

August 8, 2022

Cheryl Laskowski
Branch Chief
California Air Resources Board
1001 I Street
Sacramento, California 95814

Submitted electronically to: LCFSWorkshop@arb.ca.gov

RE: Canola Council of Canada's Comments on July 7, 2022 LCFS Workshop

Dear Ms. Laskowski,

The Canola Council of Canada (CCC) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) in response to the Low Carbon Fuel Standard (LCFS) workshop held on July 7, 2022. We thank CARB staff for holding this workshop and initiating the pre-rulemaking activity for potential amendments to the LCFS regulation.

The CCC is a non-profit industry association representing all sectors of the Canadian canola industry, including seed developers, farmers, exporters, and processors. The CCC's mission is to advance the growth and profitability of the canola industry based on innovation, sustainability, resilience, and the creation of superior value to customers throughout the world.

California is among canola's largest and most important customers, with consumption of canola oil and meal valued at \$800 million in 2020. Canola oil is one of the most versatile crop-based oils on the market today. It has long been regarded as one of the healthiest cooking oils available and is increasingly recognized as a low-carbon feedstock for renewable fuel production. Canola meal is also contributing to GHG emission reductions through its inclusion in dairy feed rations. Recent research shows that feeding dairy cows canola meal reduces enteric methane emissions while at the same time improving milk productivity¹.

Given canola's economic and environmental contribution in California, we are pleased to provide the following feedback on the Public Workshop held on July 7.

¹ <https://www.canolacouncil.org/news/new-research-demonstrates-increased-milk-production-and-reduced-greenhouse-gas-emissions-when-dairy-cows-are-fed-canola-meal/>

1. Options for 2030 Carbon Intensity Targets

At the Workshop CARB staff expressed a desire to explore increased ambition in program CI targets on a path toward carbon neutrality. The CCC supports a more stringent CI target and recommends CARB analyze scenarios where the 2030 CI reduction target is beyond 30 %.

The pace of zero and low-carbon fuel availability and use in California has exceeded expectations. This success should be applauded, and it makes it possible for CARB to increase the stringency of the program prior to 2030. Further, if the goal is a full transition to a zero-emission transportation sector in California by no later than 2045,² it is also essential to set an increasingly stringent standard for the LCFS beyond 2030. CCC supports continued analysis of this target setting in the LCFS rulemaking, to maximize the availability and affordability of zero- and low-carbon fuels in both the short- and long-term.

2. Crop-based Feedstocks for Biofuel Production

Crop based biofuels have a critical role to play as the transportation industry continues its transition towards a zero-carbon future. Crop feedstocks like canola deliver tangible emission reductions, are sustainably grown, renewable and have a proven track record of increasing supplies to accommodate demand. Biofuels derived from crops are ready to use right now and at scale, which is important as other technologies to decarbonize transportation fuels (esp diesel and aviation fuels) will require time to develop. Restricting or limiting the utilization of crop-based biofuels in the LCFS program would risk further uptake of low carbon fuels and compromise California's goal towards net zero.

Canola-based biofuels have among the lowest carbon intensities in the world, reducing lifecycle GHG emissions by up to 90% compared to fossil diesel³. It offers tangible emissions reductions because Canadian growers have a strong track record of low carbon production practices. For example:

- Farmers have been strong adopters of conservation tillage, preserving topsoil and organic matter, along with the carbon and nutrients stored within it.
- Less tilling means reduced fuel use and GHG emissions as farmers make fewer passes over the field.
- The adoption of precision ag technologies and nutrient stewardship practices that support emission reductions are helping growers further optimize crop input use and reduce nitrous oxide emissions.

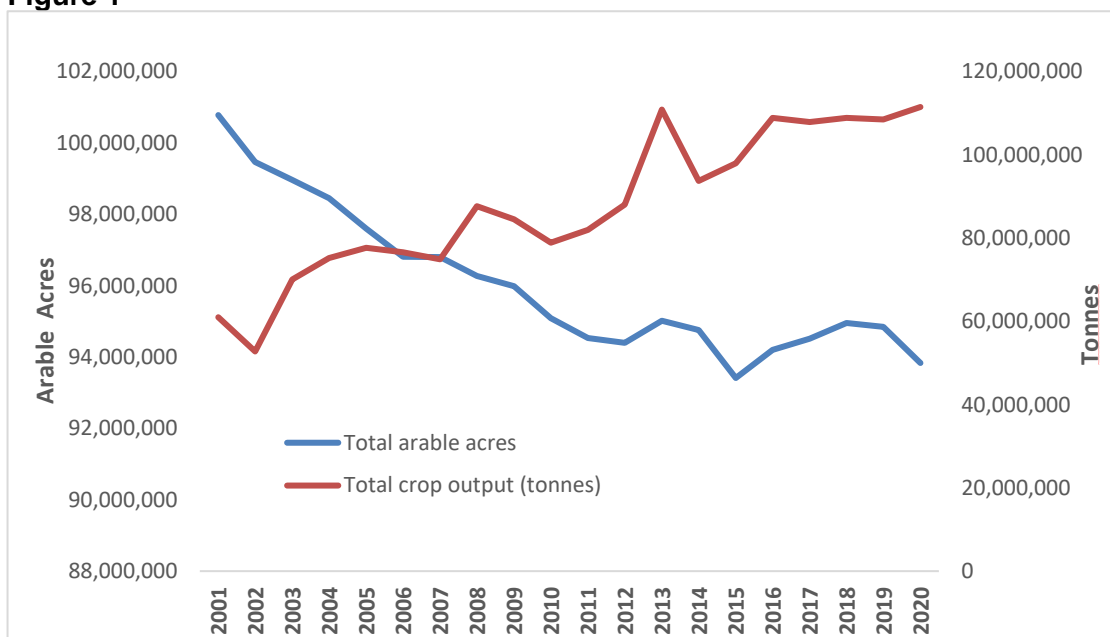
Canola and other crops grown in Canada are sustainably grown, increasing output even as arable land continues to shrink due to population growth and expansion of urban centers. Figure 1 below shows that over the last two decades, arable acres suitable for crop production in Canada has decreased by 8.3 million acres (-7%), while over the same time period, total crop output has increased by 50 million tonnes (+ 82%).

² In line with broader carbon neutrality across all sectors in a similar timeframe.

³ [O'Connor, D. 2011. Lifecycle Analysis Canola Biodiesel, \(S&T\)2 Consultants Inc.](#)

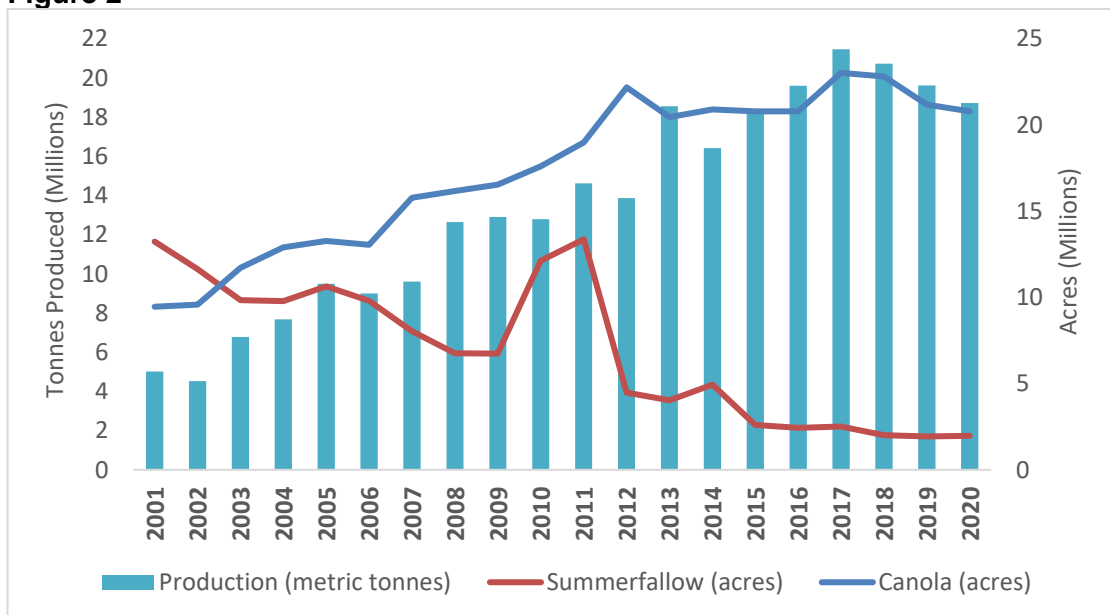
Canola is among the major contributors to Canada's growing crop supplies. Figure 2 shows that canola production has witnessed a 4-fold increase over the past two decades. While canola acres have expanded, this has largely displaced summerfallow, cropland that is purposefully kept out of production during the growing season. Conversion of summerfallow to cropland has helped support the aforementioned low carbon farm practices associated with canola production such as conservation tillage.

Figure 1



Source: Statistics Canada. [Table 32-10-0359-01 Estimated areas, yield, production, average farm price and total farm value of principal field crops, in metric and imperial units](#)

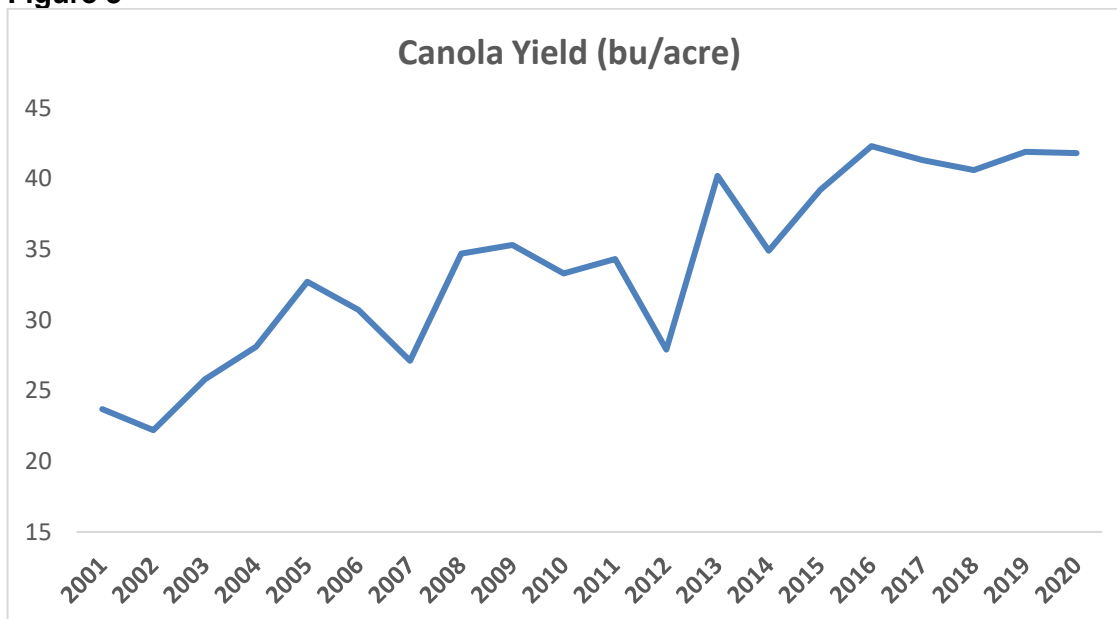
Figure 2



Source: Statistics Canada. [Table 32-10-0359-01 Estimated areas, yield, production, average farm price and total farm value of principal field crops, in metric and imperial units](#)

Growing supplies of canola are also attributed to steady increases in productivity. Figure 3 shows that canola yields have nearly doubled since 2001, underscoring the ability to support future increases in output on the same amount of land.

Figure 3



Source: Statistics Canada. *Table 32-10-0359-01 Estimated areas, yield, production, average farm price and total farm value of principal field crops, in metric and imperial units*

3. Recognizing low carbon farm practices and GHG reductions from soil organic carbon (SOC)

Although not specified in the July 7, 2022, Workshop, CARB has previously mentioned the potential of recognizing low carbon farm practices and GHG reductions from soil organic carbon in the LCFS⁴. This is an extremely important policy consideration as it rewards existing farm practices, incentivizes GHG emission reductions from future on-farm actions and supports a more efficient use of crop-based biofuels in the LCFS program (i.e. the lower the CI scores the less biofuel required to meet CI mandates).

In Canada, there is a many decades long history of detailed research and publication of studies on the issue of soil organic carbon sequestration in agriculture. **A detailed overview of this can be found attached to this letter (Attachment 1).** As a result, Canadian Governments have recognized SOC as a factor in lifecycle analysis from Canadian crops and this is reflected in the Carbon Intensity scores for each crop. The British Columbia Government's LCFS has recognized SOC for the last ten years and the Government of Canada's Clean Fuel Regulation lifecycle accounting tool does too.

⁴CARB Workshop Presentation, slide 18. https://www2.arb.ca.gov/sites/default/files/2021-12/LCFS%2012_7%20Workshop%20Presentation.pdf

There is also growing interest in the US on the role natural lands play in sequestering carbon and supporting higher levels of SOC. **Attached to this letter, is a comprehensive study completed by UC Davis that provides a technical assessment of SOC in California and possible policy options that could support higher levels C sequestration in the soil (Attachment 2).** Among the observations is that SOC levels in natural lands across the state are relatively low, meaning there is a lot of potential to sequester more C in the soils. This can be achieved through greater adoption of on-farm conservation practices like minimal till, cover cropping and crop rotations. Policy incentives like recognition of SOC in the LCFS can speed up the adoption of these practices in California and in other jurisdictions.

Given the growing body of evidence that demonstrates the value of SOC and the importance of incentivizing further C sequestration in soils, CARB should update lifecycle accounting methods to capture farm practices that demonstrate a reduction in GHG emissions from crop production.

We thank you again for the opportunity to provide comments on this workshop and look forward to continued engagement with CARB as potential changes to the LCFS are considered.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jim Everson', with a long horizontal flourish extending to the right.

Jim Everson
President