

Microenterprise Profile

AGRICULTURE

1. Polytunnels for Early and Late Crop Production

1. Introduction

Producing early and late crops of marketable vegetables can generate much higher market prices than normal seasonal crops. Keep a simple diary of your local market prices and you will see the variation in prices over the year

Early or late crops require use of good soil, adequate irrigation, warmth and protection for the plants to encourage their early or late growth, when the ambient temperatures are not conducive to fast growth.

To provide this protection the best route is to build full height polytunnels, although some success can be achieved with fleece or low level cloche covering.

This protection can help prevent damage by animals or birds, although insects can still be a problem



A hoop formed polytunnel



Crops inside a wood framed self built polytunnel (Romania)



Low level plant protection for seeds or crops



Seeds can be germinated and grown for planting out inside a polytunnel or under a protective fleece or plastic sheet. Early planted seed germinate much more quickly if kept well watered in a warm temperature about 15C. Heating a polytunnel can be expensive and it may be best to germinate seeds inside your home or an outbuilding. Once seeds have germinated they will need light to develop .

Issues that will need to be considered are:

Size and positioning of polytunnel

Key factors in placing the polytunnel are sun, temperature and wind. If you build your polytunnel correctly it will not be structurally affected by the wind, If possible locate it somewhere sheltered from the wind, thus reducing heat loss and in turn increasing yields

More important is to get the maximum sunlight to the polytunnel. Placing the long axis east-west is optimum. However, this does lead to a dilemma in the middle of summer when you really could do with some shading due to high temperatures. Placing the polytunnel so that in summer a nearby tree provides some shade around noon time can prevent scorching. During the rest of the day the shadow doesn't cover the tunnel and the amount of sunlight is maximised.

Do not forget access when locating your polytunnel you will need access through the ends, which may be just plastic curtain or a door

Plan the services you will need in the polytunnel, is it close to a water supply and do you need electricity for heating or lighting?

Do not try and put the cover on when there is any wind! A hot day is good as the heat will soften the material, allowing a tighter fit over the frame. This will increase both the strength of the structure and the life span of the cover. Remember to put the cover on the right side up (There can be an outside and an inside to many types of cover)

You should carefully study and consider:

Soil preparation and compost/fertiliser

Raised beds

Ventilation

Irrigation

Planting and seed selection

Pest control



A variety of reusable seed trays



Seed germinated outdoors



Germination in a polytunnel

2. Are you suited to this type of business?

You need to be patient and have a real interest in horticulture and concern to produce the best possible quality by caring for your crops. No special training is needed although construction of a polytunnel will need careful costing and planning and will others to help you build it.

3. What training or special skills do you need?

Production and sale of early and late crops requires no special skills – but does need attention to detail, careful preparation of the soil, careful spacing of the plants and good irrigation. You need to watch the weather to ensure ventilation as the crops ripen.or the daytime temperature rises

4. Who will your customers be?

It is vital that before you start you study how and where you will sell your produce.

You could take it to your local market, perhaps sharing a stall with your friends who also have crops ready for sale. But you may do better to sell it to a wholesaler if you can get a fair price.



A Romanian Market trader selling high quality polytunnel crops

5. Who will you be competing against?

Consider who you will be competing with and what you can do to be better than your competitors in quality, service or when you will have produce to sell – without necessarily lowering your price to succeed.

Try to access market price information, if possible over a full year, where you expect to sell produce. This will show you when prices are highest, which will be the best time to offer your produce for the best return. For some crops market prices can fluctuate quickly so you should try to have daily market price feedback to know when to harvest your crop



You might consider selling direct to local families and perhaps you can offer a mixed box or bag of vegetables, depending on what you have available. ('Vegetable box' schemes are successful in the UK, delivering to restaurants, business caterers, or schools as well as directly to homes – a good example in the UK is <http://www.riverford.co.uk/>)

6. What are the key issues affecting this market

Could you face competition from low priced imported produce – this can kill profitable sales and you need to assess the risk of this happening and think through what action you can take to continue to sell at a profit

7. What legal issues are there?

You will need to check whether you need to buy any form of licence to sell your produce to the public.

If you to sell on a market stall, regulations may apply and you will probably need to have scales for weighing produce (Which must be regularly checked for accuracy and a record kept of each time they are tested))

8. Seasonality of business



With early and late crops you will be limited to two possibly short periods of sales activity, which may not make full use of your polytunnel or other land you have available. There is merit in considering other crops you could produce, especially those that have a high market value and are not widely grown as this can give you a more secure market, although new crops or cultivars – like for example baby vegetables, can take some

time to establish a market.

9. Process

For the earliest crops you will need to install some form of heating.

You need to establish a reputation for good quality, so ensure your produce is at peak condition, trimmed and presented in the best possible way

There is often good sense in looking at adding value to main season crops when market prices are low - for example by cleaning and trimming root crops, sun drying products like peppers and tomatoes, or making pickles.

10. Equipment and sources

Materials will be needed for the frame, which can be wood but are better as metal hoops and a suitable gauge polythene sheet covering.

11. Raw Materials and sources

You will need to source suitable compost/fertiliser and good quality seeds suitable for early or late crops. A simple drip irrigation system, fed from a bucket or small elevated tank will be the best approach to providing water.

12. Start Up Costs

Kits for a 4 x 3 x 3m. highpolytunnel can be purchased on line (UK) for about \$400

13. Quality and Safety

Early and late crops benefit from higher market prices but every effort must be made to ensure a consistent high quality. Time between picking the produce and selling it to your customers must be the least possible. After picking all produce must be handled carefully and not exposed to high temperature

14. Planning

It is important to plan for the year what you will produce and how much income you plan to generate. It will be very helpful to keep a diary of market prices where you will sell your produce, if possible over a full year before you start as this will help you see the market price fluctuation and when the best time to sell will be.

15. Links to more information

UK On line suppliers of low cost self build kits for small polytunnels

<http://www.polytunnelsonline.com>

<http://www.haxnicks.co.uk>

Interesting downloadable articles on polytunnel management

<http://www.firsttunnels.co.uk/interestingarticle.asp>

Books:

Gardening Under Plastic: How to Use Fleece, Films, Cloches and Polytunnels by Bernard Salt (Paperback - 2001) UK Price \$20

The Polytunnel Companion (Paperback - 2006 by Jayne Neville