Canadian dairy farmers commit to net-zero greenhouse gas emissions by 2050

A dairy farming family walks through their barn in the Maritimes.

Building on a long history of environmental stewardship, Dairy Farmers of Canada (DFC) recently committed to a goal of net-zero greenhouse gas (GHG) emissions from farm-level dairy production by the year 2050. This net-zero emissions goal sends a clear message to Canadians, consumers, stakeholders and governments alike that dairy farmers are leaders, and we are part of the solution!

The dairy sector will reach net-zero through a combination of emissions reduction initiatives and GHG removal offsets. By forming partnerships with like-minded organizations and leveraging government programs, DFC will provide tools and support to farmers across the country. The organization is also working with dairy farmers themselves to develop a 'basket of initiatives' they can choose from to help achieve this important objective.

Among those initiatives are farming practices related to improving soil health, conserving and recycling water, fostering greater biodiversity, reducing and managing waste, promoting renewable energy, and more.

Canadian dairy farmers are naturally committed to environmental sustainability due to the nature of their work: not only do dairy farmers rely on the land to make a living, but many farms are passed down

from generation to generation, so being able to keep thriving on that land is imperative for today – and tomorrow.

Here are a few examples of sustainability initiatives that Canadian dairy farmers are implementing on their farms!

Holberg Farm has been planting trees for generations

On Holberg Farm, a dairy farm in British Columbia, owner Holger has seen the benefits of planting projects first-hand.

“In the 1960s, my parents planted maple trees in the driveway and it’s kind of gone from there,” he says. “An area of the farm was unproductive, so they filled it with trees. Then along the road too. They add to the overall maintenance, but they create natural habitat for plants and animals.”

Today, Holger and his family manage about two acres of new trees. His planting projects continue, and so does the positive environmental impact he’s seen. Their treed areas are now home to over 3 kilometres of walking trails that their neighbours can enjoy.

“We’re part of a larger system; we shouldn’t treat our farm like an isolated area. We’re not in this alone.”

McCrea Farms is harnessing the energy of the sun

New Brunswick’s McCrea Farms Ltd. built their 95-kilowatt solar array as part of a pilot project through The Smart Energy Company in the summer of 2021. This array of 216 panels is projected to offset all electricity consumption on the dairy operation. They are also taking measures to manage and protect the forests and wetlands around their farm, by selectively harvesting the woodlot that occupies areas in and around their agricultural land. In doing so, McCrea Farms is promoting new growth and a diversity of tree species and age class, while increasing habitat for a wide variety of wildlife.

“We, like many other farms, understand the importance of the wetlands and waterways on our land,” says owner Chandler Colpitts. “We take these types of ecosystems into careful consideration when it comes to establishment of riparian zones, nutrient management planning and runoff prevention measures.”

McCrea Farms plans to continue growing their renewable energy production as demand increases in the future.

Clovermead Farms is turning poop into power

Ontario-based Clovermead Farms got its biodigester off the ground thanks to grants from the Ontario government’s Green Energy Act. Korb Whale, farmer and owner of Clovermead Farms, invested more than $2 million in capital on his anaerobic biodigester in 2009 before landing a contract to sell electricity back to the grid. “I’ve always liked the concept of being able to produce power with a waste product on farm,” says Whale. “We’re reducing our greenhouse gas waste by almost 95 per cent.”

In addition to about 10 tonnes of manure from his farm, Clovermead's digester takes in approximately 8,000 tonnes a year of food waste from local producers and processors. Whale's farm also generates additional revenue by taking in this food waste while lowering its own carbon footprint.

“I think that’s one of the exciting things about anaerobic digestion in general, the circular nature of that economy," Whale says. "We’re producing food that we send to the cities of the processors to make food for people, the waste from that food comes back to our digester, creates electricity, creates heat, creates fertilizer and it creates bedding [for cows], so that loop gets completed.”

Ferme Gallant is farming more efficiently for the future

Ferme Gallant Ltée in Prince Edward Island knows the importance of sustainability and takes advantage of incentive programs to help make their dairy farm more efficient. “We try not to use any oil,” says owner Gary Gallant, “only biofuel – woodchips, – a low carbon-footprint fuel that heats three houses, the shop and the farm.”

Recently, Ferme Gallant was able to heat their entire farm with two naturally dead trees that were otherwise unusable. “With the awareness of doing more and more selective harvesting, it helps us work toward the future.”

Ferme Gallant is also helping restore wetlands on their farm with help from Ducks Unlimited Canada. “The duck pond has been great!” Gallant says, adding that it’s not only ducks benefiting from the wetland, but also frogs. “It works both ways,” he says. “It’s helped us drain some land, and it’s helped the wildlife.”

With costs going up everywhere, Ferme Gallant is proof that farming more efficiently is good for the environment – and the business.

Quebec farms are working together to produce biogas

Over in Quebec, an innovative biogas project launched by sharing the costs – and revenues – among 12 local agricultural producers and one cheese processor. Coop Agri-Énergie Warwick is now selling biogas back to the Énergir gas network, the main gas distributor in Quebec.

Josée Chicoine, director of agrifood development at Coop Carbone, a non-profit with a mission to act on climate change through collaboration, is co-general manager of Coop Agri-Energie Warwick. She says the project’s backers observed that many farmers were interested in biomethanization but were unable to implement it on their farms. Not only does the Warwick project allow several smaller farmers to share in the cost, it also generates a whole new revenue stream from energy production.

Stone Ridge Dairy is supporting regenerative agriculture with cover crops

The owners of Stone Ridge Dairy, Daan and Deslie Kalverboer, came to the Maritimes in 2006 and started their farm in 2018. With lots of family involved in the farming industry back in Europe, they say sustainability is a key focus there, too.

"I am only 30 years old and want to be in the industry for a long time," says Daan Kalverboer. "Cover cropping is one of the easiest things we can do, as long as we can keep our costs at a minimum."

Stone Ridge is focusing on growing more plants to build organic matter in the soil. Their land is 70 percent rolling hills and 30 percent potential flood acres. This means soil erosion is always on the Kalverboers' minds and they need to keep their soil in place at all times.

They are also interested in environmental efficiencies like air washing systems that allow farmers to make fertilizer off the gasses from their manure.

"Another thing I'd love is to build a new barn that focuses on cow comfort and animal handling," says Kalverboer. "The kind of barn that everyone can come to see, so we can show how much we care about the animals and the environment."

Ongoing efforts take sustainable dairy farming to 2050 and beyond

Because of the ongoing sustainability efforts of dairy farmers across Canada, it now takes six per cent less water and 11 per cent less land to produce a litre of milk than it did just a decade ago. Dairy farmers also lowered GHG emissions by seven per cent in that same timeframe. Few industries can report that kind of success – and we aren't stopping there!

For more information on sustainability and dairy in Canada, visit **https://dairyfarmersofcanada.ca/en/our-commitments/sustainability**