

Social license and modern food production

Ted Menzies – president, CropLife Canada

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- What is *Social License*?

-Social license refers to the level of public *trust* granted to a corporate entity or industry sector by the community at large and its key consumer base

-Public trust is the belief that activities are consistent with social expectations and the values of stakeholders, and earned through industry engagement, operating practices, and expressed values

-Social license is slow to build, but can erode quickly

-Industry tacitly garners this public trust by ‘doing what is right’.



Dow AgroSciences



Representing the Canadian developers, manufacturers and distributors of pest control products and products of plant biotechnology.

People, planet, prosperity

Plant protection products and plant biotechnology contribute to three pillars of sustainability



People

Access to safe
nutritious &
affordable food



Planet

Reduce the
environmental
impact of ag.



Prosperity

Better yields and
quality = overall
economic benefits



DID YOU KNOW

FARMERS TODAY PRODUCE

262%

MORE FOOD WITH

2%

FEWER INPUTS

(such as seeds, labor, fertilizers)

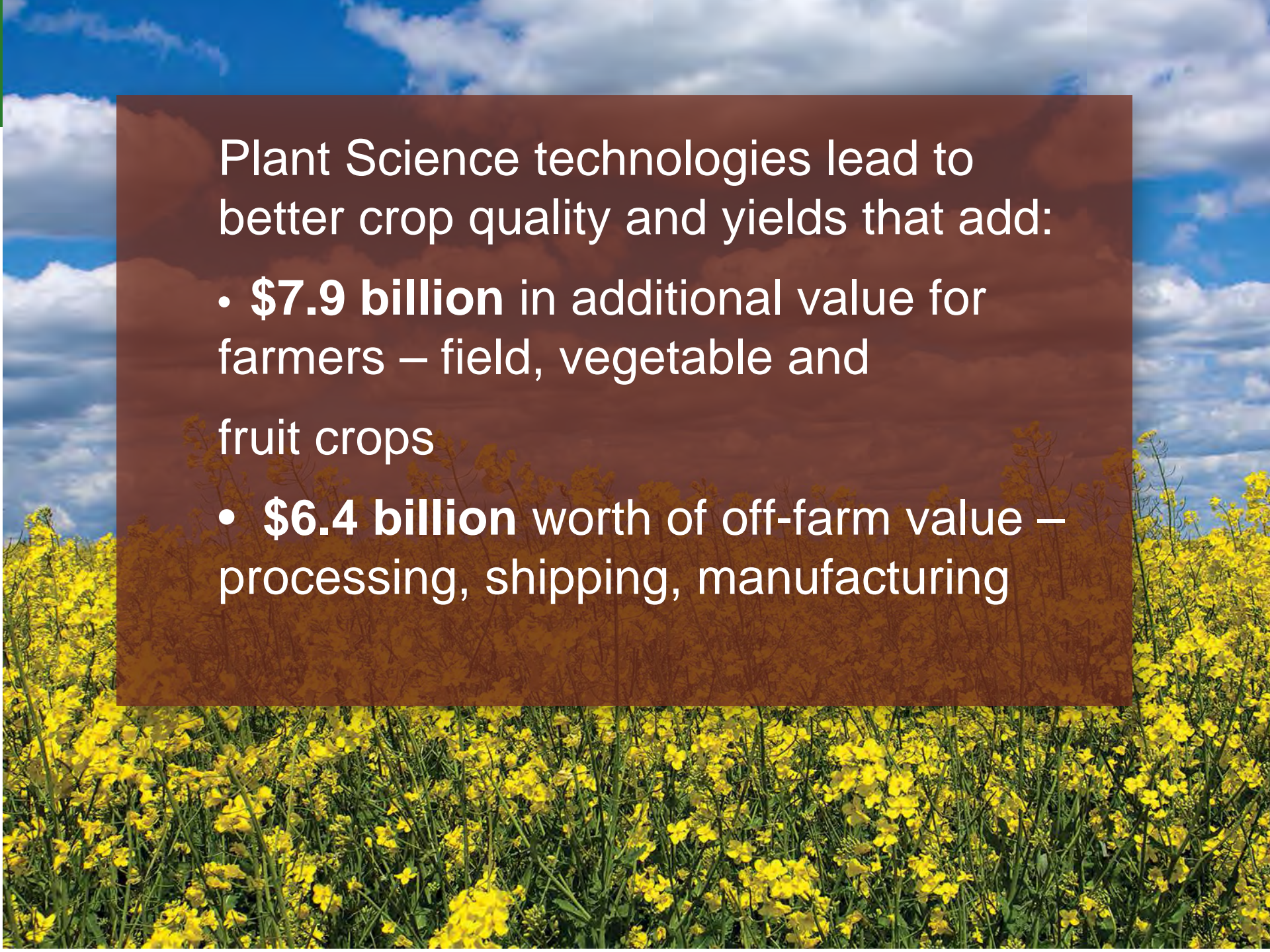
THAN THEY DID IN 1950.

Innovations improve the bottom line for farmers and stimulate economic activity throughout the rest of the economy



The background of the slide is a photograph of a vast field of yellow rapeseed flowers in full bloom. The flowers are densely packed, with their bright yellow petals contrasting sharply with the green stems and leaves. In the upper portion of the image, a clear blue sky is filled with soft, white cumulus clouds. A semi-transparent dark red rectangular box is overlaid on the left side of the image, containing white text.

Agri-Food sector:
\$103 billion in economic activity
in 2012 and
one in every eight jobs across
the country
> two million jobs total

A photograph of a field of yellow rapeseed flowers in full bloom, with green stems and leaves. The background is a bright blue sky with scattered white clouds. A semi-transparent brown rectangular box is overlaid on the upper half of the image, containing white text.

Plant Science technologies lead to better crop quality and yields that add:

- **\$7.9 billion** in additional value for farmers – field, vegetable and fruit crops
- **\$6.4 billion** worth of off-farm value – processing, shipping, manufacturing

Regional impacts

British Columbia

Horticultural crops

\$210 million boost from crop
protection products



Regional impacts

Prairies

Grains, oilseeds, pulse and specialty crops

Total value – **\$17 billion**

\$5.6 billion attributable to enhanced plant science



Regional impacts

Ontario

**Major crops - corn, cereals,
soybeans and horticultural**

\$1.2 billion additional value

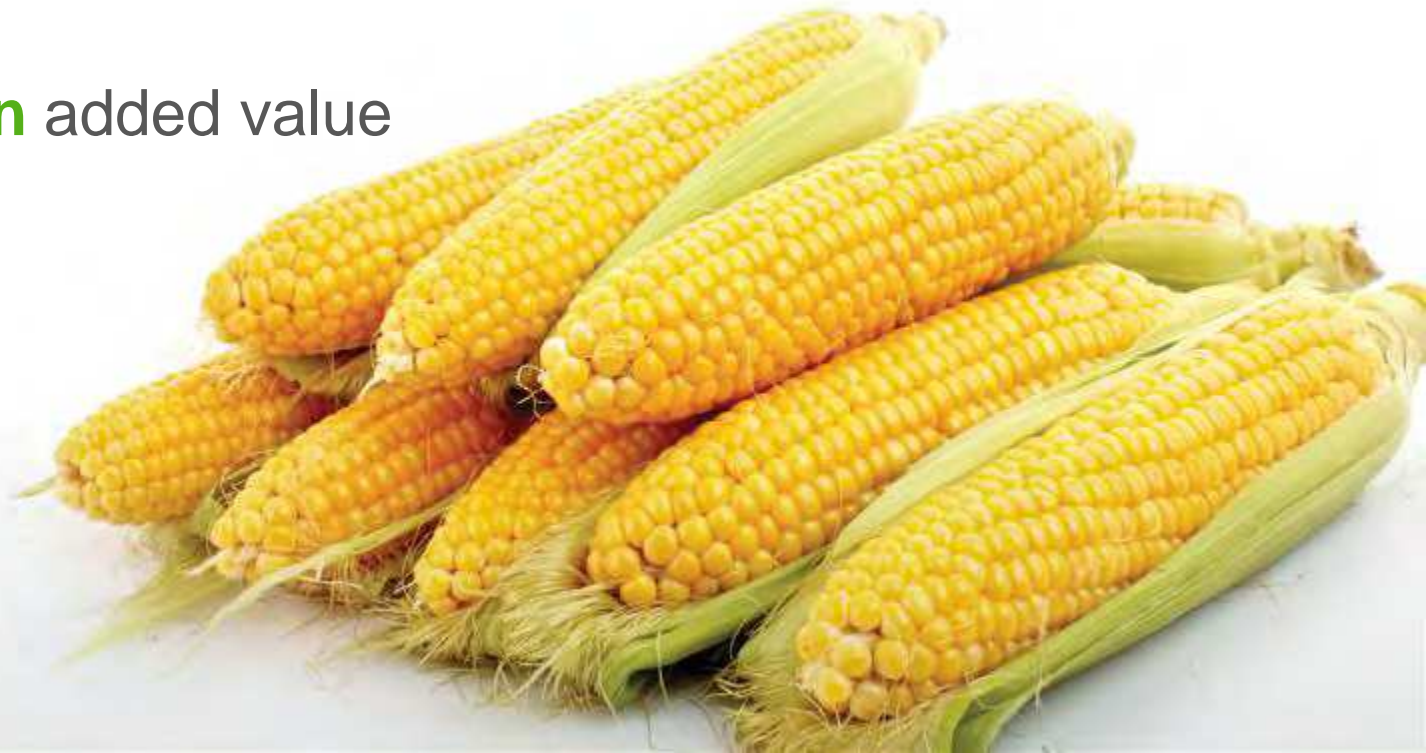


Regional impacts

Quebec

**Diverse ag sector; corn and soybeans;
plus - cereals, fruit,
veg and potatoes**

> \$540 million added value

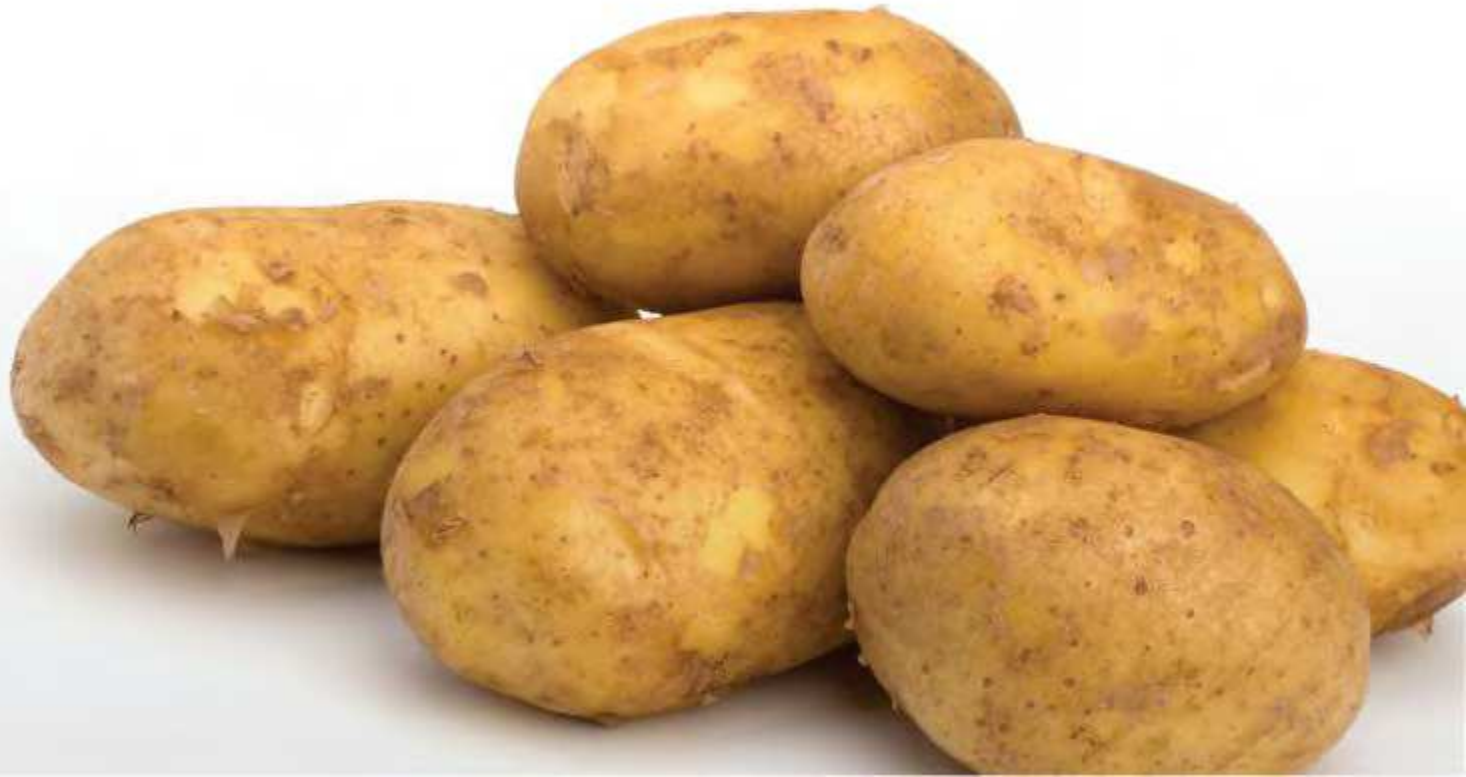


Regional impacts

Atlantic Provinces


Potatoes, fruits, and various grains

> \$280 million extra for farmers





Canada grows enough food to
export to 150 countries

The background is a composite image. The top half shows a globe with glowing yellow and white network lines connecting various points across its surface. The bottom half shows a satellite view of North America, with the same glowing network lines overlaid, suggesting a global network or data flow. A semi-transparent dark red rectangular box is positioned in the upper left quadrant, containing white text.

About 65% of Canada's \$10 billion food surplus is due to increased yields from crop protection products and plant biotechnology

Who else benefits?

\$385 million in extra tax revenue for federal, provincial and municipal governments through increased productivity.

This money goes to support things like:

- Hospitals
- Libraries
- Schools
- Roads
- Police services
- Recreational facilities



Canadian families save 58%
on their weekly grocery bills
due to crop protection and plant
biotechnology, making healthy
food more affordable



More crop per acre means more room for nature! Without crop protection products and plant biotechnology, Canada would need to turn 37 million more acres into farmland to produce what it does today

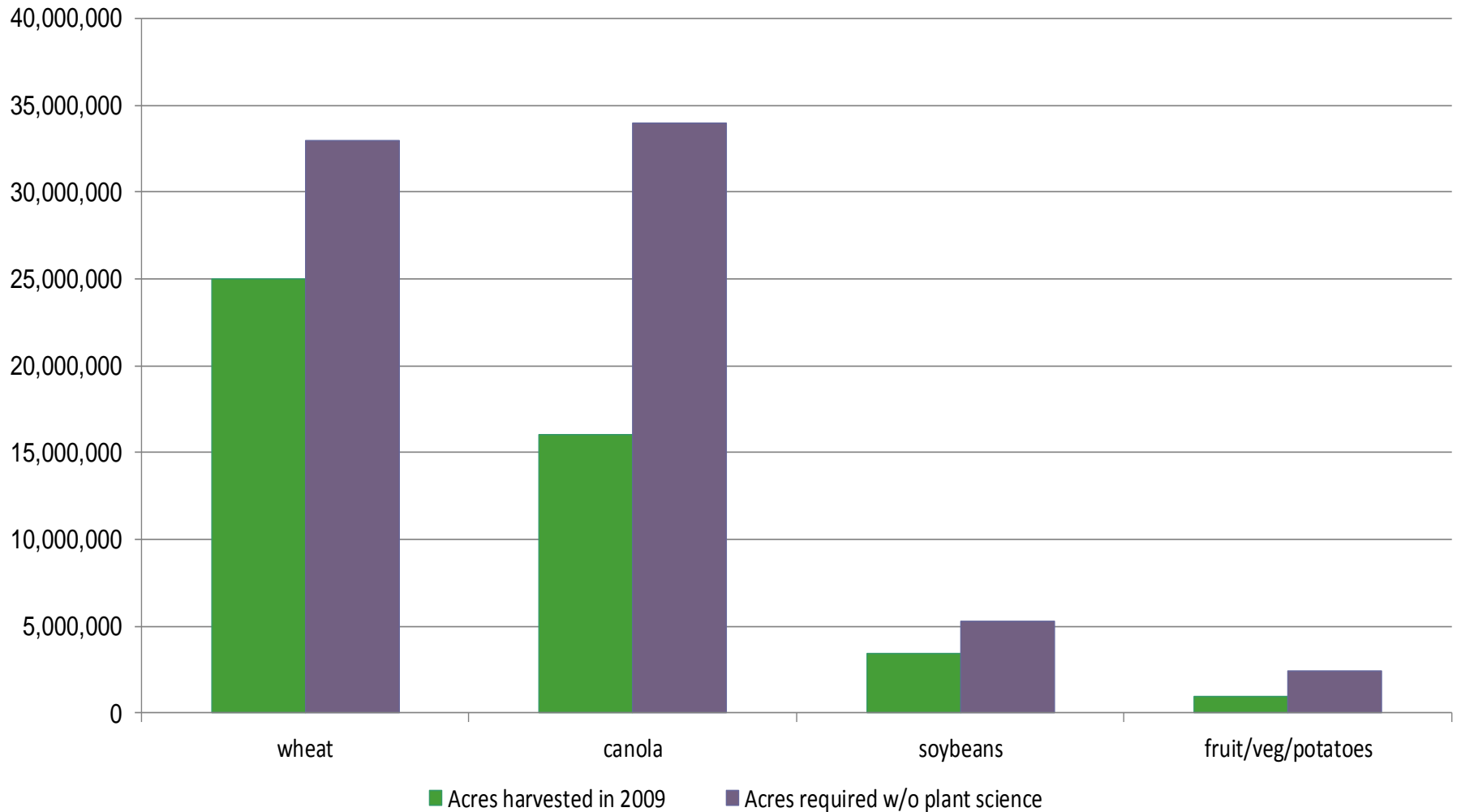


According to Ducks Unlimited Canada, Protecting wetlands is important:

- Filter our water and help provide clean, secure water sources
- Provide environmental and societal value
by moderating the effects of droughts, floods, climate change, and erosion
- Are essential habitat for as many as 600 species of wildlife in Canada.
- Have the potential to remove and store greenhouse gases



Land use impacts



The prairies before....

Thanks to conservation tillage practices:


- Farmers have top-soil rich in organic matter, resistant to wind and water erosion, and better able to absorb and retain moisture.



The prairies now

Zero Till for 20 years



A photograph of a harvested cornfield. The foreground is filled with a dense layer of dry, brown corn stalks and leaves, representing crop residue. In the background, a flat, green field stretches towards a line of dark green trees under a clear blue sky. A semi-transparent green rectangular box is overlaid on the left side of the image, containing white text.

Conservation and no-till practices
are used on 72% of the field crop
land in Canada

The background of the slide is a photograph of a field with corn stalks and leaves after harvest, under a clear blue sky. A semi-transparent green rectangle is centered over the image, containing white text.

Thanks to conservation
tillage practices:

- **12 billion** kilograms of CO₂ were captured in 2008
- **116 million** litres of fuel saved



There are many new farming challenges anticipated

Our industry is looking ahead to deliver solutions for:

- Drought resistance
- Salt tolerance
- New pest pressures

Where we're headed

Consumer benefits

Foods with disease-fighting properties like:

- Tomatoes rich in lycopene
- Corn and soybeans with increased Vitamin C and E

Foods that stay fresher, longer or which have enhanced flavour:

- Sweeter peppers and peas
- Apples, tomatoes, potatoes, bananas and melons with reduced
browning, bruising and longer shelf life

Remove the allergenic proteins from peanuts, soybeans and milk

Are pesticides and plant biotechnology safe?

Canada's regulatory regime is world-renowned:

Plant protection products undergo a comprehensive scientific review and safety assessment by Health Canada before being approved for use

Modern plant varieties also undergo extensive safety reviews by the Canadian Food Inspection Agency (CFIA) and Health Canada

Health Canada's top priority is safety of Canadians

CropLife Members share this responsibility