



CHANGE
CHALLENGE
OPPORTUNITY

2021 ANNUAL REPORT



THE YEAR

AT A GLANCE

2021 was a year of dynamic changes and challenges. Many were difficult and disruptive. Others signaled new opportunities to grow in the years ahead.



	2021 RESULTS	2025 TARGET	3-YR AVERAGE (2018-2020)
Exported Seed	8.3 MMT ¹	12 MMT	10.1 MMT ¹
Domestic Processing	9.9 MMT	14 MMT	9.7 MMT
Acres (seeded area)	22.5 million	22 million	21.6 million
Yield	25 bu/acre	52 bu/acre	40.7 bu/acre
Production	12.6 MMT	26 MMT	19.7 MMT
Oil Content (average of No. 1 Grade)	41.3% ²	Maintain global competitiveness in oil content (10 yr average = 44.4%)	44.2% ²
Saturated Fat Content	6.6% ²	Global leadership position in oil saturated fat content	6.7% ²
Meal Crude Protein Content (oil-free, 12% moisture basis)	42% ²	Increase protein availability by target species (10 yr average = 38.1%)	38.7% ²

MMT= Million Metric Tonnes
All statistics are for 2021 calendar year.

- 1 Based on preliminary Canadian Grain Commission data
- 2 Canadian Grain Commission

STRATEGIC PRIORITIES

Our work is guided by three strategic priorities that are woven together in the industry's Keep it Coming 2025 strategic plan:

SUSTAINABLE, RELIABLE SUPPLY

Meeting growing global demand for Canadian canola while increasing the economic and environmental benefits of every acre

DIFFERENTIATED VALUE

Demonstrating the quality characteristics of canola seed, oil and meal

STABLE AND OPEN TRADE

Creating a trade environment that consistently allows the industry to attain maximum value for canola

OUR 2025 SUSTAINABILITY GOALS

18% REDUCTION

in fuel use per bushel

40% DECREASE

in land needed to produce 1 tonne of canola

5 MILLION TONNE INCREASE

in soil carbon sequestration each year

4R NUTRIENT STEWARDSHIP

utilized on 90% of acres

SAFEGUARDING 2,000+

beneficial insects that call canola fields and surrounding habitat home

PARTNERSHIP ACROSS THE VALUE CHAIN

2021 BOARD OF DIRECTORS

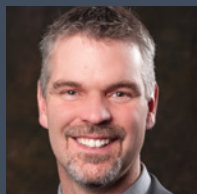
Nominated by canola grower associations



CHARLENE BRADLEY
SaskCanola
CCC chair



CHARLES FOSSAY
Manitoba Canola
Growers Association



BERNIE McCLEAN
Canadian Canola
Growers Association



KEVIN SERFAS
Alberta Canola

Nominated by the Canadian Oilseed Processors Association



MICHAEL IRONS
Archer Daniels Midland Company
CCC second vice-chair



RYAN LAW
Bunge



TRACY LUSSIER
Louis Dreyfus Company



JEFF PLESKACH
Cargill Ltd.

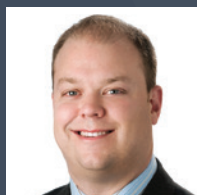
Nominated by the Western Grain Elevator Association



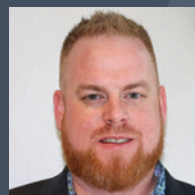
JARRETT BEATTY
Parrish & Heimbecker



JENNIFER MARCHAND
Cargill Ltd.
CCC vice-chair



DEAN McQUEEN
Viterra



TREVOR VEENENDAAL
G3 Canada Limited

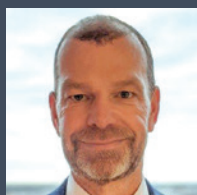
Nominated by life science companies



GARTH HODGES
BASF



DAVID KELNER
Bayer Crop Science



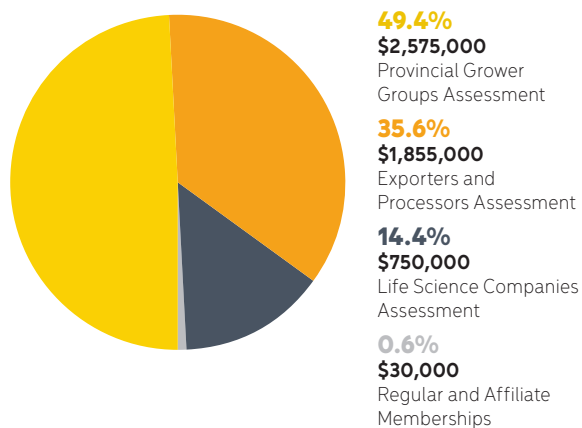
BRAD ORR
Corteva Agriscience
CCC finance and planning chair

OUR 2021 CORE FUNDERS



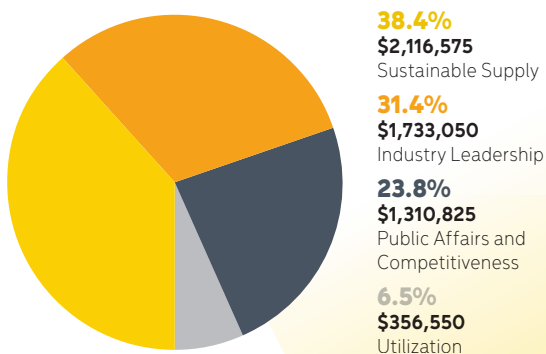
OUR 2021 FINANCIAL SNAPSHOT

Where our core funding comes from¹



How it's allocated

USE OF CORE FUNDS BY PRIORITY AREA¹



Industry leadership – includes association management, convening the board and membership, communications, government advocacy, and finance and administration

Sustainable supply – includes canola production and innovation, and canola research

Public affairs and competitiveness – includes market access, trade policy and government advocacy

Utilization – includes global canola brand maintenance and targeted promotion to export markets

Detailed financial reports can be viewed on our website:
canolacouncil.org/about-us/financial-reports

¹Based on the CCC 2021 budget

PRIORITY

SUSTAINABLE, RELIABLE SUPPLY

The challenging growing season of 2021 reminded us why collaboration is the canola sector's greatest strength. During one of the most difficult years on record, industry partners joined forces to provide timely resources and advice.

We also focused on new solutions and opportunities, ensuring that Canada remains the world leader in canola production and trade long into the future.



NAVIGATING AN UNUSUAL GROWING SEASON

Timely advice and practical resources

From heat-blasted blooms to late-season rains, Canadian canola fields experienced inhospitable weather at the worst possible times in 2021. The result was the biggest drop in Canadian canola production in more than a decade. The CCC helped growers control damage to the best of their abilities by sharing the latest science-backed advice for managing adverse conditions.

Our team of agronomy specialists delivered the **Canola Watch** e-newsletter to farm computers and mobile devices every week, along with timely posts on Twitter and Facebook. With a click or tap, these agronomic updates connected growers directly to resources from the CCC's comprehensive **Canola Encyclopedia**, **Canola Research Hub** and YouTube channel, as well as resources available from industry partners.

Team approach across the value chain

The CCC's agronomic advice reached a wide audience, thanks to the shares and retweets of advisors and influencers all through the agriculture sector. Information was extended in cooperation with Alberta Canola, SaskCanola, the Manitoba Canola Growers, provincial agriculture departments and retail agronomists.

This included a new **Canola Watch webinar series** in partnership with the three provincial grower groups, launched in November. Each of the six webinars featured a different yield-building theme, ranging from seed selection and plant establishment to managing pests and fertility in dry conditions.

Genetics, Environment and Management: Finding Room for Improvement
CANOLA WATCH 2021-22 Webinar Series
 Wednesday, November 24
 12pm - 1pm CST
 Moderated by Jay Whetter

REGISTER TODAY

Keith Fournier Nate Ort Dr. Paul Bullock

ALBERTA CANOLA Manitoba Canola Growers SaskCanola canola council OF CANADA

Partnerships were also reinforced with a new Canola Watch feature called Canola Community Connections. On a weekly or monthly basis, it provided a convenient round-up of canola-related events, webinars and resources presented by organizations all through the value chain.

CHALLENGE:

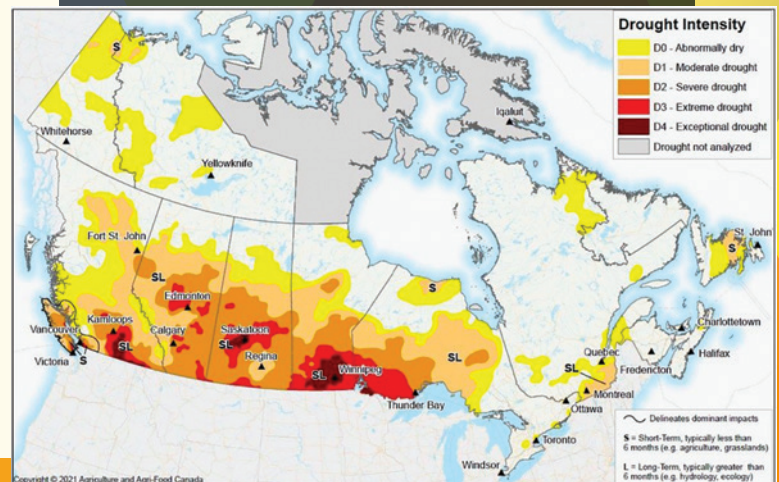
UNUSUAL WEATHER PATTERNS

The CCC's agronomy specialists extended helpful advice for dealing with a relentless series of challenges related to the extreme heat and drought of 2021.

- **After seeding:** Crop establishment was hindered by dry soil and extreme temperature swings.
- **During flowering:** Heat blasting impacted seed development.
- **All through the growing season:** Persistent dry conditions made plants more susceptible to environmental stressors and pests such as flea beetles and grasshoppers.
- **After seed development:** Late season rains delayed harvest and caused precocious germination (sprouting in pods) and widespread regrowth.
- **In the bin:** Green canola seeds and high temperatures at harvest increased risk of spoilage.
- **Looking forward:** Residual fertilizer and herbicide carryover complicated planning for the next crop.

CANADIAN DROUGHT MONITOR

Conditions as of August 31, 2021

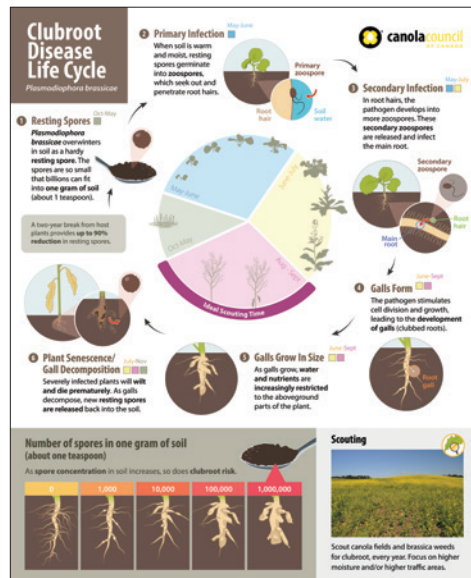


CREATING NEW DECISION-MAKING TOOLS

More resources to understand canola risks

A picture is worth a thousand words when explaining the progression and management of canola diseases and pests. **New illustrations** created in 2021 helped growers understand the life cycles of clubroot, aster yellows, blackleg, sclerotinia stem rot, root rot and verticillium stripe – as well as the conditions favouring their development.

These visual aids are part of the growing range of information resources created by the CCC for canola growers and agronomists. Also introduced in 2021 were a **clubroot factsheet** on clubroot-resistant cultivars and a new **blackleg management guide**.

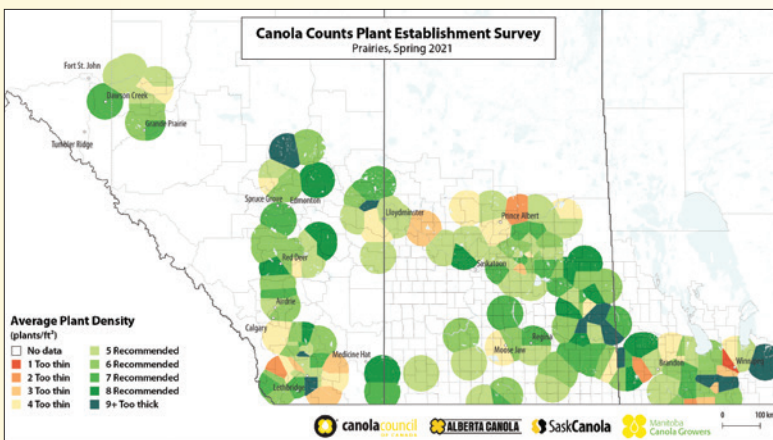


Expanded suite of web-based resources

On the **CanolaCalculator.ca** website, the CCC continued to add new interactive tools aimed at helping growers maximize yield and profitability.

One new feature was **Canola Counts**, a crowd-sourced survey tool to map emergence and plant densities (see below) while helping to drive the adoption of routine plant counts as an important step in achieving target yields.

Other new tools for 2021 included the **Harvest Loss Calculator**, used to calculate combine seed losses by weight, volume or seed count, and **Blackleg Yield Loss Calculator**, showing potential yield loss based on severity, incidence and projected canola yield.



By taking plant counts in every field, every year, growers and agronomists can identify challenges and implement changes, such as optimizing seed rates and speeds, to achieve the recommended target of five to eight plants per square foot.

OPPORTUNITY:

LEVERAGING DIGITAL CONNECTIONS

Farmers are among the most dedicated users of digital technology. The CCC is using this opportunity to:

- Crowd-source agronomic data through new online tools like Canola Counts
- Demonstrate the bottom-line impact of practices through interactive calculators of blackleg yield loss and combine seed losses
- Safely connect the value chain through participation in industry webinars and virtual events when face-to-face meetings aren't possible
- Ensure online resources are comprehensive and continually updated with the latest best management practices and visual references
- Provide quick links to reliable agronomic information housed at CanolaEncyclopedia.ca, CanolaWatch.org and CanolaResearch.ca

31,555 FOLLOWERS were reached through CCC Twitter accounts in 2021.

133,140 VISITS were made to CanolaWatch.org for timely agronomic updates.

121,401 VISITS were made to CanolaEncyclopedia.ca, the sector's most comprehensive source of canola growing information.

SUSTAINING PROGRESS INTO THE FUTURE

Encouraging the best R&D funding decisions

Looking forward, one of the most important opportunities for canola is the next five-year agriculture policy framework. To prepare for the framework's research funding opportunities, the CCC consulted with all parts of the value chain to update the **Canola Innovation Strategy**. These discussions helped identify current gaps and opportunities in all aspects of canola innovation, pointing the way to our research funding priorities.

More precise nutrient management

In 2021 the CCC established a new partnership with Fertilizer Canada to support and promote **4R Nutrient Stewardship** (Right Source, Right Rate, Right Time and Right Place) as a way of reducing emissions intensity while increasing the profitability of canola production. Together, we're compiling a robust database of current and projected nitrogen fertilizer use as part of efforts to help our sector reduce greenhouse gas emissions.

The need to make informed decisions about fertilizer application was brought into sharp focus after the 2021 growing season. Low yields meant many fields had unusually high and variable nutrient reserves, which created opportunities to optimize fertilizer application for next year's canola. In response, the CCC carried out an **information campaign** on the importance of fall soil testing to practice the Right Rate principle of 4R Nutrient Stewardship.



The fall soil sampling campaign included media articles, radio interviews and digital advertising to encourage soil testing in an unusual year.

Better methods for seed selection

To help the canola sector make the best use of new cultivars, the CCC coordinates the work of the **Western Canada Canola/Rapeseed Recommending Committee**. The WCC/RRC conducts public trials of new cultivars seeking approval, and also explores ways to help growers better understand the suitability of different traits for their specific challenges.

A big focus of the committee's work in 2021 was better ways of understanding, classifying and labelling traits for disease resistance. The group is continuing to refine the identification systems for **blackleg** and **clubroot** resistance genes, with the aim of improving gene labelling and research protocols while also streamlining development of resistance cultivars.

To help improve understanding of **verticillium stripe**, a working group also developed a severity scale that was tested in the 2021 growing season.

Canola shatter is another WCC/RRC priority. The pod shatter committee made further progress to develop shatter ratings so growers can make more informed seed and harvest management decisions. The CCC is working in collaboration with the committee on a plan to increase understanding of the difference between shatter and pod drop, best practices for harvest management, the new canola shatter ratings and how the ratings should be used.

OPPORTUNITY:

WORKING TOGETHER TO FIND SOLUTIONS

The CCC convenes the full value chain to harness the collective power of the industry's expertise, insights and resources. Their discussions build consensus, understanding and a shared commitment to put solutions in motion.

- Steering committees coordinated by the CCC bring together a diverse group of experts including plant pathologists from private and public organizations, growers and provincial extension specialists. Working together, they guide improvements for the canola industry around blackleg, clubroot, sclerotinia and fertility.
- Canola Week is an important annual forum to share ideas and knowledge throughout the value chain. In 2021, this virtual event featured 60 speakers who provided updates on the canola industry, the 2021 crop and the latest harvest and storage management research. The event also encouraged discussion of research priorities and innovation in canola production, breeding and end-use canola products.



627 INDUSTRY MEMBERS participated in the 2021 Canola Week event.



PRIORITY

STABLE, OPEN TRADE

Change can create obstacles to trade – or open the doors to new opportunities.

In these unpredictable times, the CCC keeps a close watch on global and domestic developments that may affect canola markets and profitability. Our goal is to keep trade relationships strong so canola can help fuel the recovery of Canada's post-pandemic economy.



KEEPING PACE WITH GLOBAL CHANGES

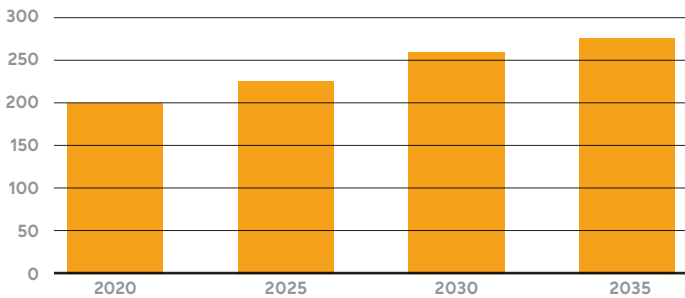
Coping with trade disruption in China

The biggest trade challenges in 2021 were linked to the **ongoing restrictions on seed sales to China**. As the dispute extended into a second year, the CCC continued to urge Government of Canada officials to encourage a return to predictable, rules-based trade and fairness for all Canadian exporters. In July 2021, the WTO established a dispute settlement panel, at the Government of Canada’s request, to review and adjudicate the dispute. The CCC continued to keep the value chain informed through updates and FAQs on canolacouncil.org.

As the canola sector advocated for a resolution, the CCC continued to directly engage with buyers in China on multiple levels. We hosted a **webinar** with seed, oil and meal buyers to increase understanding of canola’s advantages and had **technical exchanges and meetings** with some of the country’s largest dairies, where we shared the latest research findings on how diets high in canola meal can increase milk production.

By the end of the year, the outlook for trade with China remained uncertain. However, we were encouraged by the **growth of oil and meal exports**, as well as increased seed sales to other markets, including domestically here in Canada.

GLOBAL VEGETABLE OIL DEMAND (Million Tonnes)



Source: LMC International, Oilseeds & Oils Report 2021.

While the global trade environment is facing many challenges, the fundamentals of global demand are in our favour. The world’s growing middle class continues to seek out vegetable oils (see chart above), palm oil growth has slowed, there is growing demand in new areas including aquaculture and protein for human food ingredients, and more countries are introducing renewable fuel mandates to reduce greenhouse gas emissions.

Meeting export standards

In its fifth year of partnership with Cereals Canada and Pulse Canada, the **Keep it Clean** campaign continued to uphold Canada’s world-class reputation as a trusted supplier of Canadian crops by encouraging on-farm practices that are aligned with market requirements.

A webinar in April provided an overview of crop protection products that may create market risk and the online tools available to help growers, agronomists and retailers plan applications. A second webinar in August emphasized the importance of following pre-harvest intervals, proper timing for pre-harvest glyphosate application and scouting for disease.



New Keep it Clean resources for 2021 included a mobile-optimized pre-harvest glyphosate staging guide at KeepitClean.ca/tools. Handy illustrations help canola, cereal and pulse growers determine when grain moisture content is less than 30% in the least mature part of the field.

Proactive planning to avoid market access barriers

In March, the CCC launched a **revitalized Market Access Plan** built on value chain consensus as to how market access challenges are evolving and how the industry will work with government to prevent and resolve these challenges in the future.



ADVOCATING FOR SOUND DECISIONS AT HOME

Encouraging science-based regulation

As public consultations on **plant breeding innovation** got underway, the CCC worked in coordination with the Canada Grains Council and CropLife Canada to ensure our views on proposed approaches were heard. Our submission highlighted the importance of having plant breeding policies and regulations that are ambitious, progressive and aligned with the latest technological advancements in the sector. We also emphasized that innovation in seed breeding plays an essential role in sustainability.

In the area of **pesticide regulation**, we continued to work closely with the Canadian Canola Growers Association to advocate for a predictable, scientific and risk-based approach.

The final review decision of the Pest Management Regulatory Agency (PMRA) in March 2021 maintained farmers' access to two important neonicotinoid seed treatments used to protect emerging crops from early season pests.

In August, the federal government announced a series of pesticide-related measures including pausing proposed increases to **maximum residue limits** (MRLs), the intent to review the Pest Control Products Act and establishment of a new panel to provide advice to the PMRA. The CCC, in collaboration with other industry partners and stakeholders, continues to advocate for a regulatory system that is based on scientific and risk-based decisions.

Increasing appreciation of canola's economic/environmental potential

Every year, the CCC carries out an extensive program of government relations activities to keep politicians and officials informed of the sector's challenges and potential. With planning for the **next agriculture policy framework** underway, this work took on renewed importance in 2021. In November, the CCC participated in roundtable discussions at the meeting of federal-provincial-territorial ministers of agriculture, where directions for the next policy framework were finalized.

These discussions are taking place at a time when government treasuries are grappling with many urgent demands. In this environment, it is essential that officials understand the tremendous role canola can play in driving Canada's post-COVID economic recovery and achieving Canada's climate action goals and commitments.

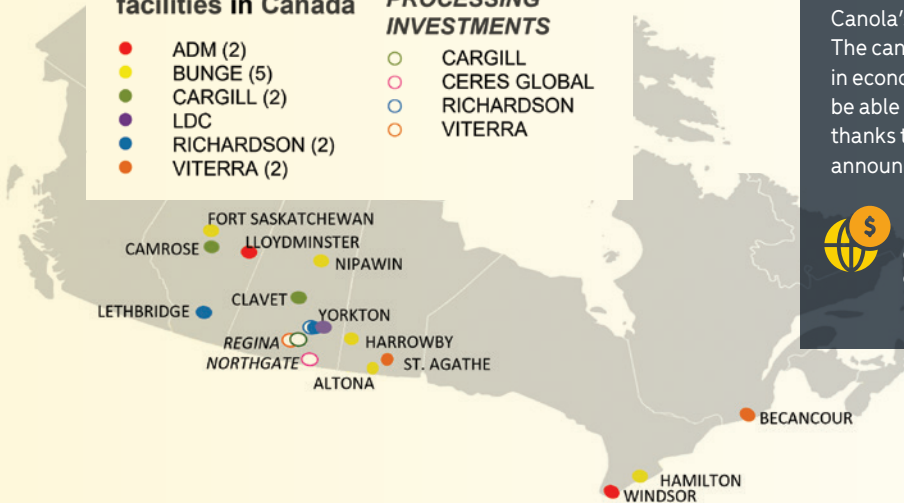
Included in these priorities is the federal government's target to reduce fertilizer emissions by 30% by 2030. Nitrogen fertilizer is a critical component of canola production and our industry goal of sustainable yield intensification targeting 52 bushels per acre and 26 million metric tonnes of production by 2025. At the same time, we know canola has a significant role to play in helping to reduce greenhouse gas emissions. Consultations on this emissions target will continue in 2022, in addition to our efforts to advance canola as a climate solutions provider and position Canadian canola as a low carbon advantage, both domestically and abroad.

Canola processing facilities in Canada

- ADM (2)
- BUNGE (5)
- CARGILL (2)
- LDC
- RICHARDSON (2)
- VITERRA (2)

ANNOUNCED NEW PROCESSING INVESTMENTS

- CARGILL
- CERES GLOBAL
- RICHARDSON
- VITERRA



OPPORTUNITY:

DRIVING ECONOMIC RECOVERY

Canola's economic benefits extend far beyond the farm. The canola processing sector alone generates \$5.8 billion in economic activity each year. By 2025, Canada will be able to process 50% more canola seed than today, thanks to more than \$2 billion in capital investments announced by our canola processors in 2021.



NEARLY \$30 BILLION

of Canadian economic activity is generated by the canola value chain each year. That's a **35% increase** in canola's contribution compared to 10 years ago.

FOCUSING ON FUTURE OPPORTUNITIES

Establishing a firm foothold in the biofuel market

The growing popularity of biofuels is one of the most promising opportunities to diversify into new markets, both here in Canada and around the globe. Research has shown that canola oil is one of the best feedstocks for biodiesel. As well, life cycle analysis has confirmed that canola has a more sustainable environmental footprint than many other feedstocks.

To realize this tremendous potential, the CCC has been in active discussions with other industries and sectors, and the Government of Canada to finalize the new **Clean Fuel Regulations**. Our goal is implementation of new regulations that create the conditions that support a steady source of demand for canola without imposing additional red tape on farmers and the supply chain.

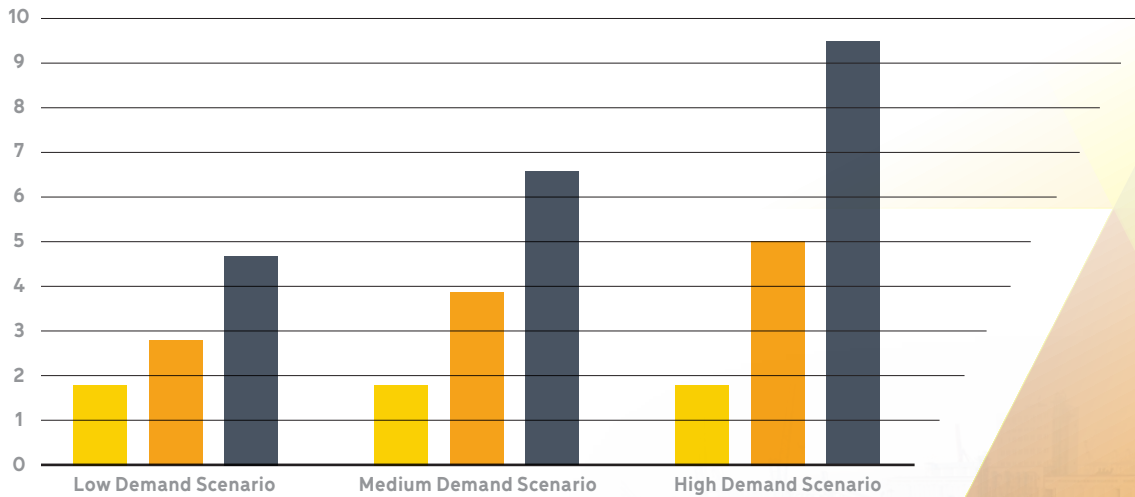
In the U.S., the focus is on creating a pathway for canola oil to be fully recognized under the **Renewal Fuel Standard**. This would allow renewable diesel facilities in the U.S. to use canola oil and receive advanced biofuel credit under the RFS. The CCC has shared its expertise in this area with the U.S. Canola Association, which is working with elected officials and the U.S. Environmental Protection Agency to support this goal.

OPPORTUNITY:

BIOFUEL GROWTH

More countries are introducing renewable fuel mandates to reduce greenhouse gas emissions. This is a great opportunity for canola, which is one of the best feedstocks available for renewable fuels.

PROJECTED CANADA/US CANOLA DEMAND FOR BIOFUELS (MMT Seed)



Source: The Jacobsen Renewable Fuels Outlook; Advanced Biofuels Canada: WAEES analysis

■ Current ■ 2025 ■ 2030

PRIORITY

DIFFERENTIATED VALUE

For decades, the CCC has been building canola's reputation as a source of heart-healthy oil and high-quality protein. New research is providing evidence of other important advantages that are aligned with current market trends. The CCC is acting on these opportunities to strengthen appreciation of Canadian canola around the globe.



FINDING OPPORTUNITY IN CHANGE

Promoting canola’s environmental benefits

As the world focuses more intensively on environmental concerns, sustainable agriculture has become more than the right thing to do. It can also be a way to differentiate canola products in the global marketplace.

The CCC is building on this advantage by convening value chain discussions on canola sustainability with customers who are seeking out food ingredients with a favourable environmental footprint. The CCC has also expanded **canolacouncil.org sustainability content**, adding more information about the canola industry’s sustainability journey to date, ambitious goals for further achievements, and contributions to environmental, economic and social outcomes.

Research supported by the CCC and partners is adding new dimensions to canola’s environmental advantages. For example, findings published in 2021 show that dairy cows fed diets high in canola meal can reduce the **environmental**

footprint of dairy production by reducing enteric methane emissions and the amount of nitrogen excreted in urine – and at the same time, provide a boost to milk production.

Fostering market diversification

In 2021 the CCC continued **expanding customer relationships** in pandemically responsible ways. Through virtual missions and other outreach, we connected with customers and AAFC trade commissions in South Korea, China, Mexico, Pakistan, Vietnam, Thailand and the United Arab Emirates.

Some of these nations are part of **ASEAN** (the Association of Southeast Asian Nations), which is set to begin trade negotiations with Canada in 2022. While these countries aren’t currently large markets for Canadian canola, a new trade accord would provide the opportunity to diversify our exports and boost our sector’s overall competitiveness.

Reaching out to influencers

To spread the word about canola oil’s many advantages, the CCC continues to share information with credible influencers. In 2021 we connected with more than 10,000 food and nutrition professionals through the virtual **Food and Nutrition Conference and Expo**, and we continued to work with long-time partners and thought leaders like the **American Heart Association**.

While use of canola meal in California remains strong, the CCC carried out targeted efforts to ensure the latest research and messaging is heard by dairy nutritionists in the U.S. Upper Midwest and Canada. Information-sharing in 2021 included **research presentations** at the Four State Dairy Conference and Sherbrooke Research Centre scientific symposium, as well as **Canolamazing webinars**. The profile of canola meal was also raised through the **Canolamazing.com** website and **media articles** authored by livestock nutritionists.



Research outcomes demonstrating canola meal’s environmental advantages were shared through Canolamazing webinars for dairy nutritionists in Canada, the U.S. and China, as well as through media articles. Two of the best-read articles in Progressive Dairy Canada in 2021 were about canola meal’s unique benefits for dairy herds.



OPPORTUNITY:

ENVIRONMENTAL ADVANTAGES

The growing interest in sustainably produced foods and fuels is great news for Canadian canola. Our crop is a climate solution in several ways:

- Canola takes carbon from the atmosphere to make food and also sequesters carbon in the soil.
- Canola accounts for approximately 70% of all carbon sequestration from field crops in Canada, due to its carbon-dense seed and deep-rooting growth habit.
- Canadian growers are quick to adopt technology that improves environmental outcomes – from no-till to pod shatter resistance.
- Canola-based biofuel reduces lifecycle GHG emissions by up to 90% compared to traditional diesel.
- Canola meal reduces greenhouse gas emissions (methane) in dairy herds.



5 MILLION MORE TONNES OF GHG will be sequestered by Canadian canola each year when we reach our 2025 targets.



INNOVATIVE.
SUSTAINABLE.
RESILIENT.

**CREATING SUPERIOR VALUE
FOR A HEALTHIER WORLD.**



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