

Sustainability: what does it mean for the Irish dairy industry?

The structure of the international dairy market has changed over the past decade and with it the environment within which milk suppliers, their advisers and everyone in the dairy industry must operate. There is a growing and powerful global sustainability agenda that is market-driven, customer-led and consumer-focused, writes Shane McElroy BVSc MRCVS CertDHH, Glanbia veterinary practitioner



INTRODUCTION

Dairy markets are looking for security of supply as global demand for dairy continues to increase. Global food companies are seeking high levels of quality assurance based on visibility and integrity across the whole dairy supply chain.

These global food companies, many of whom are Ireland's leading customers, are also looking for sources of supply that can demonstrate efficient and sustainable production, aligned to their own sustainability commitments. They recognise the value that sustainability offers to their brand, as a more sustainable brand is a more desirable brand. Consumer demands are changing as well. There is a growing cohort of informed consumers who are focused on health and wellness and clean product labelling. Dairy, with its natural goodness and nutritional value, is an ideal fit.

SUSTAINABILITY: WHAT DOES IT MEAN?

Sustainability has different meanings from different perspectives. What defines a business (including a farm or veterinary practice), process or any supply chain as sustainable is its ability to endure and be successful over time. The economic viability of a business/process is therefore very important, but there are many other factors, largely dependent on the type of business, that will affect its survivability over time.

SUSTAINABLE FOOD PRODUCTION

While the quality of food ingredients has always been an imperative, increasingly in recent years, global food companies and consumers want to know that their food ingredients are produced using responsible farming practices at producer level. These producer and processor responsibilities come under the broad headings of social,

economic, environmental, and animal health and welfare. In some developed countries such as the UK, social sustainability and animal welfare are important to consumers, eg. Fairtrade and the five freedoms of animal welfare. In other wealthy nations, including some in middle Europe, it is commonplace for consumers to prioritise and pay a premium price for non-GMO and organic foods. Throughout most developing countries though, it is price stability and security of supply that are most important. For China, and particularly the expanding infant formula market, quality of ingredients and traceability throughout the entire supply chain are paramount. A number of food scares in recent years have led to the highest traceability standards being required to access these markets. When global food companies such as Danone, Nestlé or Unilever are sourcing their food ingredients, the integrity and reputation of their brand will rest on the quality of the raw materials used in their food products. Before signing into mutually beneficial, long-term contracts to purchase dairy ingredients from Irish milk processors, these companies want to know that the milk production systems in place on the supplying farms are sustainable. They also want to ensure that the quality, safety and security of that supply will be upheld by the use of good farming practices. In addition to the farming practices, in recent years traceability and transparency of the agricultural inputs used in food production are becoming increasingly important. These inputs include animal feeds, fertilisers, chemicals and animal remedies, etc. Records of the sourcing and usage of these products are now required so that food quality and safety can be maintained by having traceability throughout the supply chain.

DAIRY SUSTAINABILITY FROM AN IRISH PERSPECTIVE

Ireland exports more than 85% of its dairy products. A sustainable Irish dairy industry is important for two reasons:

1. As a significant employer and valuable income stream for the Irish economy, in order to promote continued success and growth targets, the dairy sector needs to base itself around sustainable practices that will allow it to thrive; and
2. Sustainable practices throughout the dairy production supply chain, from field to fork, are of increasing importance to governments and global food companies that buy our dairy produce.

The UK is Ireland's largest export market for dairy products. While this is not likely to show market growth equivalent to that of developing countries, the focus on sustainability that has been shown by British retailers in response to consumer demands is typical of many western societies, and continues to increase.

Although we produce less than 1% of the world's milk, Ireland supplies the dairy ingredients for more than 15% of the infant formula produced globally. As you would expect, the highest standards of quality and traceability are imperative for this market. With the recent food scares, including melamine, botulism and dicyandiamide (DCD) in the southern hemisphere, the four infant formula companies (three of which are based in Ireland), strive to ensure that the reputation of their brands is maintained by using only the highest quality and fully traceable dairy ingredients.

CHANGING GLOBAL MARKETPLACE

The structure of the international dairy market has changed over the past couple of decades and the market dynamics of supply and demand have brought milk price volatility, which has been particularly evident in recent years. As a country that predominantly exports its dairy produce, Ireland is, and will remain, highly exposed to this volatility.

While market volatility is an obvious risk to the Irish dairy sector, the changing global demands for dairy ingredients also provides opportunity for a country such as Ireland that can significantly increase its dairy production.

INCREASED GLOBAL DEMAND FOR DAIRY

On the demand side of the equation, the change is twofold: global increase in dairy consumption; and, secondly, a demand for new dairy product types.

Predictions for world population growth are in the region of 9-10 billion by 2050. The global population today is approximately 7.3 billion. To put recent population growth in perspective, the global population was five billion in 1987 and just three billion in 1960.

The largest population growth is happening in developing countries, particularly those in Africa. It is predicted that by 2050, India will have the largest population of any country, with almost the same number of people as China and US combined.

In addition to population growth, the increase in demand for dairy ingredients is also due to better access to, and affordability of, dairy products, as well as an increased awareness of their nutritive value.

Increasing levels of affluence and awareness, both in developed and developing countries, are creating demand for novel dairy products. While significant growth in the infant formula market will continue, the performance and clinical nutrition markets have proven to be very important growth vehicles for Glanbia. The nutritive value of dairy proteins is leading to demand for specific dairy-based products such as whey protein for performance nutrition supplements and others, such as clinical nutrition products, specifically for the elderly or those convalescing in hospital. Ageing populations worldwide are leading to a further increased demand for these clinical nutrition products.

CHANGING SUPPLY PATTERNS

Regarding the global supply of dairy products, in recent years climate change, weather events and water availability have had their part to play in the constantly changing demographic of world dairy production. Weather events such as storms, flooding or drought, especially in the larger animal feed or dairy producing countries will have a significant effect on world supply, and hence market prices.

The availability of resources, particularly water, is increasingly dictating the agricultural outputs of many areas of the world. Changes in world climate and significant weather events may, in the long term, work in Ireland's favour. As a country whose dairy production system is less exposed to world feed prices, by growing a large proportion of our animal feed requirements at relatively low costs, we are more capable than many countries of riding out the price volatility storms that will occur.

IRISH DAIRY EXPANSION

In 2010, the Irish dairy industry set itself the ambitious target, under the *Food Harvest 2020* programme, of sustainably increasing milk production by 50% by 2020. While the brakes of the EU milk quota regime have just been released, significant progress has already been made in taking the necessary steps to meet the 2020 target.

The sector has seen a shift over the past number of years from commodities-based supply to one that is increasingly brand-centred and consumer-focused. Ireland is a small island and is a considerable distance from key growth markets such as Asia and Africa. It is the production and marketing of high-value dairy products that is likely to provide the best return to the Irish dairy sector.

These products include high-specification milk powders and infant formula, as well as performance and clinical nutrition ingredients. Ireland's unique selling points as a sustainable dairy producer include:

- Small, farmer-owned family farms, operating to the highest standards in all the key areas of sustainability – social, economic, animal welfare, environmental, quality and traceability;
- Relatively low cost of production from rain-fed, pasture-based milk production;
- Operating in a highly regulated environment with good governance of agricultural practices;
- Farmer-owned processing facilities, which are becoming increasingly efficient, well-invested and capable of producing the high-specification dairy ingredients demanded by global food companies;
- Ireland is internationally recognised as a food island, with a clean and green reputation; and
- We already have a strong presence in the high value markets of infant formula and performance nutrition, with an opportunity to build on these strengths.

VERIFICATION OF OUR CREDENTIALS

While these points of differentiation will allow the sustainable growth of our dairy sector, Ireland needs to be able to credibly demonstrate these to a global audience. Bord Bia's Origin Green initiative and the more specific Sustainable Dairy Assurance Scheme (SDAS) provide the tools to promote Ireland's green credentials, but also to independently verify to our international customers that the practices employed at farm level are as responsible and sustainable as we know them to be.

Origin Green commits Irish food and drink producers to operating sustainably – in terms of greenhouse gas emissions, energy conservation, water management, biodiversity, community initiatives and health and nutrition. The Bord Bia SDAS is an independently accredited scheme that offers further assurances as to the quality of Irish milk, the responsible practices carried out on our farms and the sustainability of our grass-based dairy production system. To meet the specific needs of its customers, Glanbia Ingredients Ireland (GII) has developed its own on-farm sustainability programme called 'Open Source'. The GII Open Source sustainable dairy programme builds upon the Bord Bia scheme, including a more focused approach to herd health management and planning. GII is acutely aware of the need for sustainable farm practices to promote the growth in milk output that suppliers have committed to. To this end, the GII Open Source programme is well resourced, with a team of sustainability advisers who are supporting GII milk suppliers through the sustainability audit process.

A future article in this series will outline the scope of the Bord Bia SDAS and Open Source programmes and the opportunities that they provide for milk producers to work in conjunction with their local vets, to ensure that animal health and performance are optimised.