



# ENVIRONMENTAL LIFE CYCLE ASSESSMENT OF CANADIAN MILK PRODUCTION



The main objective of the life cycle assessment (LCA) is to quantify the environmental impact of milk production in Canada.<sup>1</sup> Two LCAs were conducted in 2011 and 2016 by an independent team of life cycle analysis professionals.

# 3

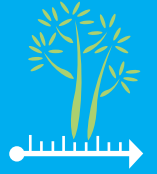
## MAIN ENVIRONMENTAL FOOTPRINTS WERE ASSESSED:



Carbon footprint



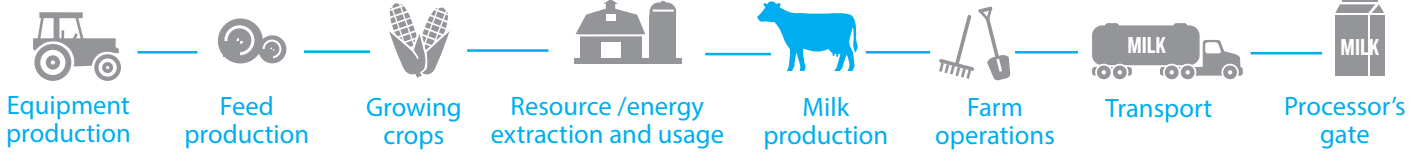
Water consumption



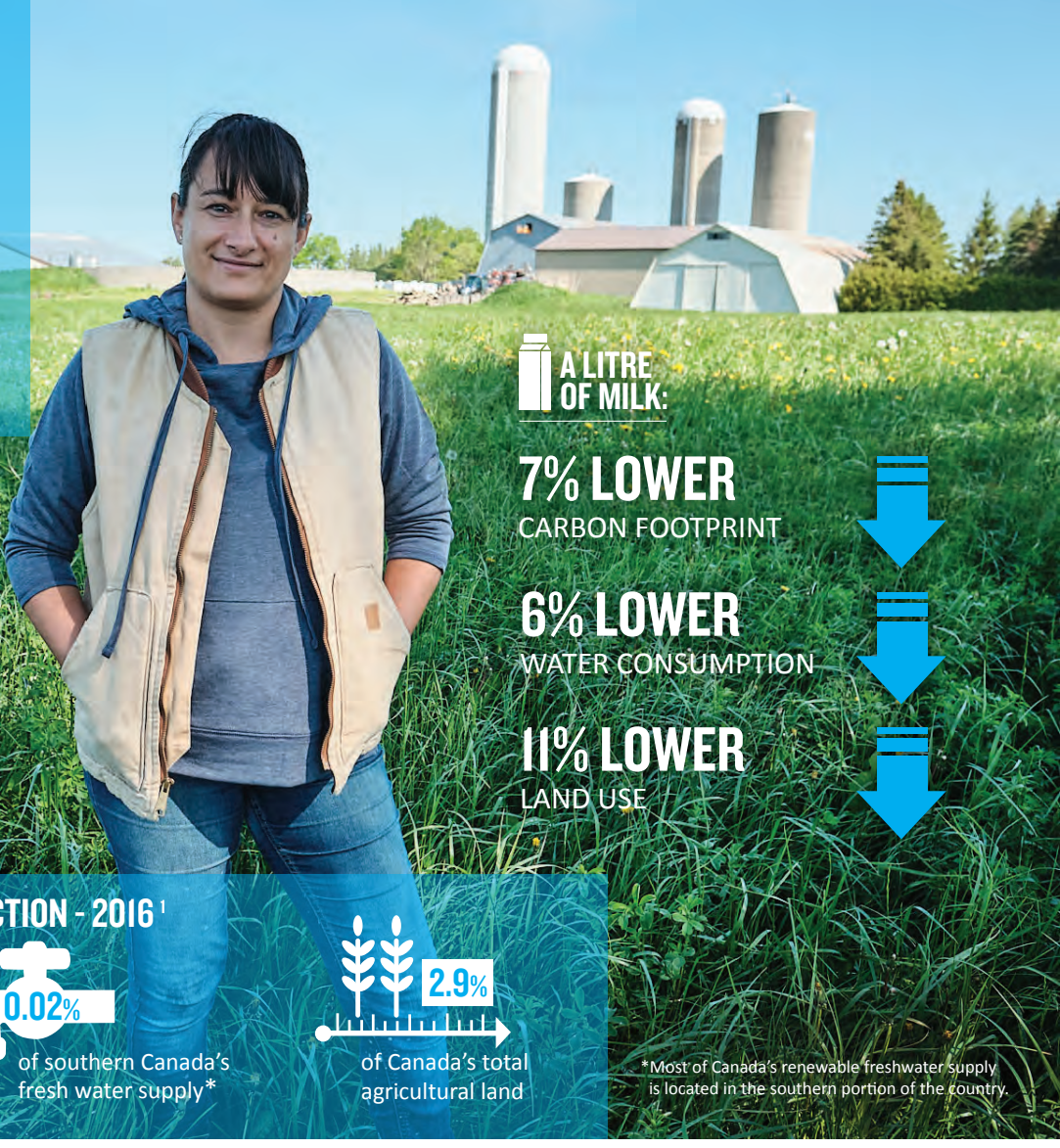
Land use

## ASSESSING THE COMPLETE LIFE CYCLE

The study takes a comprehensive look at all the stages and inputs of milk production.



## IMPROVED ENVIRONMENTAL IMPACT OF MILK PRODUCTION 2011-2016<sup>1</sup>



A LITRE OF MILK:

**7% LOWER**  
CARBON FOOTPRINT

**6% LOWER**  
WATER CONSUMPTION

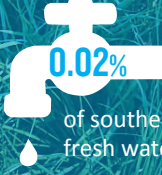
**11% LOWER**  
LAND USE



### TOTAL CANADIAN MILK PRODUCTION - 2016<sup>1</sup>



**1%**  
of Canada's total GHG emissions



**0.02%**  
of southern Canada's fresh water supply\*



**2.9%**  
of Canada's total agricultural land

\*Most of Canada's renewable freshwater supply is located in the southern portion of the country.

## IMPROVING ENVIRONMENTAL OUTCOMES THROUGH INVESTMENT IN RESEARCH AND TECHNOLOGY



Improvements in manure management and feed production helped reduce carbon footprint of dairy farms.



New approaches to reducing water consumption, increased water recycling, plus enhanced soil quality to retain more water led to less water needed.



Better crop management and precision agriculture helped increase crop yields and reduce land needed.

## 2021



To keep advising farmers on the best strategies to further accelerate improvement of our environmental footprint, Dairy Farmers of Canada is conducting life cycle assessments every five years.



1- Groupe AGEFO. 2018. Environmental life cycle assessment of Canadian milk production. 2016 data and results update. Executive Summary. [https://www.dairyfarmers.ca/content/download/6327/56092/version/2/file/LCA\\_ExecutiveSummary.pdf](https://www.dairyfarmers.ca/content/download/6327/56092/version/2/file/LCA_ExecutiveSummary.pdf). Accessed September 21, 2021.