



Improving Small Farm Productivity: a response to the consultation on the Countryside Productivity Small Grants Scheme

The Countryside Productivity Small Grants Scheme: Essential support for local food, the environment and communities

The Landworkers' Alliance is a union representing a current membership of about 1,000 active farmers, growers and land workers. Our members focus on delivering high quality local food while simultaneously caring for and promoting the environment, biodiversity, and natural landscapes; ensuring high standards of animal welfare and sustainability in agriculture; and offering skilled employment, community outreach and integration, as well as delivering numerous other public goods.

The following are inputs from our membership regarding ways in which the Countryside Productivity Small Grants Scheme (or a replacement for the Leader Rural Development Programme) can be configured to improve the productivity levels of smaller scale, agroecological farms providing food for domestic markets through short supply chains. In compiling this evidence our policy team sent out a request for members to send in their comments on the 2018 Countryside Productivity Scheme, in particular asking about barriers to accessing the scheme and ways in which it could better support them. We had 87 responses from across England- some written and some by telephone call from members. This report compiles and summarises their responses, and makes some recommendations. As background to this evidence we reference the report "A Matter of Scale" which provides evidence of how small agroecological farms can be highly productive, efficient, resilient and innovative, while also providing multiple environmental benefits, higher animal welfare, social capital and jobs. The report and comments from respondents illustrate how small farms can be highly productive, but the reality is that there are varying levels of productivity on small farms, just as there are on larger farm units. There are several recurring issues which may mean that agroecological farms do not live up to their full potential.

Summary of Responses:

- Disproportionate prices for smaller areas of land and the high price of rural housing present initial barriers to establishing productive small farms.
- High initial start-up costs mean that many small farms have low initial investment capability, and so operate at a disadvantage, with inefficient or inadequate infrastructure to achieve maximum production capacity.
- Low profit margins mean that changes in the business require long-term planning and saving to build investment capital, and are more subject to change or cancellation following financial instability.
- Subsidy creates an uneven playing field for smaller vs larger agricultural units, and often does not provide any significant advantage for small scale productive farms.
- A technological focus on developing equipment for larger farms results in a lack of small scale equipment, particularly small tractors and harvesting equipment.
- A lack of training results in loss of the highly skilled techniques that are required for more efficient farm systems.



We firmly believe that the systems of agriculture and marketing employed by "best practice" farms could be replicated and multiplied through appropriate governmental financial support and training. A well-designed Countryside Productivity scheme, providing smaller grants with upfront funding for standard and second-hand equipment for both rural and urban farms of all sizes could make a huge difference!

Productivity in the Context of Sustainability

The imperative to feed the world tends to support an agenda to increase food production that is indifferent to what is produced, where, by whom, and to the actual outcomes for health and well-being (IPES-Food, 2016). Concerted efforts are required to shift the debate from 'feeding the world' to how well we feed ourselves, from net calorie availability to access to healthy diets, and from global hunger to nutrient deficiencies, obesity and dietary imbalances everywhere.

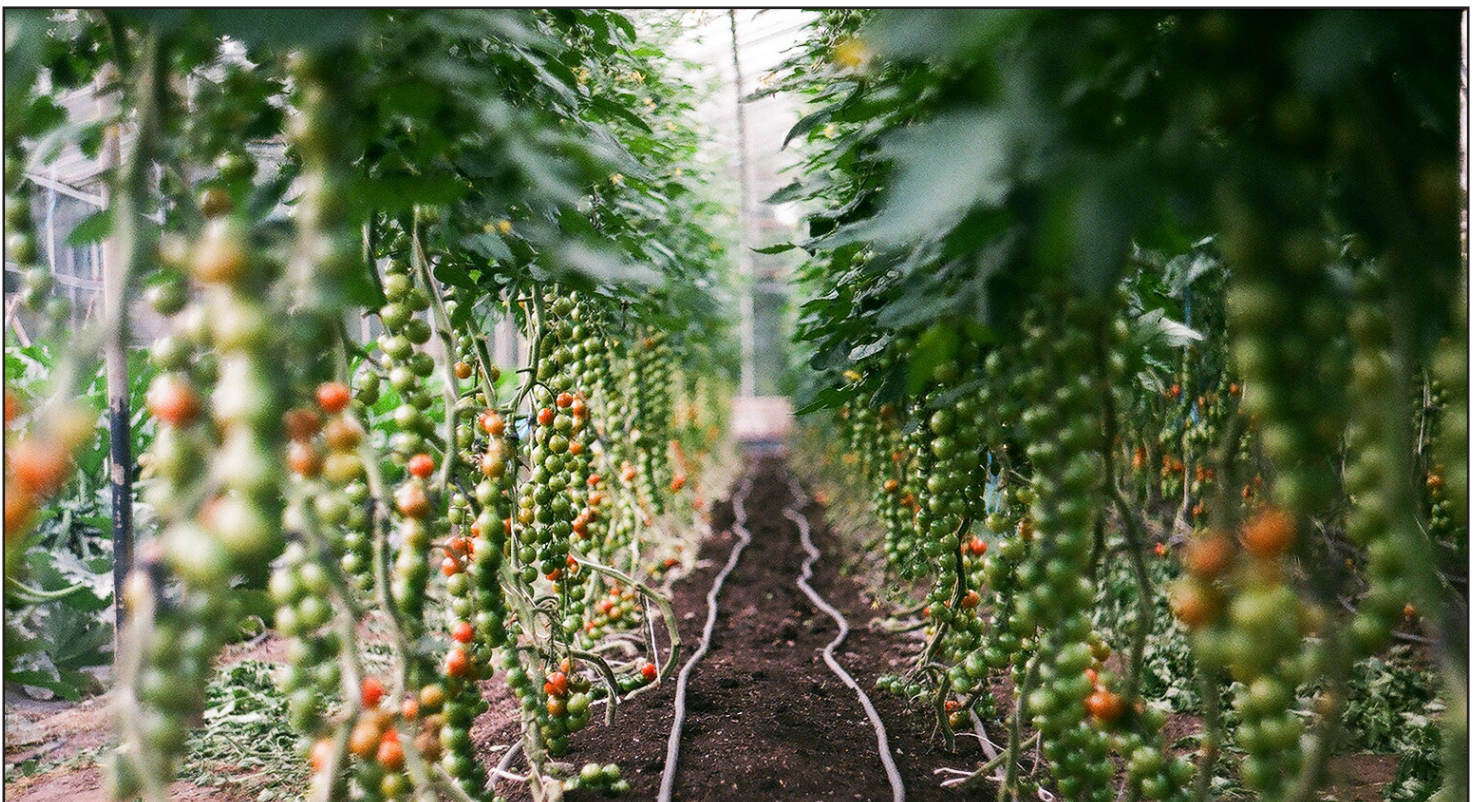
In addition, many attempts to increase productivity are based on the premise that to balance environmental preservation with food production, it is necessary to intensify production on the most fertile lands while setting aside other areas of land as natural reserves. This ignores the fact that production through the industrial farming model drives environmental damage, degrading agricultural areas year on year, while natural reserves become increasingly isolated and useless.

In the UK, we need a focus on developing policies that address how to produce and

distribute well-produced food equitably as well as addressing the climatic and environmental impacts of the food system. Increasing production of foods that maintain the high diversity of nutrients necessary for public health is as important as increasing calorie production. This requires a redefinition of what we see as productivity.

Productivity, in general, can be defined as yield per area per unit input. While, heretofore, most definitions have used labour as the defining input, we argue that unlike many other sectors, agriculture has many more pressing factors that could define productivity.

In the small scale farming sector there are plenty of keen workers- limitations are instead the resources within the system. Additionally, any definition of productivity needs to recognise that the costs of production- particularly to the environment- cannot be externalised. Productivity in this analysis would favour a reduction in the external inputs required while minimising external impacts of agriculture.



Re-Defining Productivity

Productivity is not just about yield over all else, it is about using resources efficiently. The definition in the agriculture bill reflects this. It is especially important to move away from definitions of productivity that are per labour unit. Productive farms can provide environmental and social benefits, such as biodiversity conservation, improved water and air quality, and access to local, fresh, and culturally appropriate food.



Resource productivity means raising the ratio of ‘output’ to natural resource ‘inputs’. The less natural resources used per £1 of output, the less potential waste there will be. Hence raising resource productivity both saves resources and helps improve the environment. The following categories of actions can be taken to improve productivity:



1 Enhancing the recycling of biomass and optimizing nutrient availability and balancing nutrient flow- Feed, fodder and litter are provided by the crop system.

2 Securing favourable soil conditions for plant growth, particularly by fertilizing with farm yard manure and composts, ground cover, and by enhancing soil biological activity.



3 Minimizing losses of solar energy, air and water by way of micro-climate management, water harvesting and soil management through increased soil cover.

4 Enhancing wildlife diversity on the farm. Increasing production diversity in order to enhance synergies between different areas of the farm and increase the farm self-sufficiency (fertilisers, pesticides, animal feed, energy, etc...) and the integration of crops, trees and livestock.



5 Enhancing beneficial biological interactions to promote key ecological processes. There is little to no need for external inputs, as everything can be produced on the farm itself.



The Landworkers’ Alliance promotes the integration of agricultural and ecological goals through adoption of agricultural practices that enhance the underlying fertility and sequestration capacity of soils, as well as above and below-ground biodiversity, based on knowledge of biological processes instead of external inputs.



This approach, known as agroecology, also results in increases in productivity as the inherent quality of the land is gradually enhanced, rather than degraded. Resource use efficiency is maximised through diversity in production, which also results in the diversity in foods produced that is so beneficial for public health, and in increased inherent resilience of farms in the face of climate change.

Suggested Scheme Objectives

The current scheme objectives are improvements in animal welfare, resource efficiency, and nutrient management. The Scottish Small Farm Scheme both expands and adds to these, with the objectives of improving and redeploing production, improving quality, promoting the diversification of farm activities (primarily conversion to organic), and preserving and improving the natural environment, hygiene conditions and animal welfare standards. The Green Alliance suggests that the traditional goals of securing economic growth (increases in per capita GNP) and more recent goals of improving the environment is to raise resource productivity.

We suggest that for our purposes, productivity should not be defined as output per hectare per labour unit. Instead, the English countryside productivity grant scheme objectives should be enhanced to support activities which improve productivity as well as ensuring that productivity grants align with the public goods objectives of the Agriculture Bill in clause 1. This could be demonstrated by:

- Quantity and quality of production and distribution of fruit, veg, dairy, and meat for public health.
- Resource-use efficiency, or 'eco-efficiency,' which means increasing the production yields per unit of inputs and per unit of undesirable outputs.
- Soil and nutrient management for long-term sustainability.
- Provision of public access to nature and community.
- Adaptation and mitigation to climate change.
- Enhancement of biodiversity and environmental quality.
- Higher animal welfare standards.

This holistic understanding of food production takes into account the need to reduce waste and negative impacts of agriculture, and to better distribute more nutritious food, not to simply increase quantity of produce.



Which farms need funding?



Commercial smallholdings owned independently, selling to local markets. Most have some element of community integration, but focus on production of food. Some want to add value to agri-food to reduce waste and improve farm profitability.



Non-commercial smallholdings whose primary focus is ecological restoration, but would like to become commercially viable



Community farms whose primary focus is community outreach and education alongside some food production, some are for profit and some not-for-profit.

Funding for Standard and Second-Hand Equipment

“On the whole the things they list are too big and too snazzy and therefore too expensive – ruling out small farmers. Eg – a mobile sheep handling unit must be able to accommodate 250 sheep. Wtf?!”

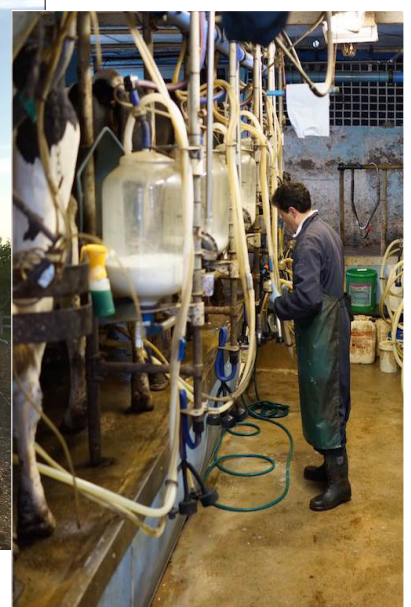
The majority of people responding thought that it was a problem that standard agricultural equipment is excluded, and that the list is too restrictive.

Productive, efficient agroecological systems often use very standard or low-cost agriculture equipment and inputs, only some of which may be considered agri-tech. This equipment is vital in increasing yield, quality and resource efficiency of the system. Agri-tech is useful, but there is no reason a productivity scheme should only support agri-tech, especially only approved equipment on a specified list. This is unnecessarily limiting.

Many LWA members wanted to know who makes the decisions deciding which equipment goes on the list and what criteria are used to determine what goes onto the list.

For example, many members stated that they could become more resilient, efficient and productive by:

- producing the inputs needed by the farm on the farm- including saving seed, growing and processing homegrown animal feeds, creating their own field compost, seed compost, and green manures.
- increasing resilience- saving locally adapted seeds, breeding hardier and more efficient livestock, putting up good fencing.
- having small tractors and other equipment that use less fuel to run, or investing in draft animal training and equipment.
- harvesting rainwater, and reducing runoff of water and soil with good channels and swales.
- reducing GHG emissions with better composting and manure handling facilities.
- improving animal welfare by changing animal bedding systems, creating barns and other animal handling facilities with a better layout, and seeding herbal lays to improve animal health.
- reducing stages from farm to fork by improving processing and packing facilities.
- increasing the efficiency of ordering systems and marketing software, creating direct marketing opportunities.
- enhancing resource-use efficiency by improving soil health and nutrient management.



Specific equipment listed by respondents

Arable and Horticultural:

- Polytunnels/4 season greenhouses
- Small tractors
- Small combine harvesters
- Irrigation equipment, including travelling irrigators
- Rear discharge muck spreaders
- Robotic crop weeding systems
- Dehusking equipment
- Grain drying equipment
- Silaging systems
- Trees for shelterbelts/windbreaks and for orchards
- Tree guards
- Fencing
- Ride-on mowers
- Greens harvester
- Tillthens
- Wheelbarrows
- Push seeders
- Reciprocal hoes
- Manual bed ridgers
- Composting facilities

Livestock:

- Barns
- Livestock
- Milking machines
- Hot water hand wash
- Food waste treatment systems for feeding waste to pigs and chickens
- Electric fencing units
- Poultry bell drinkers
- Moveable poultry housing
- Lighting for chicken houses, dairies etc
- Cattle crushes

Renewable systems:

- Non-polluting renewable energy production systems, particularly solar

and small-scale wind turbines

- Electric tractors
- Electric woodchippers
- Electric delivery vehicles
- Solar-powered well or bore-hole extraction systems

Marketing:

- Websites and computer systems for collating orders
- Cooperative marketing and distribution facilities
- Washing and packing facilities
- Farmers market stalls

Storage:

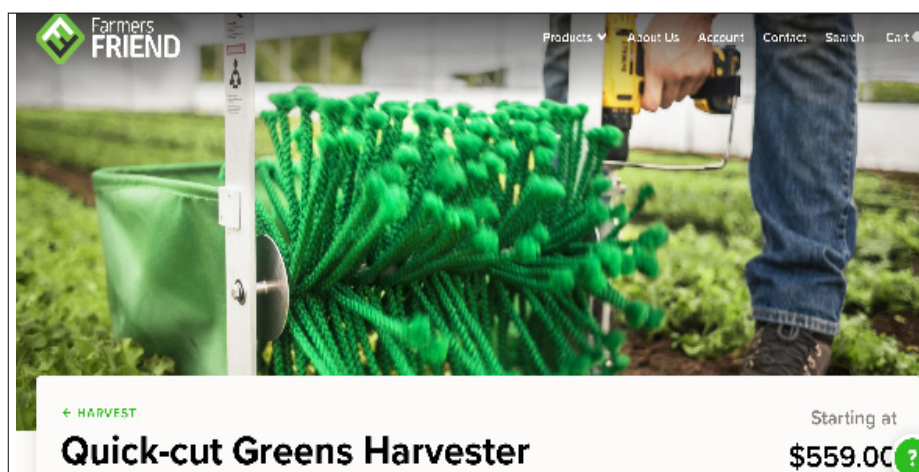
- Cold storage cellars
- Large fridges for storing produce
- Trailers and tipping trailers
- Rain water/water storage tanks
- Sealed silos or bins for grains and beans

Processing:

- Dehydrators
- Dehumidifiers
- Juice and cider pressing equipment
- Pasteurisers
- Bottling machines
- Stainless steel tables
- CPD/diversification courses

Education and demonstration:

- Shelter and tea facilities
- Handwash facilities
- Toilets
- Pathways
- Apprenticeships
- Soil ecology laboratories
- Research facilities
- Soil and product testing



Case Study: Shillingford Organics



Harry, at Shillingford Organics in Devon, wants to install an automated irrigation system in their polytunnels and outdoors. They grow on up to 40 acres and currently have just a few sprinklers for irrigation. The sprinklers that are generally used are not that efficient and a lot of water is wasted. The dry summer last year sounded like quite a struggle (as it was for everyone) with the lack of rain and the heat.



The long-term saving advantages of having a travelling irrigator on a site this scale, such as a four-wheel chassis boom, would very soon pay off the investment. Despite being an expensive type of irrigating system, this type is a much more efficient system in terms of water usage and wastage- which will be incredibly important as water becomes more scarce. Irrigation equipment such as these booms would be a valuable investment for a farm such as Shillingford, both for their long-term savings and the environmental impact, but the cash to make the investment is often not there and so grants to enable farms to purchase equipment second hand or new would be invaluable.

Shillingford supplies a significant amount of local organic food as fruit and veg boxes to families in and around Exeter, as well as running several farmers' market stalls.

Financial eligibility requirements

Minimum grant size is too high

Many of the farmers responding said that the amount of the normal grants were too high, particularly because the match funded amount of 60% would be too much for them to afford. Many businesses cited a business model run on low external inputs, and the need to stay out of debt. The small grants scheme we recommend would be for smaller amounts- we would recommend the minimum grant size as £2,500, which should provide 40-100% of the project costs at the start of the project- 70% if the project is for an individual farm and the amount needed is below £10,000, 50% if needing between £10,000-£20,000 and 40% if from £20,000 to £100,000. 100% should be provided if it is for a collective, non-profit community initiative which allows for equipment sharing.

We would also recommend means testing eligibility for the funding, like the Scottish small farm scheme. Many farms are short of start-up funding after the purchase of land, have little capital in reserve for productivity improvements, and suffer from cash flow issues.

Match funding from labour is excluded

Farmers add their own labour, and build equipment and buildings. For some projects there are plans available for the equipment, but farmers need to weld it together themselves. The grant can be for the materials, but the match funding should be able to be met by the farmers own labour. This would also help to improve farmers' practical skills in building and welding. Many farmers use open source plans to create innovative equipment. An easy to administer system needs to be in place for self build and self made equipment so that 3 quotes are not required for each material.

Funding in arrears

“If the farmer had the money to buy the equipment then they wouldn't need the grant – so having to buy it up front and receive the grant afterwards is just silly. Better would be to pay the farmer the money and within 6 months they have to send in invoices to prove that they have bought it. If the item they buy is other than agreed then they have to return the money. However the scheme does still need to allow people to buy the item upfront and receive funding afterwards, because if you're buying a second hand item you often need to move fast.”

“Having to buy everything that you're claiming for before you can claim for any of it is an additional obstacle. Does it have to be so rigid?”



Simplified delivery of schemes

Flexible non-prescriptive applications

A small farm grant scheme would be easiest to apply for and administer if farmers were able to apply for any equipment they needed- up to a certain percentage- by creating a farm improvement plan, which illustrates how the requested equipment would improve the farm business against one or more of the objectives of the scheme. This would foster innovation and allow for farmers to adopt financially sustainable.

Guidance could help farmers determine suitable equipment and suggest the range of outputs and deliverables. Some assessment tools such as the standard output calculator used in the Scottish scheme, the public goods tool, or carbon calculators could help with assessment.

The farm would need to specify a time line for the improvement with measurable outputs. The results would need to be measurable and subject to testing.

R&D and continuous improvement

The scheme could also invest in farms or programmes which are carrying out R&D or developing better farm practices, like seed breeding programmes, agroecological farm-based research trusts, animal breeding programmes, and appropriate tool networks. One farm mentioned that it would be interesting to try different pest management systems and use biological pest controls. The grant could invest in soil testing equipment to enable farms to benchmark their improvements.

Training

The grant could include some funding for training. Many mentioned that they would like to see some support for the farms supported by the scheme to be enrolled in a farmer to farmer training network as demonstration farms, with appropriate support given to the farms if they host educational visits.

The Scottish suite of small grants schemes for agriculture and rural development are flexible and easy to apply for, encouraging uptake by a wide range of different enterprises in all stages of development.

Part 5 – Details of proposed works

Refer to section four of the full scheme guidance.

Use this section to provide details of your proposal. If your application includes more than one proposal, then additional forms can be obtained from <https://www.ruralpayments.org> or your local area office. You can submit a number of additional proposal forms with your main application form.

The 12 categories of operation eligible for grant are listed on page 24 of the full scheme guidance. Please enter the relevant operation reference (1-12):

5.1 Description

Please give a full description of the works proposed. This should include a detailed plan of your proposed improvements showing dimensions, type and material to be used in construction, together with a copy of a 1:10,000 Ordnance Survey map showing the site and location in relation to the unit as a whole.

NOTE: If you are planning to complete the work yourself, please detail what qualifications/skills/experience you possess that will allow the project to be completed to a satisfactory standard:

Description of works to be undertaken

Type and material to be used in construction

Dimensions (size, length etc)

Plan of proposed operation (attach on separate sheet if required)

5.2 Objectives and business plan

Prior to completing this section refer to Appendix B of the full scheme guidance.

a All operations are required to meet one or more of the following objectives in order to be considered for grant aid.

Please tick the appropriate boxes to identify the objectives which your proposals will meet.

- | | | | |
|--|--------------------------|--|--------------------------|
| To reduce production costs | <input type="checkbox"/> | To improve and redeploy production | <input type="checkbox"/> |
| To improve quality | <input type="checkbox"/> | To promote the diversification of farm activities ¹ | <input type="checkbox"/> |
| To preserve and improve the natural environment, hygiene conditions and animal welfare standards | <input type="checkbox"/> | | |

Support may be available where it is a first-time improvement, where the improvement is an integral element of a larger project, or where a substantive upgrade is involved. Support will not be available for applications which are solely intended to replace existing improvements and which are intended to serve the same purpose as the original. However, where a previous facility is classed as derelict, i.e. no longer serviceable or fulfilling its function and incapable of being repaired or maintained, then assistance may be available.

b Please state how the identified objective(s) will be met. Include reference to current and future cropping and stocking activities, listing the extents and stock type and numbers where appropriate (examples overleaf). Failure to fully complete this section will result in your form being returned.

i. How will the proposed works meet the identified objectives? Continue on a separate sheet if necessary.

ii. Please explain how this proposal delivers a cost benefit to your business, value for money to the public purse and is justified both agriculturally and environmentally

iii. Outline changes to farm activity following implementation of proposals

• Cropping

• Stocking

• Other

¹ This relates to diversification within the agricultural sector such as changing methods of production (e.g. organic or horticulture), introduction of new crops and introduction of specialist breeds.



Case Study: Eves Hill Veg Co.

Eves Hill Veg Co is a not-for-profit market garden in mid-Norfolk on rented farm land (just over 1 acre). We sell our produce locally to restaurants and through a veg bag collection scheme and this year hope to turn over £18k of produce sales (this is year 4 since we started, so it still a new business). We also run an open volunteer programme and have a contract with a local community college to deliver free gardening courses to long term unemployed. Our aim is to create an open space for people to learn about productive horticulture. We also run a voluntary traineeship (an education-labour ex-change, we've run 6 so far and all are now employment) and a paid apprenticeship (national living wage) which is supported by donations from our local community. We believe we are the only productive horticulture apprenticeship in East Anglia- there is no longer a Government apprenticeship scheme available, so we made our own one up.

In just 3 short years we have created 4 jobs at our garden, but each year it is a struggle to balance produce sales, local donations, small grants (e.g.. Awards for All which is not endless) and endlessly bidding for contracts to deliver gardening courses. Every year we don't know if we will be here another. What we really want is to grow enough produce to fund our project through produce sales. We started the project with £5k grant from UnLimited Fund for Social Entrepreneurs, and other than that and a lot of voluntary hours by ourselves and local goodwill, we have not had any capital investment. We are desperate to develop our business model and it's about £10k of equipment that we believe would unlock our earning potential. We need to buy a tractor and implements, but not a new one – they are too big, too expensive and not developed for small scale horticulture! We need an old 1950s style tractor which you can pick up for £3-5k plus another £3-4k of implements. We also need £2-3k of basic equipment such as rainwater capture (Norfolk is the driest place in Britain!), irrigation, more basic hand tools, and so on. We believe that in the first year after investment we could increase our yields to £26k, followed by £35k in year 2 and if all goes well, we could expand land and based on other similar projects we could be yielding £40-45k per year – this is on a plot of land that was previously growing £150 a year of wheat! This would secure our work and help us develop our people-centred growth model. We have sought capital grants, but because we need second-hand equipment, we monly need a small amount, and we don't have the cash flow to buy equipment upfront, we keep hitting a brick wall on finding this kind of money.

