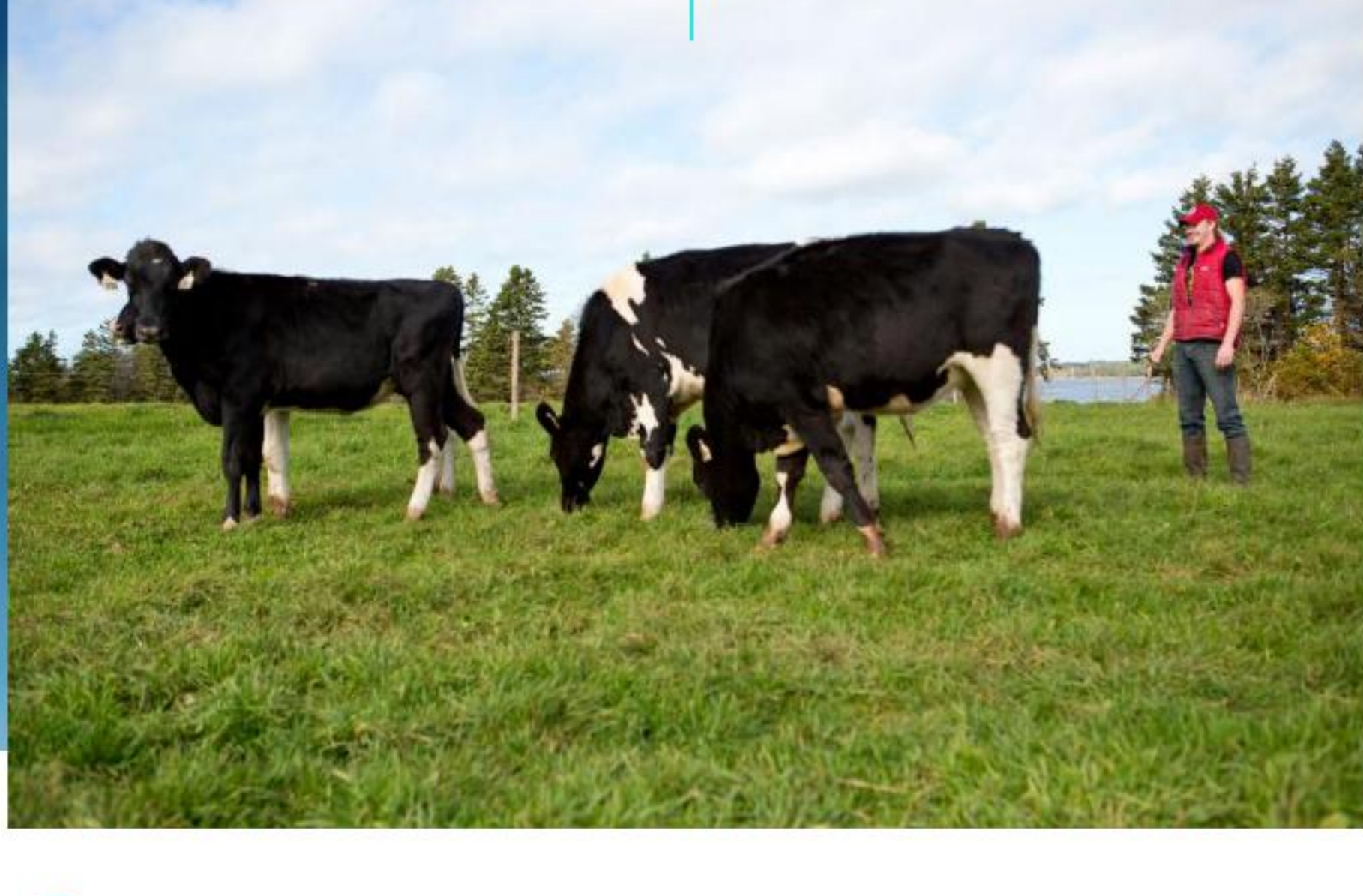


FARMING FOR THE FUTURE: THE SUSTAINABILITY OF DAIRY FARMING

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Canadian dairy farmers work with the land and animals to make a living, so we have great reason to care about the environment. We're proud to say that we're leading the way in sustainable farming, and through ongoing research and innovation, making great strides in reducing our carbon footprint.

BY DFC - PLC, COMMUNICATIONS TEAM



HIGHLIGHTS

- Canadian dairy farmers are continually updating their practices to improve efficiency and sustainability on the farm
- Supply management helps prevent milk surplus and waste
- Compared to other countries, Canadian milk's carbon footprint is among the lowest in the world

Natural resources are required to produce food, and dairy is no exception. With each passing day, dairy farming is becoming more sustainable.

Dairy farming does produce carbon emissions, but less than you may think. Milk production represents less than 1.3% of Canada's total greenhouse gas (GHG) emissions, and the emissions generated from producing an average litre of milk here are among the lowest in the world.

Thanks to new research, technologies and farming practices, farmers are able to do more with less. Let's take a closer look at how.



"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.

Healthy, well-fed cows produce more milk

Cows, like deer, moose and other ruminants, have the unique ability to eat and digest large amounts of grass. Their digestive process (called rumination) uses bacteria to break down the grass, which naturally produces methane (a greenhouse gas) in the process. This can't be avoided – it is a natural part of cows digesting grass. But these methane emissions can be curbed.

How? Over the last several decades, dairy farmers in Canada and other countries, along with their governments, have invested in research to learn more about cows, their genetics, genomics and most optimal diet. Furthermore, ongoing research has led to great advances in barn technology and the [treatment and care of dairy cows](#). They are more comfortable, healthier, content, and living longer as a result. These changes don't happen overnight; they are the result of ongoing research and continuous improvements.

Today, Canada has less than a million dairy cows, on average making about three times more milk than in 1973. Three times fewer cows means less of an impact on the environment.



Some Canadian dairy farmers use biodigestors to transform methane from cow manure into electricity.

Preventing surpluses and waste

Food waste is a global concern, and a surplus of milk can have significant consequences to farms, the economy and the environment. Canada implemented the supply management system back in the 1960s and 70s to give efficient farmers the opportunity to a fair rate of return, and give Canadian consumers access to a stable supply of Canadian high-quality dairy. An additional benefit of supply management is that it prevents surpluses and waste of milk by balancing supply with demand, so farmers don't produce more milk than needed.

Innovation and research

Our industry has long embraced innovation. Thanks to ongoing research, we have more knowledge and new technologies at our disposal, such as adding a biodigester to transform the methane from manure into electricity, and using nutrients more efficiently to minimize the risk of ground water contamination. We can also benefit from helpful tools like [Dairy Farms+](#), which enables us to track our farm's efficiency by calculating its environmental footprint and identifying its strengths and areas for improvement.

How our milk measures up

Canadian dairy farmers have always produced milk responsibly, but we wanted to take stock and establish a path for more sustainable milk production in 2012. Dairy Farmers of Canada commissioned a Socioeconomic and Environmental Life Cycle Assessment (LCA) to benchmark our performance. An LCA is like a snapshot in time of a sector's performance. Environmental impact and social performance were evaluated at every life cycle stage, from raw material extraction up to the processing plant gate. More recently, we commissioned an update to the environmental snapshot. So how does Canadian milk measure up?

In Canada, the GHG emissions generated per unit of milk produced were found to be among the lowest globally.

In 2011, producing a litre of milk in Canada produced 1,03 kg of CO₂ equivalent. In 2016, an updated assessment showed that our footprint was lighter, producing 0,97 kg of CO₂ equivalent, which was comparable to or lower than some other countries, including the U.S., France and New Zealand.

GHG emissions aren't the only indicator of environmental impact. We also measured the water footprint and land use of milk production in Canada. Our impact on these natural resources also improved: producing a litre of milk today takes 6% less water and uses 11% less agricultural land.

Sustainability is not only environmental. It must also deliver social and economic benefits. Dairy farming generates employment from coast to coast, bringing economic development to rural areas. It's one of the main agricultural sectors in Canada yet only uses 3% of the country's agricultural land.



Making Canadian dairy more sustainable is an ongoing effort and one that matters to Canadian dairy farmers. Every little bit counts.

Farming for the future

Canadian dairy farmers are passionate about milk, and the cows that produce it. Our industry remains dedicated to improving farming practices and sustainability, investing in targeted research projects aimed at reducing GHG emissions across farms, and lessening the impact on the environment.

Still, we recognize that it's an ongoing process. Our continued commitment to our cows, our milk and our planet is unwavering. When you choose Canadian milk, you're also making a choice about supporting this commitment, and that's good for all of us.

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