

# Groundwork:

## A Market Gardeners' Toolkit



Created by Propagate in a collaboration with the Glasgow Community Food Network (GCFN) and with art by illustrator Emily Tough





# WELCOME

This toolkit has been created for new and aspiring Market Gardeners. We are aiming to cover almost everything you need to know, to give you the best start possible. Many have been there before you, so this toolkit is drawn from collective knowledge, hints and tips. We will cover important topics such as access to land, practicalities around growing methods, crop plans and logistics; we will sketch out some sample business plans, and signpost you to other sources of support and information. In creating this toolkit we have drawn knowledge from people who are already working in the market garden field; we would like to thank them for their experiences. The quotes throughout this document have been taken from these interviews.

The creators of this toolkit are Glasgow Community Food Network and Propagate. While it's primary target audience is Glasgow and elsewhere in Scotland, we hope it will be useful to everyone, everywhere.



You can find all mentioned 'Useful Informations', links and additional resources on Propagate's website:  
<https://www.propagate.org.uk/groundwork---market-gardener-toolkit>

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# Policy Context Glasgow & Scotland

This is an exciting time for food and farming in Scotland. Much is changing across the political spectrum. In this section, we outline some of the current and upcoming policies and strategies at regional and national level.

## Glasgow City Food Plan

The Glasgow City Food Plan is the output of 3 years of collaborative work, between around 80 organisations. It is a 10 year plan, covering 6 different core themes, with 10 overarching outcomes, across 76 actions and underpinned by Sustainability, Equity and Health. The core themes are: Fair Food for All, Children and Young People, Food Economy, Food and the Environment, Procurement and Catering and Community Food. Implementation of the City Food Plan continues to be a collaborative effort, which is led primarily by Glasgow Community Food Network, Glasgow City Council, and NHS Greater Glasgow and Clyde through the Glasgow Food Policy Partnership.

## Community Empowerment Act and Food Growing Strategies

Part 9 of the Community Empowerment Act 2015 (Scottish Government) places a duty on every local authority in Scotland to produce a Food Growing Strategy (FGS). This is intended to set out how they will facilitate access to land for growing - particularly community gardens and allotments, but also urban market gardening. These should have been published by April 2020. The Get Growing website has links to each FGS where it exists.

## Good Food Nation Act

The Good Food Nation Bill was finally passed unanimously in Scottish Parliament after over 7 years of campaigning by food activists. It places duties on local authorities and public bodies to create Food Plans (see Glasgow City Food Plan), making reference to the Right to Food in these plans; and will set up an independent food commission to oversee implementation of the Good Food Nation Act.

## Local Food Strategy

The 2021 SNP manifesto included a focus on the 'Right to Food' which included actions under 'Eat Healthy; Eat Local'. This included "produce(ing) a local food strategy which supports locally based production and circular supply chains, cutting food miles and enabling more people to enjoy food grown locally". The initial consultation analysis was published on 13th July 2022. This so far covers cross-cutting themes such as the need for better infrastructure to support local supply chains, changes to procurement and related processes, more food education, and a clear definition of 'sustainable food'.

## Agricultural Transition in Scotland

On 25th August 2021 the Scottish Government produced their paper and consultation to begin the process of creating the new Scottish Agriculture Bill and farm payments, due to come into place 2024. The Agriculture Reform Implementation Oversight Board has been tasked with creating the future policy that will define our future farming systems. A paper published by Scottish Government in March 2022 outlined their commitment to 'sustainable and regenerative farming'. At time of writing (July 2022), various campaigning groups from Landworkers' Alliance to the Scottish Organic Stakeholders Group are making the case to support smaller farms and market gardens.

## Land Reform Bill

The Land Reform Bill is another work-in-progress from the Scottish Government, that will potentially affect the way we farm and produce food. The next Land Reform Bill will make important changes to the framework of law and policy that govern the system of ownership, management and use of land in Scotland, which include increasing diversity of ownership and allowing communities to have more of a say in how land is managed.



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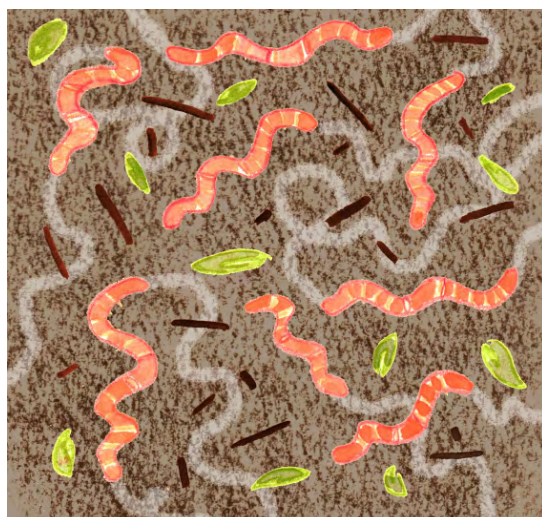
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# ACCESSING & ASSESSING LAND



*"I did an apprenticeship in urban food growing with 'growing communities' who are an amazing social enterprise in East London, they run this thing called the patchwork farm.. Basically they got some funding ... they looked on Google Maps, and they just found all these pockets of unused land across the borough. Not all of them are still there, but most of them are still there, there's two in parks, and there's a couple of churchyards, some are just people's back gardens that they weren't using. So the kind of idea is you've got like 10 to 12 growers on all these different micro sites. "*

**Sarah, Grow**





# Access to land

Finding the land, lease and ownership. The first hurdle in setting up a market garden.

Access to land is the first hurdle and the biggest barrier for any new market gardener. 'Who owns Scotland' is hard to pin down, but the Scottish Land Commission believes 57% of rural land is in private hands, with about 12.5% owned by public bodies, 3% under community ownership and about 2.5% is owned by charities and other third sector organisations. The remainder is thought to be owned by smaller estates and farms which are not recorded in those figures. Currently, the Scottish law offers little protection or opportunity to new entrants to sustainable food production.

Every local authority in Scotland is required to keep a register of 'vacant and derelict land'. This covers both public and private land, and could be a first port of call if you're looking for somewhere to "get growing".

There are ongoing campaigns around fair access to land that you can get involved with. The Scottish Land Commission (SLC) is leading the way in advocating for diversified land ownership. Through the Land Reform Bill, the Scottish Government has picked up on many of the SLC recommendations. The Landworkers' Alliance in Scotland advocates for land justice - pointing out that agriculture is the least diverse industry in the UK, and access to land is even harder for BME communities, women and +LGBTQ people.

## Public Land

Public land is probably the easiest to access for a would-be urban market gardener. This covers land owned by the local authority such as schools, parks and vacant lots; NHS estates, and other public bodies. There should be a council officer within every local authority who you can communicate with around land use. This is likely to be the person responsible for the Food Growing Strategy, but it may be the council asset management team. The post-pandemic era is a fantastic time to be engaging with councils on this topic, as they are seeking to find sustainable solutions with community benefits for many of their assets.

Most local authorities will have standard leases for taking on land, although these are often created for much larger entities and businesses. You may have to show community involvement and support for your enterprise, depending on where it is. Leases may vary from a 1 year 'Permission to Use' to a 25 year lease. Funding bodies will generally want a longer lease in place before committing substantial funds.

Glasgow's largest local food business, **Locavore**, occupies the Bellahouston Nursery site, a former plant nursery owned by Glasgow City Council. They have recently secured a 20 year lease to use this 2 hectare site for food production, education and community involvement.





## Useful information

You can find further helpful information in the links listed below.

**Scottish Land Commission, Land Reform**

<https://www.gov.scot/policies/land-reform/scottish-land-commission/>

**Scottish Vacant and Derelict Land Survey - site register**

<https://www.gov.scot/publications/scottish-vacant-and-derelict-land-survey---site-register/>

**Landworkers' Alliance, Land Justice**

<https://landworkersalliance.org.uk/campaigns-advocacy/campaigns-land-justice/>

**Access to land, CSA**

<https://communitysupportedagriculture.org.uk/wp-content/uploads/2018/06/A.pdf>

**Locavore, Public Land lease**

<https://locavore.scot/bellahouston-project/>

**The Wash House Garden**

<https://www.thewashhousegarden.co.uk/>

## Housing Associations

As social landlords, Housing Associations should have the benefit of the local community at heart. So they should be open to talking about sustainable uses for their land assets. The **Wash House Garden** in Parkhead is one such garden on housing association land.

## Private Land

This is the hardest to obtain, as most landowners will either have development plans in mind, or will want market rents for their land. Sometimes a landowner will be open to a site being used for a short period of time - such as the Glasgow Stalled Spaces Scheme, or Meanwhile Sites. In rural areas, most land is privately owned. Building up relationships with landowners and farmers is possible - and there seems to be a surge in farmers willing to share land with a market gardener. But finding these people takes time and effort - again here your local authority may be able to assist.

Depending on the land, different leases are available. If you are looking at agricultural land, you will need to consider an agricultural lease. These are called 'Limited Duration Tenancies' and start at 5 years, progressing to lifetime leases. In an urban area, arrangements are likely to be either a Permission to Use or a longer lease agreement more suited to business and enterprise.







# Assessing the growing space

When you are figuring out where to grow, foremost in your mind should be ‘is this land suitable for growing? There are some key considerations that we’ve outlined here.

## Soil health

We can’t grow anything without good soil! Soil can be built and improved, but starting with a good baseline is essential. Sadly much land in cities is contaminated from industry, and soil tests can be costly. One place to go that can provide useful information is the James Hutton Institute Soil Analysis Service. They are often sympathetic to Growers and can provide information by email, as well as more in depth soil testing. If you don’t have a budget for soil testing, old maps can help shed light on the history of the space, for example previous industrial uses.

Finally, you’ll need to know the PH of your soil. A PH analysis can easily be carried out yourself by obtaining a kit from (for example) the RHS.

Further understanding of soil health will need to be learnt over time. Soil health and fertility depends on a complex web of interconnected organisms and mycorrhizal networks. Activities such as digging will disturb these networks and damage soil - which is why the best systems avoid ploughing and use no-dig methods. Regularly adding organic matter through compost or manures will help to build up fertility, soil structure and soil organic carbon.



## Water

Finding growing land in Glasgow which also has a mains water supply is a real treat and not often easy to come by. Establishing a mains water connection is useful, but costly. Ideally you would want to use rainwater for watering your market garden. Rainwater harvesting systems can be set up easily, such as a gutter from your tool and packing shed into IBC or ferrocement water tanks.

## Light

Even more important than the soil is the light, as without any light most plants can't grow. We recommend watching how the light changes and travels through the garden over the duration of the whole day. This is important for future bed layout planning as well as the crop planning. Identify the sunny areas that don't get any shade, as well as the areas which get half shade and the shady areas.

## Vehicle access

Many gardening equipment and supplies are heavy, so direct vehicle access would be ideal. As this is not always possible, we recommend aiming for decent vehicle access close to the garden - or at the least, a stable path over which you can transport heavy goods (such as compost and soil in wheelbarrows)

## Useful information

You can find further helpful information in the links listed below.

### James Hutton Institute Soil Analysis Service

<https://www.huttonltd.com/services/soil-analysis>

### RHS Soil: understanding pH and testing soil

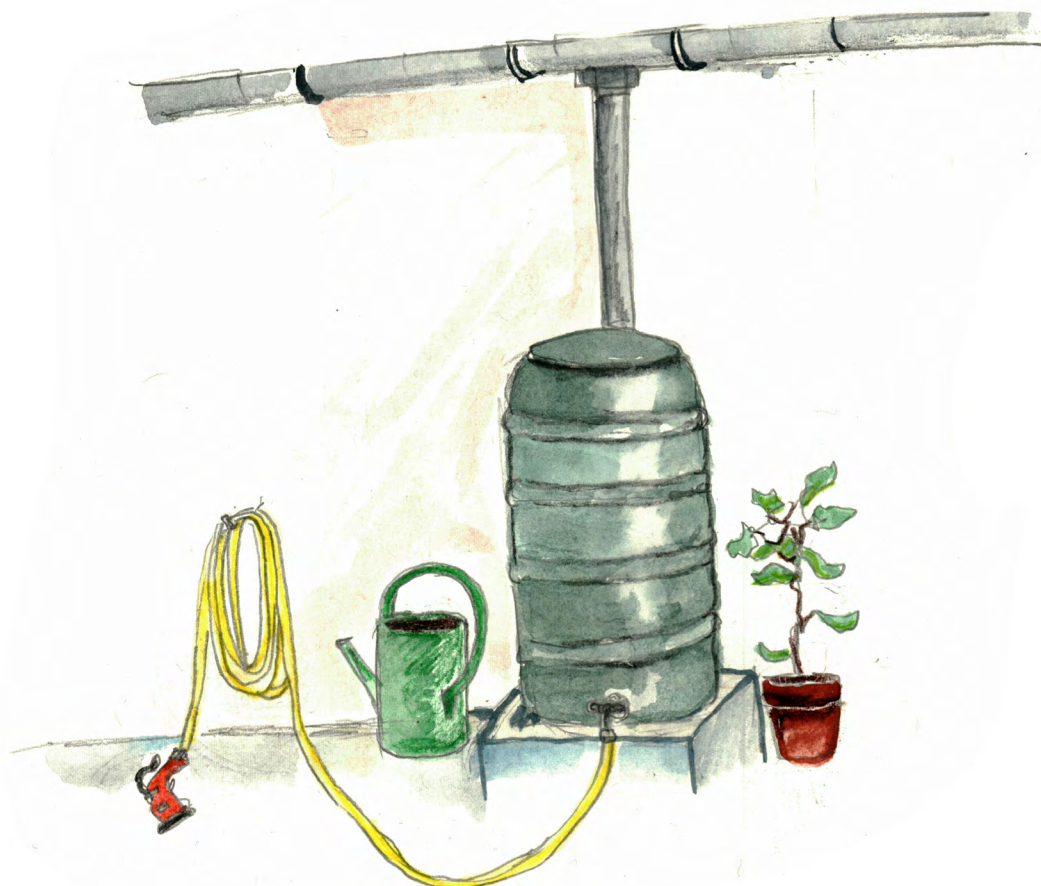
<https://www.rhs.org.uk/soil-composts-mulches/ph-and-testing-soil>

### Ferrocement Water Tanks

<https://www.permaculture.co.uk/articles/ferrocement-water-tanks/>

### How to Create a Low-Cost Water Storage System for Your Vegetable Garden

[https://www.youtube.com/watch?v=CL1YE\\_QhHp4](https://www.youtube.com/watch?v=CL1YE_QhHp4)





# HOW WILL YOU GROW?



*“It’s kind of minimal til. That’s another thing that changed a little bit this year. Last year, we broad forked and tilled or rotated every bed before we planted into it. We actually did a little bit of an experiment last year with the spinach. Basically what we did with each block was: half the block we broad forked and half the block we didn’t before we sowed it. We didn’t notice much difference in the crop but what we did notice was the beds where we didn’t broadfork when we did come to broadfork, for getting the winter salad in the worm count was much, much higher, which would suggest more fertility”*

Dan, Glebelands





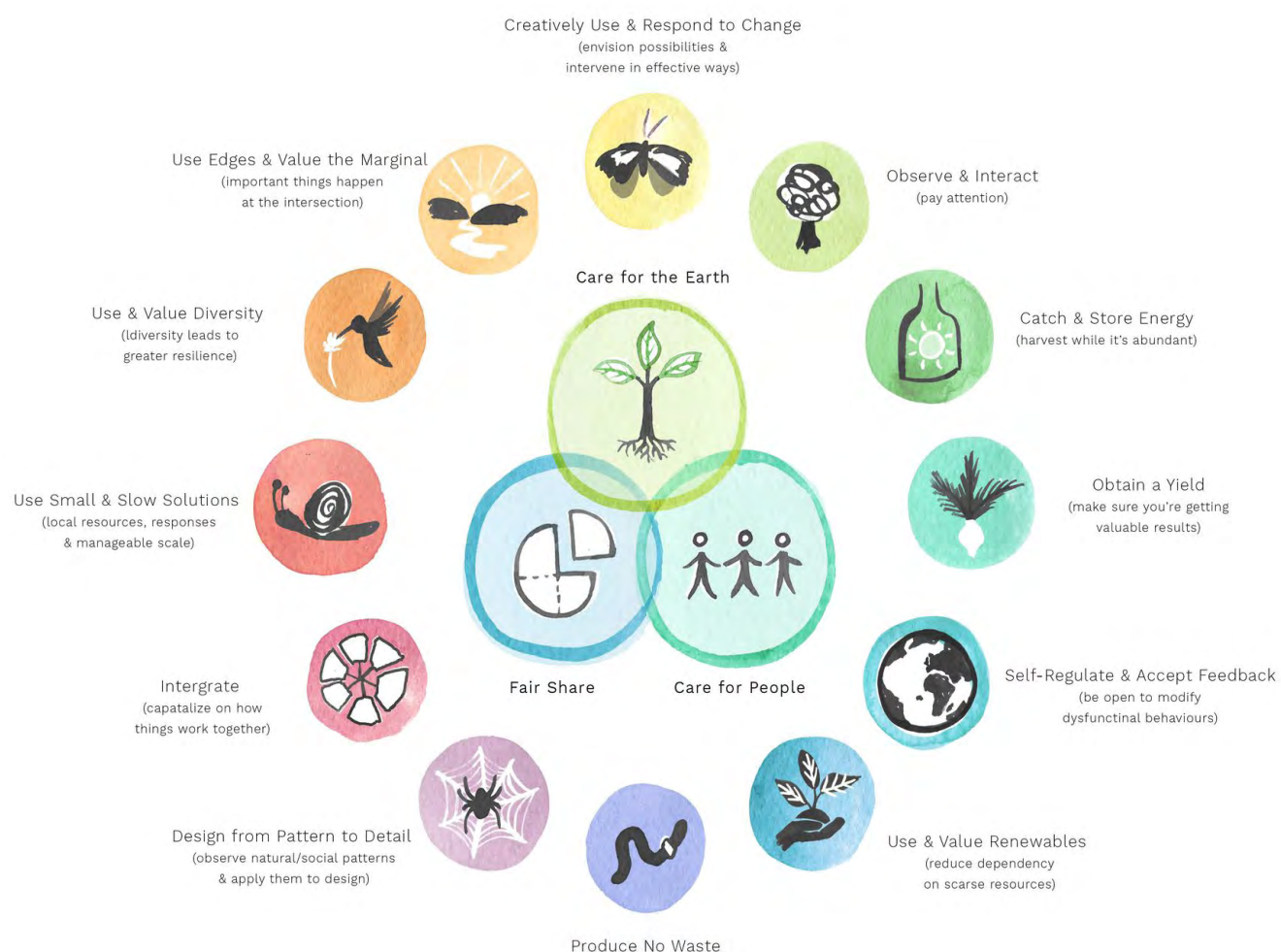
# How to get started - turning a field into a market garden!

Which gardening approach is suitable for your space?

There are many approaches to gardening but we promote an Agroecology, No-Dig and Permaculture approach. You wonder what exactly that means? We will give you a short introduction but encourage you to check out the provided resources.

**Agroecology** means the application of ecological concepts and principles in farming. Attention is paid to the relationships between the plants, animals, people, and our environment. Agroecology promotes farming and gardening which alleviates climate change, works with the natural wildlife and promotes farming led by local people who adapt agricultural techniques that suit the local area. It also addresses social justice including food sovereignty, community resilience and access to local fresh & culturally appropriate food.

**Permaculture** is an approach based on the understandings of how nature works to create a sustainable way of living. It is based on three ethics: Earth Care, People Care, Fair Shares. It encourages people to be resourceful through its 12 principles that tackle how to grow food but also minimise the environmental impact at the same time.





*“There are no gardening mistakes,  
only experiments.”*

*– Janet Kilburn Phillips*



## No-Dig

The No-Dig method, as the name already implies, is a growing approach in which you do not plough or turn the soil. You keep the soil as undisturbed as possible so the organism and structures in the soil are full of nutrients. In the No-Dig method we then build on these structures by feeding the organism with new organic matter on the top. Through not disturbing the soil, mycelium networks can form and provide the plant's roots with food and moisture. It is a very beneficial growing method as it is easy and productive with stronger growth.

Here is a typical way to set up your No-Dig system on a large scale:

1. If possible, leave your ground undisturbed for a year. In late summer/autumn cut or graze the grass - livestock can be beneficial here to add their own organic matter!
2. Cover the area you plan to cultivate with well rotted compost or manure.
3. Cover this with a mulch material - for example black permeable sheeting, or a hessian carpet - beware of dyes or microplastics if using this method.
4. Leave covered all autumn and winter, removing the mulch material in spring, close to when you are ready to plant.
5. Slugs may have gathered under the mulch, so now is a good time to let some chickens or ducks in to pick out any soil pests.
6. Remove the poultry and start shaping your beds - usually 70 - 100cm wide with pathways 25-30 cm.
7. Sow green manures or cover crops in areas you are not yet ready to plant, to keep the soil working and alive, and fix or stabilise nutrients. These can be gently turned in or thinned as you plant or sow.

On a smaller scale, or for creating new beds you can use a similar method to above, but just cover grass/pasture with cardboard and layer compost or manure on top to plant straight into. A big name in the no dig gardening world is Charles Dowding who has many free resources as well as books on the topic and a forum.





# Market Garden Layout

What do you have to consider when planning the layout of your garden to maximise your space?

Market gardens are typically designed to maximise available growing space. Beds are usually reasonably wide, anything between 70 - 100cm. Pathways are typically narrow, wide enough to walk down and to nestle your wheelbarrow so roughly 25 - 30cm. Usually, these beds will be long, taking up almost the whole length of your space, or broken up into smaller sections with slightly wider pathways between them. These beds can be made using No-Dig methods, no need to plough your acre first! [see No-Dig section]

## Other infrastructure

You're going to need at least one polytunnel, and ideally more than one depending on your size and scale. This is essential for starting crops off early, getting a first indoor crop of salads, and for growing high value crops such as tomatoes, cucumbers and aubergines. If you have access to power it's incredibly helpful to have a heated propagator - especially in Scotland where we can have late frosts! Legumes, cucurbits and tomatoes will all need to be protected. If you can access a mains connection via your landlord or neighbour that would be ideal - a metre can be added at a connection point so you can monitor how much is being used. Otherwise you may need to think about a renewables set up - these will be site specific depending on your location.

You're also going to need a packing area and seed and tool store. Think about where you want to place these as they need to be contained, cool and accessible, it's useful to put them in the same place. You may want to also combine this with a gathering space - either for your team in the field to take a break, or maybe for future workshops and education activities. Think about current and future needs.

A packing shed can be a covered shack or a more elaborate larger shed. So long as your weighing and packing area is out of the sun - you don't want harvested veg to be wilting! The scale of your cultivated area will influence size. If you are planning to provide 50 veg boxes you'll need around 20sq metres of packing space. Don't forget your produce also needs to leave the packing shed, so make sure it's somewhere accessible, with easy as possible road access. Again, access to electricity is incredibly helpful to run a couple of fridges to keep produce cool.

Fencing may be an important factor in your layout. Urban areas don't suffer from rabbits, deer and other veg predators so much as rural areas, but there is certainly other urban wildlife to protect from. Will you need to consider bored young people as an issue? Mark your boundaries appropriately!

The final infrastructure consideration is water. Irrigation systems for anything over quarter of an acre are going to be essential, and more so in polytunnels. Some of your wholesale customers may also want or expect their veg washed. Think about where you want your water lines to run, and where your taps will be. Are you on mains, or will you be relying on rainwater harvesting? Are you pulling water with a pump? Do you have enough storage? Do you have enough pressure? Understanding your space and doing your research into options will answer these questions.

*"I think the biggest one for us has been water. I studied permaculture and like one of the first things that we're taught is that water is the most important thing and sort that out first. January when I got on site, I should have sorted the water out, but I didn't until like May and so we had transplants waiting."*

Kathy, Largo Estate



# EXAMPLE MARKET GARDEN

1 Beds	55 x 1 m
2 Beds	20 x 1 m
3 Beds	10 x (0.7 to 1) m
4 Poly Tunnels	
5 Compost Area	
6 Pond	
7 Mid Way Work Area	
8 Softfruits and Hedgerow	
9 Pack Shed	20 - 30 sqm
10 Covered Social Space	
11 Laying Out Area	
12 Herbs and Flowers	
13 Flower Mix	
14 Mains Water	
15 IBC Tank for Rainwater	
16 Irrigation to Poly Tunnels	
17 Mains Electric Hookup	
18 Electricity to Polytunnel	
19 Entrance	Min. 3 m
20 Paths (between beds)	0.3 m wide
21 General Outdoor Area	
22 Work Area	15 x 15 m
23 Whole Site	4096 sqm





## Useful information

You can find further helpful information in the links listed below.

The Market Gardener JM Fortier

<https://themarketgardener.com/publications/the-market-gardener/>

The Whole Farm Agroecology Scheme

<https://landworkersalliance.org.uk/wp-content/uploads/2018/10/wfas.pdf>

What is Permaculture, Ethics

<https://www.permaculture.co.uk/articles/what-is-permaculture-part-1-ethics/>

What is Permaculture, Principles

<https://www.permaculture.co.uk/articles/what-is-permaculture-part-2-principles/>

What is Permaculture, Design

<https://www.permaculture.co.uk/articles/what-is-permaculture-part-3-design/>

No-Dig Videos

<https://www.youtube.com/watch?v=VJhGlrqKs1k>

<https://www.youtube.com/watch?v=HATC3rG6NbQ>

Charles Dowding No-Dig Forum

<https://forum.charlesdowding.co.uk/>



# Planning crops and production

How to plan your crops for the year, to get a good harvest and healthy soil.

Growing on a market garden scale requires learning the art of timing and spatial awareness! First you'll need to decide what you are planning to grow. This will depend on the answers to a series of questions:

- How many customers or boxes do you hope to produce?
- How much land do you have access to for cultivation?
- Do you intend to produce veg boxes with a bit of everything?
- Or are you going to focus on leaves, brassicas, cucurbits and legumes?
- Are you planning to sell produce all year round, or for a shorter season?



Unless you are fortunate enough to have a couple of acres, it's likely space will be a premium. Think about how much room different crops take up, and for how long. If space is short you'll need to be selective.

One of the most useful resources we have found for working out quantities and land requirements (as well as a rough guide to income generated) is the Soil Association's Cropping Tool for Community Agriculture Groups. This spreadsheet allows you to adjust kg of produce, numbers of people, and intended timescales. It generates a rough area needed in hectares.

Once you have worked out what you want to provide for customers, you will need to make a crop plan. A simple crop planning sheet is provided in the links below. This typically shows a list of produce and a monthly or weekly calendar, with sowing, planting out and harvesting times. There is no right or wrong way to do this, and from our experience everyone's plans look different. Do whatever works for you, so long as it contains the information you need.

## Useful information

*You can find further helpful information in the links listed below.*

**Soil Association's Cropping Tool for Community Agriculture Groups Crop Planning Spread Sheet**

<https://communitysupportedagriculture.org.uk/resources/horticultural-cropping-tool/>

**Neil Hickson of Burscough Community Farm Google Form Cropping Tool**

<https://communitysupportedagriculture.org.uk/wp-content/uploads/2020/11/Google-Forms-Record-Keeping.pdf>

**Crop Planning - US resource but still good!**

<https://urbanagriculture.horticulture.wisc.edu/crop-planning/>

**CSA, Crop suggestions for extending the seasons in Scotland**

<https://communitysupportedagriculture.org.uk/resources/crop-suggestions-for-extending-the-season-in-scotland/>

**Simple Crop Planning Sheet**

<https://docs.google.com/spreadsheets/d/1L5lcTsipbNRyKFxPwgjnx3RqoT9oOlozU1xmPoWOwY/edit#gid=0>

**Complex planning sheet!**

<https://docs.google.com/spreadsheets/d/1Ub9CB9MmXmyyzEqqjubPB-yoOCkCEpuA/edit?usp=sharing&ouid=112974370409744814869&rtpof=true&sd=true>



# 12-Month Crop Planning Overview

## JANUARY

**Harvest:** Leeks & kale



## FEBRUARY

**Sow:** Shallots, Tomatoes, Chillies, Aubergine, early Peas, early Cabbage, early Lettuce

**Harvest:** Leeks, kale, chard



## APRIL

**Sow:** More Peas! French Beans, Runner Beans, Brassicas, Beets, Courgettes

**Harvest:** Purple Sprouting Broccoli, Asian Greens



## MAY

**Sow:** Potatoes, Peas and Beans, Carrots



**Harvest:** Early Peas, Purple Sprouting Broccoli, first Lettuce

## MARCH

**Sow:** Sow: Leeks, maincrop Peas, Broccoli, kale, Cabbage and other brassicas, Beetroot, Carrots, Parsley, Courgette, Cucumber, Lettuce, Asian greens,



## JUNE

**Sow:** Late Lettuce

**Harvest:** Broad Beans, Peas, kale, Chard, Carrots, Flat Leaf Parsley, Lettuce







# AUGUST



**Harvest:** almost everything!



**Harvest:** Tomatoes, Chillies, Peas and Beans, kale and cabbage, Beets, Roots,

# DECEMBER



**Harvest:** Leeks, kale, cabbage, Chard, Parsley



# JULY



**Sow:** Asian Greens

**Harvest:** Garlic, early Tomatoes, early Potatoes, most peas and Beans, Broccoli (headed), kale, Chard, Beets, Roots, first Courgettes, Lettuce



# OCTOBER

**Sow:** Garlic, Broad Beans

**Harvest:** Shallots and Onions, first Leeks, last chillies, kale, cabbage, Beets, Chard, Carrots, Squashes

# NOVEMBER



**Harvest:** Leeks, kale, cabbage, Chard, Parsley Squashes



PROPAGATE  
RETHINKING LOCAL FOOD





# LOGISTICS & PRACTICALITIES



*“What I noticed when I was still doing it, as my own business was, how much time it costs to pack into transport and all of that. So I had underestimated that basically, how much time that cost? So that’s one thing. That was a challenge. “*

Floortje, Locavore



# Grants and Funding

Grants might help you when setting up your new project

Applying for funding is a good way to support your current or additional activity. There is a world of funding options out there, the landscape changes often. Your access to funding will depend on:

## Your legal structure

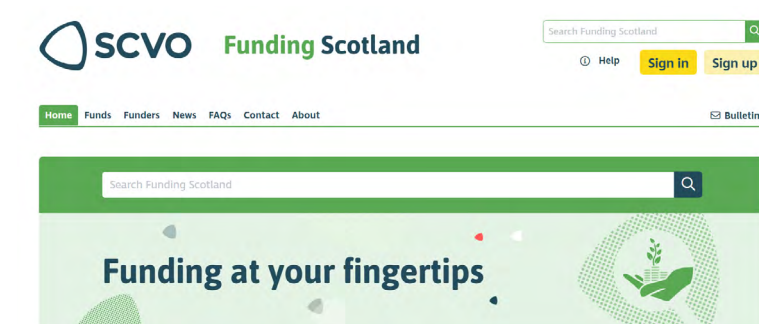
A charitable structure has the most access to funding, but it's the least likely legal structure for a market garden! CICs can increasingly access a large range of funds, while cooperatives are often excluded. Always check to see if you are eligible.

## The type of project you wish to fund

Things like educational workshops, activities that can be regarded as health and wellbeing related are fairly easy to fund. Larger scale infrastructure is more challenging, although often you can write in tools and equipment as part of an educational or activity based application. Time to facilitate and prepare can be written in sessional worker fees. Be aware you will have to report on how you have spent the money!

Linking your funding application to current strategy and policy, such as those outlined in the introduction will help to show the need for your project. For example, The Glasgow City Food Plan has 76 actions and 10 overarching outcomes that have been well researched and co-created, and are there for everyone to use.

We recommend registering with Funding Scotland - a huge national database which will help you find different funding options, and update you weekly on newly released funds and grants.





# Routes to market

## How are you planning to sell and distribute your produce?

There are multiple ways to get your product to customers, and most market gardens have a combination of different options. The table below outlines some common options, with their pros and cons.



Option	Pros	Cons
Selling to local shops like green grocer, zero waste shops, neighbourhood shops	Can build up a good stable relationship, good for forecasting and having a steady consistent sales point	Selling at wholesale price so less than a direct to customer approach.
Veg box scheme where customers come and pick up a weekly veg box (CSA/ Membership)	Fixed number of subscribers, you are in control over what goes in the box. Fixed price, set by you. Good relationships with customers should cover for any crop failures.	There can be drop off during the summer months when you're in peak harvest!  You may feel you want to buy in what you don't grow.
Online shop - giving customers choice over what they buy eg Open Food Network	You are in control of product listing, quantities, pricing etc...	Harvesting to order can get logistically tricky as it changes each week.
Via a Food Hub - networking with other organisations/ box schemes	Bringing multiple producers together under one roof can increase sales for everyone, helps to raise profile etc...	You may not receive full value, as there is likely to be an admin charge. Not usually as much as wholesale though.
Sell directly to restaurants/cafes	Generally building a relationship with businesses helps to cement regular, weekly, consistent orders. No drop off in summer.	Lower price point than direct to customer.
Farmers and community markets	High profile, lots of awareness raising opportunities, fixed price set by you.	Stalls are often expensive and you have to harvest a lot to make it look good, without knowing if it will sell. Often a long day which sales do not compensate







# Customer Service

Best ways to stay in contact with customers depending on your specific needs

Customer service will be an important part of your market garden journey as it is essential to connect with your market, trade your products, and respond to problems.

We recommend being visible on the typical social media platforms as well as having a simple website where customers can easily find information on your project as well as see your location and contact details. Cheap/popular website providers are Squarespace and Wix. It is recommended to have a business email address and a separate business phone number would also be a good idea. Many market gardens also operate a mailchimp or other newsletter service.

Often customer service is underestimated, so make sure you plan time to be able to communicate with your customers. Your individual customer service will be very dependent on your routes to market and customer base. If you are selling your produce once a week to locals through a stall in your area for example, social media is probably the best way of making your customers aware of the products but if you are mainly selling to green grocers and restaurants in your area it may be more efficient to communicate with your customers through email and phone.

You want to be able to respond quickly to customers if there are any problems. This may include complaints regarding quality of produce, or unmet expectations! Customers may also want to provide feedback, for example regarding types of packaging used, or just to tell you how great you are! Make sure you manage, update and maintain your chosen forms of communication - check your business email, respond to messages and post photo updates on your socials. If you stay engaged, your customers will too!







### Useful information

You can find further helpful information in the links listed below.

#### Funding Scotland

<https://funding.scot/>

#### CSA Guide, Distribution

<https://communitysupportedagriculture.org.uk/wp-content/uploads/2018/06/D.pdf>

#### CSA Guide, Communication

<https://communitysupportedagriculture.org.uk/wp-content/uploads/2018/06/C.pdf>

#### Social Media Management

<https://www.webfx.com/social-media/glossary/what-is-social-media-management/>

*“So with restaurants, what we found was that it’s actually quite a lot of admin work in terms of contacting chefs , keeping conversations going on WhatsApp over the week, and nagging people to put orders in or checking what they mean. Because they’ll say stuff like, just a bunch of parsley, please. And it’s like what is a bunch of parsley? Or how big is that for you? And you end up doing loads of legwork and chasing it and refining it... So it’s just really variable. So we used to just do restaurants. And that’s what we found was week to week, our income would shift quite massively. And we had a lot of waste as well, which was just a bit upsetting. And then, if you contrast that with a veg box, yeah, crop planning is quite complicated, because you want to give people variety every week. So it’s this real headache. But once you’ve done that, in terms of weekly admin, it’s really simple in terms of cash flow, it’s much more dependable. The downside is if people drop out, you have to find new people. And that’s a bit of admin work, a bit of publicity work. But it’s just much more reliable. And there’s much less waste, because I just decide what goes in every week.”*

**Max, The Wash House**





# Managing staff and volunteers

What to expect when hiring employees and working with local volunteers.

Unless you intend running your enterprise entirely on your own - which is highly unlikely - you're going to need to manage staff and volunteers effectively. Anyone working with you should be treated fairly, respected and if they are staff - paid a fair wage. Do not regard your volunteers or workforce as cheap or free labour!

You will need to consider these points:

- What do you need help with, when and for how long? This is likely to be harvesting and packing, but at peak times in the season also sowing, planting and weeding.
- Have you got an appropriate set up to give your workforce a good experience? For example, a shelter when for when it rains, and facilities to make tea. Happy workers are much more productive, and if people aren't having a good time they're very likely to leave. People Care is a founding principle of Permaculture and Agroecological systems.
- Have you got time, capacity and skills to teach and show people what to do? Volunteers are often well intentioned but often need help to learn. Funding is often available to support this kind of activity.

Equally, workers will need to be supported - as growers we all have different ways of doing things! You'll need to show and induct people into your systems.

Will you run a payroll system, or will your workers be sessional/freelance?

Be aware of minimum wage levels. At time of writing, these are

	23 and over	21 to 22	18 to 20	Under 18	Apprentice
April 2022	£9.50	£9.18	£6.83	£4.81	£4.81

You should think about whether these are fair, and whether you can afford to pay more. The pay should also relate to their levels of responsibility. National Living Wage is currently £9.50/hr, but consider that this is not the Real Living Wage, which currently stands at £9.90/hr and is a reflection of the real cost of living.

## Training, Skills and Apprenticeships

We have a national skills gap for confident market gardeners and growers. Several colleges run Horticulture HNDs and HNCs - SRUC has just started a course based at Queen's Park in Glasgow, and Glasgow Clyde College has been running a Horticulture programme for many many years. However, neither of these fully equip the learner to be a market gardener.

Discussions are underway with SRUC and University of the Highlands and Islands to design new courses and programmes for growers.

An apprenticeship is a specific kind of programme that must meet certain specifications. These are currently being standardised to make it easier to design a new apprenticeship scheme. Skills Development Scotland are leading on this work, in association with Lantra.



## Useful information

You can find further helpful information in the links listed below.

### Minimum Wage rates and info

<https://www.gov.uk/national-minimum-wage-rates>

### Real Living Wage

<https://www.livingwage.org.uk/>

### Wellbeing at Work

<https://www.cipd.co.uk/knowledge/culture/well-being/factsheet>

### Glasgow Council for the Voluntary Sector

<https://www.gcvcs.org.uk/>

### Permaculture - People Care

<https://permacultureprinciples.com/ethics/people-care/>





# Pricing, packaging & logistics

Helpful tips on pricing and packaging as well as on how your produce will reach your customers.

## Pricing

Figuring out how much to charge for your produce is one of the biggest market gardener conundrums. We all want our produce to be affordable, but we also need to make a living. Selling directly to households will be more profitable than wholesale, but having some wholesale customers such as cafes and restaurants can provide security.

One go-to resource for market gardeners is the Soil Association Horticultural Price Data. This changes weekly depending on the information provided to the Soil Association. It is a good guide as it provides a range for both wholesale and direct retail. If you are not certified organic you can make a rough estimate based on the lower to mid end of the range. Certified organic produce carries a small premium.

Joining one of the online forums where you can ask questions will also provide you with answers to 'how much does flat leaf parsley retail at wholesale?' (for example). You'll find hundreds of useful and knowledgeable people on the forum happy to help.

Many market gardens are looking at fair pricing systems to enable people on lower incomes to access their food. 'Pay it Forward' is increasingly popular, whereby customers can buy an extra box for someone who wouldn't ordinarily be able to access it. Another scheme gaining interest is the 'Pay as You Feel' concept. In this scenario, the grower will set out the inputs and costs that go into producing the food, and customers will pay what they think is a fair wage for the grower. These solidarity schemes are reshaping the way we sell food, creating alternatives to market dominated capitalist systems.

## Packaging

None of us want to use plastics, but sadly soft leaves like salads have a longer shelf life in a plastic bag. Thankfully there are an increasing number of genuinely compostable and corn based alternatives. This will cost more, but both grower and customer appreciate it.

Paper bags can be used for most other produce, from tomatoes to beans, courgettes to peas. Stock up on a variety of sizes of both plastic and paper bags. Wholesale produce is commonly provided in larger bags.

You will also need to label your produce bags. New legislation around food safety now means that all produce needs to carry an ingredients list, in case of allergens. So be prepared to invest in a stack of labels for writing or printing on - and include your contact details in case of any customer issues.

If you are planning to run a box scheme you will also need to invest in boxes or bags. A further cost that will need to be absorbed by your income streams. One solution is to ask your customers to put down a deposit that covers the cost of their box, and ask them to return the box each week. This means you will always have two in rotation per customer. This strategy has been shown to work, although cardboard will degrade and need replacing.





# Pricing, packaging, logistics

Helpful tips on pricing and packaging as well as on how your produce will reach your customers.

## Logistics

How will your product reach your customers? See Routes to market (p.22) for more information. There are a number of options, which include:

- Collection from your site. This is a great way for your customers to really get to know you, and find out more about how you operate, grow etc...
- Pick up points locally. You may be able to reach an arrangement with a local business to host a collection area, and your customers will go there to pick up.
- Home deliveries. The most logistically tricky, costly, and time consuming solution, but usually the most convenient from a customer perspective. If you operate within a certain range you might be able to do this with bikes and trailers. Often this is possible within an urban or local rural area.
- Wholesale customers will more often than not need their produce delivered to their cafe or restaurant. They will be operating a busy kitchen, so you'll need to factor this into your planning and schedules.







# Dealing with waste

What to do with the waste accumulating in a market garden.

## Organic Matter

Your biggest onsite waste product, but also your biggest resource is organic matter. Weeds, leaves, grass cuttings, plant residue, all this and more should be used to create amazing compost to enrich and feed your soils. You may want to keep your pernicious weeds such as dock and nettle separate from other organic matter. There's various ways to deal with these, such as making a compost tea.

Make sure you leave enough space for your compost heaps - you'll be surprised by how much organic matter can be created! A long, windrow heap which allows for plenty of aeration which allows for plenty of aeration is a good idea. See 'Useful Information' section at the end of this chapter for links about windrow composting.

You'll probably eat food and drink tea onsite. Be mindful that even uncooked food scraps can be attractive for rats and other vermin. If you are an urban market garden you won't want complaints! Starting your kitchen waste off in a hot box or wormery will enable it to break down fast before you transfer it to another open bay. Your food waste compost will be packed full of nutrients and worm casts, so keep this separate from your garden waste!

## Plastics and Recyclables

Any single use items should be avoided, but even plant pots and trays will degrade over time. If you are a registered business you will need to set up a contract with a waste management company. This may seem excessive if you are a small operation, because you won't be producing much waste. It may be that you can take small amounts to your local council recycling centre. Talk to different companies to get a sense of what they can offer you that meets your



## Compost toilets

Another big topic is human waste. Consider where you will be going to the toilet and how you can make this more sustainable. Composting toilets are an excellent solution, although if you are in a built up urban area you may have difficulty gaining consent for this.

For urine, you can create a dry soakaway toilet. This can be done by digging a fairly deep hole and lining it with hay or straw. Construct a sturdy box that can take the weight of a human, and fix a toilet seat to the top. It's unlikely to be used too often, but if this does start to smell you'll need to fork out the hay which you can add to your windrow compost heap.

Composting faecal matter is another kettle of fish! There are many different off the shelf compost toilets you can buy, but it's not too difficult to build your own with some basic DIY skills. An ideal design is a double chambered system which can be left for a year to break down. An excellent webinar from Centre for Alternative Technology is available in the 'Useful Information' section.





### Useful information

You can find further helpful information in the links listed below.

#### Soil Association Horticultural Price Data

<https://www.soilassociation.org/farmers-growers/market-information/price-data/horticultural-produce-price-data/>

#### Compostable Produce Bags

[https://www.polybags.co.uk/shop/compostable-bags\\_c1854.htm](https://www.polybags.co.uk/shop/compostable-bags_c1854.htm)

#### Open Windrow Composting

<https://wrap.org.uk/resources/guide/open-windrow-composting>

#### Building a Wormery

<https://www.youtube.com/watch?v=STdOl1TNr2c&t=1s>

<https://www.youtube.com/watch?v=Do5cltVkMQ> (pts 1 and 2)

#### Compost learning resources

<https://www.propagate.org.uk/1-understanding/soil-and-compost>

#### Compost Toilets: An Introduction

<https://www.youtube.com/watch?v=mrxdoo6sqA>



# BUSINESS PLANNING



*“When I look back..I wish I’d spent two months doing a full site plan for the whole six acres. And I wish we’d done a bit more business planning and stuff like that. But also, you kind of just have to have a go, I think.”*

Sarah, Grow





# Deciding on a business model

Cooperative, CIC, Sole Trader just to name a few. But what might work best for you?

## Cooperative

Cooperatives are people-centred enterprises owned, controlled and run by and for their members to realise their common economic, social, and cultural needs and aspirations. Cooperatives bring people together in a democratic and equal way. Whether the members are the customers, employees, users or residents, cooperatives are democratically managed by the 'one member, one vote' rule. Members share equal voting rights regardless of the amount of capital they put into the enterprise.

## Community Interest Company (CIC)

Introduced in 2005 in the UK, a Community Interest Company is a type of company designed for social enterprises that want to use their profits and assets for the public good. As a business, a CIC reinvests its surpluses to achieve its social objectives, rather than being driven by the goal of maximising profit for its shareholders or owners.

## SCIO/Charity

The Scottish Charitable Incorporated Organisation is a legal form unique to Scottish charities and is able to enter into contracts, employ staff, incur debts, own property, sue and be sued. It also provides a high degree of protection against liability. Trustees are responsible for the governance of a SCIO - trustees cannot be employed by the organisation.

## Sole trader

As the name suggests, a sole trader is the only owner of a business, meaning that they are responsible for the entire operation and are considered self-employed. Being a sole trader involves shouldering the responsibility for any business losses, all bills and business accounts (meaning that accurate records of sales and spending must be kept diligently).

## Limited Company

A Limited Company (LC) is a general form of corporation that limits the amount of liability undertaken by the company's shareholders. It refers to a legal structure that ensures that the liability of company members or subscribers is limited to their stake in the company by way of investments or commitments. In a legal sense, a limited company is a person.





# Business Planning

A guide for writing your first business plan.



A business plan is a useful document to help you frame your enterprise over the coming years. It should be flexible, allow room for new developments and ideas, but cover the basics and set out your direction.

A business plan will also be useful for attracting loans, grants and investment (if this is a route you want to go down). It could be structured by the following headings:

## Introduction

### Who you are - context and mission statement

Use this section to provide an introduction to your enterprise, say a little about your background and future aspirations. Set out clearly and succinctly what it is that motivates you, what change you want to see, and what it is you are aiming to do. For example, you could think about:

- Your environmental impact - nature friendly and agroecological
- Your social impact - education, connection, fairness, equity and food sovereignty
- Your economic impact - being part of a resilient, local food system

If you like, you can also use this section to say a little about the people involved with your enterprise. You should also describe your legal and governance structure.

## Operations Plan

This is where you should outline your product or service. Think about all the sections we have covered in this toolkit, and also think outside the box! Your products may include:

- Seasonal vegetables
- Plug plants - herbs, vegetables, flowers
- Cut flowers
- Seeds
- Preserves
- Volunteer and trainee opportunities
- Workshops and courses

You should be able to outline clearly and succinctly how you will produce and deliver each of these products or services. You may want to show this as a table.

## Marketing Plan

Referring back to the 'Practicalities' sections on Customer Engagement and Routes to Market (starting p. 20)- use this section to identify your customers and explain how you will let them know that your product or service exists.

## Impact

Thinking back to your context and mission statement, this section can cover how you will measure and monitor your social and environmental impact. This is important to funders, and of increasing importance to lenders who want to see more than money as a return on their investment.

**Environmental impact.** Use a resource such as the Farm Carbon Toolkit to work through your greenhouse gas emissions and carbon sequestration. If you already have a year of operations, you can include a summary sheet here showing your footprint so far (you can find an example of how this might look like on page 35-36). Soil Mentor is also an excellent DIY how-to guide for understanding your soil health and monitoring it over time.

**Social impact.** A good resource for this is the Social Impact Toolkit designed specifically for community food enterprises. It provides an holistic and integrated model for assessing how well you have done across a range of indicators.

**Sustainability.** The Global Farm Metric project is a work in progress, but is shaping up to be an excellent holistic approach to on farm sustainability across a wide range of indicators.





## Money

### Income and expenditure

This is the important section where you think about all the costs that will be incurred through the set up and running of your enterprise. You will also need to forecast potential income from all your activities. There are different types of costs:

- **Capital Costs** are one off payments that provide something to your business over many years, such as land or tools and machinery.
- **Operational Costs** are those that you keep paying at least annually to run your business, such as seeds, compost and wages.

### Cash Flow Forecast

Collect as much information as you can about the cost of everything that you have identified, and the prices you are likely to charge. Create a spreadsheet like the one shown on p. 36 so that you can forecast your bank balance in the future and identify how it will change over time.

The spreadsheet shown covers income and expenditure for 1 year, but it is wise to think about how your enterprise will grow and develop over 3 or 5 years. What other costs might you incur? What other income can you generate?



### Final Notes

Additional subsections you may want to think about including are:

- A risk register
- Potential sources of finance and funding
- Any evidence you have to support your plans
- An action plan, or next steps

### Useful information

You can find further helpful information in the links listed below.

#### What is a cooperative?

<https://www.ica.coop/en/cooperatives/what-is-a-cooperative>

#### Community interest Company

<https://sumup.co.uk/invoices/dictionary/community-interest-company/>

#### Becoming a SCIO

<https://www.oscr.org.uk/becoming-a-charity/becoming-a-scio>

#### What is a sole-trader?

<https://startups.co.uk/setting-up/what-is-a-sole-trader/>

#### Limited Company Definition

[https://www.investopedia.com/terms/l/limited\\_company.asp](https://www.investopedia.com/terms/l/limited_company.asp)

#### Farm Carbon Toolkit

<https://calculator.farmcarbontoolkit.org.uk/>

#### Soil Mentor

<https://soils.vidacycle.com/>

#### Social Impact Toolkit

<https://www.social-impact-toolkit.co.uk/>

Database on Propagate's website which shows Business Plan Examples and other further useful information

<https://www.propagate.org.uk/groundwork---market-gardener-toolkit>





# Cash Flow and Carbon Footprint Example

Example of a worked through income and expenditure cash flow spread sheet and Carbon Footprint

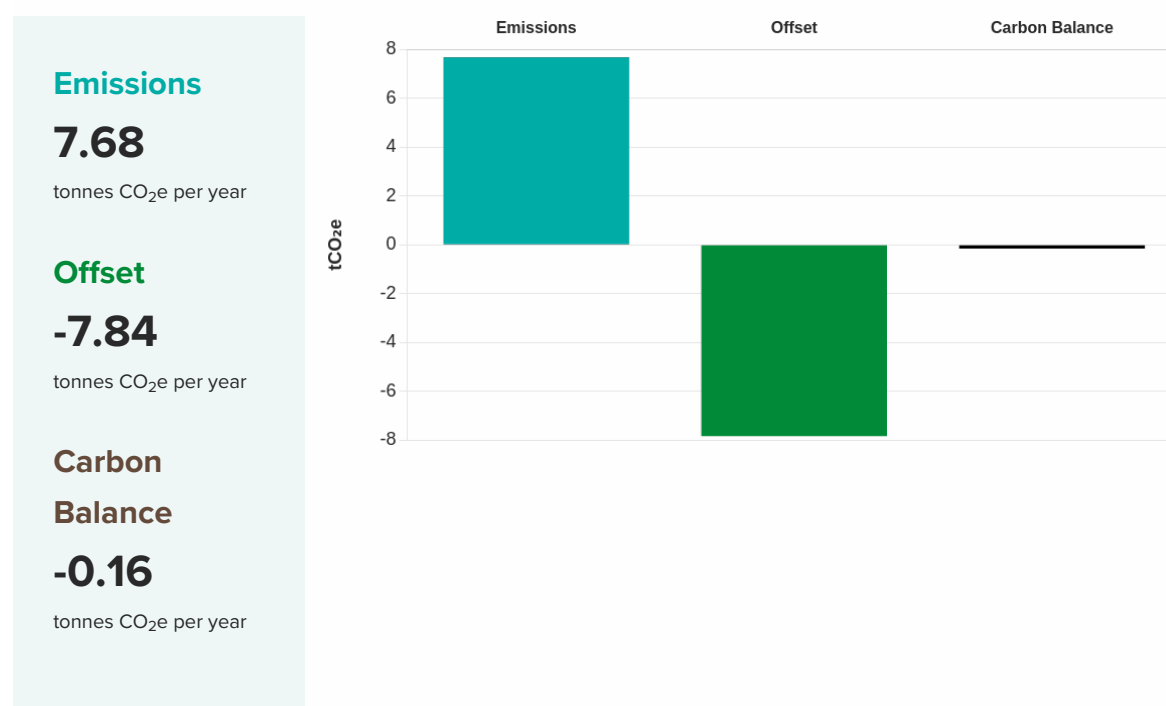
A worked through example of an income and expenditure cash flow sheet for one financial year. Based on 1acre market garden shown in example design.															
	Expenditure	Details	Subtotal	April	May	June	July	August	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Operational Costs	Wages and Sessional Costs	Think about fair and equitable rates of pay.	21000	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
	Volunteer Expenses	All costs incurred looking after your helpers - tea, coffee etc...	880	100	100	100	100	100	100	100	20	20	20	20	100
	Transport	Budget for 45p per mile	252	23	23	23	23	23	23	23	15	15	15	23	23
	Resources and equipment	Seeds, pots and trays, horticultural fleeces, packaging	820			20						800			
	Office costs	General admin, marketing, memberships etc...	240	20	20	20	20	20	20	20	20	20	20	20	20
	Loan Repayment	at 3%	5148	429	429	429	429	429	429	429	429	429	429	429	429
	Events and Activities	Showcase events, open days, workshops	1200	400			400			400					
	Accountancy	Help preparing annual accounts	200							200					
	Insurance	Cover all bases	500	500											
	<b>Subtotal</b>		<b>30240</b>	<b>3222</b>	<b>2322</b>	<b>2342</b>	<b>2722</b>	<b>2322</b>	<b>2322</b>	<b>2922</b>	<b>2234</b>	<b>3034</b>	<b>2234</b>	<b>2242</b>	<b>2322</b>
Capital Costs (start up)	Shed and covered work area	For packing, workshops etc...	8000												
	Polytunnels	indoor and covered production	10000												
	Electric and water hook up	Optional	5000												
	Tools	Various non-mechanised	1000												
	Fencing	rabbit proof - you may need deer proof	3500												
	Hedgerows	Biodiversity and wind breaks	2000												
<b>Subtotal</b>			<b>29500</b>												
<b>Total</b>			<b>59740</b>												



Hidden Veg 11 Aug 2022

Example of how a summary sheet for the carbon footprint of a market garden possibly look like. As mentioned in the Business Planning section it has been created with the Farm Carbon Calculator. You can find the detailed overview through the resource database on Propagate's website (<https://www.propagate.org.uk/groundwork---market-gardener-toolkit>)

## Carbon balance

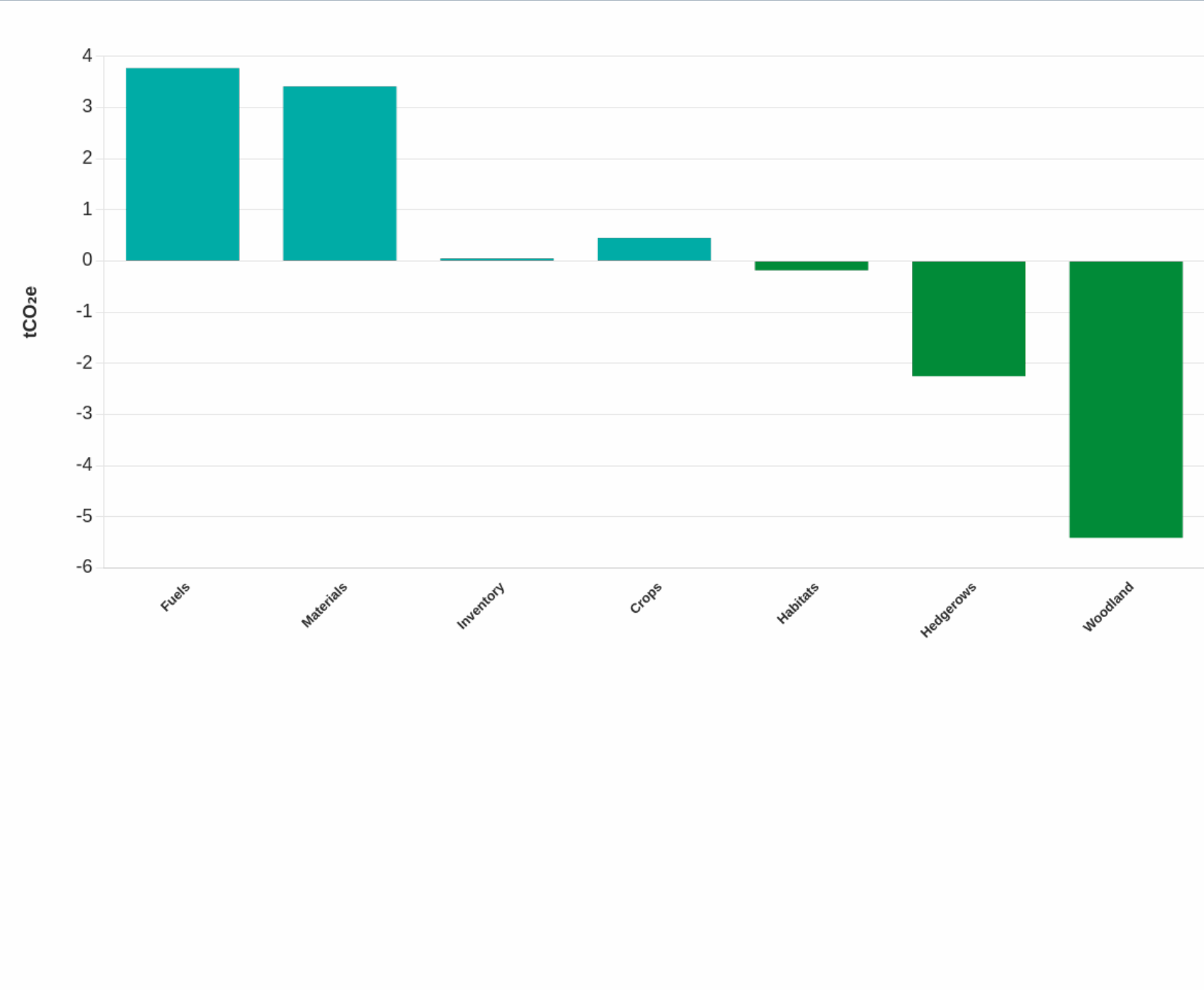




KPIs

Carbon Balance / hectare:	Carbon Balance / tonne:	Fuel / hectare:
<b>-0.07</b>	<b>-0.0063</b>	<b>1.6753</b>
tonnes CO2e/hectare/year	tonnes CO2e/tonne of product	tonnes CO2e/hectare from fuel
Water:	Carbon Income:	
<b>39.2157</b>	<b>£0.00</b>	
m3 water per tonne of product	carbon income (£)	

Breakdown of Emissions and Sequestration





You can find all ‘Useful Informations’, links and additional resources on Propagate’s website:  
<https://www.propagate.org.uk/groundwork---market-gardener-toolkit>

## Appendix

Other organisations we recommend to check out for information and support:

**Social Farms and Gardens** - A UK wide charity supporting communities to farm, garden and grow together

**Organic Growers Alliance** - A network of growers, farmers and horticulturalists that provide peer-to-peer support run by growers for growers

**CSA Network** - A membership organisation working solely to promote CSA - community supported agriculture - across the UK

**Soil Association** - The UK’s largest organic certification body and a UK charity working across the spectrum of human health, the environment and animal welfare

**Landworkers Alliance** - A union of farmers, growers, foresters and land-based workers that provide training and support for small scale growers and farmers in the UK.

**Organic Farmers and Growers** - A Community Interest Company with more than forty years experience in the organic sector, providing industry support and guidance

**Lantra** - One of the leading awarding bodies for land-based industries in both the UK and the Republic of Ireland, developing quality training courses and nationally recognised qualifications delivered through a national network of training Provider Partners

## Photo Credits

Photo by Markus Spiske on Unsplash (Young plants in soil)

Photo by Gabriel Jimenez on Unsplash (Hands holding soil)

Photo by Dan Gold on Unsplash (Tomato)

Photo by Marina Helena Muller on Unsplash (Broccoli)

Photo by Markus Spiske on Unsplash (Pots)

Photo by Markus Spiske on Unsplash (Watering Cans)

Photo by Markus Spiske on Unsplash (Two different soils)

Photo by Markus Winkler on Unsplash (Beds)

Photo by Eva Bronzini: <https://www.pexels.com/photo/vegetables-on-the-soil-5503338/> compost heap

Photo by João Jesus: <https://www.pexels.com/photo/photo-of-man-standing-surrounded-by-green-leaf-plants-1084540/> greenhouse staff











