

## Protected Cropping – Business and costing

### Planning

Planning is important in glasshouse crops as using your space efficiently will capitalise on its value. With fewer weather variables it is also easier to be more organized. Plan sowings or order your plants well in advance and keep good records to inform future plans.

Predicting exactly when a crop is ready to be replaced is hard; changes in weather, characteristics of individual varieties and soil type all have a bearing. When growing a range of produce, certain seasons will suit some crops better than others. The same can be said for pests and diseases so constantly observe and, if necessary, adjust plans; e.g. a hot dry summer may encourage spider mite so increase biological control and give the plants extra overhead irrigation. If a crop eventually succumbs and has to be removed early, the one planned to follow can be sown earlier, or revised if appropriate.

A few essential elements of a good plan should include.

- **Marketing** – don't grow too many high risk crops, investigate the market well to ensure you are growing what you can sell in the right sort of quantities; do you need continuity and variety or predictability and uniformity?
- **Fertility and soil management** strategy – compost/rotation/green manures/analysis and recommendations/fertilisers
- **Sowing and planting** schedule - keep beds productive.
- **Crop maintenance and harvesting** requirements – weed and pest control, crop support and training, picking, packing and storage technique.
- **Labour** requirements – when is help going to be required, allow time for training and consider how much work crops will require within the hours that be afforded. Balancing labour for protected areas against outside crops can help provide all year round jobs.

While producing for a known market is common business sense, it is important to try and balance the commercial needs of the operation with the biological sustainability of the soil and holding.

For growers in temperate latitudes protected cropping can make the difference between surviving and thriving. Accounting for around 4% of horticulture in both organic and conventional production it can be particularly important to growers who offer a range of year round produce to a direct market where quality and variety during the lean months is elusive.

# Factsheet



## Value

The value in greenhouse crops lies in three main areas,

- **Extending the season** of popular crops, which can be grown outside during summer, e.g winter salads and herbs, early carrots and greens.
- Growing crops that are otherwise **not well suited to the UK** climate, and protecting them from diseases such as blight. e.g. aubergine, tomato, pepper.
- **Improving the quality of leafy vegetables**, which are often adversely affected by unpredictable weather.

Being able to predict yields and control labour costs is vital when supplying a wholesale market. For local sales, having a secure market and careful crop planning to iron out peaks and troughs in production are perhaps more pertinent considerations.

"Data shows that organic protected cropping can be very profitable on a gross margin basis. As with other high value vegetables, there are considerable risks and the economic returns are very sensitive to changes in price and yield. Other major factors are labour hours and cost of labour. In comparison with this, the protected structures, usually polytunnels or unheated glasshouses, are not such a major cost factor, especially if they can be depreciated over many years and used by other crops (e.g. winter salad crops) in the same year. Based on these favourable economics, it is expected that capital for polytunnels and second hand glass structures is not a major limiting factor for the organic protected industry in the UK. Skills and fluctuations in market demand and prices may play a much bigger role<sup>1</sup>. For new built glass this may not be the case.

## Setting up and Structural Maintenance.

### Buying an Existing Structure

Familiarize yourself with the structure; its construction, maintenance, attributes and limitations. If you do not possess the expertise for hands-on tasks then find someone with the skills and experience to ensure the structure remains safe and in good working order. Understand the cost of keeping older glass structures sound and be aware of situations where insurance and qualified work may be mandatory.

### Building from Scratch

Consider orientation, drainage, irrigation power supply, security, access, shading, wind shelter and gradient. Longer polytunnels relying on doors for ventilation should run up a south facing slope creating a chimney effect to maintain airflow on still days. The general recommendation is to limit the length of a tunnel to 30m to avoid hotspots.

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<sup>1</sup> " Economics of UK Organic Protected Cropping. U. Schmutz, P. Sumption and M. Lennartsson 2011

# Factsheet



## **Renting or buying,**

The cost will depend on not only the state of the infrastructure but also alternative land use options. Planning consent for building is easier where structures already exist and most of the UK's glasshouses from the post war boom have become housing estates as towns expanded onto surrounding market gardens. On the other hand many landowners are keen for conscientious tenants to keep established nurseries from disrepair.

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