

Dairy in a Healthy and Sustainable Irish and European Food System

As the year draws to a close and Ireland's dairy cows are housed for winter, dairy farmers are reflecting on another rewarding and sometimes challenging year doing what they do best.

There are 17,500 family-run, grass-based dairy farms across Ireland that are the backbone of an industry supporting 60,000 jobs (1 in 40 Irish jobs) and which play a key role in sustaining vibrant rural and regional communities. Dairy farming contributes over €5 billion to the economy each year and is at the heart of our largest indigenous industry; agriculture and food production – a sector which is buoyant, as demand for high-quality and nutritious food surges globally.

Sustainability and land stewardship is at the heart of everything dairy farmers do; the majority are farming land handed down from one family generation to the next, and all with the intention of handing the reins over to the next generation in better shape.

This newsletter from the European Milk Forum, in association with the National Dairy Council, details the role of dairy in a healthy and sustainable European food system, and spotlights sustainability actions being undertaken by Irish dairy farmers.

Inside you will hear from dairy farmers like Shane O'Loughlin in Kildare, who is focused on environmental sustainability and ensuring his land acts as a vibrant biodiversity corridor. We take a look at industry-level initiatives such as Teagasc's Signpost programme and showcase the work of Michael and Alex McCarthy in Limerick. We have features on nutrition and the importance of maintaining bone health as you age, as well as information on the latest round of the European Union's Common Agriculture Policy 2023-2027,

including its links to both the EU Green Deal and Ireland's own national climate change programme.

The recent release of Ireland's Climate Action Plan, as well as the COP26 climate discussions in Glasgow has placed a renewed focus on the actions which every person and every sector of society needs to undertake to meet our climate commitments. The dairy sector is no different and it too must play its part. What is needed is to mainstream best practices from farmers like Shane, Alex and Michael onto every dairy farm across the country.

While it is correct to state that the national herd has grown over the past decade, the reality is that the dairy herd is similar in size today as it was in 1986. What has happened over these 35 years, a period in which the global population has grown by 3 billion, is that Irish dairy is producing more with less. Careful breeding programmes ensure more milk from each cow and as a result, emissions per litre of milk are down by 9%, laying the foundation to further reduce total emissions. Our grass-based, low-intensity farming model – where cows forage naturally on grass for 9-10 months of the year – means less imported animal feeds than most countries.

It is this increased focus on environmental sustainability that makes Ireland the most carbon-efficient producer of dairy in the European Union¹. This matters, particularly when Ireland's dairy industry feeds an estimated 45 million people globally. Replacing Ireland as a source for this dairy is likely to lead to less carbon-efficient and environmentally unfriendly production in other countries (known as carbon leakage). At a time when global populations expand and dairy consumption surges around the world, this will only lead to increased global carbon emissions.

With the right supports, we can ensure every dairy farm in Ireland adopts best practice on issues such as grassland and nutrient management, breeding and fertiliser usage to significantly reduce farm emissions. Dairy farmers are keen to play their part in achieving their targets and becoming the best dairy producing nation by 2030, just as they are keen to continue providing



nutritious food for 45 million people around the world, and to hand the land down in better shape to the next generation of sons and daughters.

Zoe Kavanagh,

Chief Executive, National Dairy Council & Spokesperson, European Milk Forum

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Third-generation dairy farmer putting sustainability at the heart of his family farm

Shane O'Loughlin,
Co. Kildare



Dairy farmer Shane O'Loughlin
Picture Credit: Finbarr O'Rourke

“Sustainable farming is very important to the future of the farm. I try to farm in as an environmentally-sustainable way as possible as I want to leave the farm in the best shape that I can for the next generation.”

Shane O'Loughlin

For Shane O'Loughlin, reducing farm emissions and safeguarding biodiversity goes hand in hand with maintaining a sustainable farm.

Like thousands of Ireland's dairy farmers, Shane O'Loughlin comes from a proud farming tradition. His family have been farming at Oghill, Co. Kildare, since 1943 when Shane's grandfather first bought the land. The family have been dairy farming since 1960 when a dairy co-op was established in Monasterevin. Following the completion of a first-class honours degree in Animal Crop Production in UCD and time

abroad, Shane returned to the farm in 2005, taking over full management from his father in 2011. He and his wife Judith have three children, Hugh, Tom and Emma. Since taking over the farm, Shane has worked hard to reduce the carbon footprint associated with his farm's milk production, putting in place a series of initiatives which have improved grass quality, soil fertility, animal breeding, as well as improving biodiversity on his land.



Shane with the herd at the family farm in Oghill. Picture Credit: Finbarr O'Rourke



Shane O'Loughlin with Zoe Kavanagh, Spokesperson European Milk Forum and CEO National Dairy Council, John Murphy, Chairman, Glanbia Ireland. Picture Credit: Finbarr O'Rourke

Sustainability in action

■ Nutrient Management Planning

The farm has a nutrient management plan in place which provides precise information on what levels of nutrients are in the soil. Shane samples 25% of his farm soil annually. Following this rotation over a four-year cycle provides a good indicator of the quality of the soil, what areas need attention and corrective action and what areas need conservation and management. As a result of this, he can tailor the application of fertiliser and slurry to ensure that fields have the correct balance of potassium, phosphorus and nitrogen.

■ Low emissions slurry spreading

Shane has his own low emissions slurry spreading equipment and a trailing shoe. By using this and other techniques, he has increased the percentage of slurry spread in spring to 30% and hopes to build upon this further.

■ Grassland management

Shane's cows are in the fields for over 300 days each year. By having his herd out on grass for almost 10 months of the year, Shane saves on feeding his animals expensive silage and grain, as well as improving overall herd health as the animals can graze in the open space and fresh air.

■ Biodiversity

Shane's farm is part of the Protecting Pollinators European Partnership Innovation programme, managed through the National Biodiversity Data Centre. Shane has set aside 10 acres of the farm for conservation and biodiversity with a dedicated area for native Irish trees, hedgerows, flora and fauna, providing a perfect habitat for birds, bees, bats and other wildlife. The farm has a network of hedgerows which provide both cover and shelter for animals, helping to regulate water flow and support carbon sequestration. Hedgerow cutting is on a 3–5-year rotation, rather than annually.

■ Economic Breeding Index

Shane has put a big emphasis on improving the Economic Breeding Index (EBI) of his herd and it has been an important factor in helping to reduce the carbon footprint of the milk produced on the farm. The EBI system involves farmers selecting the most profitable animals for breeding dairy herd replacements, assessing animals on a number of criteria such as milk production capacity, fertility, calving performance and management and health.

■ Carbon footprint

As a result of these and many other actions, the carbon footprint associated with every litre of milk on the O'Loughlin farm has reduced by 6% according to his 2020 Bord Bia Sustainability Dairy Assurance Scheme report. The scheme assesses a farmer's milk production process to ensure it meets Bord Bia standards, taking account of animal welfare, environmental protection and food safety.

Representatives from the European Milk Forum, the National Dairy Council and Glanbia Ireland recently joined Shane for a farm walk to see the sustainability initiatives implemented on the farm and to discuss the response of the dairy sector to climate change and the changing needs of consumers. The event is available to view at [GlanbiaConnect.com/news/LivingProofEvent](https://www.glanbiaconnect.com/news/LivingProofEvent)



Farmers follow the Signposts to a greener future



The Teagasc-led Signpost Programme provides practical support to Irish farmers seeking to reduce emissions, improve farm sustainability and preserve and protect the land.

The Teagasc-led Signpost Programme is a new partnership of over 50 organisations including industry, state bodies and farm organisations from across the Irish agricultural sector working with farmers to reduce greenhouse gas (GHGs) emissions, improve water quality and enhance biodiversity of food production. The aim of the Signpost Programme is to reduce emissions on Signpost Farms by 10-15% by 2025.

Nationally, there are over 100 Signpost demonstration farmers who are central to the programme and will point the way forward for all farmers. The programme was launched in May 2021 and these demonstration farmers will be the early adopters of the various technologies to reduce greenhouse gas emissions.

According to Dr. Tom O'Dwyer, Head of the Signpost Programme at Teagasc:

“There is no silver bullet to reducing emissions – it is a combination of the implementation of many separate measures on farms, including improving animal health, that will bring about a reduction in emissions. It is important to concentrate on the proven measures that we know will provide reductions in emissions, including protected urea, low emissions slurry spreading and reducing chemical nitrogen use.”

Farmers and local communities will have the opportunity to track the progress of their own local Signpost Farm and provide practical inspiration to make a change to how they farm to reduce GHG emissions. The education of the next generation of farmers as well as training of all farmers will be a key priority of this programme over the next couple of years.

“The Signpost farmers will be central to the programme and will point the way forward for all farmers to a climate smart farming future,” said Dr. Tom O'Dwyer

You can check out the Signpost programme including demonstration farms in your area by visiting www.teagasc.ie/signpost

In practice: Michael & Alex McCarthy



Michael and Alex McCarthy, Feenagh, Co. Limerick

The environmental footprint of their farm is hugely important to both Michael and Alex, who milk 167 cows on their farm at Feenagh, Co. Limerick. The father and son team have worked hard to embed sustainability into every step of their farm's milk production process. With the support of their local Teagasc advisor Tom O'Connor, they have seen a measurable reduction in the farm's carbon footprint. As part of the farm's biodiversity programme, hedgerows have been planted across the farm with plans to further increase flora and fauna and enhance the overall environment to help biodiversity flourish. Michael has also focused on reducing energy consumption by installing a

heat recovery system in the milking parlour. In order to reduce emissions from animals, Michael uses protected urea and low emissions slurry spreading equipment. In an effort to reduce the reliance on fertiliser, soil sampling and incorporating clover into the grass management plan is also a key part of the farm's sustainability plan. As a result of implementing these initiatives, recent figures show that the greenhouse gas emissions associated with the production of every litre of milk at the McCarthy farm now stands at 0.95 kg CO₂ equivalent per kilo of fat and protein corrected milk (FPCM), which is lower than the national average of 0.99 kg CO₂ equivalent per kilo.

Sustainable Nutrition



Ensuring long-term sustainable food systems provide sufficient nutrition is a key consideration for national and global policymakers – and dairy is an important part of this, explains Dr Marianne Walsh, Nutrition Manager at the National Dairy Council.

By 2050, it is estimated that the world must nourish 2 billion extra people, all while decreasing the burden on our precious and finite natural resources. Ensuring sustainable food systems that can feed almost 10 billion people is a central element of Climate Action, and at the recent COP26 conference in Glasgow, 45 nations signed up to a new agreement for the reform of policies in this area.

A significant proportion of the expanding global population is accounted for by those who are living longer. As populations age, there will likely be an increase in the prevalence of age-related frailty conditions such as osteoporosis and sarcopenia. In Ireland, the over-65s population is increasing by approximately 20,000 each year while the over-80s population is expected to be over 500,000 by 2041. It is therefore crucial that guidelines for sustainable eating must pay particular attention to the needs of older age groups.

Earlier this year, the key role of dairy foods in providing high quality protein and other key nutrients was reinforced in the new Dietary Guidelines for Older Adults, published by the Food Safety Authority of Ireland (FSAI).²

According to Ita Saul, Chair of the FSAI's Public Health Nutrition Subcommittee, it is common sense to support older people living healthy productive lives through health strategies based on changing nutritional needs as we all get older.

The British Medical Journal – one of the world's most prestigious independent scientific journals – demonstrated the positive impact of increased dairy in a trial of over 7,000 older adults living in residential care. In a randomised-controlled trial, dairy food intake was increased from approximately 2 to 3.5 servings per day. The intervention was associated with a 33% reduction in all fractures, a 46% reduction in hip fractures and an 11% reduction in falls. Given that a shocking 20-25% of people who suffer a hip fracture die within 12 months, this research highlights a practical and valuable role for

dairy within public health.

“Simply put, increasing dairy consumption in these older adults was associated with a 33% reduction in all fractures, a 46% reduction in hip fractures and an 11% reduction in falls.”

While dairy is hardwired into Irish culture, it may come as a surprise therefore to find that most Irish adults fall short of the Department of Health recommended 3 servings per day from the ‘milk, yogurt and cheese’ food group, with only 13% meeting this guideline and an average intake of 2 servings per day. Intakes are lower still among the over 65s age group. Therefore, it is important that population advice on sustainable eating is focused on adhering to dietary guidelines rather than on increasing, decreasing or removing specific food groups from the diet.

As the science develops in this space, the nutrient richness and protein quality offered by many animal-based foods is receiving greater recognition. Plant and animal-based foods don't have to act as competing entities but rather as complementary food sources within a balanced diet.



New CAP evolves with the needs of a changing Europe

The new Common Agricultural Policy for 2023 - 2027 is adapting to the changing needs and environment of European society in order to provide a greener, fairer and more flexible future – for farmers and every European citizen.

Launched in 1962, the EU's Common Agricultural Policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers to provide affordable food for EU citizens and a fair standard of living for farmers.

The CAP is a cornerstone of the EU's activities and represents a third of the budget between payments to farmers, which ensure affordable food for all EU citizens and support rural development. In the proposed new CAP 2023-2027, there are a series of measures to make European farming more sustainable, both in terms of reducing climate emissions and supporting vibrant rural communities.

- **A Greener CAP:** Three of CAP's nine objectives directly relate to the environment and climate, covering management of natural resources, climate change and biodiversity. Assessment of the respective plans of each member state will be reviewed in the context of targets already set out in the EU Green Deal 2030, the Farm to Fork and the Biodiversity Strategy, reflecting a joined-up approach and linking to targets previously agreed.
- **Supporting the transition:** CAP will support the transition to a sustainable future with multiple initiatives including: a programme to preserve carbon-rich soils such as peatlands; €256 million funding for organic farming; allocating a percentage of land for biodiversity; and helping farmers invest in and utilise technology to reduce the environmental impact.
- **Farmers and all beneficiaries of CAP payments** will now be expected to adhere to European social and labour law, reflecting a more "socially fair CAP", with penalties on those who do not provide adequate employment conditions. It is the first time that EU agriculture legislation has included this dimension.
- **The new CAP** also includes measures aimed at redistributing funds in favour of smaller and medium sized farms. This will involve redirecting 10% of benefits to support such farms. Furthermore, 3% of the total budget will be set aside for interventions to support young farmers.
- **Over €297 million** will be allocated for eco-schemes, representing 25% of direct payments to farmers. These will cover five areas: devoting an increased proportion of land to non-productive areas/features, extensive livestock production, limiting chemical nitrogen input, planting of native trees and use of GPS-controlled spreaders to apply fertilisers.
- **Gender inclusivity in CAP:** Female farmers currently make up just 12% (16,100) of the 137,100 family farms in the country. Support for female farmers through the on-farm investment scheme known as Targeted Agricultural Modernisation Scheme will be increased to support and grow the number of female farmers. Female farmers currently make up just 12% (16,100) of the 137,100 family farms in the country



Next Steps in the CAP 2023-2027

- The plan was voted on by the EU Parliament on November 23rd and it will now proceed to the European Commission to sign off on the legislation.
- The CAP was approved by the EU Parliament on November 23rd and is now proceeding to the European Commission for sign off on the legislation.
- All member states must send in their respective plans by the end of 2021.
- The European Commission will assess and approve the member states' individual plans in the first half of 2022.
- CAP is scheduled to be active from 1 Jan 2023.

Supporting Vibrant Rural Areas

The Irish dairy sector is built on 4,000 years of history; on the proud tradition of the family farm, passed down through the generations, and it is central to the ongoing vibrancy of rural and regional areas.

Data from the Central Statistics Office shows that over a quarter of a million people are employed in agriculture, with over 130,000 farms across Ireland¹. The dairy sector is a vital cog in the social and economic wheel of activity in rural Ireland, providing employment to over 60,000 people, with Teagasc forecasting the need for 6,000 additional workers to enter the sector in the coming years.

The increase in milk production has been a massive contributor to the growth in economic activity in rural regions in the last number of years. Taking September as a snapshot alone, 779.3 million litres of milk were taken in by creameries and pasteurisers around Ireland, with farmers from Malin Head to Mizen Head working from dawn to dusk to meet demand.

In the context of the national exchequer, the dairy sector currently contributes €5 billion in exports annually.

It is estimated that for every €1 of dairy export value generated, 90c of that is invested in the local and regional economy; money spent in the local supermarket, hardware store, farm supply store, local cafes, pubs and restaurants.

We know that over 60% of consumers feel that the Irish Dairy Sector supports their rural region and findings from the Irish Farm Accounts Co-Operative showed that almost 4 in 10 dairy farmers employ people on the farm. Of that same survey, three quarters feel that dairy provides a sustainable source of income and a good livelihood. Such findings are positive factors in supporting people to work and live within their local region, play a positive role within the community and contribute to the activities in the area.

The contribution by the dairy sector is all the more critical in light of the challenges facing Ireland's rural regions on issues such as rural depopulation, retrenchment of services such as banking as well as rural aging and isolation. Dairy farms are at heart of these regional communities, directly and indirectly employing many as well as keeping money going in the local economy. Removing or weakening this keystone for regional communities would likely be a significant blow with far reaching consequences.



Louise Crowley, a full-time dairy farmer from Croom, Co. Limerick explains how much dairy farmers value their role within the community

“Dairy farmers are deeply connected to the areas we live and work in, and whether it is supporting local shops, farm suppliers and businesses to playing our part in community activities, sporting organisations and voluntary groups, it all combines to make a significant and positive impact within our immediate locality and further afield. Protecting, preserving and enhancing, the quality of life in rural Ireland is something that all dairy farmers are hugely committed to.”

¹<https://www.cso.ie/en/releasesandpublications/ep/p-syi/psyi2018/agri/farmsandfarmers/>

²<https://www.independent.ie/business/farming/news/average-farm-incometo-rise-in-2021-as-dairy-circlesnew-record-40701235.html>

Irish Consumer Research

When asked their thoughts on the role of dairy, Irish people say they are proud of dairy, of dairy farmers and agree that farmers are acting on sustainability and climate change issues.*

“Dairy farmers the length and breadth of Ireland are working hard to produce fresh and nutritious products in a sustainable manner. They are adopting new innovations and technologies for sustainable food production and focusing on ensuring that the land is preserved and properly cared for to leave it in a better state for the next generation. From the research findings, it is clear that Irish people are backing our dairy farmers; people possess an awareness of the work taking place, and equally, they value the enormous contribution that Irish dairy farmers play, in terms of producing healthy and nutritious food and acting as custodians of the land.”

*Zoe Kavanagh,
CEO National Dairy Council & Spokesperson, European Milk Forum*

The European Milk Forum

The European Milk Forum (EMF) is a non-profit organisation which plays a vital role in driving the strategic development, management and exchange of integrated information initiatives on milk and dairy across Europe. Through a three-year EU funded campaign, 'Dairy in a Healthy and Sustainable European Food System', five national dairy boards in Belgium, Denmark, France, Ireland and Northern Ireland are working in collaboration to highlight the essential role of dairy in a healthy diet, while also reinforcing the dairy sector's positive contribution to society and the environment through a sustainable, locally-produced food system.

Join the conversation on Twitter @EUDairyIre



58%

say farmers are managing their farms in a sustainable way for the next generation.



77%

believe farmers provide safe, healthy and nutritious dairy products.



68%

of people say they are proud of Ireland's rich dairy history and heritage.



75%

see dairy as part of a healthy, balanced diet.



87%

feel dairy is both sustainable and economically important for society.



79%

of people recognise that our dairy farmers are taking action in relation to the environment.



84%

say that Ireland is a suitable place for dairy production given its climate.

*Statistics from the European Milk Forum National Research June 2021 & NDC Dairy Sentiment Research Sept 2021.

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