

5 STEPS WE TAKE TO REDUCE OUR ENVIRONMENTAL IMPACT

ARTICLE | JANUARY 24, 2019 | 5 MIN

Producing top quality milk while minimizing the impact on the environment remains our number one priority. Canadian dairy farmers continue to adapt and evolve, embracing new technologies and improvements in farming practices to help reduce our environmental footprint and increase sustainable farming for the future.

BY DFC - PLC, COMMUNICATIONS TEAM



HIGHLIGHTS

- Canadian cows produce 3x more milk than 50 years ago, due to improvements in comfort, herd management and feed efficiency
- Dairy production represents less than 1.3% of Canada's total GHG emissions
- Reducing our dairy industry's environmental impact is an on-going effort and priority for Canadian dairy farmers

Caring about the environment means caring for our future. And since dairy farms are often family businesses that get passed down over generations, we have great reason to care. We welcome innovation and recognize the importance of continuously improving efficiencies in order to be more sustainable as an industry. We're working towards this goal by investing in new technology and conservation agriculture practices that improve soil health (nutrients and minerals are essential to grow lots of nutritious crops), recycle water, reduce waste and produce green energy.

In our ongoing journey to be more sustainable, we feel it's important to recognize the areas where we can continue to improve. Life Cycle Assessment (LCA) is a diagnostic tool we use to routinely assess our environmental profile. Dairy Farmers of Canada also offers an [online tool](#) to measure a farm's carbon footprint, enabling us to see areas where we can make improvements.

We're committed to making a better tomorrow and constantly looking to better ourselves. And our efforts seem to be paying off. In Canada, the Greenhouse Gas Emissions (GHG) generated per unit of milk are among the lowest in the world! Read on to see five steps we're taking to reduce our environmental impact.



Did you know that happy, healthy cows naturally produce more milk? Taking good care of their dairy cows is a simple way that Canadian dairy farmers are doing more with less.

Today's cows are greener than their grandmothers

Canadian cows produce 3 times more milk than 50 years ago, thanks to improvements in comfort, herd management and feed efficiency. A comfortable, well-fed, relaxed cow makes more milk. We may be biased in thinking that our cows are the cream of the crop so to speak, but there's more to it than that. Increased cow productivity *actually reduces the GHG emissions of a litre of milk*. Cows produce methane during rumination (the digestion process that allows them to eat grass), and storing their manure (a must when the grounds are frozen) also emits methane and nitrous oxide. So, the fewer cows we have on our farms and the more productive they are, the lower the environmental impact.



The MacInnis Brothers Farm in Prince Edward Island, shown from above. For over 200 years, the MacInnises have been farming the land.

Improved water conservation

Dairy farming requires clean water, and farmers test water quality regularly. Cows drink about a bath tub of well water a day, and water is needed to clean the equipment, but that volume is dwarfed by the amount of water needed for grass and other crops. Even so, overall dairy farming in [southern Canada](#) (where 80% of Canadians live and the bulk of Canadian dairy farming is done) uses less than 0.03% of our country's fresh water resources. Furthermore, one litre of pure, Canadian milk is produced using less water than in many places around the globe, mainly thanks to our climate and regular rainfalls. The bottom line is dairy farmers of Canada champion water quality and water conservation on the farm.



For many Canadian dairy farmers, producing milk is a family affair passed on from generation to generation. They act as stewards of the land, which they hope to one day pass on to their children.

Reducing greenhouse gas emissions

Dairy production represents less than 1.3% of Canada's total GHG emissions. A major reason for this is that our cows are more productive, which has been a key factor in helping to reduce methane emissions associated with the production of a litre of milk. And we humans have made improvements too. Learning from scientific studies and implementing new technology, dairy farmers have adopted more environmentally friendly practices on our farms, including: emptying manure storage more often to enrich the soil nutrient content in our fields, doing crop rotations, reducing soil disruption of tilling, using 'precision agriculture' technology, as well as optimizing milk transportation. It has all contributed to improving our footprint over the last few years.



"Dairy farming has changed since our ancestors first came here, but one thing that has stayed the same is our passion for our animals, the environment, and our community," says Ronnie MacInnis from MacInnis Brothers Farm.

Responsible use of pesticides

Dairy farmers use cow manure first and foremost to enrich the soil. However, extra fertilizer may be needed to amend the soil and ensure it has all the nutrient and minerals it needs. Similarly, pesticides may be needed to fight an infestation of bugs or microbes that would destroy crops. In such cases, several precautions are taken to ensure pesticides are properly stored at the farm to avoid exposing humans and animals to them. Furthermore, over 90% of dairy farmers have been trained and passed an exam on the responsible use of pesticides in their fields. Still, our primary goal remains to limit the use of pesticides overall. There is a growing number of organic farms in Canada. It's important to note that organic dairy farms have access to a more limited number of approved products to achieve the same goals of growing healthy plants and controlling pests. Some good practices that farmers have learned from organic farmers include crop rotation and the use of cover crops.

Green energy, recycling and technology

Some dairy farms have a biodigester to transform the methane produced from manure into electricity. Talk about turning a messy situation into a bright idea! Several farms have also used the space they have to install wind-mills or solar panels to create green energy. Additionally, more than half of dairy farmers in Canada have worked with agrologists or other experts to create an approved [nutrient management plan](#) to use nutrients efficiently and minimize the risk of ground water contamination.

We understand that reducing our impact on the environment and optimizing our use of natural resources while living in harmony with nature is an ongoing process. And it's only getting better. Exciting new technological and scientific advances like the use of georeferencing and aerial imaging in fields, as well as better ventilation, comfort, automation of tasks and data-collection and analysis in the barn are enabling us to farm more efficiently and precisely, gradually increasing output while decreasing costs, time, waste, resources and our carbon footprint.

The efforts we make today will lead to a better tomorrow. We remain fully committed to doing everything we can to run more sustainable farms – for people, cows and the environment – while continuing to nourish Canadians with pure, natural dairy.

SOURCES

Quantis, Groupe Ageco, and CIRAI. "Sustained progress: Environmental efficiency of Canadian milk production A life-cycle assessment (LCA) of the sector environmental profile." [dairyfarmersofcanada.ca](https://dairyfarmersofcanada.ca/sites/default/files/2019-01/PLC-Info-ANG-F-17-12-2018_0.pdf)

ProAction. "Targets and Achievements: Environment." [dairyfarmers.ca](https://www.dairyfarmers.ca/proaction/targets-achievements/environment)

Dairy Farmers of Canada. "Water Use on Canadian Dairy Farms." [dairyresearch.ca](https://www.dairyresearch.ca/pdf/Fact%20Sheet_Water%20Use%20on%20Canadian%20Dairy%20Farms.pdf)

Government of Canada: Agriculture and Agri-Food Canada. "Nutrient management planning." [agr.gc.ca](http://www.agr.gc.ca/eng/science-and-innovation/agricultural-practices/soil-and-land/soil-nutrients/nutrient-management-planning/?id=1187355760327)

MORE CONTENT LIKE THIS

[DAIRY FARMING](#)
[INNOVATION](#)

WANT MORE CONTENT LIKE THIS

Find us on social

[f](#) CONNECT ON FACEBOOK

[t](#) FOLLOW US ON TWITTER


[DISCOVER OUR OTHER SITES](#)
[Dairy Goodness](#)
[Dairy Nutrition](#)
[PRIVACY](#)
[LEGAL](#)

Dairy Farmers of Canada, all rights reserved 2019 *

