CANOLA'S SUSTAINABLE FUTURE

The canola industry is focused on the future. We know that we must not only increase yield, we must also be a partner in achieving society's environmental goals. That's why we have set bold environmental sustainability goals to accompany our 2025 production goals:

USE LESS ENERGY

18%
REDUCTION
in fuel use per bushel

INCREASE LAND EFFICIENCY

40%
DECREASE
in the amount of land required to produce one tonne of canola

SEQUESTER MORE CARBON

sequestering additional
5 MILLION tonnes
of greenhouse gas emissions in Canadian soils, every year

IMPROVE SOIL & WATER HEALTH

Utilize 4R nutrient stewardship practices on
90% OF CANOLA ACRES

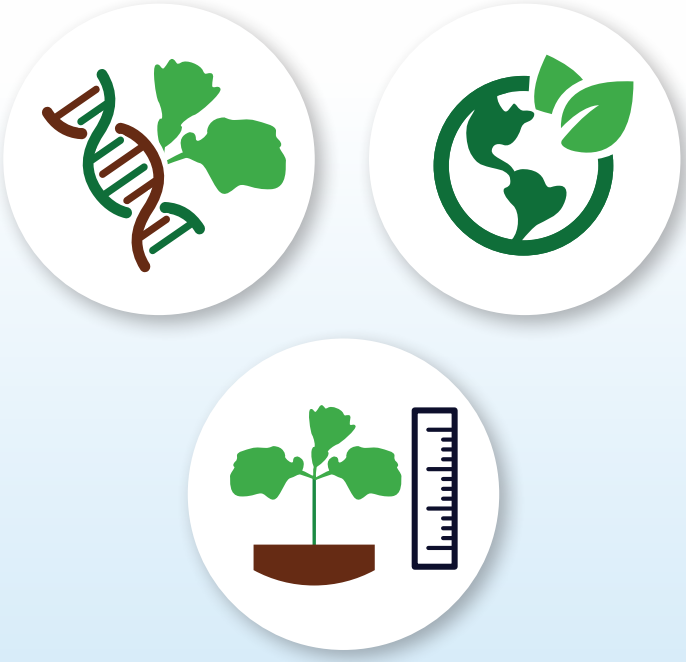
PROTECT BIODIVERSITY

Safeguard over
2,000
BENEFICIAL INSECTS
that call canola fields and surrounding habitat home

INNOVATION IS KEY TO CONSERVATION

Utilizing science and innovation to identify the best sustainability practices is how farmers have and will continue to significantly reduce canola's environmental footprint.

By adopting leading-edge innovations, farmers are able to produce more canola per acre while maintaining the existing farmland footprint. New plant varieties with traits such as herbicide tolerance and innovations in crop protection and nutrient management have improved yields and helped farmers to grow crops more efficiently and profitably.

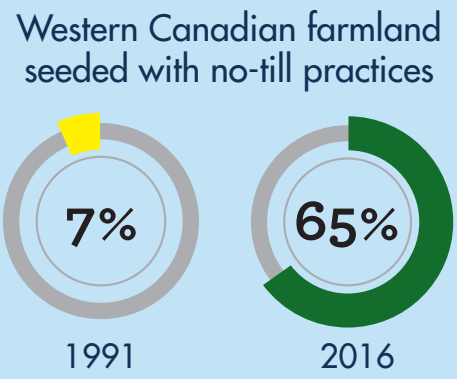


SEQUESTERING CARBON AND BUILDING HEALTHY SOILS

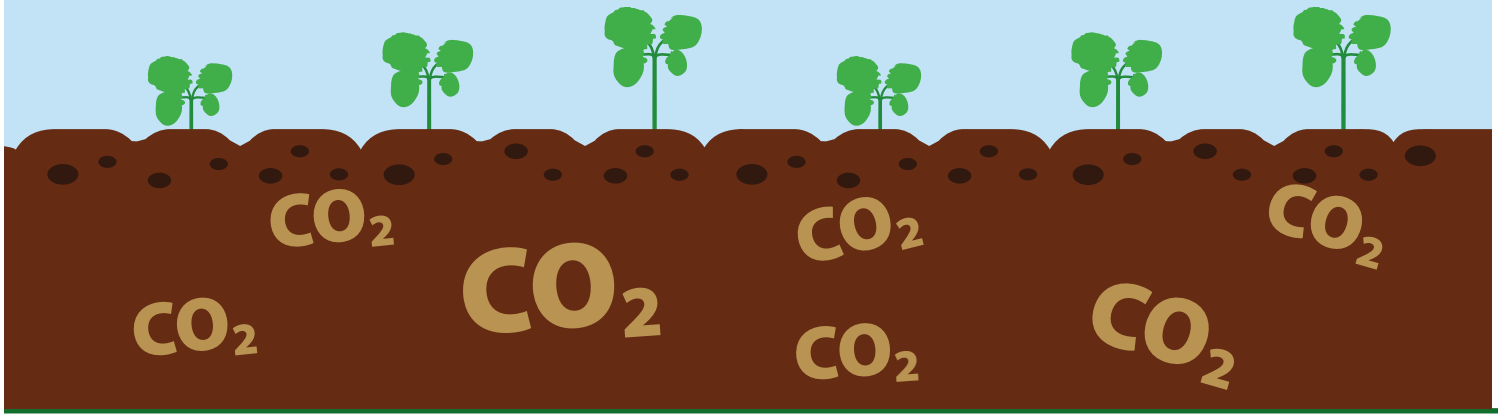
Canola farmers take pride in how they care for their most valued resource, their land. In 1991, 7% of Western Canadian farmland was seeded with no-till practices. By 2016, this number had grown to 65%.[1]

When soils are left untilled, they sequester greenhouse gases. Low-till and no-till farming help Canadian farmers sequester 11 million tonnes of greenhouse gases in their fields every year.[2] 70% of this sequestration has been due to canola. Conservation tillage[3] practices not only sequester carbon, they preserve organic matter in the soil, conserve moisture, and reduce erosion.

The combination of conservation tillage and growing herbicide-tolerant crops means Canadian farmers are making fewer passes over their fields and using less fuel. Conservation tillage practices have resulted in 126-194 million fewer litres of diesel fuel used on Canadian farms each year, reducing GHG emissions by about 450,000 to 750,000 tonnes per year.[4]



With low- & no-till practices, Canadian farmers sequester 11 million tonnes of greenhouse gasses annually.



[1]CANSIM Tables 004-0010 and 004-0205, Statistics Canada
[2]Environment and Climate Change Canada, *National Inventory Report: 1990-2015, Greenhouse Gas Sources and Sinks in Canada*, (Ottawa: Environment and Climate Change Canada, 2017) at 213
[3]Conservation tillage describes practices that leave agricultural soil relatively undisturbed, such as low-till and reduced-till, as well as practices that seed directly into soil, such as zero-till and no-till.
[4]RIAS Inc, *The Value of Plant Science Innovations to Canadians*, Prepared for CropLife Canada (Ottawa, 2015) at 4

RESPONSIBLE
USE OF CROP INPUTS

The canola industry employs a unique network of agronomists dedicated to working with farmers in helping them adopt innovative and sustainable practices like the 4R Nutrient Stewardship Program, which outlines best management practices for the responsible use of important plant nutrients like nitrogen fertilizers. Implementing this program across Western Canada would realize a 1-2 million tonne reduction in greenhouse gases.

4R nutrient stewardship

One of the greatest challenges in growing canola is competition from weeds. Today's herbicide-tolerant varieties have allowed farmers in Canada to reduce the amount of herbicide they use by 20% since 1996.[5]

CANADIAN CANOLA'S CARBON FOOTPRINT VERSUS OUR CANOLA GROWING COMPETITORS.

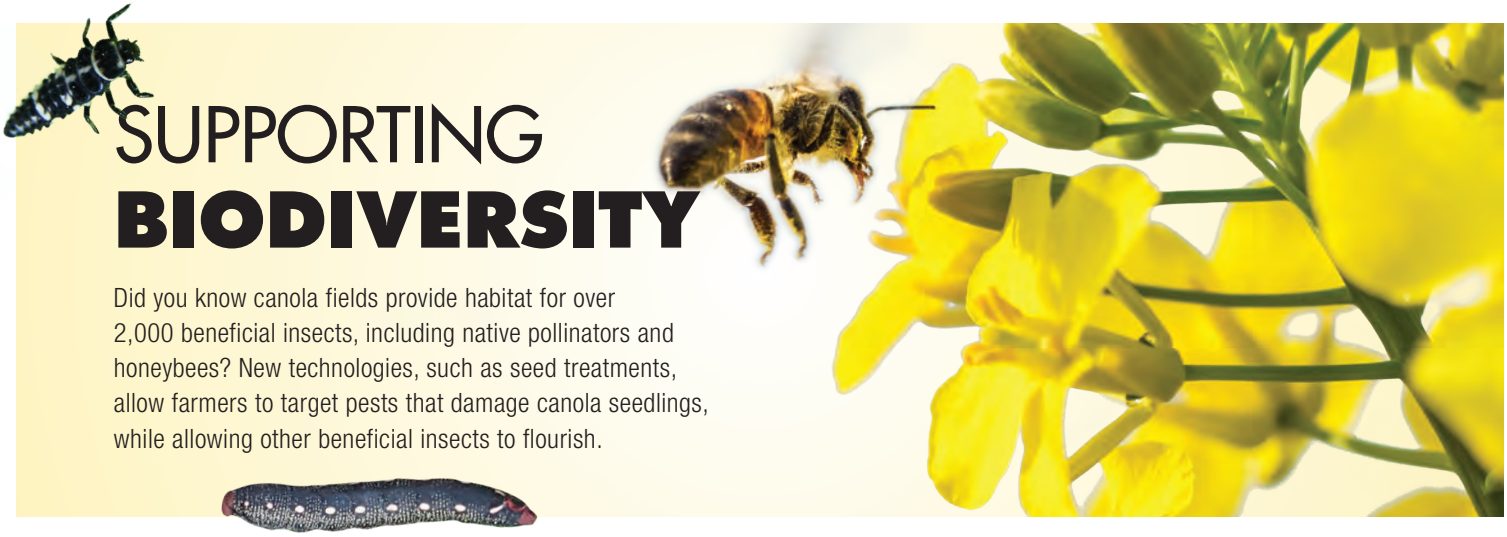
CANOLA'S SMALLER, SOFTER FOOTPRINT

Between 1981 and 2011[6]:

43%
ENERGY USE
REDUCED BY 43%

31%
LAND USE EFFICIENCY
IMPROVED BY 31%
(per tonne of production)

71%
GREENHOUSE GAS
EMISSIONS WERE REDUCED BY 71%



SUPPORTING
BIODIVERSITY

Did you know canola fields provide habitat for over 2,000 beneficial insects, including native pollinators and honeybees? New technologies, such as seed treatments, allow farmers to target pests that damage canola seedlings, while allowing other beneficial insects to flourish.

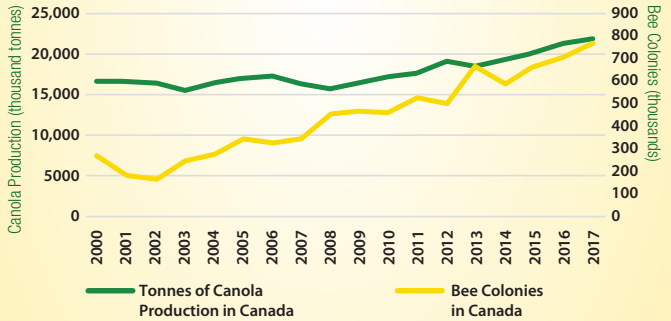
[5]Graham Brookes and Peter Barfoot, "Environmental impacts of genetically modified (GM) crop use 1996 – 2015: Impacts on pesticide use and carbon emissions" (2017) 8 GM Crops & Food 117 – 147 at 121

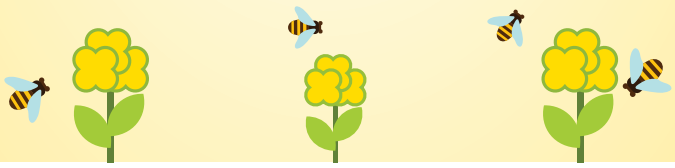
[6]Serecon Inc., *Final Report: Application of Sustainable Agriculture Metrics to Canadian Field Crops 2015*, (Edmonton: Prepared for the Canadian Field Print Initiative, March 2016), at 53-56

CANOLA AND BEES:
A SWEET RELATIONSHIP

Canola is an ideal food source for honeybees, while honeybees can have a positive impact on canola production. Canola farmers work closely with beekeepers to protect bees and this mutually beneficial relationship. Over several decades, canola seeded acres and honeybee colonies have shared a linear increase in numbers.

HONEYBEE COLONIES GROW





CERTIFICATION

Canola is the only Canadian crop to have growers certified sustainable by the International Sustainability and Carbon Certification (ISCC) body[7]. ISCC certification targets the reduction of greenhouse gas emissions, sustainable use of land, and the protection of natural habitats.

ISCC
International Sustainability & Carbon Certification

THE 'COOL' CROP

The canola flower is more than just a pretty sight – it's reflective! A flowering canola crop creates a bright yellow canopy covering approximately 20 million acres in Western Canada. This canopy provides an important cooling effect by reflecting the sun's light away from the earth.

[7]International Sustainability and Carbon Certification Website, www.iscc-system.org

CANADIAN CANOLA GROWERS ASSOCIATION
www.ccga.ca

canolacouncil OF CANADA
www.canolacouncil.org