



ORGANIC HORTICULTURE

Introduction

Organic fruit and vegetables are the main consumer entry point for purchasing organic produce, and they continue to be the area of shortest supply in the organic sector, with most produce imported.

Market opportunities

Marketing opportunities vary from direct to consumer sales, e.g., farmers' markets and box schemes, all the way to emerging links between farmers/groups of farmers with

wholesalers and retailers. Organic fruit and vegetable production is therefore an ongoing profitable business sector, which for those with the required skills, offers a financially and professionally rewarding enterprise. As a guide, when converting to organic horticulture, a general reduction of 20% to 50% in yield compared to conventional production is likely. A price premium of 30% to 100% would be expected above conventional sale price, depending on the outlet, i.e., wholesale or direct sales.



Organic horticulture sector in Ireland

Organic horticulture production in Ireland takes place on holdings varying from small garden-style holdings to commercial market garden enterprises. Field scale production is generally limited to soils in suitable climates in the midlands and south east. Commercial production however is possible throughout

the country, particularly with polytunnel and/or glasshouse production. For full interpretation of the rules and regulations governing organic fruit and vegetable farming, it is essential to study the 'Organic Food and Farming Standards in Ireland' document, which is available from the organic certification bodies (OCBs) – the Irish Organic Association (IOA) and the Organic Trust.

Crop nutrition management



The organic grower "feeds the soils to feed the plant". In a well-managed organic unit, nutrients are supplied largely from the biological breakdown of soil organic matter. All crop nutrients apart from nitrogen (N) should be maintained through the use of imported organic manures and permitted mineral fertilisers, such as rock phosphate or seaweed minerals to make up any shortfall identified using soil analysis for specific horticulture crops. Bought in organic matter will help boost N supply, but gains may be modest, as most material will have to be composted for three months prior to application. The introduction of leguminous-green manures into the rotation, such as red clover can help increase N levels.

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10 steps to grow an organic market garden business



- 1) **Identify** what crops the market wants.
- 2) **Match crops to land** – find out what crops are suitable to your land type and climate.
- 3) **Start small** and grow with the market and the skills you acquire along the way. The size of your initial holding will depend on whether you are: new to farming and seeking access to land; an existing farmer with no previous horticulture experience; or, an existing conventional commercial horticulture grower.
- 4) **Manual labour vs mechanisation** – as a rule of thumb mechanisation is required on holdings greater than four acres.
- 5) **Business** – it's a challenge to be a good grower, a good manager and a good salesperson at the same time. Use mentors, seek financial advice, determine

clear long-term goals, and sign up to a start your own business course.

- 6) **Financial planning** – complete a business plan, which can also help secure bank loans. Make use of Department of Agriculture, Food and the Marine (DAFM) grant schemes where applicable.
- 7) **Income** – expect little or no income for the formative three to four years of the business. Plan accordingly, e.g., off-farm job, use borrowings or savings.
- 8) **Staff** – match staff skills with appropriate tasks.
- 9) **Growing skills** – keep up to date technically. Attend farm walks and grower meetings.
- 10) **Work-life balance** – maintain a good work-life balance. Get involved in activities outside of the business.

Weed control

Weeds cannot be controlled by any chemical method and therefore must be controlled using the following:

- false and stale seedbeds – grow the weeds, kill the weeds through thermal or mechanical cultivation, grow the crop;
- alternate weed-susceptible crops, such as onions, with weed-suppressant crops, such as potatoes;
- use plastic mulches or weed control fabric/biodegradable ground cover;
- composting of manures will help kill weed seeds contained within;
- use transplants which provide an opportunity to get a step ahead of the weeds;
- green manure helps to suppress weeds; and,
- use equipment such as an oscillating hoe, tractor-mounted brush weeder, etc.

Pest and disease management

As organic growers do not spray artificial chemical sprays to combat pests and diseases, emphasis is placed on preventing potential problems and on managing pests, rather than totally eradicating them. This means working with natural cycles and only using a limited range of permitted products. A wide range of techniques are available to combat diseases and pests, including:

- crop rotation;
- having healthy, well-nourished soil;
- using appropriate varieties, e.g., blight-resistant potatoes;
- using barriers, e.g., fleece or bio-nets for insects;
- encouraging natural predators, e.g., natural vegetation around fields;
- under-sowing to confuse pests – have an understory of growth under brassicas to discourage the laying of caterpillar eggs;
- timing of sowing, e.g., June sowing of

- carrots should miss the first generation of carrot root fly;
- biological controls in the tunnels, e.g., *Bacillus subtilis* (BS), which controls a number of plant pathogens;
- introduction of predators, e.g., release of nematodes to control slugs;
- alter the scent of crop, e.g., use garlic spray to help control aphids; and,
- use sulphur as a fungicide against rust and for general health.

Only use products permitted under the organic regulations.

Further information

For further information please contact your local Teagasc advisory office.

The following resources are also helpful

- www.teagasc.ie/organics
- www.teagasc.ie/horticulture

Other useful fact sheets in this series:

- Steps to Organic Conversion
- Organic Cattle and Sheep
- Organic Cereals
- Organic Dairy
- Organic Poultry

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www.teagasc.ie/ruraldev

