

Pre-considerations

These are some of the things you need to look at before you start planning

Site

If you know the previous farmer try to have a chat to them and ask some of these questions – it could save you a serious headache later on.

- **Aspect – sun / wind.** Do you need to put in drainage or wind breaks?
- **Soil**
 - Fertility – try and find out recent manure and compost applications. , Do some soil tests to find if you have any mineral or nutrient deficiencies
 - Structure - dig soil pits, ask previous grower for where tractors have driven. Consider subsoiling.
- **Crop history**
 - Consider impact on nutrient content – for instance intensive cereal production may have reduced fertility
 - Knowing what has been grown recently (ie last 10 years) can help with assessing disease / pest burdens, especially brassicas, potatoes, or alliums.

Market

- Size – this may be very fixed (ie 100 members to eat 52 weeks of the year) or more uncertain (we have a large town next to our farm that we think we can supply x, y and z to them)
- Likes / dislikes – Can you sell globe artichokes in North Wales or parsnips in Belgravia
- Seasonality - do you want to supply all year round? It is almost impossible to grow enough in this country to keep a full box going for 12 months a year, however you can still be providing something all year round (even if that might be quite limited during the hungry gap. Tunnels will be essential if you are aiming for all year round production.

Self sufficiency policy - buying in?

- This will have a huge impact on what you decide to grow. Is there a local grower you can co-operate with? Eg you grow courgettes for both of you and he grows beans. Trying to simplify your crop range can help the grower (though of course it complicates your operation in other ways)
- What about the hungry gap? Will you buy in produce to supplement your own veg, or would you rather stop supplying for a couple of months. Although may give you a much needed break there is a risk of losing members.
- What about fruit? Do you want to try and grow soft and top fruit, this can be done as a separate operation or as part of main cropping (for instance Strawberries will fit into a long term rotation. Picking takes for ever so works well as a PYO for members)

Working out quantities

1. Start with IDEAL harvest – purely from demand
In other words if you had unlimited ground / labour / money what would you grow

2. Translate that into crop area!!!! This is the difficult part!

Difficulties of Yield per m² - Can be affected by,

- capabilities of soil
- skill of grower
- seasonal and climatic variation
- choice of crop variety

- Building in contingencies – AT LEAST 25% extra to what you think you will produce.

- Where to find information
- Books – Growing Green / HDRA / OFM Handbook
- Internet – Grow veg / random searches for yield figures
- Cropping tool – available on SA website

3. Then you have a figure that may be twice what is possible – this might be because you don't have enough land or labour or money (among others). So back to reality and you start removing crops from the plan!

- Why might you remove crops? Here are some examples
 - Too many brassicas – brassicas take up a lot of room and you often find you cannot dedicate enough land to them within your rotation
 - Too difficult a crop (eg celery, cauliflower) – there are specialist growers who can grow these very well and you may decide to rely on buying in some of these (or not supplying them) particularly in the first year or two while you get going
 - Too cheap a crop (eg potatoes / carrots) – these crops are often highly mechanised and on a small / medium scale it is very hard to compete on price. They transport and store well so you can buy in very good quality produce.

Devising your rotation

Once you have your realistic crop quantities you need to start planning a rotation.

Why rotate?

- Breaking pest and disease cycles
- Averaging out nutrient requirements
- Weed control

Is there an ideal rotation?

- Length of rotation?
 - 4 years between key crops but the longer the better. This may also depend on your soil – for instance light land with low fertility may need longer fertility breaks
- Key families / crop groups.
Rotations are often determined by family group. There are some crucial ones – Allium, Brassicas, Potatoes.
- Other commonly used crop groups
 - Roots, cucurbits, legumes

Fertility Building

Don't forget the Importance of green manures and fertility building within the rotation. This can be long breaks between rotations but will also include undersowing, and short term green manures.

Keeping records

Frequent and regular observation is important if your rotation is to improve.

- Learning from mistakes
- Improving your rotation and planning
- Reducing wastage

What to record

Vital

- Sowing dates,
- first and last harvest dates
- First and last Frost
- Yields

Useful

- Cultivation dates
- Inputs
- Labour inputs – the more info you have the more you can work out profitability or otherwise of individual crops

Tim Deane's Quotes

- A vision of what the holding should look like, so that you know what you are working towards.
- Know what needs doing, or find out.
- Realise that some of this can and should be planned, but that some of it will be forced on you.
- Frequent and regular observation – plants are live stock too!
- Understand the response of the soil to your activity on/in it.
- Ready access to the necessary equipment and/or the labour force to do the job.
- Good timing is all ("never put off until tomorrow what can be done today").
- Keep good records and keep them up to date.

Workshop

Devising the rotation

A good start is to get four groups of crop that can be treated as a rotation. But you can be flexible about grouping.

The principle of rotation is not to grow the same plant in the same place each year. The aim is to boost soil fertility and reduce weeds, pest and diseases.

A few thoughts

1. **There is no "perfect" rotation**
2. **There is no "wrong" rotation.**
3. **Your rotation will change each year**

Ways to categorise plants in designing your rotation

Fertility building crops:

fixers (legumes that can take nitrogen from the air and use it to grow)

lifters (those that make use of the nutrients in the soil and hold on to them until you need them)

Competitive / Non competitive plants:

Nutrient needs

Plant Families

Workshop exercise

Create a rotation using at least four of the following crops

The rotation should be at least four years and make use of a minimum of 2 green manure crops.

Carrot
Parsnip
Broad Bean
French Bean
Garlic
Spring Onion
Purple Sprouting
Spring cabbage
Red cabbage
Courgette
Lettuce

Green manure crops

- Rye grass / Tares mix
- Phacelia
- Mustard
- Red clover