

Dairy in a Healthy and Sustainable Irish and European Food System

As we move beyond the half-way mark of this year, there is much to focus the minds of Ireland's dairy farmers who are working hard to produce healthy and nutritious dairy products in a sustainable manner to meet the demand of a vibrant global market.

Fulfilling their role as food producers in an economically viable manner and simultaneously responding to the challenges posed by climate change are chief among the considerations for Irish dairy farmers.

Consumers have become even more attuned to the provenance of their food, production processes and environmental impact while dairy farmers are fully aware of the need to respond proactively. Recent geo-political events have placed the issue of food security into sharp focus, not to mention the rising costs associated with food production.

With all of this in mind, and in view of these growing issues, Irish dairy remains well placed to continue to respond positively. Our dairy sector is regarded as one of the most carbon efficient producers of dairy in the European Union* owing to our grass-based low-intensity farming system and temperate climate. Irish dairy enjoys a proud heritage built upon generations of dairy farmers who have demonstrated an unwavering commitment to producing nutritious, quality dairy products in an environmentally friendly way.

The third edition of 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 showcases the actions taken by Irish dairy farmers to ensure sustainability is at the heart of the dairy production process.

In this summer's publication we feature the McCarthy family from Limerick winners of the National Dairy Council and Kerrygold Quality Milk Awards, as well as learn about the work of the National Biodiversity Data Centre supporting dairy farmers with the knowledge

and skills to enhance biodiversity on their farms. We also examine the work of Glanbia Co-Operative supporting dairy farmers to implement sustainability initiatives at scale. We assess the insights from our consumer research as well as explore the nutritional value of dairy products.

Ireland's 17,500 family-run dairy farms play a critical role as food producers, delivering both high-quality nutritious dairy products and significant economic benefits to regional and rural economies. Latest figures show that the demand for Irish dairy remains high. In 2021, the sector accounted for exports worth €5 billion (for the third year in a row) trading with 147 countries and with 50% of all trade to other countries, other than the EU and UK markets.**

The buoyant demand globally dovetails with a strong appreciation closer to home. Results from a survey of 1,500 Irish adults show that 84% are overwhelmingly backing Irish dairy, calling for production to remain in Ireland and with extra supports for dairy farmers to implement further sustainability initiatives.

Of even greater significance is the willingness of consumers (72%) to pay extra for dairy products provided the increase goes towards enhancing the sustainability of the dairy production process. Considering the rise in the current cost of living, such positive sentiments are a strong endorsement of Irish dairy.

The vast majority (67%) believe that the dairy industry is committed to producing dairy more sustainably and that it will have a greater role to play in the coming years as the EU strives to achieve net-zero greenhouse gas emissions.

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This finding is heartening and should strengthen the resolve of Irish dairy farmers, who are rising to meet the ambitious targets set out under the national Climate Action Plan – a roadmap to guide the efforts of all sectors of Irish society to reduce overall carbon emissions by 51% by 2030.

Climate action and environmental sustainability is one that demands a nation wide approach. Irish dairy is committed to playing a full and active part by working with others to find and put in place solutions to ensure environmental sustainability is at the heart of all we do.



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

*<https://op.europa.eu/en/publication-detail/-/publication/38abd8e0-9fe1-4870-81da-2455f9fd75ad>

**<https://www.bordbia.ie/industry/news/press-releases/irish-food-and-drink-exports-enjoyed-a-record-year-as-value-of-sales-up-4-to-13.5bn-in-2021/>



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Farm Focus

Michael, Mary Ita and Alex McCarthy
Co. Limerick



Michael & Mary Ita pictured at their dairy farm's milking parlour. Credit: Dora Kazmierak – and NDC & Kerrygold Quality Milk Awards

“We’re always asking ourselves what we can do better. There’s a lot of things we have to be good at. We want to drive our practices towards being climate-friendly.”

Michael McCarthy

The McCarthy family are working hard to further enhance the sustainability of their farm’s milk production process and to ensure the farm is in the best possible state for the next generation. Their efforts have been recognised with a National Dairy Council and Kerrygold Quality Milk Award for high-quality sustainable milk production.

Like thousands of Irish dairy farmers, the McCarthys come from a long and proud farming tradition. Michael, a fifth-generation farmer and his wife Mary Ita have been farming at Feenagh, Co Limerick since 1990. The couple combined a busy farming life with raising their four children who all helped out on the farm. Their son Alex trained as a

mechanic and worked off-farm for several years before returning to the farm full-time in 2017 to work closely with both of his parents. Today, the McCarthy family milk 170 Holstein-Friesian cows and with a strong focus on ensuring their milk production process is as environmentally friendly as possible.



(l-r) The McCarthy family- Grand-daughter Chloe, Michael, Mary Ita and son Alex at the family farm in Feenagh, Co Limerick
Credit: Dora Kazmierak – and NDC & Kerrygold Quality Milk Awards



Cows grazing at the McCarthy family farm in Feenagh, Co. Limerick: Credit: Dora Kazmierak – and NDC & Kerrygold Quality Milk Awards

The McCarthy family have implemented a series of on-farm actions to reduce emissions and improve overall environmental sustainability.

■ **Energy efficiency**

They have invested in a number of energy-saving initiatives such as upgrading the milking parlour to a 22-unit system which includes an external milk silo and heat exchange unit. Other innovations include the installation of gas water heating systems, variable milk pumps and LED lights.

■ **Grassland Management**

The use of new technologies to measure the amount of grass grazed has been an important tool in their grassland management system. Cows are in the fields for 300 days each year. By having cows in the fields for a significant period of time, it has helped to reduce the need for costly grain and feed and improved overall herd health with the cows grazing outdoors in wide open spaces.

■ **Soil Fertility**

The use of a paddock system and colour coded soil maps has helped to inform how best to manage each section. The information is then used to tailor the application of fertiliser and slurry in each area.

■ **Use of clover**

The introduction of clover across 15 hectares of the farm over the last number of years has helped to reduce the amount of chemical fertiliser spread on these paddocks between early May and August each year.

■ **Low Emission Slurry Spreading (LESS) & Protected Urea**

Slurry is spread through low emission slurry spreading equipment, with the use of a dribble bar maximising the nutrients going into the soil and reducing gases released into the atmosphere. Protected urea has been applied on the farm since 2018.

■ **Improving EBI**

Michael has put a large focus on improving the Economic Breeding Index (EBI) of their Holstein-Friesian herd. Criteria such as milk production capacity, fertility, and calving performance help inform the selection of the most profitable animals for breeding which in turn contributes to reducing the carbon footprint of milk produced on the farm.

■ **Hedgerows**

The McCarthys keep a close eye on the quality and health of the hedgerows on the farm. They repair and maintain established hedgerows and to date they have planted almost five hectares of new hedgerows, an important part of enhancing biodiversity.

“The McCarthy family are innovating in all the right places, making data-driven decisions, and have succeeded in establishing sustainable systems in the environmental, welfare and financial activities of their farm. They are excellent ambassadors for the Irish dairy industry.”

Dr David Gleeson (Teagasc) Judging Panel,
2021 NDC & Kerrygold Quality Milk Awards

Dairy farmers working to create a buzz on farm

A European-funded programme led by the National Biodiversity Data Centre is supporting Irish dairy farmers with the knowledge and skills to implement actions to support nature's pollinators and enhance biodiversity as part of a sustainable dairy production system.

The benefits of incorporating biodiversity into the agricultural system are many, ranging from improving soil health, habitat establishment, fertiliser reduction and reducing water run-offs.

Through the Protecting Farmland Pollinators programme, dairy farmers are working to provide small habitats that will offer food, safety, and shelter for pollinators such as wild bees, hoverflies and other biodiversity to thrive and flourish on their farms.

“This Project is about small actions that allow nature to coexist within a productive farming system. In taking action to protect pollinators, we start a chain reaction that has positive benefits for the general health of our environment, our mental health, and the well-being of future generations. We want to help make the landscape a place where pollinators and wider biodiversity can survive and thrive.”

Saorla Kavanagh, Project Manager
Protecting Pollinators EIP

The programme aims to develop and test a whole-farm pollinator scoring system and identify what management practices on Irish farmlands benefit pollinators.

The results-based method helps farmers to understand how pollinator-friendly their farm is and in turn identify low-cost actions they can take to work towards improving their score and in a manner that does not negatively impact the economic viability of the farm. Using the scorecard each farm receives pollinator points and each year farmers receive a results-based payment that relates to the points.

“Farmers know their land the best. They know what works, and what does not. The pollinator score helps farmers to identify what actions they can take to work towards improving their score in a way that does not negatively affect productivity.”



EU Biodiversity Strategy

The EU's Biodiversity Strategy for 2030 is a long-term plan to protect nature, reverse the degradation of ecosystems and put Europe on a path to biodiversity recovery by 2030.

Targets include:

- Reversing the decline of pollinators
- Reducing the use of chemical as well as more hazardous pesticides by 50%
- Ensuring at least 10% of agricultural area is under high-diversity landscape features
- Increase organic farming management to at least 25% of agricultural land
- Reduce the losses of nutrients from fertilisers by 50%



Actions to enhance biodiversity

Hedgerow management

One of the key actions dairy farmers most frequently take to help pollinators relates to hedgerow management. By cutting hedgerows every two years, as opposed to annually, it allows flowers to grow and flourish providing a rich food source for pollinators.

Leaving areas of bare soil for mining bees

Over 60% of Ireland's bees are mining bees, who need access to bare soil to dig their nests. Areas of bare soil can range from large to small and depending on the size of the area it will require maintenance at least once per year. Farmers are encouraged to clear any vegetation that has grown by manually scraping back the area to bare soil. It is recommended to do this when the nests are not active (between November

and February). However, vegetation may need to be cleared in the summer months.

Wildflowers

Farmers are encouraged to allow wildflowers to develop and grow and avoid cutting and mowing areas. Natural wildflowers are rich feeding grounds for bees and play a crucial role in maintaining and enhancing pollinators. A decline in wildflowers has a significant effect as pollinators are left without a food source.

Moving the field boundary

Another action dairy farmers can take is moving the field boundary out from the hedge. This allows greater space for wildflowers to grow and provides additional food and safety for pollinators within the field boundaries.

Sustainable Nutrition



Nutritious, delicious, versatile, and affordable dairy rightly earns its place as part of a healthy, sustainable diet. Dr Clare O'Donovan, RD and Senior Nutritionist at the National Dairy Council explains why.

In the landscape of the EU Farm to Fork Strategy and COP26, the concept of 'sustainable diets' has never been more important. Sometimes considered as eating patterns that simply focus on reducing climate change, sustainable diets encompass much more than this and could not be 'sustainable' if they focused on this issue alone.

Sustainable diets as defined by the Food and Agriculture Organisation of the United Nations should be nutritionally adequate, safe and healthy; culturally acceptable and accessible; economically fair and affordable and environmentally protective considering and respectful of biodiversity and ecosystems.

We know that dairy plays a leading role in the lives of people across Ireland. Latest findings from research of 1,500 Irish adults by the European Milk Forum found that dairy products were present in the diets of 92% of those surveyed. From a nationwide nutrition point of view, dairy products account for 39% of Ireland's calcium intake and 35% of its vitamin B12 intake, along with other important nutrients.

The Department of Health recommends all individuals consume three servings of dairy products (milk, yogurt and cheese) per day with the exception of 9-18 year-olds who are recommended to consume five servings.

For instance, milk is regarded as 'a key food' for children aged 1 to 5 years as per the Food Safety Authority of Ireland's (FSAI) scientific guidelines. For older adults, the latest scientific guidelines recommend this age group to consume a more protein-dense diet with emphasis on foods such as meat, poultry, fish, eggs, and dairy.

The importance of dairy for specific groups, such as growing teenagers cannot be underestimated. Results from the latest national consumption surveys reported that a substantial proportion of teenagers had inadequate intakes of calcium (51%) and vitamin D (94%) against a backdrop of decreasing milk intake. Furthermore, 48% of teenagers were estimated to have inadequate intakes of vitamin C dropping to 33% for folate; 28% for vitamin A and a lowly 14% for vitamin B6. Taking into account these findings, it is anticipated that new food based dietary guidelines for teenagers, to be developed by the Food Safety Authority of Ireland, will place a high importance on dairy to support this critical period of growth and development of bone mass.

As a nation we enjoy a long and proud dairy farming tradition stretching back thousands of years. Dairy farming and dairy foods are very much part of the fabric of Irish culture. Today, there are 17,500 family-run dairy farms in Ireland producing healthy, nutritious

dairy products and making a significant contribution to rural and regional economies by providing employment and enhancing the social and economic fabric of their local communities.

From an environmental standpoint, our dairy sector is regarded as one of the most carbon efficient producers of dairy in the European Union* owing to our grass-based low-intensity farming model and temperate climate. We enjoy an international reputation for the quality of our products and the environmental sustainability of our production process.

The importance of dairy as part of a healthy sustainable diet is demonstrated across the globe where it forms part of international food-based dietary guidelines.

Across the globe demand for dairy remains high. Dietary guidelines in countries across the world are recommending an increase in the intake of dairy products, recognising its nutritional value for all age-groups. For example China with an estimated population of 1.4 billion people, is among the nations that has recently recommended that dairy consumption should be increased.

Overall, few foods can match dairy for its nutritional value. Due to its significant contribution to several nutrient intakes, it would be challenging to replace while simultaneously ensuring that the nutritional status of the population is not compromised. Our Irish dairy farmers play a critical role as food producers providing nutritious high-quality dairy products, as part of an environmentally sustainable system feeding an estimated 45 million globally. Considering all the key factors that combine to define a sustainable diet, it is fair to say that dairy is hitting the right mark.



Pictured on the Glanbia Ireland/Teagasc Signpost Living Proof Future Farm of Steven Fitzgerald, Aglish, Cappoquin, Waterford were (l to r) Glanbia Co-op Chairman John Murphy; Future Farmer Steven Fitzgerald and his father Richard Fitzgerald; Thomas Ryan, Glanbia Ireland Senior Farm Sustainability Manager; with Steven's children Ólan (2), Donagh (4) and Aodhán (5). Photo: Patrick Browne

Living Proof strategy supporting and empowering dairy farmers to make sustainable changes

Ireland's dairy farmers are being supported and empowered by a cross-section of organisations with the knowledge and tools to implement initiatives to enhance environmental sustainability.

The farmer owned co-operative company Glanbia Co-operative is one such organisation working closely with over 5,500 family-run dairy farms to further enhance sustainable farming practices as part of their ambitious new strategy- Living Proof.

Launched over a year ago, Living Proof reflects a commitment to achieving science-based targets by 2030 and net-zero no later than 2050. As part of this dairy producers have committed to sustainable farming and food practices in the areas of Carbon Reduction, Regenerative Agriculture, Circular Economy and Growing together.

The Living Proof strategy incorporates all elements of the organisation. Glanbia's employees are working alongside family farm producers, customers, farmer organisations and academics to prioritise practical actions and share knowledge to drive continual improvement in areas such as energy efficiency, packaging, water and soil health, animal health and welfare, biodiversity and on-farm sustainability practices.

For more on Glanbia's Living Proof strategy go to www.Glanbiaireland.com/sustainability

Initiatives as part of Glanbia's Living Proof Strategy

Sustainability Action Payment Programme

An €18m annual Sustainability Action Payment Programme as part of a three-year programme will assist milk suppliers to further enhance the environmental and economic sustainability of their family farms.

As part of this initiative, dairy suppliers will receive a payment per litre of milk supplied to deliver specific sustainability actions.

It will equate to almost €3,000 in 2022 for the average supplier.

Sustainability into the Future

Glanbia Co-op is also collaborating with Bailey's Irish Creme Liqueur and has launched Ireland's first Sustainable Farming Academy.

It begins in September 2022 and will be delivered initially by University College Cork (UCC) in a manner which will fit in with typical farming workloads.

It will empower Glanbia Co-op's suppliers of quality milk and grain with the most relevant and up-to-date knowledge to continue to address sustainability challenges.

Sustainability in-house

Glanbia Co-op has also been making several changes in-house, increasing energy efficiencies and reducing carbon emissions.

- It is the first Irish owned company to put an energy management system in place leading to a 15.6% reduction in electrical demand.
- All Glanbia Co-op sites now use 100% green electricity.
- To date, key operational units such as Ingredients have achieved a reduction in water use with the Belview facility leading the way with an 8.5% reduction.

“This shows the commitment of the co-op community to make a real difference by achieving the ambitious targets set out in ‘Living Proof’. To help deliver on our ambitious aims we have developed smart targets under the areas of carbon reduction, regenerative agriculture, natural nutrition, the circular economy and growing together.”

François Morgan, Chief R&D and Sustainability Officer, Glanbia Ireland



Key targets of the Living Proof Strategy include:



A 30% absolute reduction in carbon emissions from processing sites by 2030.



Supporting dairy farmers to achieve similar reductions in carbon emissions from their milk production.



Building and enhancing soil health with 100% of milk producers having a Nutrient Management Plan, Soil Testing and Fertiliser plan in place by 2030.



Ensure 100% of milk suppliers in Priority Areas for Action have water quality plans in place by 2025.

Irish Consumer Research

A survey of 1,500 Irish adults has found that the vast majority are backing dairy production in Ireland and are calling for extra supports for dairy farmers to further enhance the sustainability of the dairy production process.

As the European Union strives towards net-zero greenhouse gas emissions, Irish consumers also believe Irish dairy will play a greater role in the coming years and that the industry is committed to producing dairy more sustainably*.

The research also found that dairy remains extremely popular with Irish consumers with the vast majority stating that mealtimes would be less enjoyable without dairy products.

Zoe Kavanagh, Chief Executive National Dairy Council and Spokesperson European Milk Forum, said the research findings underscored Irish consumers' belief and trust in the Irish dairy sector.

“We see that Irish consumers are willing to back Irish dairy even further. The findings send a strong signal of support to Ireland’s 17,500 family-run dairy farms all of whom are working hard to respond to the challenge of climate change.

The research also reflects the importance of dairy products in households across Ireland. The vast majority believe it is a key part of mealtimes, adding taste, flavour and providing immense nutritional value.

The findings are a strong endorsement of the work undertaken so far by Irish dairy farmers. Consumers are also sending a strong message to dairy farmers to continue to work hard and to ensure sustainability is central to all they do.”



84%

say dairy should continue to be produced in Ireland and with extra supports for farmers to implement further sustainability initiatives

72%



are willing to pay more for dairy products, provided they see the evidence that the increase is going to embedding the latest environmental initiatives in production

67%



believe that the dairy sector is committed to producing dairy more sustainably

69%



say dairy is vital to rural communities and regional economies

66%



of Irish consumers believe meals would be less enjoyable without dairy

92%



of Irish consumers' diets include dairy

53%



think dairy products are within a reasonable price range

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 social media via: #SustainableDairyEU

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