
COMMON DAIRY MYTHS





MYTH ❌

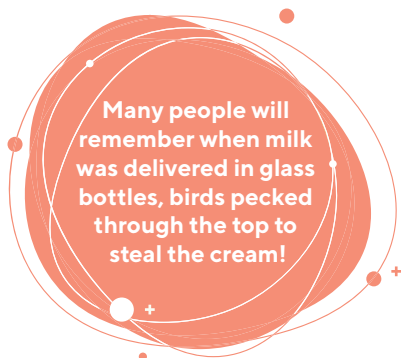
Humans are the only species that consume the milk of another species

FACT ✅

Access to food for any animal is determined by its ability and intellect. Humans are a unique species and have many culinary practices that would be unusual for other animals, such as preparing and cooking meals, drinking coffee or eating bread.

All species instinctively seek out nutritious food as it is central to survival. Around 7,500 years ago, humans realised that they could milk certain animals to access a rich source of nutrients and this is how dairy farming began.

Other animals do not have the ability or intellect to milk another species for a source of nutrition but when they have access to milk, many will readily consume it. Typical examples of this are domestic cats and wild birds.



MYTH ❌

Humans should not consume milk after weaning

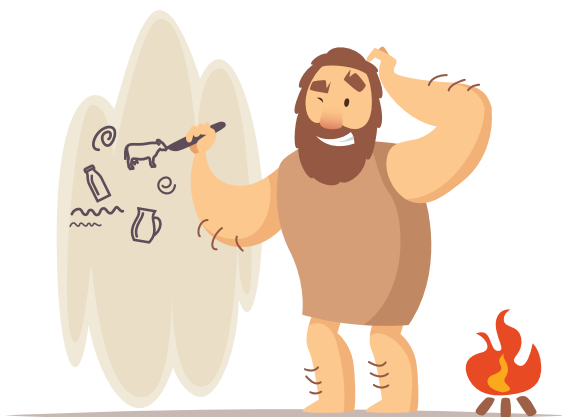
FACT ✅

Throughout evolution, humans have made many discoveries and innovations which have altered our ability to preserve food or enhance food safety and nutritional intake. Examples include marinating, pickling and cooking.

Using cow's milk as a food source beyond weaning is another beneficial practice that humans discovered as we evolved. It resulted in a change in human gene expression that enabled milk drinkers to continue producing the enzyme, lactase, to digest milk. The gene to produce lactase is generally 'deactivated' in mammals shortly after weaning when they stop consuming their mother's milk and advance to a mixed diet. However, this genetic adaptation known as 'natural selection' occurred, enabling the gene to stay 'activated'. This trait is seen in parts of the world where dairy farming evolved.

Scientists suggest that it was a survival advantage to be able to continue digesting milk for its rich nutrient content.

Individuals without this genetic trait (often referred to as 'lactose intolerance' – see page 8) can still digest smaller amounts of dairy foods and there is a wealth of research which suggests that dairy is a valuable addition to the diet across the life stages.



MYTH ❌

Dairy is fattening

FACT ✅

Foods with a high calorie or fat content are often referred to as being 'fattening'. However, individual foods should not be categorised as fattening without taking into consideration how much of the food is consumed and what the overall diet is composed of. As weight gain is directly linked to an over-consumption of calories, portion size and how frequently it is eaten is what really determines if a food is fattening.

For example, a 200ml glass of semi-skimmed milk provides less than 5% of both the calories and fat in a standard 2,000kcal diet. Therefore, dairy foods can be consumed as part of a balanced diet, without being 'fattening'.



The Department of Health recommends three servings from the 'milk, yogurt and cheese' food group each day e.g. 200ml of milk, 125g of yogurt or 25g of cheese. Higher fat products such as butter and cream should be used sparingly as they are higher in calories, but they can still be enjoyed as part of a healthy diet when used in moderation.

Typically, a 2,000 kcal diet should contain about 70g of fat per day



Whole Milk | 200ml
7g fat | 130 calorie



Semi-skimmed Milk | 200ml
3.5g fat | 95 calories



Skimmed Milk | 200ml
0.6g fat | 71 calories



Whole Milk Natural Yogurt | 125g
4g fat | 99 calories



Cheddar Cheese | 25g
9g fat | 104 calories



Butter | 10g
8g fat | 72 calories



Cream (Single) | 15g
3g fat | 29 calories



MYTH ❌

Dairy raises cholesterol

FACT ✅

Although a high intake of saturated fat is associated with increased cholesterol levels, research does not support that dairy intake has an adverse effect on cholesterol or other markers of cardiovascular disease. Not all saturated fats are the same and the food type or overall diet in which it is consumed is important when it comes to health effects.

Dairy saturated fats are usually consumed within a matrix of other nutrients in foods such as milk, yogurt and cheese (see page 5). Research is currently exploring the role of these nutrient combinations for cardiovascular health.

To assess cardiovascular disease risk, a clinician will examine and consider cholesterol levels along with a range of other important risk factors such as genetics, smoking, high blood pressure, body weight and inactivity.



MYTH ❌

Cutting out dairy is fine if you take a calcium supplement

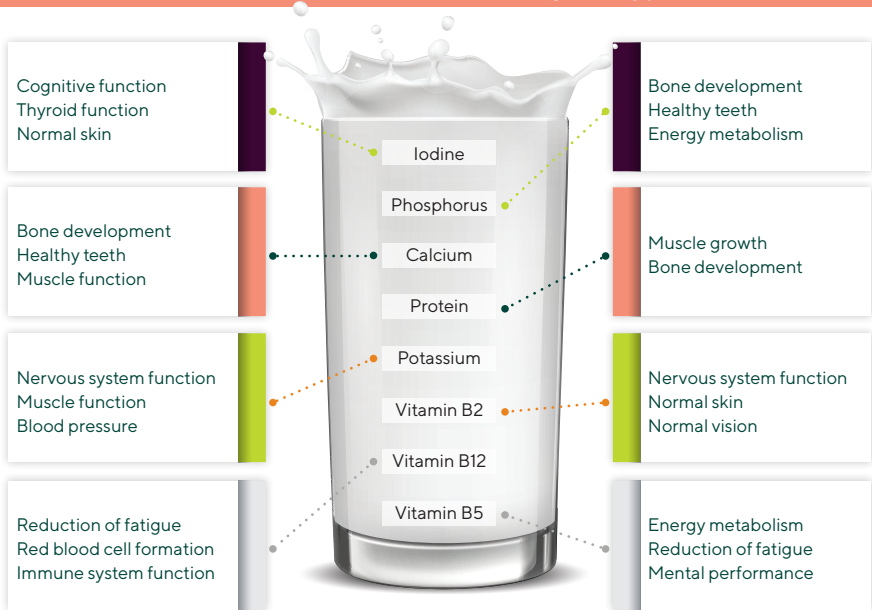
FACT ✅

Milk, yogurt and cheese are well known as important sources of calcium, but these foods are natural sources of many other nutrients too.

Therefore, removing dairy from your diet may result in compromised intakes of not just calcium, but the full 'matrix' of nutrients naturally provided by dairy foods.

The emerging concept of the dairy 'matrix' looks at how the various nutrients and components present in dairy work together in synergy. This research explores how the health effects of these nutrients, when consumed in dairy, may be more effective than the individual nutrients working in isolation.

The nutrients in milk contribute to the normal functioning of many processes in our bodies:



Source: EU Register of Nutrition and Health Claims made on foods

MYTH ❌

Non-dairy alternative drinks are as nutritious as cow's milk

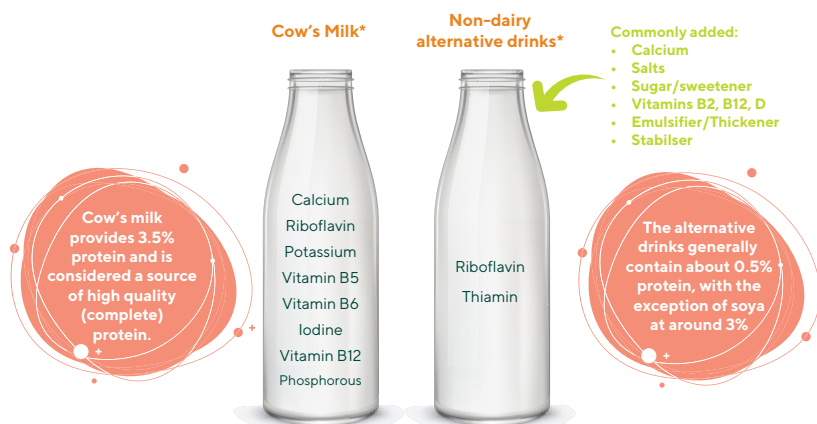
FACT ✅

Non-dairy alternative drinks are generally composed of water and ingredients such as soya, rice, almond, oat, coconut, hazelnut or hemp.

While they are sometimes used as a replacement for cow's milk, they are not nutritionally equivalent.

The main difference is that non-dairy alternative drinks are often fortified with nutrients such as calcium and vitamin B12, while dairy milk is a natural source of these and a much wider matrix of other nutrients (including protein, vitamin B2, vitamin B5, iodine, potassium and phosphorus). The form of calcium in many fortified drinks is different to that naturally provided by dairy so it is uncertain whether its absorption and metabolism in the body is exactly the same. Separation of ingredients may occur in some non-dairy alternative drinks, causing a calcium residue to settle at the bottom of the carton. Therefore, such drinks should be well shaken.

Other differences between cow's milk and dairy alternative drinks include price, number of ingredients, country of origin and air miles.



*Micronutrients naturally present are based on plain cow's milk and plain soya alternative (unsweetened, unfortified). A nutrient's presence is based on its concentration reaching a source under the criteria set out in the EU Register of Nutrition and Health Claims made on food.

MYTH ❌

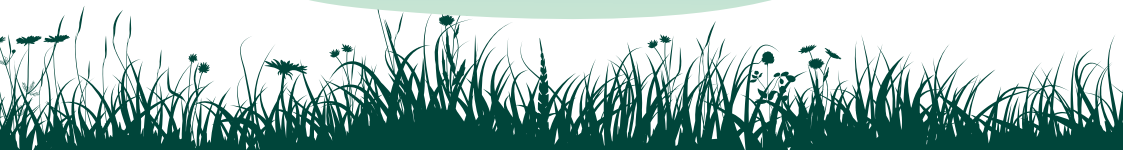
Diagnosis of a dairy allergy
means avoidance of dairy for life

FACT ✅

Milk allergy, like all allergies, is the immune system's abnormal reaction to a protein, in this case a milk protein. It is most common in early childhood, affecting about 2-3% of young children.

Absolute exclusion of dairy products is necessary initially but up to 90% of children outgrow this allergy by the age of 3-5 years. Therefore, cow's milk allergy is uncommon among adults.

Cow's milk allergy should be diagnosed by a registered clinical expert who will assess the detailed clinical history in combination with tests for specific 'antibodies' to cow's milk protein. Food challenge tests for safe re-introduction are performed under the supervision of a registered clinical expert, such as a dietitian. The dietitian uses a step-wise approach to gradually re-introduce dairy products and may begin with baked milk products.



MYTH ❌

If you have lactose intolerance, you should remove all dairy from your diet

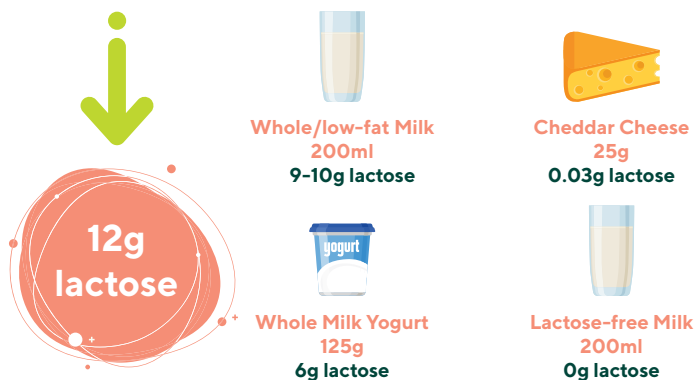
FACT ✅

Lactose intolerance can occur in individuals who have low levels of the enzyme lactase, which is needed to digest the naturally occurring milk sugar (lactose). Tolerance levels vary, with some individuals having no symptoms or only having digestive discomfort following the consumption of large amounts of lactose-containing foods.

In most cases, milk-based foods do not need to be completely avoided, but need to be limited to the person's individual tolerance. Most people can consume some lactose and this can promote tolerance. Typically, up to 12g at a time can be consumed with no, or minor, symptoms. Some dairy foods have negligible amounts of lactose (see graphic below).

Worldwide, it is estimated that about 65% of people do not express the lactase enzyme but it varies largely across populations, ranging from 4% to over 80% across different parts of the world. Due to genetic evolution, Ireland has a lower prevalence, with 4-5% affected.

Most individuals with lactose maldigestion can tolerate up to 12g of lactose as a single dose with no, or minor, symptoms
The European Food Safety Authority (EFSA)



MYTH ❌

Countries with the highest dairy intakes have the highest rates of osteoporosis

FACT ✅

The inclusion of dairy foods as part of a bone-friendly lifestyle is actively promoted by leading osteoporosis authorities both nationally and internationally. This is due to the fact that dairy provides an important source of nutrients such as protein, calcium and phosphorus which are scientifically recognised for their roles in bone growth, development and maintenance.



Dairy intake is not responsible for higher fracture rates, nor does dairy consumption alone guarantee strong, healthy bones. Many factors, other than diet, determine whether a person will develop osteoporosis and be at increased fracture risk. Countries with high rates of fractures tend to be countries with longer life expectancies (e.g. Nordic countries). Fracture rates are now rising in non-Western countries (e.g. China) as they see increasing longevity in combination with inactive lifestyles.

Genetics (race, sex, family disposition) are major determinants of osteoporosis and fracture risk. Lifestyle habits such as physical activity, body weight, smoking, alcohol-use, as well as certain medications and diseases, are also important factors influencing fracture risk. In addition, vitamin D status has been associated with bone health and this can be influenced by exposure to sunlight or a country's latitude on the earth.



MYTH

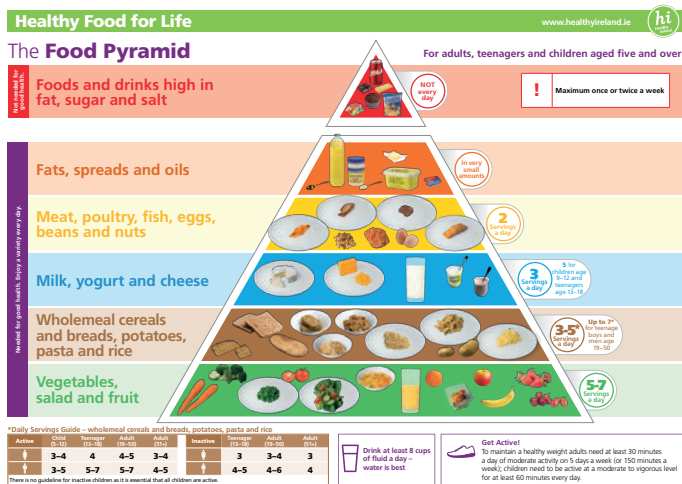
Cutting out dairy reduces your cancer risk

FACT

Many factors influence the development of cancer, including our genetics, the environment and various lifestyle choices. It is essential that we look to recommendations from leading authorities who base their recommendations on the totality of scientific evidence and avoid dietary advice from unauthorised, unregulated or anecdotal sources. One of the leading cancer authorities worldwide is the World Cancer Research Fund (WCRF), which categorises evidence for cancer risk at various levels.

The most recent WCRF Cancer Prevention Recommendations do not advocate the exclusion of dairy for cancer prevention or treatment; and report strong evidence that dairy consumption decreases colorectal cancer risk. A diet rich in wholegrains, vegetables, fruit and beans is advised.

With this, the Irish healthy eating guidelines (which includes the 'milk, yogurt and cheese' food group) form part of the recommendations by the Irish Cancer Society to reduce the risk of cancer.



MYTH ❌

People with skin conditions, such as eczema or acne, should avoid dairy

FACT ✅

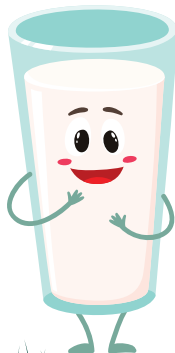
Eczema results primarily from a defect in the skin barrier and can have various causes such as genetics, immune function and environmental irritants. It often presents in early life when the immune system is immature. Eczema can occur in some cases of cow's milk allergy. However, cow's milk allergy occurs mainly in infants, with a prevalence of about 2-3% and up to 90% of these children grow out of it by the time they are 3-5 years of age (see page 7). Therefore, most cases of eczema that present beyond this have no association with dairy intake.

The science tells us that foods are not the single cause or cure for eczema and a medical diagnosis is needed. Unnecessary removal of dairy from the diet, which is not based on a medical diagnosis can be nutritionally harmful, particularly for young children.



Acne is a condition which usually presents during puberty and can be caused by fluctuations in hormones resulting in the overproduction of oily secretions by glands. Due to the complex nature of acne which can be influenced by genetics, skin type and hormones, a simple explanation of acne being 'caused by' any single food is unlikely. Without consultation with a medical practitioner, it is not recommended to exclude any specific food or food group, such as dairy, for the management of acne.

In fact, milk is a source of a number of nutrients that have established roles in normal skin health, such as vitamin B2 and iodine.



MYTH ❌

Dairy causes excess mucus

FACT ✅

An excess of sinus-related mucus production is a symptom that is more commonly associated with air-borne allergies such as dust, pollen and animal dander. Some people who have cow's milk allergy or other food allergies, may also experience an increase in mucus production, usually resulting in a runny nose.

However, apart from cow's milk allergy, which is uncommon (see page 7), there is little scientific evidence to suggest that dairy intake increases mucus production.

The best approach in treating any symptom is to get an accurate diagnosis with a registered clinician through your GP.

Did you know?

Mucus production is normal and essential in our bodies, but during an infection (such as a cold), an asthma attack or allergic rhinitis (e.g. hay fever), mucus production increases as part of the protective immune response.



MYTH ❌

Pasteurisation destroys the nutritional value of milk

FACT ✅

Pasteurisation is an important and well-established food safety measure, which is practiced globally. It is a simple heating process which involves heating milk to a specified temperature and time period (e.g. 72°C for 15 seconds) in order to destroy any harmful micro-organisms. Generally, milk for sale in Ireland is pasteurised and the Food Safety Authority of Ireland does not advise the consumption or sale of raw (unpasteurised) milk.

The temperature and duration applied in pasteurisation is relatively low so that it is sufficient to destroy harmful micro-organisms without significant destruction of the nutritional properties.

Pasteurised milk remains a source of important nutrients such as calcium, protein, phosphorus, potassium, iodine, vitamin B2 and vitamin B12.



MYTH ❌

Milk contains antibiotics

FACT ✅

There is strict regulation around the antibiotic types that are permitted for use in food-producing animals. These are only authorised under veterinary prescription.

If antibiotics need to be used, specific withdrawal periods are designated to ensure that milk from an antibiotic treated cow does not enter the food chain.

The Department of Agriculture, Food and the Marine (DAFM) conducts routine farm inspections and has a veterinary inspectorate that is responsible for the implementation of a national milk residue monitoring plan, as required under EU directive 96/23/EC.



MYTH ❌

Milk contains artificial hormones

FACT ✅

In Ireland and the European Union, there is a total ban on the use of hormones for milk stimulation or growth promotion in farm animals, including dairy cows.

They are banned under EU Directive 81/602/EEC. Use of such substances is a criminal offence with strict legal penalties. The Department of Agriculture, Food and the Marine is the designated competent authority for the enforcement of milk quality and safety legislation, with farm inspections conducted routinely.



MYTH ❌

Irish dairy cows endure poor animal welfare

FACT ✅

Animal welfare can be judged on the basis of an animal's access to the 'five freedoms' i.e. animals should be:

- i. free from hunger and thirst
- ii. free from discomfort
- iii. free from pain, injury or disease
- iv. free to express normal behaviour
- v. free from fear and distress

With regard to the dairy industry in Ireland, Irish cows are considered to experience high standards of animal welfare.



The majority of Irish cows roam freely on green pastures for an average of 240 days a year, which is their natural environment where they can express normal behaviour. During the coldest winter months, these cows are housed indoors to ensure adequate nutrition and protect them from adverse weather.

Farmers are legally and ethically obliged to provide a good standard of welfare for the animals in their care and actively monitor the health and behaviour of their herd each day. Ensuring optimal health across the herd is also central to the production of high-quality milk. The Department of Agriculture, Food and the Marine (DAFM), in collaboration with Animal Health Ireland and Teagasc, provide a range of resources to guide farmers in this area. As part of routine disease monitoring programmes, all dairy herds are visited by an independent veterinary expert annually. These visits and other DAFM inspections provide an additional opportunity to identify indicators of poor herd conditions.



MYTH ❌

Greenhouse gas emissions from dairy are destroying the planet

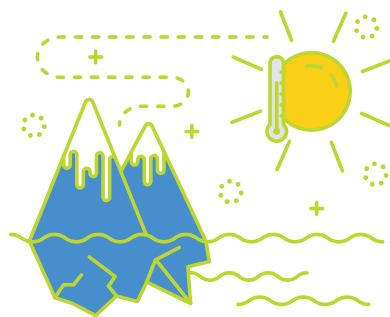
FACT ✅

Sustainability and climate change are pressing challenges which need immediate action globally. Collectively, greenhouse gases arise from several sectors including **energy production** (e.g. electricity, oil, gas), **transport** (e.g. aviation, road vehicles), **industry** (e.g. air conditioning, electronics), **waste** (e.g. incineration) and **agriculture** (e.g. ruminant belching, fertilisers).

The United Nations estimate that the dairy sector contributes 4% to the total global greenhouse gas emissions. Therefore, while dairy is a contributor to global warming, it is not the main driver. Despite this, like all sectors, the dairy sector must continue to work on reducing emissions and strive towards more sustainable production.

Greenhouse gas emissions can vary with different milk production systems and practices, across different regions. As practices evolve, it is important that consistent methodologies are used to measure progress and make accurate comparisons.

The availability of natural resources is an important consideration when assessing the sustainability of food production systems. With a rich supply of rain water, Ireland's grass-based system makes it one of the best places in the world for sustainable milk production.



MYTH ❌

Dairy does not belong in a sustainable diet for the planet

FACT ✅

With the global population set to increase by approximately 2.4 billion people by the year 2050, it is predicted that demand for food production may need to rise by about 70%. The overall environmental impact of dairy must be weighed against its nutritional value when modelling the most sustainable options for feeding our growing population. For example, cows convert human-inedible materials such as grass into a nutrient dense, affordable source of protein.



As well as being nutritious, sustainable food production must also be safe, economically viable, environmentally acceptable and capable of meeting volume demands.

Dairy is considered a nutritious, versatile and affordable food and is well placed to play a role in meeting the global need for sustainable food production. This is why dairy continues to be included in dietary guidelines for sustainable diets.

Research and innovation in technology and farming methods are continually progressing to enable dairy production to proceed in a more sustainable manner.



MYTH ❌

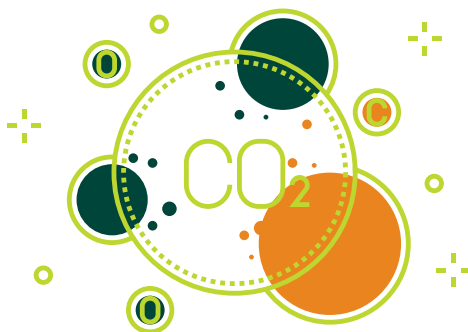
Irish dairy farms are doing nothing to reduce their carbon footprint

FACT ✅

Ireland's agri-food industry and Irish farmers are committed and proactively working to lower their carbon footprint. With one of the lowest carbon footprints internationally, Irish dairy's grass-based production system is very efficient.

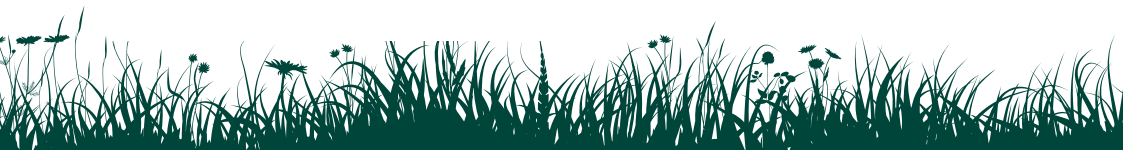
With increasing focus on sustainability and on farm efficiencies, many farmers are focusing on grassland management in an effort to extend the grazing season on their farm. It is estimated that for every 10-day increase in grazing season there is a 1.7% reduction in greenhouse gas emissions.

Ireland is working towards more sustainable food production by carbon footprinting every farm. Bord Bia's Origin Green programme is focused on increasing the efficiencies and reducing the impact of the food production systems in Ireland. This provides a structure to monitor, measure and focus efforts to deliver real improvements.



The latest Origin Green data shows a 9% reduction in carbon footprint per unit of milk, with efforts continuing to improve.

The Carbon Navigator is a farm management tool, produced by Bord Bia and Teagasc and is used by farmers to evaluate their current performance in areas of environmental impact against specific targets. It estimates the percentage reduction in greenhouse gas emissions that will result from various farming practices, continuously helping farmers to identify where further improvements can be made.



Further Reading

Animal Health Ireland

www.animalhealthireland.ie

Bord Bia – Origin Green

www.origingreen.ie

Department of Agriculture, Food and the Marine

www.agriculture.gov.ie

Food Safety Authority of Ireland

www.fsai.ie

Healthy Ireland

www.gov.ie/en/campaigns/healthy-ireland

International Osteoporosis Foundation

www.iofbonehealth.org

Irish Cancer Society

www.cancer.ie

Sustainable Dairy Assurance Scheme SDAS

www.bordbia.ie

Teagasc

www.teagasc.ie



Dairy A-Z APP

Have
you ever
wondered?

If animals such as giraffes and gorillas can get all the calcium they need without consuming dairy, why should humans consume it?

How can milk help with exercise recovery?

Why do teenagers need more calcium?



To find out these
answers, and many
more, download the
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iTunes.



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