, very little mention is made of the connection between agriculture and health in Defra’s Future Farming consultation paper. Nevertheless, we welcome the opportunity to highlight the importance of good farming practice and better food distribution models in improving both physical and mental health. If given adequate support, horticulture could play an important role in reducing ill health, increasing social wellbeing and cutting NHS spending by increasing fruit and vegetable consumption, shortening supply chains and increasing consumer involvement with food production². We would strongly encourage Defra to consider affordable, healthy and fresh food as a public good and support its production through funding schemes to encourage the development of a strong horticulture sector. It is high time that agriculture policy addressed the market failures which are causing a national health crisis.

Eating more vegetables saves lives and could reduce NHS spending

Of the 33,000 deaths per annum which could be avoided if UK dietary recommendations were met, over 15,000 of these would be due to increased consumption of fruit and vegetables^{3 4}. The life-saving benefits of fruit and veg come largely from preventing diet-related chronic diseases like heart disease and diabetes. Preventing diet-related diseases would also ease the financial burden in the NHS: obesity alone costs the NHS in England more than £6bn per year, and this is expected to reach £10bn by 2050. Diabetes adds on an additional £14bn in costs per year to the NHS. On average, our fruit and veg consumption needs to increase by 64% to be in line with the Government’s dietary guidelines - which amounts to seven helpings of fruit and vegetables per day⁵. At present only 1% of the UK agricultural budget is spend on horticulture, which does not sit well with the Public Health England guidance that 40% of our diet should be made up of fruit and vegetables. If the UK population were to eat “seven a day”, UK growers would need to produce at least 2.4 million tonnes more of fruit and vegetables. It is therefore essential that a much larger

¹ Schoen V. and Lang T. (2016) Horticulture in the UK: Potential for meeting dietary guideline. Food Research Collaboration Policy Brief

² Food Foundation (2016. Veg Facts: A briefing by the Food Foundation. London: The Food Foundation.

³ Scarborough P, Nnoaham KE, Clarke D, Capewell S, Rayner M. Modelling the impact of a healthy diet on cardiovascular disease and cancer mortality. *J Epidemiol Community Health* 2012 May;66(5):420-426.

⁴ Scarborough P, Harrington RA, Mizdrak A, Zhou LM, Doherty A. The Preventable Risk Integrated Model and Its Use to Estimate the Health Impact of Public Health Policy Scenarios. *Scientifica (Cairo)* 2014;2014:748750.

⁵ Scarborough, P., Kaur, A., Cobiac, L., Owens, P., Parlesak, A., Sweeney, K., Nutrition, S. A. C. on. (2016). Eatwell Guide: modelling the dietary and cost implications of incorporating new sugar and fibre guidelines. *BMJ Open*, 6(12), e013182. <https://doi.org/10.1136/bmjopen-2016-013182>

proportion of the Defra budget is dedicated towards horticultural production. The paragraphs below outline why we believe that there are compelling reasons to particularly support small and medium scale, organic and agroecological horticulture with a strong local or community focus.

Food is fresh and less is wasted

Small scale farmers tend to sell their produce direct to the customer, rather than via long food chains, meaning that it is almost always fresher when it reaches the customer⁶. When produce is distributed via box schemes, farm shops or farmers' markets it is often harvested within twenty-four hours of delivery. Due to being extremely fresh, the vegetables are more nutritious and have better flavour than those which are harvested many days before arriving at the supermarket⁷. Such freshness and flavour make them more appetising, increasing the likelihood that they will actually be eaten. Also, they are more likely to be used and not wasted when the customer knows the farm where they were grown and understands the work that has gone into production. Produce is usually picked to order and quantities grown are more accurately targeted to specific markets, also resulting in less waste.

Growing Communities have calculated that from the quantity of vegetables supplied weekly to 1000 households in Hackney via their fruit and veg bag scheme, their customers are getting 2.5 daily portions of their "Five-a-day". This represents a 56% increase on the average vegetable intake of 1.6 portions (128g each) per day of adults aged over 16 years old⁸. Growing Communities estimate that their customers are likely to buy or consume additional portions each day, such as tinned vegetables or portions eaten from catering outlets, so 2.5 portions are a conservative estimate of the total fruit and vegetables their customers consume. Many CSAs and box schemes support the case that buying through short supply chains increases fruit and vegetable consumption.

Nutritional quality of organic produce

Food produced using organic production methods is more likely to contain higher levels of antioxidants⁹ and less likely to contain known heavy metals, carcinogens, pesticides and other harmful chemicals¹⁰.

Secondary health and social benefits

A study of agroecological market gardening in the UK noted that community involvement in growing brings additional mental and physical health benefits, alongside increasing the affordability of fresh produce to low income groups¹¹. Many small-scale, organic market gardens have a social dimension alongside their commercial production objectives. Increased opportunity to eat fresh, local, organic produce and engage with production brings significant physical and mental health benefits^{12 13}, due not only to dietary improvements but also increased physical fitness and mental

⁶ Griggs, J (2012) 'Market Garden Britain 2030.' Climate Friendly Food http://www.emptycagesdesign.org/wp-content/uploads/2017/03/Griggs_-_Market-Garden-Britain-2030-Report-2.pdf

⁷ Barrett, D.M. (2007) 'Maximizing the nutritional value of fruits and vegetables.' *Food Technology* 61(4):40-44.

https://www.researchgate.net/publication/237579127_Maximizing_the_Nutritional_Value_of_Fruits_Vegetables

⁸ Food Foundation (2016). Veg Facts: A briefing by the food foundation. Peas Please November 2016.

⁹ Leifert, C. et al. (2014) 'Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: a systematic literature review and meta-analyses.' *British Journal of Nutrition*, Vol 112, Issue 5, p794-811.

<https://www.cambridge.org/core/search?filters%5BauthorTerms%5D=Carlo%20Leifert&eventCode=SE-AU>

¹⁰ Reganold, J.P., & Wachter, J.M., (2016). 'Organic agriculture in the twenty-first century.' *Nature Plants* 2. <https://www.nature.com/articles/nplants2015221>

¹¹ Griggs, J (2012) 'Market Garden Britain 2030.' Climate Friendly Food, p54 http://www.emptycagesdesign.org/wp-content/uploads/2017/03/Griggs_-_Market-Garden-Britain-2030-Report-2.pdf

¹² PHE 2017. Spatial Planning for Health: An evidence resource for planning and designing healthier places.

wellbeing. For example, community supported agriculture (CSA) and urban growing projects tend to involve either their members or local volunteers in production and harvest of vegetables, enabling them to develop new skills and benefit from exercise and improved fitness. For people who have not previously been involved in food production, such opportunities expose them to new vegetables and tend to result in increased consumption of vegetables, while the social nature of CSA and urban growing reduces isolation and can improve mental health. 70% of CSA members say that their overall quality of life has improved through membership, with many reporting an improvement in their health¹⁴.

3) An Attractive Profession

“We want to attract more of our graduates and domestic workforce into this vibrant industry” p10 H&H¹⁵

Large scale UK horticultural producers report difficulties in recruiting UK workers willing to work long, unsociable hours and for low pay¹⁶. Many are already facing labour shortages, as overseas workers face uncertainties about their immigration status post Brexit¹⁷. In contrast to this uncertainty, small scale organic horticulture attracts employees and entrepreneurs, motivated by the meaningful, varied and skilled nature of the work¹⁸. Organic and agroecological market gardens selling direct to the public tend to grow a more diverse range of products, creating a steadier work stream throughout the year, in contrast to the highly seasonal nature of more specialised horticultural businesses. Such diversity also generates more interesting and mentally stimulating work, as growers and their employees need to be inventive in order to produce commercially viable goods and develop strategies to sell these goods at a sufficient price¹⁹. The work environment also tends to be more pleasant and convivial, both environmentally and socially. Employees report that they appreciate feeling part of a team, and satisfaction in seeing the whole process from seed sowing to harvest. As a result, SME organic enterprises are attracting educated and highly motivated individuals, many of whom come into growing as a second career. Such people bring new skills and ideas into horticulture and are often innovative and technologically adept.

Yet, new entrants face many barriers in starting a professional career in horticulture. Many new entrants lack experience. For example, the Landseekers survey, run for two and a half years by Bristol Food Producers’ has had 64 responses altogether. Of the 42 people who answered the question about how much experience they have as a grower, 27.5% of respondents have little or none (volunteering or WWOOFing), and a further 30% have less than 2 years-experience. 45% of people wanted to develop their growing/production skills, with 32.8% specifying organic/agroecological skills (Pers. Comm.).

London: Public Health England.

¹³ Quayle, H. (2007). The true value of community farms and gardens: Social, environmental, health and economic. Federation of City Farms and Community Gardens. www.farmgarden.org.uk

¹⁴ Federation of City Farms and Community Gardens (20??). The economic benefits of community supported agriculture. Briefing Paper.

¹⁵ Defra (2018) Healthy and Harmony: The Future for Food Farming and the Environment in a Green Brexit. All italicised quotes marked H&H are from this document.

¹⁶ National Farmers’Union (2017). End of Season Horticulture Survey.

¹⁷ Growing Communities (2018) Written Evidence to EFRA Committee, Inquiry on Labour Constraints, Submitted 26 February 2018 www.growingcommunities.org

¹⁸ Laughton, R (2017) A Matter of Scale: A study of the productivity, financial viability and multifunctional benefits of small scale farms. LWA and Coventry University

¹⁹ Timmermann, C. and Felix, G. F. (2015) ‘Agroecology as a vehicle for contributive justice’, *Agriculture and Human Values*, 32. <http://in.bgu.ac.il/en/loeb/Site%20Assets/Pages/Seminars-2013-2014/18.06.14%20Timmermann.pdf>

Appropriate training opportunities are few and often over-subscribed, while the availability of affordable and secure land on which to start a business post training is an increasing challenge. A recent survey of organic and agroecological training opportunities in horticulture showed the majority of courses are oversubscribed with 2-3 times more people applying than there are places, while traineeships have between seven and fifteen people applying for every place. Over eleven years the Soil Association has received 1000 enquiries about its “Future Growers” apprenticeship scheme and has trained 100 growers. There is clearly a demand for both formal courses and practical apprenticeships and traineeships, but the cost of running such training limits its scope as it must either be borne entirely by the trainees themselves, the host growers or by NGO organisations such as the Soil Association or Biodynamic Association.

Following training, there is lack of a supported career progression, to ensure that “probationary growers” are supported to become successful producers and business people. The traditional route into farming – County Council Farms – has been eroded in the last fifteen years as cash-strapped councils have sold their estates. Many council farms are too large for horticultural businesses and would be more appealing if divided into units of two to ten acres with associated accommodation. The cost of land to buy is often prohibitively expensive and lacks infrastructure including a house, farm buildings, polytunnels and appropriate fencing, further adding to start-up costs. The problem of affordable land is being addressed by organisations such as the Ecological Land Co-operative (www.ecologicalland.coop), Kindling Trust (<https://kindling.org.uk/farmstart>) and Tamar Grow Local (<http://www.tamargrowlocal.org/Farm%20Start>), but due to limited resources and the high cost of land they are only able to provide a few opportunities. A recent survey of 277 aspiring small farmers by the Ecological Land Co-operative showed a predominant interest in horticultural crops including herbs²⁰. Legislation or funding to support community focused, entrepreneurial organisations such as these would have a hugely positive impact.

With knowledge of the inadequate training, lack of affordable start-up opportunities and economic challenges faced by both large and small scale horticultural businesses, due to the aggressive pricing of fruit and vegetables by supermarkets, it is difficult to stand in front of a class of school children and recommend horticulture as a good career option. However, it is also one of the most important, rewarding, interesting and enjoyable livelihoods available. With a Defra led, comprehensive programme of training and apprenticeships, farm start options (including rental from larger mixed farms, an infrastructure grant scheme such as those offered in Scotland as part of their Rural Development programme) and support for the development of short supply chains, the UK could once again have a thriving horticulture sector. If we could replace even 1% of the £7.8 billion worth of fruit and vegetables currently imported with local produce, that would bring £78 million into local economies and enable 780 businesses with a turnover of £100,000 to become established.

4) Self-Reliance

“Agricultural support should focus on encouraging industry to invest, raise standards and improve self-reliance” p15 H&H

The LWA welcomes the statement that agricultural support should focus on the combination of improving self-reliance, raising standards and rewarding farmers and land managers to deliver environmental goods that benefit all (p15 H&H). It is essential that the delivery of environmental goods in the UK is not at the expense of communities and habitats in other parts of the world. This could happen if UK food production were displaced by schemes which favour biodiversity, soil carbon sequestration and flood alleviation over food production. We believe that organic and agroecological techniques make it possible to produce sufficient quantities of food for the UK

²⁰ Ecological Land Co-operative (2016). Survey of potential smallholders

population whilst managing traditional agricultural environments to the highest possible standards²¹

The UK is especially reliant on imports of fruit and vegetables, even to meet existing needs, let alone if everybody in the country ate the “7 a day” recommended by Public Health England²³. At present the UK produces only 14% of the fruit, 55% of the fresh vegetables and 77% of the potatoes we consume²⁴. The wider cost of the imports with which we make up the shortfall exceeds the trade deficit of £7.8billion for fresh produce, since many imports come from countries which are drought prone, such as Spain or Israel, or where soil degradation and environmental pollution are much greater risks²⁵. Furthermore, imported vegetables and fruit impose high energy and emission costs in terms of transport, refrigeration, and packaging, while they cannot be as fresh as produce grown locally and harvested the day before delivery.

Import substitution of some of the £7.8billion²⁶ worth of fruit and vegetables we currently import would increase UK self-reliance on fresh produce and guard against potential price rises of imported produce, as well as reducing the environmental costs of import reliance. Even without attempting to substitute imports, we would need a further 2.4 million tonnes of fruit and vegetables for the entire UK population to meet the Eatwell Guidance²⁷. The Landworkers’ Alliance is working with the Food Foundations’ Peas Please initiative, and with a number of other organisations representing small scale and organic growers, to calculate how much of the current short fall in UK fresh produce small scale growers could produce. We also intend to work with organisations representing larger scale growers to develop a strategy for meeting the UK demand. In Scotland, the Fruit, Vegetable and Potato Industry Leadership Group are proactively working with growers to develop a strategy to double fruit and vegetable production by 2030. We hope it will be possible to develop a similar initiative for England over the coming months.

UK fruit production is especially low compared to consumption, with only 17% of total supply produced domestically. This reflects a decline in UK fruit growing area from 44,703ha in 1985 to 29,664ha in 2106, although recent years have shown a slight increase in cider apple and soft fruit production²⁸. Culinary apples, pears and plums, have all shown a decline in cropping area, despite being popular options for people choosing their “Five a Day”. There is massive growth potential for domestic production of both top and soft fruit, and the diversity of agroecological systems lends itself to resilience against pests and diseases. Investment in research and development in organic and agroecological fruit production, coupled with training and support for the planting and maintenance of commercial orchards would reinvigorate this sector and lead to greater self-reliance in the fruits that it is possible to produce in Britain.

Our members, who are agroecological and organic growers, tend to operate low input, “closed loop” systems, with a focus on recycling, so are more self-reliant in fertility, seed and packaging than their conventional counterparts. This means they are more resilient to price rises in external inputs, as well as using natural resources more efficiently.

²¹ Fairlie, S. (2007/8) Can Britain Feed Itself? The Land Magazine, Issue 4, p18-26

²² Allen, P. Blake L., Harper P. and Hooker-Stroud A (2013) Zero Carbon Britain: Rethinking the Future. Centre for Alternative Technology. www.zerocarbonbritain.org p81-94

²³ Food Foundation (2017) Farming for Five a Day. <https://foodfoundation.org.uk/wp-content/uploads/2017/11/Farming-for-five-a-day-final.pdf>

²⁴ Defra (2016) Agriculture in the United Kingdom Data Sets. Available at <https://www.gov.uk/government/statistical-data-sets/agriculture-in-the-united-kingdom>, accessed April 27, 2017.

²⁵ Fitzpatrick, I. and Young, R. (2017). The Hidden Cost of UK Food, p41.

²⁶ Schoen V. and Lang T. (2016) Horticulture in the UK: Potential for meeting dietary guideline. Food Research Collaboration Policy Brief

²⁷ Food Foundation 2017. Farming for 5 a day. <http://foodfoundation.org.uk/wp-content/uploads/2017/11/Farming-for-five-a-day-final.pdf>

²⁸ DEFRA. Horticulture Statistics 2016 Dataset. 2017

Demand for organic food in the UK is growing fast, with sales of produce up 6% resulting in the largest market ever for organic food and drink²⁹. Fresh produce accounts for 24% of all organic food and drink sales and grew by 6.5% in the past year. The UK is reliant on imports to fulfil this demand, especially for fruit. This means that countries other than the UK are benefitting from the environmental benefits brought about from this increased demand for organic food. It is clearly not possible for all fresh produce to be grown in the UK, and the LWA supports limited trade with other countries where growers, farmers and workers are paid a fair price and high environmental standards are maintained. However, a principle of subsidiarity should be adopted, with priority given to local and national production of fresh, seasonal produce, with only fruits that cannot be produced here being imported. This creates a growth opportunity for organic producers, and we support Organic Farmers and Growers' call for an increase in the area of organic land to 10%³⁰. With the world market for organic produce growing rapidly, it is essential that the UK positions itself to meet demand and benefit from the public goods which drive consumers to buy organic food.

A further benefit of increasing local self-reliance in fresh produce is that it keeps more money circulating within the local economy³¹. The Campaign to Protect Rural England (CPRE 2012) conducted a five-year study of the "local food webs" made up by local, small-scale farmers and producers, in 19 towns across England. They found that money spent in local food networks circulated for longer in the local economy than if spent in supermarkets such that an estimated national spend of £2.7 billion per year in local food webs in effect contributed £6.75 billion of value to local economies. They also found that "pound for pound, spending in smaller independent local food outlets supports three times the number of jobs than at national grocery chains"³².

5) Delivery of Public Goods

"We will support the industry to adapt to a new world: one which will yield greater economic benefits and improved environmental, biodiversity and animal health outcomes" p15 H&H

UK agriculture faces numerous changes and challenges during the coming decades, both physical (such as climate change and soil degradation), economic (leaving the European Union, with the risks this poses for the availability of farm labour and potential food price rises), and cultural (as the public understanding of agriculture diminishes due to the small proportion of the population involved in farming). One of the defining features of organic and agroecological farming is that they focus on delivering positive externalities, such as soil care, enhanced biodiversity and carbon sequestration as an integral part of their production methods. For each of the public goods listed in "Health and Harmony" (p32) it is possible to quote research supporting the assertion that organic market gardening can deliver. However, a visit to any such market garden is an even more powerful demonstration of the multifunctional benefits they provide. Each of the public goods listed below is essential in its own right, and we should not be asked to rank them as is requested in the Future Farming consultation. It is possible to achieve all of them, when agroecology and organic farming practices are adopted, while also producing sufficient food to feed the UK³³

Improved soil health – Soil health is the foundation of organic farming. Practices common with small-scale growers include zero or minimum tillage, use of permanent beds, mulches or shallow

²⁹ Soil Association (2018) Organic Market Report.

³⁰ Organic Farmers' and Growers (2017). Organic policy in the UK: Post Brexit Options. OF&G Discussion Paper. June 2017, Version 1 www.ofgorganic.org

³¹ Ward, B. and Lewis, J. (2002) Plugging the Leaks: Making the most of every pound that enters your local economy. New Economics Foundation.

³² CPRE (2012) 'From field to fork: The value of England's local food webs', p38
<http://www.cpre.org.uk/resources/farming-and-food/local-foods/item/2897-from-field-to-fork>

³³ Fairlie, S (2007). Can Britain Feed Itself. The Land Magazine, 2007-07, Issue 4.

cultivations with machinery, and have multiple beneficial impacts in the soil including a reduction in soil erosion, soil compaction, damage to earthworms and germination of weed seeds³⁴. A study comparing a series of low-input organic crops to intensive production found that soil aggregate stability was up to 60% higher in the low intensity environments³⁵. The combination of livestock with arable and horticultural crops on mixed farms has further benefits for soil, compared to pure arable farms, adding animal manure to enhance soil health, fertility and carbon sequestration³⁶. Such a finding supports the idea of farm diversification by renting out land for horticulture enterprises, as illustrated in our “Horticulture Renewal Programme” case studies. A scheme to supporting capital start-up costs, such as rabbit fencing, polytunnels and legal agreements could encourage such diversification. Furthermore, agroecological practices can reduce flood risk by improving soil capacity for water absorption and retention, lowering run-off, and making use of soil cover that reduces evaporation.

Improved water quality – The combined cost of nitrate and pesticide removal, eutrophication, sedimentation of rivers and damage to river ecosystem and habitats amounts to over £200 million per year³⁷. Pesticide use is prohibited in organic farming, and by avoiding the use of nitrate and phosphate fertiliser and careful use of cover crops to stop soil erosion, organic growers minimise eutrophication and sedimentation of water courses. Small amounts of nitrate leaching may occur from the application of manure or when green manures are turned in, but the magnitude of pollution is smaller and every effort is made to minimise impact.

Better air quality – “Agricultural emissions to the air have three separate impacts. Methane, nitrous oxide, carbon dioxide (and the CFC replacement refrigerants) add to greenhouse gases in the stratosphere and contribute to global warming. Ammonia, volatile organic compounds and particulate matter, partly arising from the application of nitrogen fertilisers to farmland, contribute to pollution of the troposphere – the air we breathe. Nitrous oxide is currently also the major cause of ongoing ozone depletion in the stratosphere”. Through avoiding the use of nitrate fertilisers, organic horticulturalists reduce nitrous oxide emissions. The short supply chains which characterise the marketing strategies of many small-scale agroecological farms bring further reductions of CO2 equivalents and CFCs, through reduction of transport and refrigeration³⁸.

Increased biodiversity – Organic and agroecological market gardens increase biodiversity in a number of ways, ranging from allowing areas for pure nature conservation, growing a wider range of crops than many industrial scale horticultural businesses and avoiding the use of pesticides and herbicides which allow for greater “in crop” diversity. Loblely et al (2000) measured the distribution of conservation capital (defined as the area of deciduous woodland, semi-natural vegetation and extensive grass) by landscape type and farm size. They found that very small farms are of high conservation value and that small farms are responsible for a significant proportion of conservation capital, and their loss could expose land of conservation value to potentially environmentally damaging structural change³⁹. In a study of 59 small-scale, agroecological growers 86% of respondents were producing between 11 and 40 different types of vegetable, with most producing

³⁴ Hall & Tolhurst (2006) *Growing Green: Organic Techniques for a Sustainable Future*. Vegan Organic Network, and Dowding, C. (2007) *Organic Gardening: The Natural No-dig Way*. Green Books.

³⁵ Maeder, P. et al. (2002) Soil Fertility and Biodiversity in Organic Farming, *Science* **296**, 1694–1697.

³⁶ IPES-Food (2016) ‘From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agroecological systems’, International Panel of Experts on Sustainable Food systems. p36 http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

³⁷ Fitzpatrick, I and Young, R (2017). The hidden cost of UK food. Sustainable Food Trust.

³⁸ Griggs, J (2012) ‘Market Garden Britain 2030.’ Climate Friendly Food, p54 http://www.emptycagesdesign.org/wp-content/uploads/2017/03/Griggs_-_Market-Garden-Britain-2030-Report-2.pdf

³⁹ Loblely, M. (2000) Small-scale family farming and the stock of conservation capital in the British countryside, *Farm Management*, 10 (10), 589-605. <https://www.cabdirect.org/cabdirect/abstract/20001813617>

around 30⁴⁰. Within crop types, many different varieties are typically grown, to meet consumer demand for flavour and interest, while a number of practices common among small scale, agroecological market gardeners enhance functional biodiversity, leading to healthy ecosystems which keep pests at manageable levels⁴¹. Wider research has shown that practices such as conservation of wild biodiversity, polycropping, crop rotation and a general movement away from monoculture have a positive impact both on wild biodiversity and the incidence of pest and diseases within crops⁴². As a result, agroecological using organic principles farms can have approximately 30% higher species richness and 50% higher abundance of organisms than conventional farms⁴³. Ecological studies suggest that greater ecosystem diversity is associated with greater stability, resilience and net productivity⁴⁴. A meta-analysis of 94 studies comparing organic with conventional at varying intensities found that the effect of organic farming on species richness was increased in intensively farmed regions⁴⁵. Since much non-organic horticulture production is highly intensive, such a finding supports anecdotal evidence that the biodiversity benefits of organic and agroecological market gardening are significant.

Climate change mitigation - The Zero Carbon Britain report show how changes in land use and reduced meat diet, that are compatible with small-scale agroecological farming, could bring about a 73% reduction in CO₂ e emissions. A reduction in the total amount of food consumed by UK citizens from 1.1tonnes per year to 0.9tonnes per year, with emphasis in reducing meat and dairy consumption and replacing them with grains and vegetables would also result in a reduction in food imports from 42% to only 17%, and a reduction in land used for agriculture from 78% to about a third, freeing up land that can be used to capture carbon⁴⁶ A concerted effort to support the UK population to eat 7 seven portions of vegetables per day, supplied by organic market gardens selling via short supply chains, alongside a 50% reduction in animal product consumption could result in a 30-67% reduction in CO₂ e⁴⁷. In addition, by not using nitrogen fertilizer, organic horticulture reduces the emissions of nitrous oxide, a persistent greenhouse gas, with a global warming potential of almost 300 times that of carbon dioxide.

Enhanced beauty, heritage and engagement with natural environment – While the aesthetic of market gardening does not necessarily fit with classic British vision of a beautiful landscape, when considered globally, small scale, diverse market gardens have considerable aesthetic advantages over other horticultural landscapes. Much of our fresh produce currently is imported from Spain,

⁴⁰ Laughton, R. (2017) ‘A Matter of Scale: A study of the productivity, financial viability and multifunctional benefits of small farms (20 ha and less). Landworkers’ Alliance and Centre for Agroecology, Coventry University. <https://drive.google.com/file/d/0B5dw4mKBC3yEdzRIOHhNbkFwUFgIMWNycHNpZW5JaDBnWVNr/view>

⁴¹ Griggs, J (2012) ‘Market Garden Britain 2030.’ Climate Friendly Food, p54
http://www.emptycagesdesign.org/wp-content/uploads/2017/03/Griggs_-_Market-Garden-Britain-2030-Report-2.pdf

⁴² IPES-Food (2016) ‘From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agroecological systems’, International Panel of Experts on Sustainable Food systems. p35-36 http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

⁴³ Bengtsson, J. et al (2005) ‘The effects of organic agriculture on biodiversity and abundance: a meta-analysis’. *Journal of Applied Ecology*. 42, 261–269. <https://besjournals.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-2664.2005.01005.x>

⁴⁴ Yachi, S. and Loreau, M. (1999). ‘Biodiversity and ecosystem productivity in a fluctuating environment’ *Proceedings of the National Academy of Sciences of the United States of America*, 96, 4: 1463-1468
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC15485/>

⁴⁵ Tuck et al (2014) “Land-use intensity and the effects of organic farming on biodiversity: a hierarchical meta-analysis” *Journal of Applied Ecology*, Vol. 51, Issue 3 <https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1111/1365-2664.12219>

⁴⁶ Allen et al. (2013) *Zero Carbon Britain: Rethinking the Future*, Centre for Alternative Technology.
<http://www.zerocarbonbritain.org/en/component/k2/item/85>

⁴⁷ Griggs, J (2012) ‘Market Garden Britain 2030.’ Climate Friendly Food, p46-47
http://www.emptycagesdesign.org/wp-content/uploads/2017/03/Griggs_-_Market-Garden-Britain-2030-Report-2.pdf

Holland, Israel and Kenya, where many hectares of land are covered with glass or plastic and soil and water resources are acutely challenged. In contrast, small scale, diverse market gardens can be assimilated into UK landscapes by careful planting of hedgerows and shelterbelts to screen polytunnels and crop covers. While polytunnels or glasshouses are used, they rarely utilise more than a fraction of the total land area. Emphasis is usually on crop diversity, rather than monoculture, so organic market gardens provide a varied cropping environment, comprising between 20 and over 100 lines of produce, with flowers and fruit often integrated with diverse vegetable plantings. In many peri-urban areas, market gardening is a traditional land use due to the proximity of the market. From a land-use planning perspective, it would make sense for horticulture, along with micro-dairying, which also benefits from a local market, to be located in the green belt, with the relevant planning conditions to ensure amenity is not threatened.

Public engagement - Another benefit of encouraging urban and peri-urban horticulture is that the people who buy and eat the fruit and vegetables are able to engage with production. Most organic market gardens practise direct marketing of some form, either through a vegetable box scheme, a farm shop or a farmers' market. Many offer farm walks, open days, courses and events to enable customers to learn about production methods and enjoy the environment created by the market garden. Community Supported Agriculture (CSA) is a farm structure in which the financial risk and, in some cases, work of production is shared by a community of members.

Case Study - Stroud Community Agriculture, Gloucestershire

<http://www.stroudcommunityagriculture.org/>

Stroud Community Agriculture (SCA) is a community-initiated CSA and began in 2001 when a group of local people took on the rental of a 23-acre biodynamic farm near Stroud. The business is an Industrial and Provident Society Community Co-operative, owned and controlled by its subscribers, who elect a core group of eight members to make management decisions and employ the grower and farmer.

It now has 270 members, rents a total of 19ha of which 3ha is planted with biodynamic vegetables, and also raises pigs, cattle and sheep, enabling members to buy meat when they collect their veg share each week. A basic share is worth £44 per month, which includes a £3 membership fee to cover the administration of the CSA. Shares are paid for via a direct debit system, and the knowledge that there will be a regular monthly income makes it much easier to plan for labour and expenditure. Vegetables are collected from the farm each week, and sometimes members might be asked to pick part of their share, which they are directed to by a noticeboard in the veg patch indicating what quantity of vegetables to take. Members are not required to work in this CSA, but can take part in regular community workdays if they choose. A limited number of members can pay for their annual share by working on the farm for a certain number of hours each week, subject to a written agreement. The farm has a turnover of around £170,000 and now employs three full time equivalent workers and a couple of seasonal workers. During the last two years, a new starter farm initiative has enabled two new entrant growers to rent one acre adjoining SCA to grow vegetables, which are sold via the CSA and other outlets. The guaranteed market and mentoring service offered by the grower at SCA give the new growers the confidence to develop their skills, before moving on to their own project after 1 to 2 years to make space for the next starter farmers.

Social events form an important element in building the community of SCA. Every month a social event of some sort brings members together, and many friendships have been formed during bar-b-cues, harvest suppers, bonfire night and even snail races! Many members have children, and value the connection with food production and the countryside that regular visits to the farm provide.

Community Supported Agriculture originated in Japan and Europe in the 1960's and since 1985 there has been a thriving CSA movement in the United States. Although CSAs have existed in the UK since the 1990s, a dramatic increase occurred in the last decade and there are now 106 CSA members of the CSA Network in the UK (<https://communitysupportedagriculture.org.uk/about/>). In its purest form, members pay the full amount for a share of the harvest before the season has started (say £500), to provide the farmer with finance to buy seeds, equipment and an income until crops start, and then receive a share of each week's harvest. In practice, the model of CSA varies in terms of financial arrangements, labour requirements and according to whether it was initiated by the grower or the community.

In addition to the public goods mentioned in “Health and Harmony”, an increase in small scale and organic vegetable production would contribute solutions to other environmental and social problems related to agriculture, including:

Reduced food waste – By selling produce through short supply chains and direct marketing channels, food waste is reduced significantly. Most small growers harvest on the day or the day before delivery, meaning produce is ultra-fresh, and produce is harvested to order. Where waste does occur, it is generally composted on site, therefore contributing to the fertility of the system, so does not result in a pollution problem. In contrast, across the UK, WRAP estimates that 12 million tonnes of food is wasted annually, much of which is fresh produce, with an economic value of £12 billion per year. This food contributed 20 million tonnes of GHG emissions⁴⁸.

Community Building - Agricultural restructuring has resulted in a changing role for farmers in rural communities. They tend to withdraw from community and civic life as demands on their time grow due to increasing farm size, leaving less time for community engagement, and report isolation due to longer hours of work, and having to reduce the labour force in order to streamline the farm business. As a result, many farmers report loneliness, stress and loss of work satisfaction⁴⁹. In comparison to large farms, small scale farms are often the focus for strengthening community networks for customers and volunteers, while providing an educational resource for local people⁵⁰. One farmer, who has rented out 3 acres of his farm to a recently trained organic grower stated, “We had dabbled ourselves with growing veg, but we quickly realised that we didn't have the expertise, passion & energy. I'd recommend to any farmer planning a diversification which may involve opening up to the public, to consider how this type of business can help put your farm on the map. But even if you're not planning any major changes and have a spare plot of land, it's very rewarding to see a young person using that resource to produce beautiful food with such passion.”

6) A Culture of Excellence

“There is an important role for knowledge sharing, producer co-operation and farmer to farmer learning to kick start a wider culture of excellence” p25 H&H

The horticulture sector is ripe for development in terms of investment in training, apprenticeships, and farmer-to-farmer learning and research. Already a number of excellent initiatives have started, including the Soil Association's Innovative Farmer Programme, Landworkers' Alliances' FarmHack events, local growers' study groups and farm walks. Such initiatives are enabling growers to share

⁴⁸ Fitzpatrick, I and Young, R. (2017). The Hidden Cost of UK Food. Sustainable Food Trust.

⁴⁹ Winter, M. et al (2016) ‘Is there a future for the small family farm in the UK?’ Prince's Countryside Fund. <http://www.princescountrysidefund.org.uk/downloads/research/is-there-a-future-for-the-small-family-farm-in-the-uk-report.pdf>

⁵⁰ Laughton, R. (2017) ‘A Matter of Scale: A study of the productivity, financial viability and multifunctional benefits of small farms (20 ha and less). Landworkers' Alliance and Centre for Agroecology, Coventry University. <https://drive.google.com/file/d/0B5dw4mKBC3yEdzRIOHhNbkFwUFg1MWNYcHNpZW5JaDBnWVNr/view>

knowledge and solve problems together, while the solidarity and encouragement created by both formal and informal research and training networks is invaluable to grower moral. Funding support for farmer-to-farmer initiatives, apprenticeship schemes and mentoring support for new entrant growers would increase the scope for the current activities to be extended beyond their current limits.

We support the drive towards productivity and excellence but propose that it should look beyond high-tech solutions towards more nuanced, knowledge based, holistic and farmer-led solutions. Innovation does not necessarily require capital intensive projects or cutting-edge science, such as gene editing. In fact, due to the many ecological, economic and social factors involved, the sciences of agroecology and organic farming are often more complex and multifaceted than conventional agricultural science. In contrast to large scale, conventional agriculture, which relies on high inputs of non-renewable energy and natural resources, sustainable agriculture is management and knowledge intensive. It will take “mind work not physical or economic muscle, for farmers of the future to find a niche where they carry out their function by means that are ecologically sound, economically viable, and socially responsible. The vast majority of those niches will likely be smaller than today’s “commercial-sized” farm”⁵¹. Even the frequently asked question, “Can Organic Farming Feed the World?”, has no simple answer when considered from a holistic perspective. Available and convincing data from a plethora of studies shows that, over time, agroecological systems exhibit more stable levels of total production per unit area than high-input systems, produce economically favourable rates of return, provide a return to labour and other inputs sufficient for a livelihood acceptable to small farmers and their families, and ensure soil and water protection and conservation as well as enhanced biodiversity⁵².

FarmHack

In April 2015 Landworkers' Alliance hosted the first UK FarmHack, modelled on the US events in which farmers come together to share ideas and demonstrate their inventions. Over 100 growers, farmers and land workers came together for peer to peer workshops on subjects ranging from compost teas and horse drawn cultivation to welding and 3D printing. In October 2016, a second FarmHack was organised in Lothian, Scotland by Common Good Food, Scottish Crofters, Soil Association Scotland, Green Party Scotland and Federation of City Farms and Community Gardens. Again, over 100 people attended, and this time workshops also included biochar making, diesel engine maintenance and scything.

What is currently lacking is a national system of training and research. This would inspire and train a new generation of growers and farmers to develop appropriate skills and technology to address problems such as how to increase yields within the limits of available natural resources, whilst increasing biodiversity, soil fertility and carbon sequestration. A network of regional training and research colleges, based on county agricultural colleges and linked with universities, should be strongly connected to local growers to ensure that research reflects the problems they face. The technologies required by small scale growers, such as flame weeders and “walking tractors” are often not available in the UK and have to be imported from Europe or the United States. Greater investment in research and development for appropriate technologies for small and medium scale

⁵¹ D'Souza, G. and Ikerd, J. (1996) Small Farms and Sustainable Development: Is Small *More* Sustainable? *Journal of Agricultural and Applied Economics*, 28,1 (July 1996):73-83

Eurostat (2015) Agriculture, Forestry and Fishery Statistics. Eurostat Statistical Books
<http://ec.europa.eu/eurostat/documents/3217494/7158355/KS-FK-15-101-EN-N.pdf/79470e8c-abf3-43d3-8cd4-84880962cdd4>

⁵² P. Rosset & M. Altieri. 2017. Agroecology: Science and Politics Fernwood

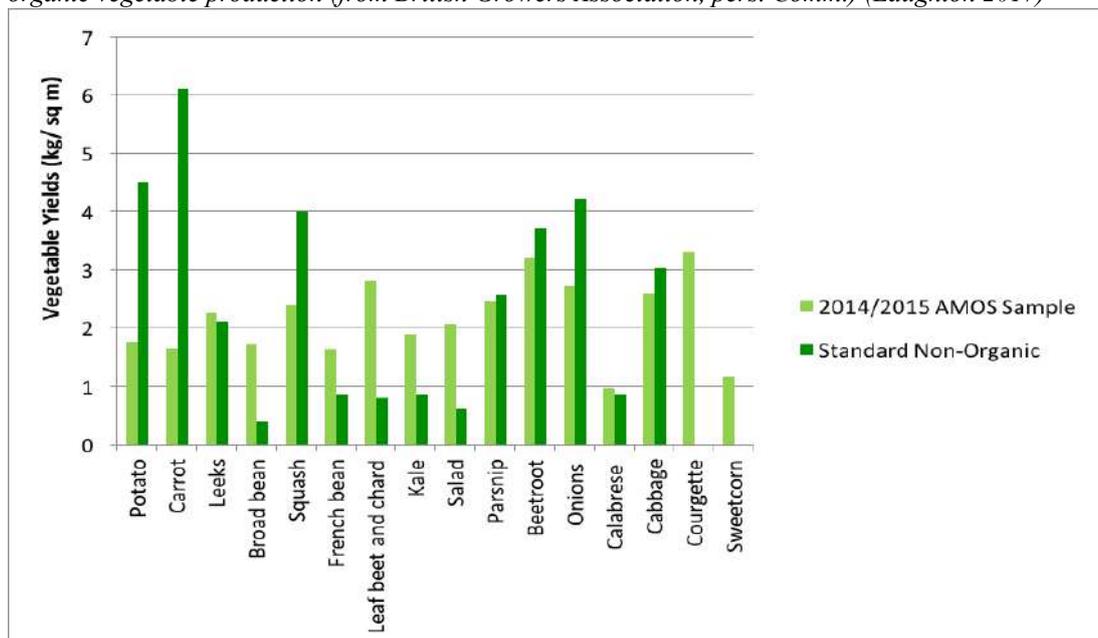
growers could lead to the development in ten years-time of a thriving industry in hand tools and light, energy efficient machinery to avoid soil compaction.

7) A Productive and Resilient Sector

“We want to see productive, skilled and self-reliant, arable, horticulture, forestry and bee-keeping sectors, with reduced losses from pest and disease outbreaks” p55 H&H

Small scale horticulture can be highly productive and financially viable, but more importantly it lays the foundation for biological and economic resilience. Small, labour intensive market gardens often produce higher yields of vegetable crops than industrial systems, especially those which benefit from high labour inputs such as salad leaves, kale and beans⁵³.

Graph to show comparison between yields (kg/m²) from survey of holdings 20ha and less, with standard data for non-organic vegetable production (from British Growers Association, pers. Comm.) (Laughton 2017)



Small and medium scale agroecological holdings tend to produce a diverse range of crops, which are sold directly to local customers, rather than concentrating on only a few lines for a supermarket. Enterprise diversity provides economic resilience, while diversity of crops in such systems, combined with soil health and biodiversity means they tend to be more resilient to pests and diseases than monoculture systems⁵⁴. An understanding of agroecosystems is key to determining effective farming systems. In one 21-year study of agronomic and ecological performance of biodynamic, bioorganic, and conventional farming systems in Central Europe crop yields were 20% lower in the organic systems. However, input of fertilizer and energy was reduced by 34 to 53% and pesticide input by 97%. Enhanced soil fertility and higher biodiversity found in organic plots may render these systems less dependent on external inputs.⁵⁵

⁵³ Laughton, R. (2017) ‘A Matter of Scale: A study of the productivity, financial viability and multifunctional benefits of small farms (20 ha and less). Landworkers’ Alliance and Centre for Agroecology, Coventry University. <https://drive.google.com/file/d/0B5dw4mKBC3yEdzRIOHhNbkFwUFg1MWNycHNpZW5JaDBnWVNr/view>

⁵⁴ Laughton, R (2017) A Matter of Scale: A study of the productivity, financial viability and multifunctional benefits of small scale farms. LWA and Coventry University

⁵⁵ Mader, P. et al. 2002. Soil fertility and biodiversity in organic farming? Science 296: 1694-7.

From an economic perspective, money spent on food produced by small, local farms circulates longer in the local economy (see CPRE example on page 9). Studies in the United States show how in towns surrounded by family farms, income circulates in the local economy generating further jobs and a thriving community characterised by more local businesses, schools, newspapers and a more thriving civic society⁵⁶.

8) A Culture of Co-operation

“ ...It is important to build on and widen existing traditions of co-operatives to encourage a stronger culture of co-operation, transparency and fair dealing as part of a modern, 21st century food chain” p57 H&H

At present, the small-scale horticulture sector is mainly focussed on selling directly, or through short supply chains, which enable a high degree of transparency and fair-dealing as customers are able to meet the grower and visit the market garden. Some examples of co-operation exist, usually, where a vegetable box scheme is supplied by more than one producers to enable year-round supply of a greater diversity of vegetables and fruit. For example, Green Isle Growers is a co-operative of seven small scale local growers around Machynlleth in Wales, who by co-operating are able to supply 45 households with a weekly box of vegetables <http://www.machmaethlon.org/green-isle-growers/> . On a larger scale, Growing Communities combines produce from its own market garden and “Patchwork Farm” of urban plots, with produce bought from larger farms in Suffolk and Kent to supply over 1000 households in Hackney, London (see text box over page). With co-ordinated government support, the Growing Communities model could be repeated in towns and cities across the UK, reaching millions of people, with all the benefits that entails.

In comparison with farmers in Europe, the UK has a weak tradition of co-operation. However, with sufficient development support, small and medium scale growers could co-operate further to access public procurement contracts. Schemes such as the Soil Association’s “Food for Life” school meals scheme are creating a demand for organic and local produce, but on their own small-scale growers are unable to produce sufficient volume. This could change over the next five to ten years if the organic sector works with Defra to increase capacity through training, research and development and business skills, while initiatives like Sustainable Food Cities create ideal vehicles for developing the market for produce from co-operatives of growers in the hinterland of cities.

⁵⁶ Rosset, P. (1999) The Multiple Functions and Benefits of Small Farm Agriculture: In the Context of Global Trade Negotiations. Policy Brief No.4, Food First: The Institute for Food and Development Policy.

Case Study - Growing Communities

(<https://www.growingcommunities.org/about-us>)

Growing Communities (GC) began in 1996, with the aim of building a better, fairer food system that brings communities together, supports local, organic, small scale farmers with fair prices and looks after people, the soil and the planet. Twenty-one years later, almost 1000 households (2000 people) are on the veg scheme, while another 3000 people eat food from the market. Over 80% of members have changed their cooking and eating habits to eat more seasonal, local, fresh food since joining GC. They have also supported 50 producers, employed 57 people in Hackney and Dagenham and trained 42 people in food growing, preparation and selling, by using fresh, organic vegetables and fruit, supplied from GC's own market garden in Dagenham and urban "patchwork farm" in Hackney, and a network of about twelve market gardens and field scale growers within 60 miles of London. The 2017 turnover for fruit and vegetables was £750,000, including produce bought in wholesale during the hungry gap. They have also trained and mentored nine other community groups around the UK – the "Better Food Traders" - to set up their own local veg schemes using the same integrated supply model. Specific elements of GC include:

Fruit and Veg Scheme – Weekly vegetable bags range from £7.50 for a small box (designed to feed one person) containing five varieties of regionally produced vegetables, to £16.50 for a large bag containing ten varieties of vegetable (to feed 4-5 people). Customers are told which farm their produce comes from. Fruit bags are also offered (£4.75-£8.75), which contain seasonal UK fruit, but may also contain imported organic fruit.

· Farmers' Market – A weekly Farmer's Market in Stoke Newington is attended by 30 stallholders – both producers and processors - all of whom are organically/biodynamically certified. These include several fruit and vegetable producers, as well as meat, dairy, mushrooms, honey and processed goods such as a bakery and cheese-maker.

· Urban market garden and Patchwork Farm – Dagenham Farm opened in 2012 on an ex-council nursery site, and now supplies about 5 tonnes of vegetables per year from 0.23 ha (0.6acres) of glasshouses, polytunnels and outside areas. The project was initially funded by the Local Food Fund, part of the Big Lottery, from March 2012 to March 2014, but the grower's salary is now fully financed through sales of produce. As well as supplying the Growing Communities Fruit and Veg Scheme, Dagenham Farm is home to "Grown in Dagenham", a project to involve more local people in the life of the farm and help them develop new skills in growing, food preparation and selling. As well as Dagenham Farm, Growing Communities also operate a "Patchwork Farm" on nine market garden sites of up to 150 square metres, utilising underused spaces on estates, private gardens and church land across Hackney. These "micro-sites" give graduates from GC Urban Growing Training Scheme an opportunity to grow salad to sell to weekly veg box scheme and at other local outlets, thus increasing the amount of locally and sustainably grown food in Hackney and helping growers generate an income from food production.

Regional Suppliers – While urban market gardens and "micro-sites" are appropriate for growing high value salad leaves and other produce with a short-shelf life for which a high price can be obtained, bulkier field scale crops and fruit are supplied from a network of ten farms from Kent, Essex and Suffolk. These farms range from thirty-acre field scale vegetable producers to soft and top fruit growers on smaller acreages. Some veg scheme produce is also bought through local wholesalers – especially in April to June, when local veg is scarce. Overall 63% of the veg sold through the veg scheme comes direct from local farmers and 90% is grown in the UK.

9) Barriers faced by SME organic and agroecological horticulture

Area Payment System - Most of our horticultural members operate on holdings of five hectares or less, so fall below the threshold at which agricultural area payments currently begin. For those who operate on over five hectares, the financial help offered by the Basic Payment Scheme is minimal, due to their still low hectarage. While it is laudable that they are able to operate without subsidies, these businesses are currently operating on an unlevel playing field, competing with larger, subsidised businesses, many of which do not internalise production costs in the same way as organic production systems. Economic viability is achieved by adding value through direct sales and processing, as well as by charging an organic premium. Thus, our members are forced into supplying what is seen as a “niche” or luxury product, when they would prefer to be producing good food for everyone.

Exclusion from agri-environment schemes – Exclusion from the Basic Payment Scheme also excludes our smaller members from the Pillar 2 agri-environment schemes which reward many of the public benefits that they provide automatically. Hence, the costs of practices which lead to increased biodiversity, soil carbon sequestration, run-off minimisation and prevention of soil erosion are paid for by the businesses themselves, sometimes undermining their viability.

Low prices for produce – Although our members do not tend sell to supermarkets, they are affected by the low prices that supermarkets are able to charge through unfair trading practices. We would therefore join with other farming organisations and NGOs in calling for an extension to the remit of the Grocery Code Adjudicator to ensure that all suppliers are paid fair prices and subject to fair trading practices when supplying super markets.

Cost of agricultural land – Since the introduction of area-based payments in 2003, there has been a dramatic increase in the value of land, although this trend has been greater for low value land than higher value land⁵⁷ Adam Smith suggested that the cost of agricultural land should lie ideally at around twenty times the going agricultural rent. “In 2017 average rental values for pasture land were £96 per acre for Farm Business Tenancies and £60 for 1986 Act tenancies — whereas the average sale price for pasture land was £7040.60 This represents a sale price of between 70 and 117 years purchase: in other words, it would take about a century to pay off the purchase cost of land through normal agricultural practice. Small holdings which once offered a livelihood to people of modest means are increasingly becoming a luxury affordable to only to wealthy hobby farmers”⁵⁸.

Affordable accommodation and planning issues – The high cost of housing means that rent or mortgage repayments represent a large proportion of the annual expenditure of anyone not fortunate enough to own their house outright. Even for people in relatively well-paid jobs this is becoming a problem, but for rural workers on a low income, in both rural and urban areas the high cost of housing is a particular challenge. Many growers in rural areas address this issue by living in temporary or low impact accommodation (either mobile homes, caravans or self-built cabins) on bare land holdings. Despite there being a specific policy in the National Planning Policy Framework to address the housing needs of rural workers, invariably these people have to undergo drawn out negotiations with local planning authorities as appeals are made to Her Majesty’s Planning Inspectorate against refusal of permission⁵⁹. Local Planning Authorities seem unable to distinguish between genuine applications from horticultural workers for whom it is essential to live at their place of work, and people speculating on the value of agricultural land, while appeals are

⁵⁷ Hamer, E (2012/13). CAP in Hand. The Land Magazine, Issue 13, p32-36

⁵⁸ Fairlie, S. (2017). Farming Policy after Brexit: A report for the Green MEP. Landworkers’ Alliance.

⁵⁹ Department of Communities and Local Government (2012). National Planning Policy Framework, Policy 55,

often allowed by Planning Inspectors who are willing to engage in the issues brought to them by Appellants. While planning permission is usually obtained “in the end”, this often takes years, costs thousands of pounds (both to the LPA and the Appellants) and is highly stressful for the Appellant who has to continue developing their business with the uncertainty of whether it can continue hanging over them. For some, this stress alone is sufficient to deter them from starting a business.

Inadequate training opportunities leading to lack of skilled workers - Despite many people wanting to work in small scale, organic horticulture, lack of vocational training opportunities for new entrants mean that established growers often report difficulty in finding skilled workers. A combination of an education system that does not encourage land-based careers, underinvestment in formal horticultural training courses focussing on organic and agroecological methods, and insufficient opportunities for apprenticeships, traineeships and mentoring mean that there is a shortfall in skilled workers, leading to less than optimum productivity.

10) Conclusions

Despite the barriers outlined above, we have among our members many examples of small and medium scale organic horticultural businesses which are efficient, economically successful and productive. At a time when many UK agricultural businesses are unable to survive without the aid of subsidies, small scale organic horticulture has, by necessity, had to evolve without the benefit of agricultural payments. If small farms can achieve productivity, and financial viability, while delivering multiple environmental and social goods against a background of the barriers outlined above, imagine what could be achieved were they supported by Defra.

Our sector is vibrant and ripe for expansion. Among our members there is a real energy and enthusiasm to meet the challenge of providing high quality, fresh produce to local markets. At the same time, demand for organic produce is growing rapidly, both in the UK and globally⁶⁰, while the emphasis on public consumption of fruit and vegetables to reduce cancer, heart disease and obesity through the “Five a Day” campaign points to potential growth in the market for fruit and vegetables. With strong policy and financial support from Defra, the UK could become much more self-reliant in many lines of fruit and vegetable, and the Landworkers’ Alliance and Growing Communities, propose the that policies set out in the Appendix overleaf would help achieve this objective.

Furthermore, we suggest that our “Horticulture Renewal Programme” (see appendix) would be a practical way to recruit, train and enable the number of growers that would be needed to make the UK more self-reliant in fruit and vegetables. We are told that this is a “once in a lifetime opportunity” to influence agricultural policy. We hope that Minister of Agriculture and Defra will be bold and far-sighted, by allocating a significantly higher proportion of the current £3.4 billion agriculture budget towards horticulture, and that they will recognise the wide-reaching benefits of supporting the growth of the small and medium scale organic horticulture sector.

⁶⁰ Soil Association (2018) Organic Market Report. Organic Farmers’ and Growers (2017). Organic policy in the UK: Post Brexit Options. OF&G Discussion Paper. June 2017, Version 1 www.ofgorganic.org

Appendix

Landworkers' Alliance Policy Proposals for A New Deal for Horticulture

- 1) Grant special payments to fruit and vegetable producers to support on-farm employment and grow the sector.
- 2) Introduce an infrastructure support scheme for horticultural enterprises
- 3) Support a “Mixed Farms Scheme” encouraging farms to incorporate areas of fruit and vegetables as part of larger farm units.
- 4) Create a targeted support scheme for peri-urban vegetable production in green belts, to develop market gardens as a community resource for both production and training. (Relates to Production strand)
- 5) Set up an Orchard Planting and Maintenance Scheme.
- 6) Introduce a training and recruitment programme to rapidly increase the number of market gardeners and fruit growers to meet national demand for fruit and vegetables.
- 7) Encourage short supply chains to improve grower livelihoods and increase access to fresh and affordable fruit and vegetables.

Practical Ideas for a Horticulture Renewal Programme

	Action
Recruitment	<ul style="list-style-type: none"> • Resource pack for students considering horticulture • Programme of careers talks in schools • Work experience programmes.
Training	<ul style="list-style-type: none"> • Vocational courses in organic and agroecological horticulture • Apprenticeships and Traineeships • Incubator farms
Start-up opportunities	<ul style="list-style-type: none"> • Create affordable access to land and accommodation • Introduce a “Mixed Farms Scheme” supporting the creation of horticultural units on larger farms • Provide grants and interest free loans for infrastructure and equipment costs
Production	<ul style="list-style-type: none"> • Inspire best practise through mentor schemes to link new growers with experienced practitioners • Introduce an orchard planting and maintenance scheme to encourage long term investment in fruit production • Adopt production techniques from international examples of high performance, ecological market gardens
Trade/Distribution	<ul style="list-style-type: none"> • Shift to shorter supply chains • Create innovative and diverse, value-based distribution schemes to increase access to local fresh produce