



Teagasc Director Professor Frank O'Mara in conversation with Carol Melody of Teagasc and Monika Halwax-Sherry (right) of the Goatstown Allotment Association at the Teagasc stand at Bloom 2022.

Agricultural diversification – Have you considered horticulture?

Carol Melody
Lecturer of Biodiversity, Ecology and Plant Science, Teagasc College of Amenity Horticulture.

The only constant in life is change and those willing to adapt will survive and thrive.' This is a paraphrased quote from a Greek philosopher adopted by scientists and politicians over centuries.

It's equally relevant to people working the land. Change is unavoidable and accelerating due to the vagaries of global economics, war and now, most importantly, our response to climate change.

Agriculture accounts for greater than one-third of our national green-

house gas (GHG) emissions, mainly in the form of methane from ruminant livestock and nitrous oxide from fertiliser use. Currently, with fuel and fertiliser prices spiralling upwards, a global food crisis is predicted for the near term.

Of course, in the 1840s we had our own dreadful food crisis. In post-famine Ireland, the congested districts board and later bodies encouraged diversification across farm holdings, including crop rotation techniques, establishment of fruit trees, field and tillage crops, new livestock breeds and delivery of beehives and training in honey production.

With these changes, there was increased success and profit from farming. Subsequently, besides a diversity

of livestock and fodder crops, nearly all farm holdings had an area of vegetable and fruit production.

Potatoes, the most important root crop globally, remained a staple in the gardens and diets of the Irish, despite potato blight (see also the article in this edition by Stephen Kildea). Turnip, cabbage, peas, beans and beetroot are still commonly grown for domestic use.

Most farms had a domestically maintained orchard of fruit trees, often with varieties adapted to the Irish climate (today these are often described as heritage varieties). Some farmers grew such crops for sale.

As recently as the 1990s, you may remember bundles of cabbage plants being sold at your local markets.



An Taoiseach Micheál Martin met Teagasc Director Professor Frank O'Mara and Head of Horticulture Dermot O'Callaghan at the Teagasc stand at Bloom 2022.

In general, as a subsector of agriculture in Ireland, horticulture is overlooked. It is a viable investment option for landowners and farmers, who already may have the prerequisite knowledge, tools and ability to diversify into fresh produce, but they do need to have the requisite skills to market their own produce.

Vegetable and fruit production occupies the least amount of land, releases the least amount of greenhouse gases, while returning the most food. Food horticulture was worth around €423m (farmgate) to the Irish economy in 2021, with the majority being sold domestically.

While the retail market for fresh produce is worth around €1.6bn, the majority of fruit and vegetables are

imported. Consumers are changing, becoming more health conscious and environmentally aware.

There is a particularly high demand for sustainable, organic, local produce. Fifty percent of consumers surveyed said they would pay at least 10% more for organic produce, confirming a price premium for producers.

It is a sustainable option for those looking to adapt and respond to human induced environmental change. There is scope for market-led expansion in certain crop lines and regions. The organic option is worthwhile where demand is strong and marketing direct to the consumer is possible. A self-install 50m² polytunnel can be purchased for around €1,500 and

open pollinated seed of Irish heritage vegetables and grafted heritage fruit trees are available from Irish Seed Savers (seed packets from €2.95). If you're not willing to jump into growing yourself, perhaps consider renting a couple of acres to someone who is.

If you feel you need a better grounding in the theory and practical applications of horticulture, we offer Level 5, 6 and 7 courses, full-time and part-time, at the Teagasc College of Amenity Horticulture, which has facilities at the wonderful National Botanic Gardens and Teagasc Ashtown.

See growing guides at www.teagasc.ie/crops/horticulture/vegetables/home-gardener.

Teagasc at Bloom 2022

The Teagasc horticulture Bloom exhibit *Healthy People, Healthy Planet* set out to inspire people and create awareness about Irish fruits and vegetables, their positive impact on personal health, in terms of consumption and the positive climate impact in choosing fresh produce, plants and trees.

"The value of the horticulture sector for consumers in terms of fruits, vegetables and plants has come into sharp focus in recent times," says Dermot Callaghan, head of Teagasc's Horticulture Development Department.

"Fresh produce has a key role to play in healthy diets and has a low environmental footprint, but also the value of plants and trees in our gardens and our built environment is now clearer than ever. We are squarely behind these themes for Bloom."

"Of course, we also offer a range of

horticulture courses at our colleges. These themes, which are important for Teagasc, were all addressed at Bloom. If you are interested in any aspect of horticulture, visit www.teagasc.ie/horticulture or contact us via any Teagasc location," Dermot said.

Teagasc's Horticulture Development Department displayed a range of research and advisory supports to the horticulture sector and emphasised work recently commenced by Teagasc to develop alternatives to peat-based growing media in the horticulture sector.

Horticulture education featured the Teagasc College of Amenity Horticulture at the National Botanic Gardens, Dublin and Kildalton Horticulture College, Piltown, Co Kilkenny.

Both colleges play a major role in horticultural education and training in Ireland. The Food Waste Challenge showcased Teagasc's research into

reducing food waste and minimising single use plastics in horticulture products, supporting a transition to more sustainable packaging, and generating new data on food waste and GHG emissions.

The Irish landscape provides a rich variety of natural, cultural and built heritage. The Biodiversity in our Countryside exhibit outlined a range of relevant Teagasc resources that address farmland biodiversity and the Irish countryside. Teagasc Forestry Development Department highlighted its work in promoting and researching the many benefits that trees and forests provide, including their vital role in addressing climate change.

Potato Research detailed how Teagasc research is supporting Irish potato production by developing new potato varieties and helping to better forecast potato late blight.