



Organic beef farming systems

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Summary

- Organic agriculture is defined by the International Federation of Organic Agriculture Movements as ‘a production system that sustains the health of soils, ecosystems and people’.
- Currently 225,000 hectares (5% of total farmed area) are farmed organically in Ireland with an ambition to increase this to 450,000 ha (10%) by 2030.
- Beef farmers who are considering converting to organic farming should review their current production system and speak to other organic farmers and organics advisors/consultants.
- Teagasc have recently commenced a new research project - “Growing Resilient Organic Farming Systems” (GROFarmS) - funded by the Department of Agriculture, Food and the Marine (DAFM) to provide timely research to underpin the rapid expansion of the area farmed organically in Ireland.

Introduction

Organic agriculture is defined by the International Federation of Organic Agriculture Movements (IFOAM) as ‘a production system that sustains the health of soils, ecosystems, and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation, and science to benefit the shared environment and promote fair relationships and good quality of life for all involved.’

IFOAM defines four principles of organic farming:

- Health: organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
- Ecology: organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
- Fairness: organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
- Care: organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic farming in Ireland

Currently 225,000 hectares (5% of total farmed area) are farmed organically in Ireland. The Climate Action Plan (2024) has set ambitious targets to increase this to 450,000 ha (10%) by 2030. This ambition is currently being incentivised through financial support from government in the form of an enhanced Organic Farming Scheme that opened to applicants in autumn 2023. This scheme has resulted in a doubling of farmers farming organically.

The largest organic sector in Ireland is beef cattle production. According to the Department of Agriculture, Food and the Marine (DAFM), there are now over 5,000 organic farms in Ireland in 2024 with approximately half of these being cattle farms. There are an estimated 20,000 organically-farmed suckler cows in Ireland with 12,500 cattle finished for organic beef production. This highlights that a major issue for the organic beef sector is the high ‘leakage’ rate between organic suckler cow systems and finished beef output, estimated at 30%.

Is organic farming an option for me?

Clearly, the incentives provided by the organic farming scheme are proving attractive to many farmers. Indeed, indications are that there are a large number of additional farmers who are considering conversion.

The following are some key factors for farmers who are considering converting to organic farming.

1. What is my current production system?

In many cases, beef farmers operate relatively extensive production systems such that conversion to organic farming may be relatively seamless. Aspects to consider include:

- Is the current stocking rate below two livestock units per ha?
- Can animal housing be modified to incorporate a bedded lying area?
- Is the use of artificial fertilisers low (or even zero)?

2. Review and consult

It is important to get acquainted with the adjustments required by talking to other organic farmers and contacting a local organics advisor. Teagasc have recently enhanced their organic advisory team to support the additional farmer inquiries and

conversions to organic farming. It is essential for those considering conversion to become familiar with the organic standards. These standards have been developed to provide organic producers with consistent, clear rules as to how organic food should be produced. A two-year conversion period is required before a farm is given organic status.

3. Choose an organic certification body and register as an organic producer

In Ireland, there are two organic certification bodies: the Irish Organic Association and the Organic Trust. They are approved by DAFM under European Union law. Organic certification bodies (OCBs) provide certification services to organic producers and processors via inspection and certification programmes, which ensure the compliance of their licensees with the regulatory requirements for organic production. Additionally, licensing of their organic symbols for certified operators assures shoppers of the integrity of organic products.

Certification bodies will send an information pack on request. The pack is tailored to the producers needs and contains information on the application and conversion process, an application form and a guide to the Organic Standards. Once the application and conversion plan are received and assessed, an initial inspection will be arranged and you are registered as an organic operator. The OCBs carry out annual inspections of every organic enterprise.

Conversion to organic farming

When the initial inspection has been carried out, the application approved and the 'in-conversion licence' granted, a period of conversion begins. Normally two years in duration, this period of conversion allows time for the land and producer to adjust to organic methods. In certain cases, the conversion period may be extended or reduced by the inspection body subject to approval by DAFM. The time periods required above are initiated by the farmer submitting his/her farming enterprise to inspection and certification by one of the certification bodies.

During the conversion period, the enterprise must adhere to all the organic standards concerning animal welfare, artificial fertilisers, pesticides and chemicals. The changes proposed in the conversion plan must be implemented during this period. After the required conversion period expires, the inspection body may issue organic status to the farmer (unless conversion period is being extended), which allows the farmer to sell his/her produce as organic. There may be a financial cost associated with conversion. These costs vary widely according to individual circumstances but would be influenced by some of the following factors:

- output reduction due to changes in production practices,
- capital investments in land, machinery, livestock housing etc.,
- certification and inspection costs, and
- inability to command premium prices during the conversion phase.

To help alleviate these costs, the Organic Farming Scheme includes a 'participation payment' of €2000 in the first year following conversion and €1400 in subsequent years of the contract.

Impact on national greenhouse gas emissions

The increase in the area of land farmed organically has implications for national greenhouse (GHG) emissions. This will largely be mediated through: reduced use of inorganic fertilisers, particularly nitrogen (N); lower stocking rates on livestock farms and thus fewer livestock nationally; and a change in finishing age of beef cattle relative to conventionally-farmed beef cattle. Typically, the finishing age of beef cattle on

organic farms is older than for conventional farms. In the Teagasc Marginal Abatement Cost Curve (MACC), it is assumed that reductions in finishing age across the ‘conventionally’ farmed bovine population are marginally offset by an increase in beef cattle produced on organic farms. However, given that organic beef farms tend to be lower stocked than conventional farms, the overall impact on the national population is expected to be relatively modest. These effects together are anticipated to abate 300,000 t of CO₂eq annually.

Teagasc organic research

As part of the DAFM research call in 2023, Teagasc were awarded funding for a major organic farming research project. The “Growing Resilient Organic Farming Systems” (GROFarmS) project aims to provide timely research to underpin the rapid expansion of the area farmed organically in Ireland and the ambitious targets to grow the sector further. GROFarmS addresses three primary research areas:

1. to evaluate and further develop organic knowledge transfer interventions in order to demonstrate technically-efficient systems of production to build the knowledge and confidence of farmers in organic production,
2. to undertake scientific research on organic beef (and lamb) finishing systems in order to develop efficient technology blueprints which will support farmers to finish animals organically,
3. to measure the sustainability of organic farming systems in Ireland.

Central to this project is the demonstration of best-practice for organic beef systems in order to expedite technology transfer to the organic farming sector. In the case of beef systems, Teagasc is currently converting the 100-acre Kildavin farm at Teagasc Johnstown Castle in Co. Wexford to a fully certified organic status. This farm will be developed as an organic finishing beef research and demonstration farm. The research undertaken will assess a range of beef finishing options to develop clear guidelines for efficient and profitable organic-beef finishing systems. Complementary research studies will be conducted at Teagasc Grange Research Centre to identify optimal finishing diets. Results from these cattle experiments will subsequently inform farm systems experiments in Johnstown Castle. The research conducted in these trials will provide the basis for further investigation into organic production systems by supporting cross cutting studies in product quality and environmental impact assessments.