



NET ZERO BY 2050

A sustainable future
for your farm and
our planet.

Canadian dairy farmers have a long history as stewards of our natural resources. Your collective focus on sustainable practices contributes to the continued, long-term success of your farm and ensures that Canadians continue to have access to nutritious, locally produced dairy products made with 100% Canadian milk. Your commitment to efficiency and stewardship is why Dairy Farmers of Canada has set a goal to achieve net zero greenhouse gas (GHG) emissions by 2050 on Canadian dairy farms.

[Net Zero by 2050: Best Management Practices Guide to Mitigate Emissions on Dairy Farms](#) provides an overview of the practices that will help reach this target. Every farm is unique, and that means that different strategies will work for different operations. Every farm has the opportunity to contribute to reaching net zero by adopting further best management practices (BMPs) to reduce emissions and increase carbon sequestration in a voluntary way. This factsheet highlights the feed production practices in the guide.



Building greater
sustainability in

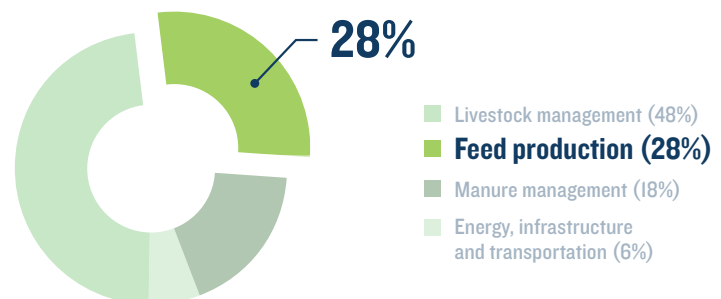
FEED PRODUCTION

Producing feed using more sustainable practices provides the opportunity to improve crop and soil health while strengthening overall resiliency to the effects of climate change, such as droughts and floods. You can improve the soil's ability to store and capture carbon that will improve nutrient levels, water retention and soil structure and in turn boost crop health, productivity and help reduce fertilizer and fuel costs.

LOWERING THE CARBON FOOTPRINT OF CANADIAN MILK PRODUCTION

Dairy Farmers of Canada conducts life cycle assessments every 5 years to measure the carbon footprint of milk production and identify areas for continuous improvement. In 2016, emissions came from four key areas.

Feed production accounts for 28% of GHG emissions produced on Canadian dairy farms. This represents a significant opportunity for dairy farmers to implement and enhance on-farm practices to lower their carbon footprint.





ACTIONS TO REDUCE & REMOVE EMISSIONS

Adopting one or more of these Feed Production BMPs on your farm will reduce GHG emissions, increase carbon sequestration, improve resiliency to climate change, and improve production efficiency and soil health.

For more specific information on adopting these practices, refer to the full [Net Zero by 2050: Best Management Practices Guide to Mitigate Emissions on Dairy Farms](#).

▶ MINIMIZING TILLAGE

to reduce soil disturbance

- Match tillage to soil management needs
- Till at shallower depths
- Reduce number of passes, including on slopes
- Incorporate cover crops for weed management

▶ COVER CROPPING

to limit soil erosion and improve soil structure and fertility

- Plant cover crops after annual crop harvest
- Apply with manure to reduce field passes
- Offers new option for rotation grazing
- Consider intercropping or relay cropping

“I started cover cropping after corn silage is harvested so that the soil remains stable for the remaining eight months of the year.”

- Kevin, a dairy farmer in Ontario

▶ OPTIMIZING CROP ROTATION

by adding pulses, forages or legumes to improve soil structure and nutrient management

- Plan rotation to maximize soil nutrients and carbon storage
- Consider adding a legume before a nitrogen-intensive crop
- Diversify with perennials, small grain cereals or cover crops
- Factor in crop rooting depth and maturity to optimize water conversation
- Incorporate perennial forages

▶ INCORPORATING PERENNIALS

for soil stability, enhanced soil health, and greater potential for carbon sequestration

- Convert some annuals to perennials, like alfalfa, to fix nitrogen and reduce crop inputs
- Consider wheat, rice, sorghum, perennial sunflower and flax
- Provides opportunity to expand rotational grazing systems

▶ PRACTICING 4R NUTRIENT STEWARDSHIP

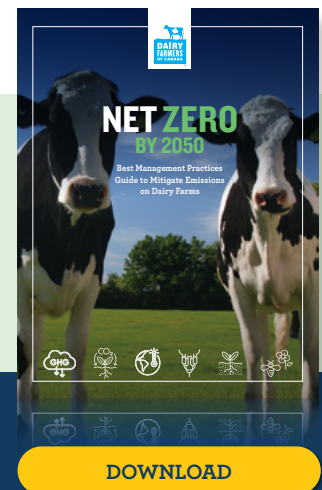
to reduce soil erosion, energy use and improve recycling of crop nutrients

- Conduct regular soil testing to confirm nutrient needs
- Run nutrient tests on organic fertilizers, like manure
- Develop a nutrient management plan to ensure that you're using the right source of nutrients and that they are applied at the right time, right rate, and right place

“The local watershed district has a cost-share program that allows us to plant alfalfa and grass in low-lying areas. I am also in the planning stage for my dairy cows to graze. It can't be done overnight but I have a plan and it's cutting down on costs, too.”

- Marianne, a dairy farmer in Manitoba

For full details and resources to support the adoption of these and other BMPs, download the guide at dairyfarmersofcanada.ca/en/farmer-resources.



DOWNLOAD