

New report suggests most Canadians enjoy salmon, but are misinformed about method of production and concerned about price

HALIFAX, NS. (November 18, 2021) – The United Nations General Assembly has declared 2022 the **International Year of Artisanal Fisheries and Aquaculture (IYAFA 2022)**. As such, the **Agri-Food Analytics Lab** at **Dalhousie University**, in partnership with [Caddle](#), is releasing a new report on salmon consumption in Canada. This report’s intent is to better understand how Canadians perceive salmon production methods and how much Canadians know about them. We also look at frequency of consumption and preferred species. As the federal government investigates open ocean pens for salmon production, we wanted to get a better sense of how much Canadians know about salmon production and choices. For this report, a total of 10,008 Canadians were surveyed, in June 2021.

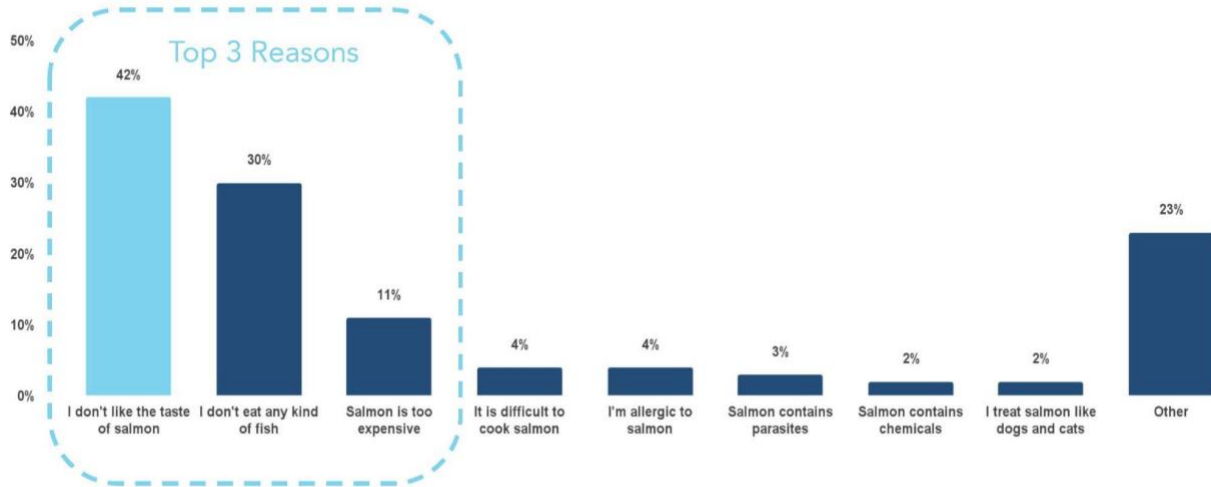
Canadians enjoy eating salmon at home

The survey was separated into two different sections. The first section looked at consumption habits and preferences. A total of 79% of Canadians do eat salmon, of which 10% will eat salmon weekly. Both **Prince Edward Island** and **Alberta** have the highest consumption rate at 84%. **Boomers**¹ have the highest consumption rate at 84%, while **Millennials**² have the lowest, at 72%. Regarding salaries, people who earn more than **\$75,000 a year** are more likely to eat salmon once a month, or more than people who earn less. In other words, salaries are a significant determinant when looking at salmon consumption in Canada.

¹ Boomers: Born 1946-1964.

² Millennials: Born 1981-1996.

Why don't you eat salmon at all?



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 Source: Caddle Custom Survey | June, 2021 | n = 10,008



When asked why they do not eat salmon, the most common reason given by Canadians is taste. While 42% said taste is the reason that they do not eat salmon, 30% said it is because they do not eat any kind of fish. Price is an issue for 11% of Canadians. Also, 5% of Canadians do not buy salmon due to **expected chemicals** or **parasites**.

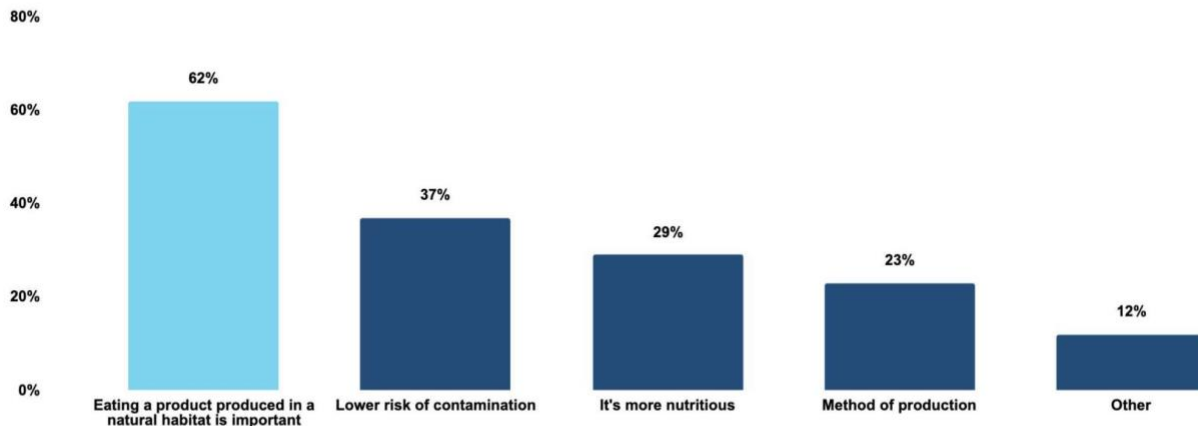
More Canadians will eat salmon at home (44%) than at a restaurant (8%).

The **Atlantic salmon**³ is the most popular species among Canadians. While 38% of Canadians prefer Atlantic salmon, 33% prefer **Pacific salmon** which includes sockeye, pink, chinook, and chum species. A total of 29% do not have a preference.

The second section featured metrics on how Canadians support certain production methods. Asked if they prefer wild or farmed salmon, 49% of Canadians prefer wild salmon but 42% have no preference. When asked about reasons why Canadians prefer **wild salmon**, answers varied.

³ The Atlantic salmon (*Salmo salar*) is a species of ray-finned fish in the family Salmonidae.

What are your reasons for preferring wild salmon? (select all)



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A total of 62% want to eat a product produced in a natural habitat. While 37% believe wild salmon lessens **risks of contamination**, 29% believe wild salmon to be more nutritious, even though recent research suggests otherwise.⁴ About 23% of Canadians prefer wild salmon because they see this method of production as more sustainable. Differences cited between land-based production and ocean-based production were also interesting.

While a total of 21% of Canadians prefer to eat **farmed salmon** that has been raised on a **land-based farm**, a total of 39% prefer an ocean farm as a method of production. Members of **Gen Z**⁵ are more opinionated on this issue. While 33% of Gen Z respondents agree with land-based farms, 46% support **ocean farms**.⁶ Millennials support ocean farms at 44%. Only 12% of Boomers agree with land-based

⁴ Two new studies show that farmed salmon have lower contamination like mercury and PCBs than wild salmon, and that it is the species of salmon that makes the difference in nutritional content, not whether it was wild or farmed.

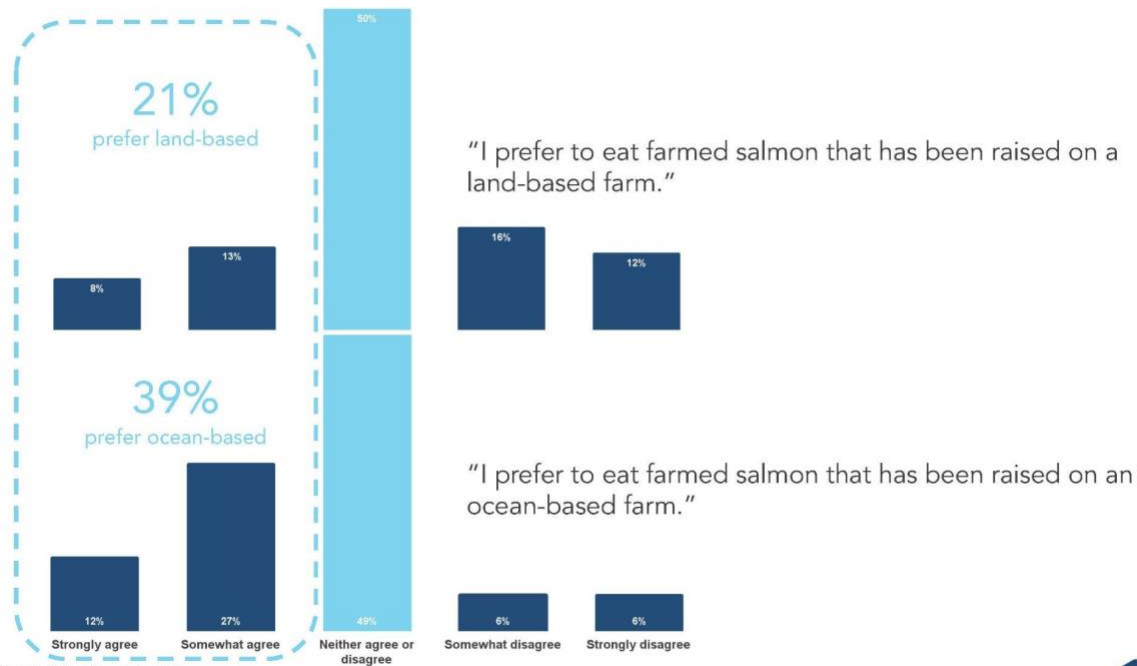
Colombo, S.M., Mazal, X. 2020. Investigation of the nutritional composition of different types of salmon available to Canadian consumers. *Journal of Agriculture and Food Research*. 100056. <https://doi.org/10.1016/j.jafr.2020.100056>

Jensen, I.-J.; Eilertsen, K.-E.; Otnæs, C.H.A.; Mæhre, H.K.; Elvevoll, E.O. An Update on the Content of Fatty Acids, Dioxins, PCBs and Heavy Metals in Farmed, Escaped and Wild Atlantic Salmon (*Salmo salar* L.) in Norway. *Foods* 2020, 9, 1901. <https://doi.org/10.3390/foods9121901>

⁵ Gen Z: Born 1997-2005.

⁶ Farmed salmon are known to occasionally escape from cages and enter the habitat of wild populations

farms, and 36% of the same group agree with ocean farms to produce salmon. The support for ocean farms is clearly stronger amongst all groups.



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Finally, some questions were asked about organic salmon. Only 26% of Canadians were aware that organic salmon existed. A total of 55% of Canadians would be more inclined to buy farmed salmon if it were fed a diet that is environmentally sustainable and nutritious. The support for aquaculture is similar. A total of 54% believe that aquaculture is a sustainable way to harvest salmon in Canada.

When assessing Canadian’s perception related to salmon and production methods, Canadians appear to support the sustainable nature of ocean farm production. Nonetheless, our results suggest that 50% of respondents appear to misunderstand what land-based and ocean farm means. This contradicts the report commissioned by the Department of Fisheries and Oceans which suggests that consumers would prefer land-based farming, as they are also willing to pay premium prices.⁷⁸

Dr. Stefanie Colombo, lead researcher for the project and Canada Research Chair in Aquaculture Nutrition at Dalhousie University, believes results point to how confused and misinformed Canadians are about salmon production. “While the federal government often listens to interest groups, it appears

⁷ <https://www.bbc.com/news/business-56829129>

⁸ DFO. 2019. State of Salmon Aquaculture Technologies, 2019. Report prepared by Gardner Pinfold Consultants Inc. August 31, 2020. <https://waves-vagues.dfo-mpo.gc.ca/Library/40864492.pdf>

Canadians see ocean farms as a very sustainable method of production, in addition to land-based production,” said Dr. Colombo. “Exclusion of ocean net-pen farming in the future eliminates the opportunity for sustainable use of our coastline in appropriate areas for food production. Both production models will both continue to improve and evolve to produce sustainable, nutritious salmon for all Canadians.”

Land-based farming is considered by some to be a more expensive method of production for salmon farming and that costing is difficult to predict.⁹¹⁰¹¹ Results from the report show a strong correlation between salaries and the reason Canadians do not consume salmon. Price is an issue. “If we motivate the industry to produce more salmon using land-based farms, we could potentially make salmon less affordable in the immediate future for a growing number of Canadians,” said **Dr. Sylvain Charlebois**, Director of the Agri-Food Analytics Lab. “Salmon is very much part of Canada’s new Food Guide, so affordability should be a priority.”

Authors of this report recommend that the Department of Fisheries and Oceans consider all options based on scientific merit before enticing the industry to embrace one method of production versus another. This was suggested in the DFO report⁸ regarding setting the course for new production systems, like land-based and hybrid systems, to replace the more widely used net pen system.

End of report.

Full report here: <https://www.dal.ca/sites/agri-food.html>

⁹ Bjørndal, T., & Tusvik, A. (2019). Economic analysis of land-based farming of salmon. *Aquaculture Economics & Management*, 23(4), 449-475.

¹⁰ Liu, Yajie, Rosten, Trond W, Henriksen, Kristian, Hognes, Erik Skontorp, Summerfelt, Steve, & Vinci, Brian. (2016). Comparative economic performance and carbon footprint of two farming models for producing Atlantic salmon (*Salmo salar*): Land-based closed containment system in freshwater and open net pen in seawater. *Aquacultural Engineering*, 71, 1-12.

¹¹ Trond Bjørndal & Amalie Tusvik (2019) Economic analysis of land based farming of salmon, *Aquaculture Economics & Management*, 23:4, 449-475, DOI: 10.1080/13657305.2019.1654558

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Methodology: A representative survey of Canadians was conducted in June 2021, in partnership with Caddle. 10,008 Canadians participated in this survey.

Margin of Error: +/- 1.3%, 19 times out of 20. Any discrepancies in or between totals are due to rounding.

Research Ethics Certificate: No. 2020-5215.

Disclosure: Funding for this survey was provided by **Caddle** and **Dalhousie University**.