

WE ARE DAIRY FARMERS

INNOVATION AND COMPETITIVENESS IN THE CANADIAN AGRICULTURAL SECTOR

PRESENTATION TO THE HOUSE OF
COMMONS STANDING COMMITTEE ON
AGRICULTURE AND AGRI-FOOD

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of Canada



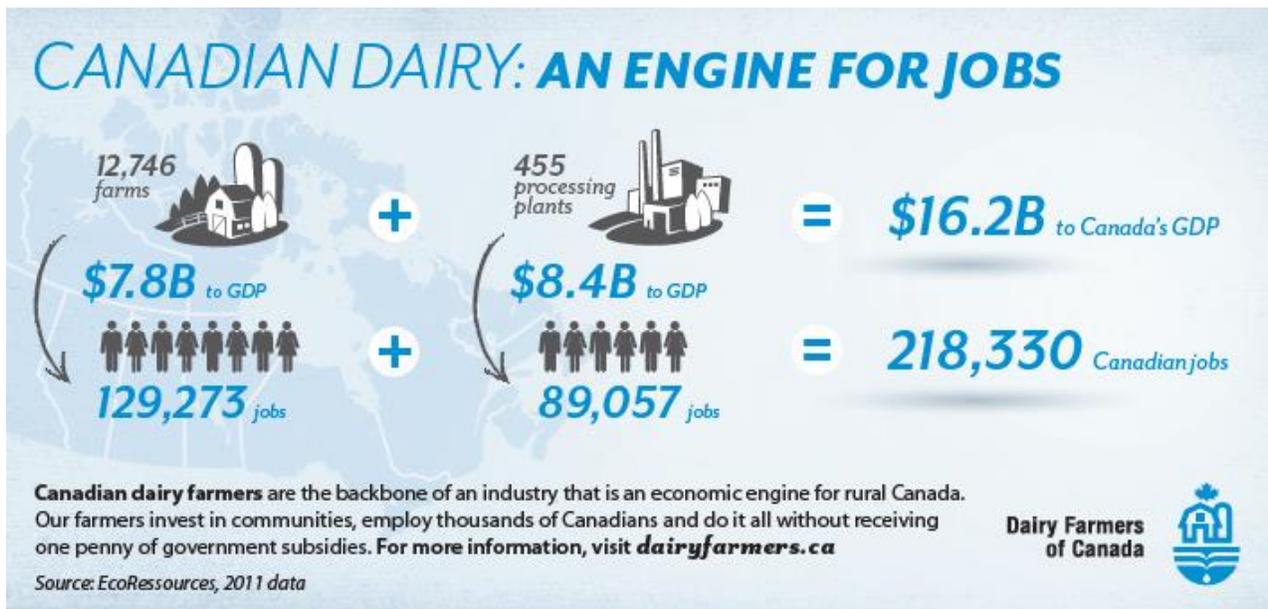
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DAIRY FARMERS OF CANADA (DFC)

Run by farmers, for farmers, DFC is the voice of Canadian dairy farmers. DFC is the national lobby, policy and promotion organization representing Canada's farmers living on more than 12,000 dairy farms. DFC strives to create stable conditions for the Canadian dairy industry, today and in the future. It works to maintain policies that foster the viability of Canadian dairy farmers and promote dairy products and their health benefits.

DAIRY SECTOR CONTRIBUTION TO CANADIAN ECONOMY



- In 7/10 Canadian provinces, dairy is one of the top two agricultural sectors.
- The sector's GDP contribution has risen from \$15.2B in 2009 to \$16.2B in 2011, and the contribution to Canadian employment market grew from 215,104 to 218,330 over the same time period.
- The Canadian dairy industry contributes annually more than \$3 billion in local, provincial and federal taxes.
- An increasing proportion of farms are being operated solely by young operators (those 18 to 39 years of age), despite an aging farmer population.





CANADIAN DAIRY SUPPLY MANAGEMENT

The supply management system enables the Canadian dairy sector to effectively and efficiently manage the production of the perishable product with processor plant management to deliver Canadians with fresh, high quality, safe and nutritious dairy products.

Canada's supply management dairy policy rests on three pillars: production management, predictable imports and farm pricing. The aim of the Canadian dairy supply management system is to balance supply and demand, as well as balance market power among the supply chain stakeholders.

Supply management is not the same today as it was 40 years ago. Farmers, processors and governments have worked together to improve and strengthen the system and increase the diversity of dairy products offered to Canadians.

Examples of Innovation in Dairy:

- Making over 1000 cheeses, artisan cheese makers, who can be found all across Canada, provide significant economic benefits to their local communities.
- Yogurt varieties have diversified and grown over the years; for instance Greek yogurt is increasing by 15% per year.

INNOVATING FOR A MORE SUSTAINABLE AND PROFITABLE DAIRY INDUSTRY

Farmers across Canada recognize that innovation drives efficiency gains in the industry and profitability. The stability offered by a strong supply management program has allowed dairy farmers to reinvest in their industry and on their farms through comprehensive research programs for example, where results deliver better management practices, better technology and better quality products for consumers.

The future sustainability and profitability of our industry is directly connected to the advancement and new breakthroughs in our genetics and genomics programs. Leadership is taken to set standards to produce the best milk in the world in a sustainable way and maintaining strong investments in primary production, human health and nutrition research.





Dairy farmers want to keep working with processors to innovate in dairy and welcome opportunities that increase demand for quality, nutritional Canadian dairy products to the benefit of all Canadians.

LEADING THE WAY FOR SUSTAINABLE DAIRY FARMING

In March 2014, DFC welcomed the government's announcement of close to \$945,000 under the AgriMarketing program for traceability and to support DFC's integrated on-farm assurance programs. This investment will help Dairy Farmers of Canada develop programs that confirm farmers' commitment to continuous improvement. DFC's proAction Initiative is dairy farmers' commitment to excellence in dairy farming. Canadian dairy farmers want to collectively demonstrate responsible stewardship of their animals and the environment, sustainably producing high quality, safe and nutritious food for consumers.

The proAction Initiative is national framework that will bring various programs related to the best management practices on-farm under one umbrella. This new approach will allow the Canadian dairy industry to continue its leadership by assuring customers about farm practices. Canadian dairy farmers will collectively and proactively establish the terms and timelines for this Initiative. DFC's investments in research have built a strong, science-based foundation for the progress and development of the proAction Initiative.

proAction will set best management practices in six key areas:

1. Milk Quality
2. Food Safety
3. Livestock Traceability
4. Animal Care
5. Biosecurity
6. Environment

Some innovation examples based on dairy research:

- The research related to mastitis led to the development of a molecule which could serve as the basis for an antibiotic which would not develop resistance.
- Dairy farmers' carbon footprint is one of the lowest in the world while working under adverse climatic conditions.





STRIVING TO MAKE THE BEST MILK IN THE WORLD

A number of success stories are driving dairy farmers to innovate and make the safest and highest quality of milk for Canadians. A consistent body of work in research has been dedicated to delivering best practices to improve the health of dairy cows, prevent infections and disease, treat diseases like mastitis to reduce the use of antibiotics on farms, make farm environments more comfortable for cows and encourage the adoption of new technologies like the use of robotics to make farms more efficient.

DFC's Canadian Quality Milk program is an on-farm food safety program designed to help farmers prevent, monitor and reduce food safety risks on their farms. It has achieved technical recognition by the Canadian Food Inspection Agency as adhering to HACCP principles and being scientifically sound. Farmers on the program implement best management practices on their farms and keep records to monitor critical areas of food safety. By 2015, all Canadian dairy farmers will be certified under the program.

How dairy farmers strive for the best:

- The Canadian Dairy Information Centre indicated that in 2013, there were 407 robot farms in Canada or roughly 4.6 percent of the dairy barns across the country. This number has increased by almost 50% since last year!
- In April 2014, CBC's Steven and Chris visited Joe Loewith and sons' dairy farm in Lyndon, ON. One of the hosts commented on the automatic "back scratcher". He couldn't believe that cows actually line up to use it and said it's like they're "going to a salon". Purchasing a back scratchers makes smart business sense, keep cows clean, happy and healthy. This product has is being sold by agricultural equipment dealers across Canada.
- Other examples of success stories includes the discovery, development and testing of a vaccine against infections caused by mastitis, an infection that costs Canadian dairy farmers \$400 million in animal treatments and loss of milk.





MAKING A BETTER COW: WORLD RENOWNED DAIRY GENETICS

Canada is renowned globally for being home to some of the best dairy animals in the world. This is a direct result of over 40 years of investments and work in dairy cattle genetics research and breeding programs. The results of which have been applied successfully at home and creating demand for our dairy cow genetics abroad.

The Canadian Dairy Network has led the industry in dairy genetics and genomics research by: providing genetic evaluations for all dairy cattle breeds in Canada; coordinating industry-funded research and development projects in the area of dairy cattle genetics and genomics; establishing national standards associated with supervised herd recording, publishable lactations and information used for genetic evaluations; and maintaining a national dairy database for the dairy cattle improvement industry in Canada.

Our reputation for superior genetics globally speaks for itself:

- Canadian dairy genetic exports were valued at over \$123 million in 2013, a \$12 million increase from 2012, with exports to more than 100 countries. The industry only keeps growing; the first two months of 2014 saw almost \$26 million in international trade.
- In December 2013, Minister Ritz announced that Vietnam's largest dairy wants to buy 10,000 Canadian dairy cattle. This could be worth up to an additional \$20M for Canadian dairy farmers. An order of this magnitude demonstrates the confidence in the health status of our national herd and the high regard for Canadian dairy genetics.
- Breeding and genetic improvements have transformed our animals over time. In 1970, Canadian cows produced on average 3,431 litres of milk. In 2012, this had increased to 8,331 litres, or 143%!

DRIVING INNOVATION IN DAIRY: DAIRY RESEARCH FOR A HEALTHY WORLD

Dairy Farmers of Canada has been investing in dairy production, and human nutrition and health research for almost three decades. We are proud to have built and grown these investments over the years with our partners, including the federal government. Together, we are driving innovation in the Canadian dairy industry.





At the national level, DFC's yearly investment in dairy production, and human nutrition and health research is \$1.7 million. Of this, \$750,000 is directed toward dairy farmers' priorities to improve efficiency, on-farm sustainability, animal health and welfare, and dairy genetics. The contribution of research results has led to efficiency and productivity gains made on dairy farms.

Our research priorities in dairy are clear and built around three main themes: sustainable milk production, dairy genetics and genomics and human nutrition and health.

The goal of the **Sustainable Milk Production** theme is to increase the competitiveness and profitability of dairy farming in a sustainable way through the adoption of innovative practices and new knowledge. Examples of targeted activities touch on a number of areas like animal health, animal welfare, environment and food safety

The goal of the **Dairy Genetics and Genomics** theme is to help advance and establish national genetic evaluation systems for traits of importance affecting dairy cattle productivity, profitability and competitiveness. Examples include activities focused on genetic improvement for dairy cattle productivity and profitability with emphasis on health, mobility, and identifying milk properties to improve animal health.

The goal of the **Human Nutrition and Health** theme is to advance our understanding and competitiveness with respect to the role of dairy products. Examples include looking at the beneficial role of milk in cardiovascular health, metabolic health, healthy weight and body composition, including bone health and optimal nutrition and function.

Since 2010, DFC has partnered with the federal government under the Agri-Science Clusters Initiative for the creation of a Dairy Research Cluster. In the fall the government announced the renewal of its partnership with DFC to continue the Dairy Research Cluster program to 2018. By the end of 2018, investments in dairy innovation by government and industry will be \$30 million dollars for 71 research projects executed in 23 academic institutions and research centres across the country, involving more than 200 scientists and training close to 300 students, our next generation of scientific innovators.

Science and innovation requires critical infrastructure – an assured long term investment that animals used for the purpose of innovating through research can be housed and milked in modern facilities, and land used to plant and test new forages and crop varieties to better feed our animals in a sustainable way.





DFC recognizes and appreciates the investments made by the federal government, along with industry's investments, in state of the art dairy research facilities like the Dairy and Swine Research and Development Centre in Lennoxville, Quebec, the construction of the new dairy research facility at the University of Saskatchewan and the agreement between AAFC and UBC to renew the land use and facilities at the Pacific Agri-Food Research Centre in Agassiz, BC. Ontario dairy farmers are proudly investing in the construction of new state-of-the art facility in Elora, Ontario with multiple partners from government, the processing sector and other businesses in the dairy value chain.

With investments in dairy research facilities comes research projects and demand for scientists, students and other research professionals. So not only are research investments contributing to the next generation of farmers, it is contributing to the next generation of scientists and technicians in a time where there is a large skills gap. These young professionals are being trained for jobs that currently exist within the agriculture sector. In 2010, the ag and agri-food sector directly provided 1 in 8 Canadian jobs.

Examples from the first dairy research cluster:

- A tool was developed to enable dairy farmers to quickly identify bacteria that causes mastitis and selectively treat only those quarters that are infected.
- Tools were developed to ensure that dairy animals are well cared for through an objective assessment process. A means to identify animals who need special attention was also included.

ENVIRONMENTALLY-FRIENDLY PRACTICES ARE KEY TO ENSURING THE SUSTAINABLE FUTURE OF CANADIAN DAIRY FARMS.

Canadian dairy farmers are committed to producing safe, nutritious food in an economically, socially and environmentally sustainable way. Our objectives are to reduce greenhouse gas emissions from dairy farms; ensure the efficient and sustainable management of natural resources like land, soil, water and biodiversity in a way that will minimize costs while maximizing profitability; and address the socio-economic aspects of sustainable development to promote the economic, human and societal benefits of sustainability in the dairy sector.





Environmental practices on all dairy farms, regardless of their size, are regulated by federal and provincial laws. Dairy farmers exceed regulations, implementing environmental farm plans to improve manure equipment and storage, to maximize the use of manure as a fertilizer for soil, to adopt modern technologies allowing them to maintain the temperature and ventilation of their barns while reducing their dependency on energy. Several farmers are also collaborating with Ducks Unlimited to preserve wetlands on their land.

These practices reduce the carbon footprint as well as save money and energy. DFC also invests in research to continue reducing the impact on the environment, improve sustainability as well as the viability of dairy farms.

Last year a DFC-commissioned study supported by its research investment partners at AAFC and the CDC showed that the carbon, water and land footprints for Canadian milk production are among the lowest in the world. See Appendix A, for an info graphic showcasing the results of this study. Dairy Farmers of Canada is leading the way to making the Canadian dairy farm sector even more sustainable.

Commitment to the environment:

- Less than 1% of Canada's water usage is used to produce milk.
- About 2% of Canada's agricultural land is used to produce milk.

CONCLUSION

Dairy farmers have shown their commitment to drive innovation in dairy and look forward to continued, strong partnerships with the federal government and dairy processors to keep: building capacity in our sector, and develop our research professionals and students invested and engaged in our industry and ensure the delivery of results to farmers for efficiency and profitability.

Dairy farmers have made important breakthroughs and progress through their investments in research. Sharing those results with farmers and industry stakeholders encourages the adoption of new knowledge, new practices and new technologies. For dairy farmers, the Cluster initiative and continued investments in infrastructure enable strategic collaboration with their partners – the government, the industry and some of the best scientists from across the country to achieve our shared goal: to keep driving innovation in dairy.

