

# THE CANADIAN DAIRY SECTOR AT-A-GLANCE



Nourishing  
Canadians  
with Safe  
& Sustainable  
Dairy

2023



# THE BLUE COW LOGO

Perhaps you have spotted it when enjoying your favourite snack, meal or beverage. Inspired by the simple, natural purity of milk, the Dairy Farmers of Canada Quality Milk logo makes it easy to identify products made with 100% Canadian milk and dairy ingredients.

Featured on more than 8,500 products from over 550 brands, the Blue Cow logo is emblematic of the dairy industry's commitment to excellence. Nine out of 10 Canadians are now familiar with the Blue Cow logo, making it one of Canada's most-recognized brands.

More and more processors, retailers, restaurants and other partners are adopting the logo because of what it symbolizes to consumers: dairy products made with high-quality Canadian milk, produced in accordance with some of the most stringent standards in the world. Consumers also seek the logo because Canadian milk is produced without the use of artificial growth hormones and is tested to verify there are no traces of antibiotics.

The strength of the logo stems in large part from the trust Canadians have in our farmers – hard-working people with honesty, integrity, dedication, passion, and the will to support and feed the nation.

Look for the logo and choose Canadian dairy!



Featured on more than

8,500  
products

From over

550  
brands



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# A WORD FROM OUR PRESIDENT

On behalf of Dairy Farmers of Canada (DFC), I am pleased to present our 2023 overview of the Canadian dairy sector.

Every single day on nearly 10,000 farms across the country, dairy farmers work hard to make sure Canadians have access to safe, nutritious milk and dairy products, produced right here at home. More than 195,000 Canadian jobs depend on the dairy sector and our work contributes more than \$19 billion per year in economic activity nationwide.

As dairy farmers, we take great pride in what we do, because we know our milk is nutritious and an important part of a healthy balanced diet. Canadian milk also has one of the lowest carbon footprints in the world, and we are committed to achieving net-zero greenhouse gas emissions by 2050. Our work is continuously evolving, reflecting the latest best practices and scientific breakthroughs to produce high-quality milk that's safe and sustainable.

Under supply management, the Canadian dairy sector strives to deliver the milk needed to meet domestic demand. As part of this system, each dairy farmer aims to prevent overproduction, reduce surpluses, and lower the transportation footprint, as it means food can be produced closer to the point of sale. Canadian supply management is integral to protecting our food sovereignty and security.

Trade challenges, the rising cost of production, changing needs of consumers, and competition in the market are just a few of the current issues affecting Canada's dairy farmers. No matter the challenges we face, dairy farmers are committed to upholding some of the world's most stringent standards and practices. Under proAction®, our robust quality assurance program, Canadian dairy farmers demonstrate the highest care for animals, food safety and the environment.

Canadians have great faith in our iconic Blue Cow logo, DFC's highly recognizable symbol of trust that helps consumers choose dairy products made with milk from our own backyard. We are proud of our contribution to this country: the dairy sector creates jobs and drives investments, and as stewards of the land, dairy farmers are leading the charge for sustainable agriculture practices.

Most importantly, we are proud to produce high-quality milk that helps feed fellow Canadians – from our farms to you.

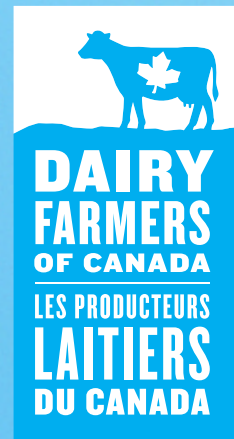
## **Pierre Lampron**

President, Dairy Farmers of Canada





# DAIRY FARMERS OF CANADA: WHO WE ARE



©/MD

Dairy Farmers of Canada (DFC) is the national policy, advocacy and promotional organization representing dairy producers on more than 10,000 farms across the country.

DFC advocates at the federal level on behalf of Canadian dairy farmers to create the winning conditions for our sector, so that they can focus on what they do best: producing high-quality, nutritious milk, both safely and sustainably. Through our promotional activities, DFC also works to enhance awareness of the stringent standards followed on Canadian farms and the many health and nutritional benefits of dairy consumption.

DFC's origins trace back to 1934. We are a federation of the dairy farmer organizations in each of Canada's 10 provinces. We work hand-in-hand with our provincial counterparts as well as other stakeholders in our value chain.

DFC contributes to international organizations such as the International Dairy Federation, the World Trade Organization, the World Health Organization, Codex Alimentarius, the World Farmers' Organization, the Global Dairy Platform, and the International Farm Comparison Network. Our work with each of these global organizations has cemented our position as a leader in the global dairy sector.

Together with our members, we are committed to leading the way in the dairy sector, both at home in Canada and on the world stage, with innovative research, providing essential nutritional education and promoting healthy living. We embrace opportunities to give back to our communities in classrooms, in athletic training centres, and in neighbourhoods across the country.

Simply put, we're fellow Canadians doing what all Canadians do best: looking after one another. Driven by teamwork, integrity, and passion, we work hard each day to play our part in ensuring all Canadians have a chance to share a healthy, sustainable future.

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Across Canada,  
DFC represents  
nearly 10,000  
dairy farms



# AN ECONOMIC POWERHOUSE

The dairy sector is a powerhouse for the Canadian economy, propelling jobs, investment and spending. It is one of Canada's largest agri-food industries and is a significant driver of economic activity, particularly in rural communities where it is needed most.

The sector is also an essential employment source for a wide range of professions, including veterinarians, machine dealers, truck drivers, mechanics, animal nutritionists, feed producers, and more.

The dairy sector supports more than 195,000 full-time equivalent jobs, contributes \$19 billion per year to Canada's Gross Domestic Product (GDP) and generates \$3.25 billion per year in tax revenues – that means more money for things like healthcare, education and infrastructure.

Our dairy  
sector  
generates  
economic  
activity  
all across  
Canada 🍁

+195,000

Full-time  
equivalent  
jobs

\$19 billion

Per year to Canada's  
Gross Domestic  
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Per year in tax  
revenues





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# SUSTAINABILITY

Canadian dairy farmers are naturally committed to sustainability and the environment, as they have a vested interest in responsible management of the land, air and water, and their animals.

Our sector has already made great strides in cutting the emissions, land and water required to produce each litre of milk, thanks to investments and advances in agricultural technology and the sector's steadfast commitment to continuous improvement.

Dairy farmers are as committed as ever to building on this progress, because protecting our environmental legacy is vital to all Canadians.

Canada's federal government recently launched consultations on its first Sustainable Agriculture Strategy, which is meant to be a comprehensive tool to provide an integrated and coordinated approach for addressing environmental issues in the agricultural sector.

The dairy sector will continue playing a leadership role as we work together towards a green future for everyone.

**The dairy sector will continue playing a leadership role as we work together towards a greener future for everyone.**





# Reducing our Carbon Footprint

We are proud to say that the Canadian dairy sector already has one of the lowest carbon footprints in the world. According to Groupe AGÉCO, producing one litre of milk in Canada emits less than half the greenhouse gas (GHG) emissions than the global average (0.94 kg CO<sub>2</sub>eq/L milk in Canada vs. the global average of 2.5 kg CO<sub>2</sub>eq/L milk). In addition, investments and advances in agricultural technology and the sector's steadfast commitment to continuous improvement have resulted in a 25% decrease in the carbon footprint of Canadian milk on a per-litre basis between 1990 and 2020, according to data from Environment and Climate Change Canada.

We're proud of how far we've come, but we're not stopping there.



## Net-Zero GHG by 2050

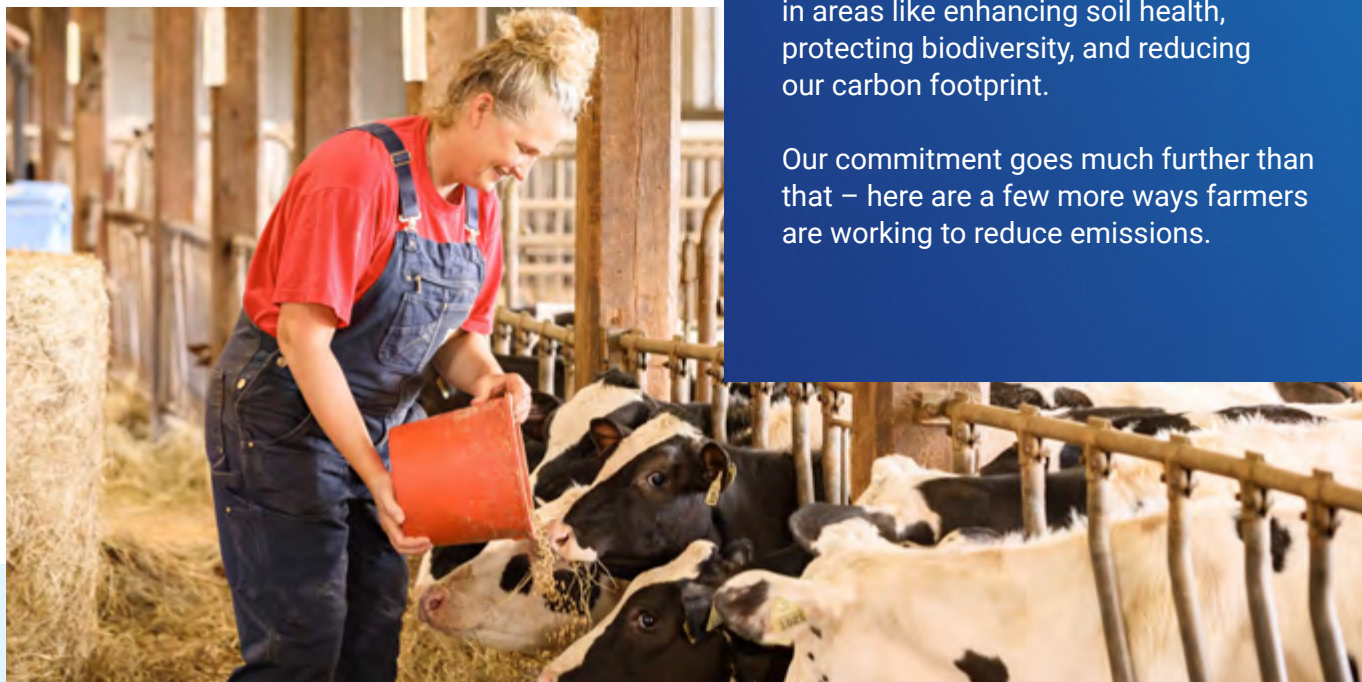
This past year, Canadian dairy farmers announced a target of net-zero greenhouse gas (GHG) emissions from farm-level dairy production by 2050.

This goal builds upon the many decades of conservation efforts that our dairy farmers have already made.

The dairy sector is committed to delivering on this commitment by:

- **Leveraging our investments in research** under the National Dairy Research Strategy;
- **Developing key partnerships** and business relationships with third-party stakeholders, processors, retailers, foodservice and industry;
- **Enhancing or adopting best management practices** that are proven to reduce GHG emissions as much as possible, such as harnessing the power of data to better understand the environmental impact of dairy farming and develop new solutions; and
- **Investing in innovative technologies and facilities** (as part of regular lifecycle renewal).

# ON THE FARM: DOING MORE WITH LESS



Doing more with less means improving productivity, reducing waste and managing resources responsibly. The environment module of the proAction® program provides clear benchmarks in areas like enhancing soil health, protecting biodiversity, and reducing our carbon footprint.

Our commitment goes much further than that – here are a few more ways farmers are working to reduce emissions.

## Improved livestock management

Thanks to improvements in cow health and comfort, enhanced diets and genetics, and advances in technology, the average healthy Canadian dairy cow produces three times more milk than 50 years ago. Fewer cows mean fewer greenhouse gas (GHG) emissions, while actions such as improving feed efficiency, prioritizing dairy cattle health, enhancing herd genetics and optimizing cow diets can further reduce methane emissions.

## Sustainable feed production

Producing feed using sustainable practices provides opportunities to increase crop and soil health and while strengthening resiliency to the effects of climate change, such as droughts and increased temperatures. Practices such as minimized tillage, cover cropping, optimizing crop rotation, incorporating perennials and 4R nutrient stewardship (right source, right time, right rate & right place) improve the soil's ability to store and capture carbon and reduce GHG emissions.



# Energy, Infrastructure and Transportation

Reducing energy use, and producing or purchasing renewable energy on the farm can help reduce GHG emissions. A number of Canadian dairy farmers have installed biodigesters, which convert the methane in manure into clean energy and the remainder into natural fertilizer. Where the climate conditions permit, farmers can also take advantage of natural energy sources by installing wind turbines and solar panels.

Building soil carbon improves nutrient levels, water retention and soil structure which enhances crop health and productivity while reducing the reliance on chemical-based fertilizers.



## Land management

Farmers are working to support on-farm biodiversity by preserving, protecting and enhancing natural systems such as grasslands, wetlands, tame pastureland, forests, riparian buffer zones, shelterbelts and hedgerows. These activities are critical ways to reduce the impact of climate change and include shading, carbon storage in woody biomass and soil, improved biodiversity and pollinator activity, reduced wind erosion of soil, watercourse and groundwater quality.

## Manure management

Proper manure management strategies can curtail methane production and promote methane consumption, thus mitigating greenhouse gas (GHG) emissions while reducing negative impacts on crop production systems and the environment. Manure can also contribute to the production of renewable energy using the process of anaerobic digestion, commonly referred to as biodigesters.

# ENVIRONMENTAL IMPACT

One of the lowest carbon footprints for dairy in the world

From 1990 to 2020, the carbon footprint of a litre of Canadian milk decreased by

25%  
↓ ↓ ↓ ↓ ↓

Canadian consumers can enjoy their daily dairy products knowing that the footprint of milk produced in Canada continues to decrease. From 2011 to 2016:

7%  
FEWER ↓  
GHG EMISSIONS

6%  
LESS ↓  
WATER CONSUMPTION

11%  
LESS ↓  
LAND USE

According to recent studies, Canadian milk production is responsible for generating or using just:



0.02% OF CANADA'S RENEWABLE FRESHWATER SUPPLY



2.9% OF CANADA'S TOTAL AGRICULTURAL LAND

(Groupe AGÉCO, 2018; Environment and Climate Change Canada, 2021)



# DEVELOPING KEY PARTNERSHIPS


In recent years, Dairy Farmers of Canada joined forces with forward-thinking environmental organizations like Tree Canada, Cleanfarms and Ducks Unlimited Canada, to further solidify the sector's long-standing commitment to stewardship and responsible farming practices.



In September 2021, Dairy Farmers of Canada joined the **Pathways to Dairy Net Zero** climate initiative, which aims to accelerate climate change action and reduce greenhouse gas emissions from the dairy sector worldwide. Climate and agricultural scientists are conducting a systematic review of the science to identify current and potential mitigation options across dairy production systems. By optimizing productivity and reducing emissions, these efforts today will safeguard nutrition security and sustain livelihoods for tomorrow, while helping secure a future for us all.

Most recently, DFC and **Agriculture in the Classroom Canada** have worked together to deliver a national scholarship program to inform, empower and equip youth with the knowledge and tools to make sustainable food choices and career decisions.





# RESEARCH & INNOVATION

The Canadian dairy sector has always been a global leader in research and innovation. DFC has invested millions over the past quarter-century on research related to:

- Nutritional attributes of dairy products;
- Impacts of dairy consumption on human health;
- Dairy cattle genetic improvement;
- New farming equipment and technologies;
- Sustainable practices and reduction of environmental impact; and
- Best practices in herd management, animal nutrition, care and health.

**DFC leverages research funds to attract other research partners, including organizations like Agriculture and Agri-Food Canada, the Natural Sciences and Engineering Research Council, and Lactanet Canada, to name a few.**

## National Dairy Research Strategy

Dairy Farmers of Canada (DFC)'s investments in science are guided by a five-year National Dairy Research Strategy (2022-2027). The strategy outlines research needs and priorities, establishing targeted outcomes and key research objectives.

Its goals are to foster innovation, increase farm efficiency and sustainability, enhance animal health, care and welfare practices, and strengthen the role of dairy in human nutrition and health, as well as in sustainable diets.

This strategy forms the basis of DFC's calls for proposals to the Canadian scientific community.



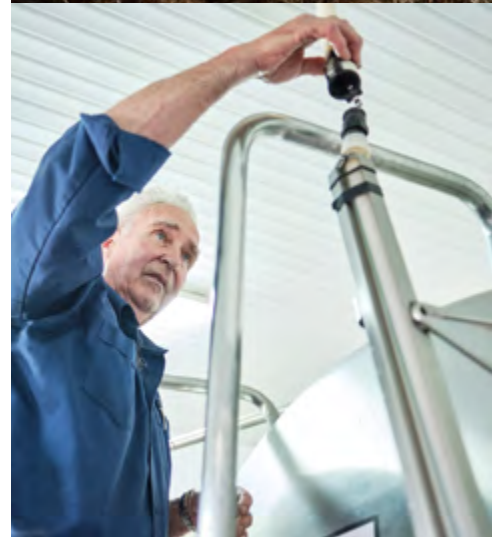
# ADOPTING NEW TECHNOLOGIES

The work of a dairy farmer is always changing, and dairy farmers are continually modernizing their operations. In 2021, Canadian dairy farmers invested approximately \$268,341 per farm – almost \$2.7 billion nationally – to upgrade or replace barns and adopt the latest equipment and technologies.

Some of the cutting-edge solutions dairy farmers are adopting include:

- Investments in the herd's health, comfort, and well-being, like robotic milking systems, motion-activated cow brushes, cow health trackers, cow pedometers, and improvements in bedding and stalls;
- Nutrient and manure management practices and other land-use strategies to reduce dairy farming's overall environmental impact;
- Practices to conserve and reduce the amount of water used on farms;
- Energy-saving measures and sources of renewable energy, like biodigesters and solar technologies; and
- GPS-enabled smart tractors, data collection, computerized models, robotic machinery, and other high-tech farming equipment.

As dairy farmers continue to look towards the future with a focus on sustainability, government initiatives facilitating the implementation of these green technologies are vital. New technologies and the data they capture are helping farmers optimize animal health, care, and improve the efficiency of producing high-quality milk for all Canadians.



# STRENGTHENING OUR COMMITMENTS: **THE proAction<sup>®</sup> PROGRAM**



**proAction<sup>®</sup>**

The proAction<sup>®</sup> program provides an efficient and co-ordinated national quality assurance framework for dairy farmers to demonstrate and document best practices, while continuing their business leadership in producing some of the safest highest-quality milk on the planet.



# The proAction® program is composed of six modules



## **MILK QUALITY:**

Canadian dairy farmers strictly adhere to provincially regulated milk quality standards every day to produce some of the world's highest-quality.

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## **FOOD SAFETY:**

Canadian dairy farmers work to prevent, monitor, and reduce food safety risks on farms, based on the principles of Hazard Analysis and Critical Control Points (HACCP) and Canadian Food Inspection Agency (CFIA) recognized requirements.

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## **ANIMAL CARE:**

Treating animals well and providing them with excellent care is of utmost importance to dairy farmers. This module is based on the Code of Practice for the Care and Handling of Dairy Cattle, a science-informed, nationally developed guideline, which will be updated in 2023.

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## **LIVESTOCK TRACEABILITY:**

Farmers systematically tag animals to trace births, deaths and movements, which helps protect animal health and public health, while contributing to improved emergency management.

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## **BIOSECURITY:**

Farmers work with veterinarians to improve herd health and focus on preventing the introduction or spread of diseases on farms.

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## **ENVIRONMENT:**

Building on existing provincial environmental farm plans, farmers ensure the best nutrient management, soil health and water management practices. They also work to reduce greenhouse gas emissions, enhance biodiversity, and reduce waste by recycling more.

**Mandatory for all Canadian dairy farms, proAction®  
continually evolves to reflect the latest best practices.**

# CARING FOR OUR ANIMALS

Treating animals well and providing excellent care comes naturally to dairy farmers.

Through constant dedication to improving their methods, Canadian dairy farmers work to uphold the highest standards in animal care.

**“In addition to being world-renowned for their excellence, Canadian milk and dairy products are recognized for their variety and high-quality. Enforcement of strict quality standards on dairy farms and in processing plants enhances this international reputation, along with a strong commitment to sound animal welfare practices and environmental sustainability.”**

- Agriculture and Agri-Food Canada (2021)





# Identifying Best Practices in Animal Care

Dairy Farmers of Canada's ongoing investments in research ensure dairy farming continues to improve, innovate, evolve and become more efficient. Our research budget surpasses \$2 million per year, including funding for animal science research and milk production research, which contribute to identifying new best practices.



## Animal Care Module of proAction®

The Animal Care module of proAction is based on the Code of Practice for the Care and Handling of Dairy Cattle and includes an assessment of cattle for specific indicators of animal health and welfare in each herd. All Canadian dairy farms must implement the proAction requirements to sell milk.

The National Animal Farm Care Council, together with Dairy Farmers of Canada, published the current Code of Practice in 2009. A review was initiated in 2019 and the updated Code of Practice will be released in 2023. The update process is led by a Code Development Committee that includes farmers from across Canada, animal welfare advocacy and enforcement representatives, researchers, processors, veterinarians, and government officials.

Developed with extensive industry and stakeholder input, the Code of Practice is informed by science and reflects current and leading dairy management practices.

## No Artificial Growth Hormones in Canadian Milk

Unlike other jurisdictions such as the United States, Health Canada decided in 1999 not to approve the growth hormone Recombinant Bovine Somatotropin (rBST) out of concern for its impact on animal health. **Therefore, all milk produced in Canada is rBST-free**, while it may not be the case with all imported milk.

## Antibiotics and Canadian Dairy

If a cow falls ill, dairy farmers work with their veterinarians to provide proper care, including antibiotic treatment. If a cow requires antibiotics, farmers will continue to milk her for physiological reasons, but not use her milk. In this situation, farmers must adhere to a withdrawal period outlined by Health Canada, providing the cow with the care she needs while ensuring the milk we do consume is safe.

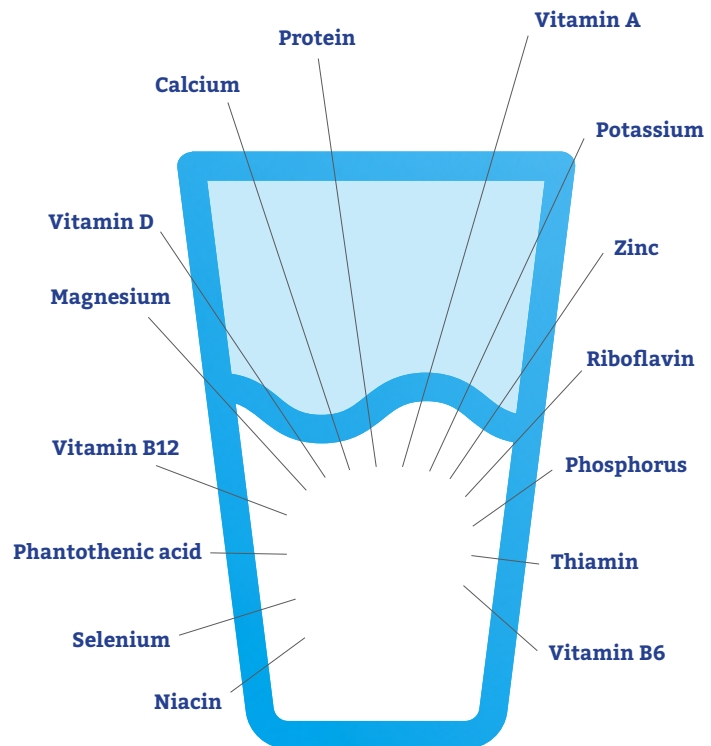
All Canadian dairy farms are required to have a relationship with a veterinarian.

# MILK AS PART OF A HEALTHY BALANCED DIET

## A Source of 15 Essential Nutrients

So many good things are packed into one glass of milk: a 250 ml serving contains 15 essential nutrients, including six of the eight nutrients many Canadians lack: vitamin D, calcium, magnesium, zinc, potassium, and vitamin A.

A series of systemic reviews on their role in health and the prevention of disease (2019) concluded that in addition to meeting nutrient recommendations, milk and dairy products may help protect against many prevalent chronic diseases, such as heart disease, type 2 diabetes and certain cancers, with very few adverse effects.



## Dairy vs. Plant-Based Beverages

While the nutrients in milk can be found in many different foods, milk remains unparalleled as a reliable and concentrated source of many nutrients.

Although some plant-based beverages have added calcium, the calcium found naturally in cow's milk is often better absorbed by our bodies. Some studies also show that the calcium added to plant-based beverages tends to settle at the bottom of the container. A 2018 study on the nutrient density and nutritional value of milk and plant-based milk alternatives found that as much as 40% of calcium can remain there and not be consumed, even when shaken vigorously.

Alternatively, cow's milk is a natural source of calcium that's well-absorbed and used by our bodies.

In addition, the Canadian Paediatric Society and Dietitians of Canada advise parents that most plant-based beverages are low in protein and may not support good health and optimal growth in young children.

Milk, on the other hand, is an excellent source of protein, and milk proteins are some of the highest-quality proteins available. Milk proteins are important for growing children and preserving healthy bones and muscles in aging adults.

Unlike plant-based protein sources, which generally provide incomplete protein, protein from animal sources is considered "complete." That's because it provides a good supply of all nine essential amino acids that your body cannot synthesize itself.



# Reducing the Risk of Chronic Disease

Health Canada's 2015 Evidence Review for Dietary Guidance, which informed the development of the Food Guide, highlights that milk products are associated with a reduced risk of colon cancer, coronary heart disease, stroke, blood pressure, type 2 diabetes and that they contribute to bone health in children. It also reveals that the comprehensive scientific evidence showing milk products are associated with a reduced risk of heart disease, type 2 diabetes and hypertension is as strong or stronger than the scientific evidence for vegetables and fruit, whole grains and plant-based protein foods.



## Cardiometabolic Health

A significant body of scientific evidence indicates that milk products are associated with important cardiometabolic health benefits. In the last 10 years, at least 40 systematic reviews, umbrella reviews and meta-analyses have been published which collectively conclude that milk products, including those that are higher in fat such as cheese, are associated with either no detrimental impact, or a beneficial role on cardiovascular disease, coronary heart disease, stroke, hypertension, obesity, metabolic syndrome, type 2 diabetes and all-cause mortality. Other key studies support similar conclusions.

The seminal Prospective Urban Rural Epidemiology (PURE) study, for instance, involved a large multinational cohort study of more than 135,000 individuals 35–70 years old from 21 countries on five continents. It found that dairy consumption was associated with a reduced risk of mortality and cardiovascular disease, metabolic syndrome, hypertension, and type 2 diabetes.

A 2022 systematic review and dose-response meta-analysis, which included more than 50 studies and over 1.2 million individuals, linked higher intakes of total dairy and specific dairy products to a decreased risk of developing cardiometabolic risk factors and diseases. For example, total dairy, high-fat dairy, milk, and yogurt were associated with a decreased risk of overweight and obesity. Other observations included a reduced risk of type 2 diabetes as total dairy and yogurt intake increased and a decreased likelihood of developing hypertension as low-fat dairy and milk intakes increased. Cheese intake was not associated with any cardiometabolic disease or risk factor.

Furthermore, when it comes to cardiometabolic disease prevention such as cardiovascular diseases and type 2 diabetes, current scientific evidence emphasizes that dietary guidance be based on foods rather than specific nutrients because the food matrix (i.e. all the nutrient and non-nutrient components of a given food and their interactions with one another) has a major impact on the ability of these nutrients to affect health.



# Cancer Prevention

According to the World Cancer Research Fund International, the world's leading authority on cancer prevention research related to diet, weight and physical activity, there is no strong evidence that milk products, including milk, yogurt and cheese, increase the risk of any cancer, including prostate, breast and ovarian cancers.

In fact, evidence from a 2019 Global Burden of Disease study showed that main contributors to colorectal cancer include diets that are low in milk and calcium.

Furthermore, the sum of the evidence suggests that total dairy product consumption is either not associated with risk of post-menopausal breast cancer, or may reduce the risk of pre-menopausal breast cancer. Many other seminal studies echo the same conclusions.

A 2015 meta-analysis of prospective cohort and case control studies – which included more than 1.6 million participants – indicated that milk is either not associated with breast cancer risk, or is associated with a reduced risk of breast cancer.

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**There is strong evidence that milk products are associated with a reduced risk of colorectal cancer.**

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# Optimizing Bone Health to Prevent Osteoporosis

Bone health is essential for overall health and quality of life and is dependent on bone mass, bone architecture and body mechanics.

Optimal bone health status is crucial to prevent osteoporosis, a disease characterized by low bone mass and microarchitectural bone deterioration, leading to bone fragility and increased fracture risk.

A 2020 report of the Canadian Chronic Disease Surveillance System by the Public Health Agency of Canada (PHAC) shows that osteoporosis affects a large proportion of the adult Canadian population. In 2015–2016, approximately 12% of Canadians over 40 years (2.2 million people) were living with diagnosed osteoporosis – about 80% of them were women. In adults over 20 years, osteoporosis is also more prevalent than diabetes, ischemic heart disease and cancer.

According to the U.S.-based National Osteoporosis Foundation, calcium, vitamin D and milk product consumption are key factors for achieving peak bone mass in young adulthood, which is an important predictor of osteoporosis and fractures later in life. The 2020 PHAC report also highlighted the importance of balanced nutrition beginning in childhood to attain optimal bone health as an adult.

Data in the most recent national survey led by Statistics Canada reveals that most Canadians do not consume enough calcium and that the prevalence of calcium inadequacy has worsened in recent years across different age groups. The beneficial role of dairy products on bone health and their importance as sources of calcium and vitamin D are also recognized by organizations like Osteoporosis Canada, the International Osteoporosis Foundation and the European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases.

Unlike calcium and/or vitamin D supplements, milk products contain many other nutrients that are also important for bone health, including protein, phosphorus, potassium, magnesium, vitamin K and vitamin A.

A recent landmark study in Australia reinforced the role of milk products in the preservation of bone health. This important randomized control trial followed 7,195 Australian permanent residents in several aged care facilities. After the two-year follow-up period, the residents in the intervention group who increased their dairy intake from 2 to 3.5 daily servings of milk products experienced a 33% total fracture risk reduction and a 46% risk reduction for hip fractures. In this study, a simple dietary intervention providing additional milk products was a successful, cost-effective approach to reduce fractures in high-risk older adults.

A consensus statement from the International Osteoporosis Foundation and the Bone Health and Osteoporosis Foundation recently concluded that “the dairy matrix exerts an effect on bone and muscle health that is more than the sum of its nutrients.” It goes on to say that several plant-based beverages and products have become available and marketed as substitutes for dairy products, some of which are fortified to try “to mimic the nutritional profile of milk, but it is unknown whether the additives have the same bioavailability and beneficial effect as dairy.”



## Dairy Products and Canada's New Food Guide

Canada's Food Guide is an important educational tool that aids Canadians in making informed, healthy choices. In 2019, Health Canada published a new version of its Food Guide that introduced a "Protein Foods" category, which includes milk, cheese and yogurt, among other protein sources. Such protein foods are considered by the Guide to be nutritious foods that contribute to healthy eating patterns.

However, the Food Guide does not address bone health and osteoporosis prevention nor does it put much emphasis on consuming enough calcium and vitamin D-rich foods. According to a 2019 study on the nutritional adequacy of Canada's Food Guide, Canadians who consume foods as depicted in the "Food Guide Snapshot" are likely to fall below dietary requirements for calcium and vitamin D.

The Food Guide also emphasizes plant-based sources of protein over animal-based sources of protein, despite new evidence pointing to potential detrimental effects on bone health when there are low amounts of animal protein foods – or none at all – in the diet, particularly dairy.





# Dairy and Fat Intake

Canada's new Food Guide focuses on sodium, sugar, and saturated fat as determinants of the overall healthfulness of a food. Heeding this advice in isolation might mean steering away from regular fat cheese, for example, because of its saturated fat content, even though recent research fails to demonstrate a strong link between dietary saturated fat in dairy products and cardiovascular disease incidence and reveals that cheese is linked to a lower risk of stroke.

The sum of the evidence demonstrates that regular fat dairy products are not associated with a higher risk of cardiovascular diseases. In fact, recent studies link the intake of dairy fat with a lower risk of cardiovascular diseases and the intake of cheese specifically with a lower risk of stroke.

Furthermore, while lower milk intake can decrease saturated fat intake in the population, it would also have the unintended consequence of decreasing the intake of other important nutrients like calcium and vitamin D, two nutrients Health Canada acknowledges Canadians currently fall short of.

While saturated fat may increase blood cholesterol levels, there is strong evidence from various studies, including a meta-analysis commissioned by the World Health Organization (WHO) that saturated fat does not increase the risk of all-cause mortality, cardiovascular disease, or type 2 diabetes.

Similarly, Health Canada has also found no association between dietary saturated fat and increased risk of cardiovascular disease or coronary heart disease.

Studies have shown that higher-fat milk products, including cheese, have not been associated with increased cardiovascular risk, type 2 diabetes, or obesity. In fact, they have been found to have either a neutral or beneficial effect on these health outcomes. A 2021 systematic review of randomized controlled trials supported a different effect of dairy products compared to other animal sources of saturated fat, with evidence of improvement on cardiometabolic risk factors.

The Heart and Stroke Foundation of Canada has abandoned the idea of setting a threshold or limit for saturated fat. Instead, it argues for a focus on a healthy balanced diet, made up of natural whole foods. The National Heart Foundation of Australia goes even further, encouraging people with healthy blood cholesterol levels to eat unflavoured milk, yogurt and cheese regardless of their fat content. They state that "there is not enough evidence to recommend fat modification (i.e. full-fat over reduced-fat products, or reduced-fat over full fat products) for the general population" (2019).



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**The sum of the evidence demonstrates that regular fat dairy products are not associated with a higher risk of cardiovascular diseases.**

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## Dairy and Sodium Intake

Health Canada recommends that individuals avoid excessive intakes of sodium, and as such, many food manufacturers have already reduced the amount of sodium used in their foods. However, salt (sodium chloride) is a key ingredient in the safety of several foods, including cheese. Salt is used in the cheesemaking process for several purposes: enzymatic and microbial control, humidity control, texture, and to ensure food safety. While technological challenges and food safety considerations to reducing sodium in cheese may exist, further reducing salt in these foods may raise unintended food safety issues.

Despite its sodium content, several studies have consistently shown that cheese does not have an adverse impact on blood pressure or cardiovascular health. In fact, cheese has been associated with a reduction in the risk of stroke and type 2 diabetes.

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## Dairy and Sugar Intake

The World Health Organization (WHO) recommends that added sugars be limited to less than 10 per cent of our total caloric intake each day. For that reason, it is important to pay attention to our overall intake of added sugars.

However, according to the American Heart Association, small amounts of sugars can improve the taste of foods that provide many essential nutrients, like yogurt and whole-grain cereal (2016). This added sweetness can encourage the consumption of these nourishing foods, improving our diets' nutritional quality as a result. Furthermore, according to guidelines published by Diabetes Canada, nutritious foods such as whole grains and yogurt that contain some added sugars, are not associated with adverse health effects.





## Basing Policy Decisions on the Best-Available Science

It is imperative that any policy designed to promote healthy eating in Canada be reflective of the best available peer-reviewed evidence and fully consider the overall impact of foods on human health. Since the proposals under the Healthy Eating Strategy were brought forward, evidence has continued to accumulate in support of the nutritional and health benefits of dairy products, particularly when it comes to many of the chronic diseases identified by Health Canada.

The health effects of any particular dairy product are more than just the sum of its nutrients, and for this reason, whole foods need to be assessed and dietary guidelines should be food-based as opposed to nutrient-based.

# SUPPLY MANAGEMENT

Supply management is an agricultural framework under which production for perishable foods, like milk, is carefully planned to match anticipated consumer demand. Other Canadian industries operating under supply management include chicken, turkey, eggs, and hatching eggs.

By balancing production to meet the needs of the market, supply management helps the sector reduce surpluses. It also helps prevent wild and repeated fluctuations in the farm-gate price of milk.

Additionally, supply management enhances Canada's food sovereignty and security by ensuring that Canadian families can get the milk and dairy products they need, produced right here at home.

As a result, consumers have reliable, year-round access to high-quality, safe milk produced within our borders in a socially responsible way – and without the random price swings or fluctuations in supply that happen in countries without supply management.

## Fast Facts

In many other jurisdictions, including the United States and the European Union, consumers pay twice for their milk: once through taxpayer subsidies, and once again at retail. On the other hand, supply management allows Canadian dairy farmers to earn comparatively stable returns from the marketplace with no direct government subsidies for milk production.

The majority of milk produced in Canada comes from family-owned farms. The average dairy farm in Canada has 96 cows, while in the United States, the majority of milk produced comes from farms with more than 1,000 cows.



## Benefits of Supply Management



### Consumers

get a consistent supply of high-quality, responsibly produced local products at reasonable prices, contributing to their healthy and balanced diets.



### Farmers

get a stable and fair return for the milk they produce. This stability allows them to reinvest in their farms, which drives economic activity in communities all across Canada.



### Dairy Processors

get a predictable supply of high-quality Canadian milk produced according to some of the world's most stringent standards.



### Governments

benefit from the economic activity generated by the industry and taxation, while the administration of the system is not costly.



# HOW SUPPLY MANAGEMENT WORKS

In the dairy sector, supply management is administered nationally by the Canadian Dairy Commission (CDC), a Crown corporation that serves as a secretariat to the Canadian Milk Supply Management Committee (CMSMC). The CMSMC is responsible for assessing consumer demand for milk products and adjusting the national target for production accordingly.

Each farm owns a quota (market share) and only produces as much milk as is required by the Canadian marketplace. Under supply management, farmers can earn predictable and stable revenues directly from the market.



## The Three Pillars of Supply Management

1

### PRODUCER PRICING:

To ensure a fair price, the milk price received by dairy farmers considers both their costs of production, including capital and labour costs, and the overall Canadian economy.

2

### PRODUCTION DISCIPLINE:

To ensure the supply of Canadian milk aligns with demand from consumers, each farm in Canada owns a quota (market share) that allows it to produce a certain amount of milk. As overall demand ebbs and flows, the output at an individual farm will increase or decrease proportionately based on its quota.

3

### IMPORT MANAGEMENT:

In Canada, imports are managed using tariff rate quotas, or TRQs. These allow a predetermined quantity of dairy products to be imported at preferential tariff rates (generally duty-free).

## Supply Management and Retail Prices

As with all food products, retail prices are set by retailers. Even with the recent adjustment of milk prices at farmgate by the Canadian Dairy Commission, which does not cover the full increase of production costs for dairy farmers over the past two years, retail prices for dairy in Canada remain in line with those in other countries – in some cases, they are even cheaper.

Furthermore, the retail price does not always tell the full story. Many countries without supply management heavily subsidize their dairy industries, which comes straight out of taxpayers' pockets and essentially forces consumers to pay twice for their milk: once through the subsidy and again at the store. In Canada, farmers receive no direct subsidies for milk production.

## Feeding the Nation: Supply Management and Food Security

Dairy farmers believe that all individuals and families should have food security – the reliable access to healthy, nutritious and affordable food. According to researchers at the University of Toronto, based on the latest data from Statistics Canada's Canadian Income Survey, 5.8 million Canadians, including 1.4 million children, in the 10 provinces lived in food-insecure households in 2021.

Our farmers safely and sustainably produce high-quality milk right within our own borders, which is then transformed by local processors into thousands of dairy products that Canadian consumers have come to know and love.

Rather than looking outward for our food, a strong Canadian dairy sector means we can be less dependent on foreign countries to meet Canada's food requirements.

One of the ways Canadian dairy farmers ensure a consistent supply of milk at stable prices is through the supply management framework.

Under supply management, farmers work collaboratively with milk marketing boards, processors, and the Canadian Dairy Commission to ensure enough milk production to meet domestic demand.

Unfortunately, supply management has been weakened by recent trade deals, which provide foreign countries greater access to the Canadian dairy market.





Overreliance on dairy imports puts greater ownership over our food supply in the hands of foreign suppliers and governments. That means we are more vulnerable to global issues beyond our control, like economic boom-and-bust, natural disasters, and even conflicts between governments.

Our dairy sector generates considerable economic activity — especially in rural communities — which means more jobs, more investment, and more taxation revenues stay right here in Canada.

What's more, imported dairy products may not follow the same stringent production standards as food produced in Canada. For instance, all Canadian milk is produced without artificial growth hormones, while there are no similar guarantees for milk produced in some other countries. Canadian dairy farmers also follow rigorous high-quality and safety standards and are global leaders in sustainability.

Domestically produced dairy products travel a shorter distance from farm to table, which means a lower transportation footprint and lower transportation costs.

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**All Canadian milk is produced without artificial growth hormones, while there are no similar guarantees for milk produced in the United States, for example.**

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# CANADIAN DAIRY IN A GLOBAL PERSPECTIVE

Under supply management, the Canadian dairy sector strives to produce enough milk to meet domestic demand, unlike other jurisdictions such as the U.S. and New Zealand, which prioritize growing their exports.

In countries without supply management, imbalances between the supply of milk and demand for dairy products can lead to overproduction. In turn, this can lead to the sale of dairy products on the international market at dumping prices.

When global prices for dairy products are decreased, it can lead to a corresponding drop in the domestic price that dairy farmers receive for their milk (the 'farm gate price'), which puts the future of individual farms in jeopardy.

The comparative income stability provided by supply management allows Canadian farmers to reinvest in their farms rather than hold income in reserve as insurance against market volatility, ensuring the continued health of the industry for generations to come.



## Recent trade agreements have weakened Supply Management

Dairy farmers want to invest in their farms to innovate and increase efficiencies so they can continue to find new ways to produce quality milk for Canadians. However, these important investments on the farm can only come with a level of certainty as it relates to the market, which is impossible when milk produced elsewhere is increasingly making its way onto our store shelves.

The dairy farming sector is an important economic driver and a key part of our national food security, but our ability to make such important contributions has been jeopardized by the signing of three successive trade agreements: the Comprehensive Economic and Trade Agreement (CETA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Canada-U.S.-Mexico Agreement (CUSMA).

By 2024, up to 18% of our domestic dairy production will be outsourced to foreign producers, who will supply milk for imported dairy products that replace those made with Canadian milk on our store shelves.

DFC estimates that the combined market access concessions granted under these three agreements are equivalent to an average annual loss of \$450 million in farmers' revenues. These concessions have weakened supply management by giving additional access to the Canadian market to foreign milk producers.

While Canadian dairy farmers welcomed the recent announcement of full and fair compensation for the impacts of CUSMA, as well as the compensation previously granted for CETA and CPTPP, granting any further market access in future trade deals would jeopardize the long-term stability of our industry.











# THE CHANGING FACE OF THE DAIRY INDUSTRY

Building on a tradition of innovation, the next generation of forward-thinking, technologically savvy farmers is emerging. Across all farming sectors, the 2016 Census of Agriculture points to a workforce that is younger, has a higher proportion of female farmers and a higher level of educational attainment than observed in the 2011 Census of Agriculture. The 2016 Census found that supply-managed sectors had a higher percentage of young farmers than almost all other agricultural sectors, and two-thirds of farmers under 40 years old had attained post-secondary education, compared to just half of farm operators 40 years and over.

Across Canada, this younger generation is breathing new life into the profession by implementing fresh skills and approaches on the farm and adopting new technologies to work with nature and our animals more sustainably. In fact, dairy farm operators are leading the way in the adoption of technology on their farms. In doing so, they are leveraging generations of experience while putting their knowledge, passion and outstanding work ethic into practice.

The stable market environment afforded by the supply management system provides young farmers with ample incentive to pursue a livelihood in dairy farming. Notes from the 2011 Census of Agriculture highlight that “the greater income stability provided by the supply management system for dairy, poultry and egg operations may be appealing enough for a young generation of operators to stay in agriculture and continue to operate the family farm.”

New entrant programs are a feature in every single province to encourage new farmers to enter the dairy industry. These programs either loan or allocate quota to new farmers and provide them with mentoring opportunities. There is also a range of grassroots organizations and government programs designed to support women, young people and persons from underrepresented groups interested in pursuing a career in dairy farming (Agrarians Foundation, 2020; Agriculture and Agri-Food Canada, n.d.).

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**“The greater income stability provided by the supply management system for dairy, poultry and egg operations may be appealing enough for a young generation of operators to stay in agriculture and continue to operate the family farm.”**

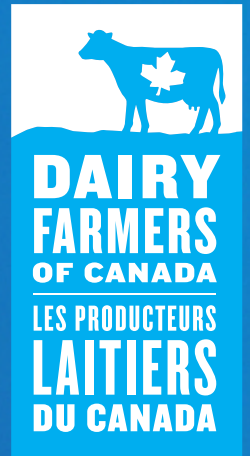
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# LOOKING FORWARD

Consumers can feel good about choosing Canadian dairy because our dairy farmers produce safe, nutritious, high-quality milk right here at home, following some of the most stringent standards in the world. Dairy is an important part of a healthy, balanced diet, and Canada's dairy farmers are innovative, forward-thinking and dedicated to best practices in food safety, animal care and sustainability.

Dairy farmers make an important contribution to our domestic food security, drive jobs and investment in the Canadian economy, and are the backbone of many rural communities all across this great nation.

With the support of fellow Canadians and the right policy environment, we can continue to foster a strong, healthy and vibrant dairy farming sector well into the future.



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