

Financé par le
gouvernement
du Canada

Funded by the
Government
of Canada

Canada 



Funded by
the European Union

Financé par
l'Union européenne



EU-CANADA
AGRICULTURE
DIALOGUE WORKSHOPS

ORGANIC PRODUCTION

OUTCOMES REPORT

The content of this publication does not reflect the official opinion of the European Union and the Government of Canada. Responsibility for the information and views expressed therein lies entirely with the author(s). Reproduction is authorized provided the source is acknowledged.

Reproduction is authorized provided the source is acknowledged.

Senior expert

Dr. Bronwynne Wilton
Principal and Lead Consultant
Wilton Consulting Group
bronwynne@wiltongroup.ca

Lead author

Dr. Andrea Gal
Consultant
Wilton Consulting Group

Project support

Krista Kapitan, Mya Kidson & Erin Norsworthy
Wilton Consulting Group

ACKNOWLEDGEMENTS

We would like to thank the research and policy experts of the Directorate-General for Agriculture and Rural Development of the European Commission, and Agriculture and Agri-Food Canada for their support throughout this project.



EXECUTIVE SUMMARY

This outcomes report is a summary of the third in a series of five joint workshops between the European Union (EU) and Canada “to promote sustainability, environmental stewardship and climate action in agriculture, within the framework of the Agriculture Dialogue” under the Canada-EU Comprehensive Economic Trade Agreement (CETA).¹ Over 110 organic production stakeholders from the EU and Canada came together at this Organic Production Workshop. Participants explored the environmental and socio-economic benefits and drivers of organic production as well as innovation in the value chain.

A final wrap-up conference will summarize the reports from the five workshops (i.e., soil health; greenhouse gas reduction in livestock production; organic agriculture; sustainable fertilizer use in agriculture; and sustainable crop production).

Stakeholders highlighted the following elements about the current state of the sector:

ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION

- Organic production systems:
 - Support biodiversity
 - Improve soil health and soil structure
 - Reduce the risk of nutrient losses and groundwater pollution
 - Reduce risks to the environment and human health by not using synthetic pesticides
 - Contribute to carbon sequestration
- Producers use many beneficial management practices (BMPs) and demonstrate the 4 Rs of carbon management (the right rotation, the right residue management, the right return of manure, and the right rate of tillage intensity).
- Producers balance environmental and animal welfare considerations in their management decisions.

This report does not provide a comprehensive overview or in-depth analysis of organic production systems. This report simply synthesizes what was heard at the workshop. As a result of the focus in some discussions, some subsections of the report provide more detail on the experiences in the European Union, while other subsections delve further into the Canadian context.

INNOVATION IN THE VALUE CHAIN

- Demand for organic products is increasing.
- Lack of organic supplies in some areas is a common challenge for organic food processors.
- Diversity exists in organic value chains across Canada and between EU member states; some regions are more export oriented, while others have some shorter supply chains and direct-to-consumer marketing.
- The sector faces some regional or national constraints and bottlenecks throughout the supply chain, such as limited development and registration of allowed pest control products, and limited processing capacity.
- The sector would benefit from new, systemic approaches to research and innovation that take into consideration the entire organic value chain. These approaches are important both in addressing the specific needs of the sector and in quantifying its benefits.

1 Canada-European Union. (June 2021.) European Union-Canada Summit – Joint Statement, p. 3-4. Retrieved from <https://pm.gc.ca/en/news/backgrounders/2021/06/15/canada-european-union-summit-joint-statement>



- Processors and retailers have key roles to play in increasing the availability of organic products by ensuring shelf space, setting effective pricing policies, creating strong and stable supply chains, and supporting producers in making the transition to organic systems.
- Research is underway across the EU and Canada to support and advance the organic sector, with scientists studying topics such as crop breeding, disease and pest management, animal husbandry, and socio-economic issues and opportunities.
- The sector would benefit from more scientists, technologists, and product development specialists focused on organic production and processing.
- Higher prices for organic products may make them inaccessible for some consumers.

SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION

- Organic production systems can bring higher wages for farmers, more job creation on farms and in rural areas, and positive rural development potential.
- Organic production involves reduced pesticide use and risks, as well as lower water pollution risks.
- Place-based projects engage consumers in projects which have positive impacts in their communities, such as building connections between consumers and local producers, and public procurement of local and organic food.

OVERARCHING THEMES ACROSS THE BREAKOUT ROOMS

While the three breakout rooms focused on distinct topics, several overarching themes emerged with consistent comments across the discussions. These themes are listed below.

- Organic agriculture is an internationally recognized system of production guided by principles and regulated standards (in the EU and Canada).
- While statistics are available on organic acreage and livestock numbers, the industry would benefit from detailed metrics on the actual practices and inputs used. Projects are underway to help address gaps in industry data and metrics.
- Farmland prices and the competition for farmland can pose challenges for new entrants to the agricultural industry, including the organics sector.
- Organic certification supports public trust, but false advertising (i.e., products claiming to be organic that are not certified) poses a risk for the sector.
- Consumer demand is the main incentive for conversion of farmland from conventional to organic production systems.
- The topic of organic labels was raised in all three breakout rooms with some variation between how well EU and Canadian consumers recognize and understand these labels. In Canada, for example, consumers may gravitate instead to terms such as “non-GMO,” “soil health,” and “regenerative.” All workshop participants agree that clear and transparent labelling is key to consumer trust and the growth of the sector.
- Consumers want to better understand the sustainability of products; organic sector stakeholders are developing tools to help on this front.



Participants identified tangible opportunities to build on the strengths of the organic sector. Expanded support, in-depth research, better data availability, increased knowledge exchange and education, purposeful collaboration and networking, and refined policies can grow the industry. Value chain stakeholders (spanning from producers through consumers), researchers, and public authorities all must contribute to the shared goal of improving access to organic products and further enhancing the economic, social, and environmental sustainability of the sector.

As the EU and Canada continue their work, they can consider the following 12 recommendations.

RECOMMENDATIONS FOR THE SCIENTIFIC COMMUNITY

RECOMMENDATION 1: Strengthen scientific networking between the EU and Canada to address regional, national, and global gaps in knowledge related to organic production systems.

RECOMMENDATION 2: Focus first and foremost on the resolution of identified bottlenecks in the organic value chain, while taking a systems and multidisciplinary approach.

RECOMMENDATION 3: Disseminate research results rapidly and extensively.

RECOMMENDATION 4: Develop a baseline of measurements for the organic sector. Use this baseline to showcase the sustainability of the sector and to identify opportunities for advances.

RECOMMENDATIONS FOR THE VALUE CHAIN

RECOMMENDATION 5: Collaborate with, and support, other actors in the value chain during their transition to organic production and/or processing.

RECOMMENDATION 6: Enhance the availability and affordability of organic products through mature and efficient supply chains.

RECOMMENDATION 7: Ensure a fair distribution of added value throughout the supply chain.

RECOMMENDATIONS FOR POLICYMAKERS AND PUBLIC AUTHORITIES

RECOMMENDATION 8: Ensure funding opportunities, programs and policies support the broad diversity of organic supply chain stakeholders (e.g., all sizes of operations, operators transitioning to organic production, and operators who have transitioned to organic production).

RECOMMENDATION 9: Support the control of organic standards to ensure consumer confidence.

RECOMMENDATION 10: Continue to advance the organic sector through such initiatives as the provision of school education on sustainable food, green public procurement, and advisory services for the conversion and maintenance of organic systems.

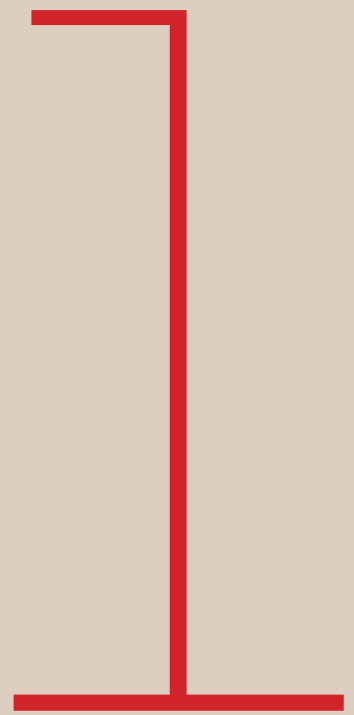
RECOMMENDATIONS FOR ALL ORGANIC PRODUCTION STAKEHOLDERS

RECOMMENDATION 11: Prioritize shared learning and knowledge transfer throughout the organic value chain.

RECOMMENDATION 12: Collaborate to maintain and improve consumer trust in organic products, which will ultimately help to increase consumer demand.

TABLE OF CONTENTS

2	ACKNOWLEDGEMENTS
3	EXECUTIVE SUMMARY
7	1 · INTRODUCTION
8	1.1 · EVENT AND REPORT CONTEXT
9	1.2 · ORGANIC PRODUCTION: SETTING THE CONTEXT
10	2 · POLICY CONTEXT
11	2.1 · EU POLICIES
13	2.2 · CANADIAN POLICIES
15	2.3 · EU AND CANADA JOINT INITIATIVES AND EFFORTS
16	3 · THE CURRENT STATE OF THE ORGANIC SECTOR IN CANADA AND THE EU
17	3.1 · ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION
18	3.2 · INNOVATION IN THE VALUE CHAIN
20	3.3 · SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION
21	3.4 · OVERARCHING THEMES
24	4 · OPPORTUNITIES FOR THE ORGANIC SECTOR IN CANADA AND THE EU
25	4.1 · ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION
25	4.2 · INNOVATION IN THE VALUE CHAIN
26	4.3 · SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION
26	4.4 · OVERARCHING OPPORTUNITIES
32	5 · ECONCLUSIONS WITH RECOMMENDATIONS
35	6 · ANNEXES
36	6.1 · WORKSHOP AGENDA
38	6.2 · BIOGRAPHIES OF PANELLISTS, MODERATORS AND RAPORTEURS
39	6.3 · PARALLEL SESSION SPEAKERS AND NOTETAKERS
41	ORGANIC ORGANIZATIONS: WHO'S WHO IN CANADA (2021)



INTRODUCTION



1 · INTRODUCTION

1.1 · EVENT AND REPORT CONTEXT

In June 2021, at the Canada-European Union Leader’s Summit, the leaders committed to “launch a series of joint events to promote sustainability, environmental stewardship and climate action in agriculture, within the framework of the Agriculture Dialogue” under the Canada-EU Comprehensive Economic Trade Agreement (CETA).²

A series of five events is exploring the policy context and showcasing good practices, research and innovation taking place in the EU and Canada. This workshop, titled Organic Production, was the third in the series. The workshop was held online on June 8, 2022. In total, 111 organic production stakeholders in the EU and Canada – including researchers, academics, government officials, not-for-profit representatives, farmers, and industry stakeholders – attended the event.

The objectives of the Organic Production workshop were as follows:

- To enhance collaboration on organic production between EU and Canadian stakeholders representing government, civil society and academia;
- To facilitate shared learning with a focus on environmental, value chain, and socio-economic considerations

To accomplish these objectives, the Organic Production Workshop began with a panel discussion with EU and Canadian experts on the relevant policy context. Next, workshop participants split into breakout sessions, where subject-matter experts discussed the environmental benefits of organic production, innovation in the value chain, and socio-economic benefits and drivers of organic production. Participants highlighted the current state of the organic sector in Canada and the EU, and discussed opportunities to advance the sector. Finally, workshop participants returned to the plenary session for a recap of the key findings from the breakout sessions. Policy and subject-matter experts reflected on sector strengths and opportunities. (Please see Annex 6.1 for the full workshop agenda.)

This report is a summary of what was heard during the workshop. The report begins with a high-level overview of the organic sector as well as the relevant policy context in the EU and Canada. (Please consult the websites of the respective governments for more detailed information on their policies and programs.³) Next, the report summarizes the breakout room discussions related to the topics of the environmental benefits of

EU-Canada CETA Agriculture Dialogue
Sustainability Workshops

13. Soil Health (See the Soil Health Outcomes Report.)

14. Greenhouse Gas (GHG) Reduction in Livestock Production (See the GHG Reduction in Livestock Outcomes Report.)

15. Organic Agriculture

16. Sustainable Fertilizer Use in Agriculture

17. Sustainable Pesticide Use in Agriculture

A final wrap-up conference will summarize the reports from the preceding workshops.

2 Canada-European Union. (June 2021.) European Union-Canada Summit – Joint Statement, p. 3-4. Retrieved from <https://pm.gc.ca/en/news/backgrounders/2021/06/15/canada-european-union-summit-joint-statement>.

3 European Commission. (n.d.) Organic Farming. Retrieved from: https://agriculture.ec.europa.eu/farming/organic-farming_en. And Government of Canada. (n.d.) Agriculture and Agri-Food Canada. Retrieved from: <https://agriculture.canada.ca/en>. And Canadian Food Inspection Agency. (December 2021.) Organic Products. Retrieved from: <https://inspection.canada.ca/organic-products/eng/1526652186199/1526652186496>.



organic production, innovation in the value chain, and the socio-economic benefits and drivers of organic farming. As a result of the focus in some discussions, some subsections of the report provide more detail on the experiences in the European Union, while other subsections delve further into the Canadian context. As an outcome of the workshop discussions, a series of recommendations are presented to enhance knowledge and adoption of practices that can optimize the organic sector.

1.2 · ORGANIC PRODUCTION: SETTING THE CONTEXT

Organic agricultural production systems are based on ecosystem management and aim to avoid the use of synthetic inputs, such as synthetic fertilizers and pesticides, veterinary drugs, and genetically modified seeds and breeds. Production practices are site specific to meet local conditions and continue to evolve as new research findings become available.

Organic agriculture helps to support the three pillars – economic, environmental, and social – of sustainability to meet local needs. A basic principle is to minimize the environmental impacts of the sector “while maintaining an economically feasible level of production.”⁴ Organic production systems take a systems approach to ensure their success, resilience, and long-term sustainability.⁵ Organic agriculture implements agroecological principles and is backed by a robust certification method.⁶

As of 2020, 3.4 million producers in 190 countries used organic agricultural production systems. In total, 1.6% of farmland (or more than 74.9 million hectares) was used for organic production, which was a 4.1% increase over 2019. In the EU, 9.07% of farmland was used for organic production.⁷ The EU member states Austria and Estonia were in the top three globally in terms of their percentage of farmland in organic production, at 26.5% and 22.4%, respectively.⁸ In 2021, 5,658 Canadian farms produced organic products. These farms accounted for 3% of Canadian farms, compared to 2.2% of farms in 2016.⁹

The European Union is the second-largest organic market globally, with EUR 44.8 billion in organic food and drink sales in 2020.¹⁰ Canada is the sixth-largest organic market in the world, with 6.5 billion CAD in organic food and beverage sales in 2020.¹¹ Globally, consumers are motivated by a range of factors to purchase organic products, including environmental impacts, animal welfare, perceived health benefits, safety, and flavour.¹²

-
- 4 P. Saffeullah, N. Nabi, S. Liaqat, N.A. Anjum, T.O. Siddiqi, and S. Umar. (Dec. 2020.) “Organic Agriculture: Principles, Current Status, and Significance.” In *Microbiota and Biofertilizers*, edited by K.R. Hakeem, G.H. Dar, M.A. Mehmood, and R.A. Bhat, p. 18 and 26. Retrieved from: https://doi.org/10.1007/978-3-030-48771-3_2.
 - 5 Food and Agriculture Organization of the United Nations. (n.d.) “What are the Environmental Benefits of Organic Agriculture.” Retrieved from: <https://www.fao.org/organicag/oa-faq/oa-faq6/en/>.
 - 6 Agroforestry and mixed farming also employ agroecological principles. See European Commission. (October 2021.) *CORDIS Results Pack on Agroecology: A Thematic Collection of Innovative EU-funded Research Results*, p. 2.
 - 7 Eurostat. (May 2022.) “Area under organic farming.” Retrieved from: https://ec.europa.eu/eurostat/databrowser/view/sdg_02_40/default/table?lang=en.
 - 8 Liechtenstein had the highest percentage of organic production at 41.6% of farmland. See H. Willer, J. Trávníček, C. Meier and B. Schlatter (Eds.) (2022.) *The World of Organic Agriculture. Statistics and Emerging Trends 2022*. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn., p. 19.
 - 9 Statistics Canada. (May 2022.) “Canada’s 2021 Census of Agriculture: A Story About the Transformation of the Agriculture Industry and Adaptiveness of Canadian Farmers.” Retrieved from: <https://www150.statcan.gc.ca/n1/daily-quotidien/220511/dq220511a-eng.htm>.
 - 10 The United States was the largest market. See H. Willer, C. Meier, B. Schlatter, L. Dietemann, L. Kemper and J. Trávníček. (2022.) “The World of Organic Agriculture 2022: Summary.” In *The World of Organic Agriculture. Statistics and Emerging Trends 2022*, edited by H. Willer et al. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn., p. 22.
 - 11 Canada Organic Trade Association. (2021.) “The Canadian Organic Market Report.”
 - 12 European Commission (n.d.) “Organic Action Plan.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organic-action-plan_en. And P. Saffeullah, N. Nabi, S. Liaqat, N.A. Anjum, T.O. Siddiqi, and S. Umar. (Dec. 2020.) “Organic Agriculture: Principles, Current Status, and Significance.” In *Microbiota and Biofertilizers*, edited by K.R. Hakeem, G.H. Dar, M.A. Mehmood, and R.A. Bhat, p. 25-26 and 30. Retrieved from: https://doi.org/10.1007/978-3-030-48771-3_2.



2

POLICY CONTEXT



2 · POLICY CONTEXT

2.1 · EU POLICIES

The EU is taking a demand-driven approach to optimize the organic sector; an increase in demand will support sustainable growth in the sector. As a result, many stakeholders – spanning the full value chain, as well as both the public and private sectors – must be involved in this work. Consumers play an important role in sustainable production when they choose eco-friendly products. Through [Green Public Procurement](#) (GPP), public sector bodies increase their green purchasing of sustainable products.¹³ GPP is voluntary, but increased public sector procurement of organic products can help to strengthen the organic sector and encourage other consumers to make sustainable purchasing decisions.

Organic producers, and those producers transitioning to organic production, can access EU financial support through the Common Agricultural Policy (CAP).¹⁴ In 2019, for example, 67% of land under organic production systems received specific CAP support.¹⁵

In March 2021, the European Commission launched its [action plan](#) for the development of organic production.¹⁶ Due to increasing demand by consumers for organic products, this plan outlines the actions intended to help the EU reach its [Farm to Fork Strategy](#) and [Biodiversity Strategy](#) target of “at least 25% of the EU’s agricultural land under organic farming and a significant increase in organic aquaculture by 2030.”¹⁷ The action plan has three interlinked axes:

- Axis 1: Stimulate demand and ensure consumer trust
- Axis 2: Stimulate conversion and reinforce the entire value chain
- Axis 3: Organics leading by example: improve the contribution of organic farming to environmental sustainability.¹⁸

This action plan is ambitious, as some EU countries currently exceed the above 25% goal, while others are working towards it. The new [CAP](#) (2023 – 2027) will support the implementation of the action plan through such initiatives as rural development commitments, eco-scheme funding, technical assistance, and farm advisory services.

Under the CAP, the [European Innovation Partnership on Agricultural Productivity and Sustainability](#) (EIP-AGRI) “works to foster competitive and sustainable farming and forestry that ‘achieves more and better from less.’”¹⁹ As stakeholders have made some notable advances in organic production already, knowledge sharing

13 European Commission. (n.d.). “What is GPP.” Retrieved from: https://ec.europa.eu/environment/gpp/what_en.htm.

14 European Commission. (n.d.) “Becoming an Organic Farmer.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/becoming-organic-farmer_en.

15 European Commission. (n.d.) “Organic Production – (EU27) – European Union 27 (excluding UK).” Retrieved from: <https://agridata.ec.europa.eu/extensions/DashboardIndicators/OrganicProduction.html>.

16 European Commission. (n.d.) “Organics at a Glance.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organics-glance_en.

17 European Commission. (2020.) *Farm to Fork Strategy: For a Fair, Healthy and Environmentally-friendly Food System*, p. 11.

18 European Commission (n.d.) “Organic Action Plan.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organic-action-plan_en.

19 European Commission. (n.d.) “European Innovation Partnership ‘Agricultural Productivity and Sustainability.’” Retrieved from: <https://ec.europa.eu/eip/agriculture/en/european-innovation-partnership-agricultural>.



and transfer is key. Organic farming is a common topic within the EIP-AGRI Operational Group (OG) projects set up so far, accounting for 69 of the OGs in 2022 (out of a total of 2,382 OGs). These projects can tackle a wide range of issues, such as horticulture, grassland management, and livestock systems. However, each project looks for a solution to a specific practice-related issue. Each project must contribute to the EIP-AGRI objective of promoting agricultural innovation that is more resource efficient, productive, low emission, climate-friendly, and resilient. In the process, the project must also operate in harmony with the essential natural resources on which farming depends. Operational Groups help to ensure that the knowledge and information reaches the field.

As well as policy initiatives, research and innovation are crucial and key enablers for reaching organic production targets. Under the EU's Research and Innovation programme [Horizon 2020](#) (2014-2020), the EU funded several research projects focused on organic farming. The European Commission contributed more than EUR 50 million of funding. The projects involved over 150 partners from more than 20 EU member states, as well as international partners. Under [Horizon Europe](#) (2021-2027), the European Commission aims to devote at least 30% of its research and innovation budget for agriculture, forestry, and rural areas to topics relevant to the organic sector.

ORGANIC FARMING PROJECTS UNDER HORIZON 2020

Horizon 2020 supported many collaborative projects focused on organic farming. A few of these projects included:

- LIVESEED – sought “to improve [the] transparency and competitiveness of the organic seed and breeding sector, encouraging greater use of organic seed.”
- Replacement of Contentious Inputs in Organic Farming Systems (RELACS) – sought to foster the development and facilitate the adoption of cost-efficient and environmentally safe tools and technologies to phase out dependency and use of contentious inputs in organic farming systems.
- CORE Organic – A network of European ministries and research councils funding transnational research in organic food systems.

Source: European Commission. (June 2019.) Agri-research Factsheet: Ecological Approaches and Organic Farming.

In January 2022, the European Commission introduced new [legislation for the organics sector](#). This legislation is intended “to ensure fair competition for farmers whilst preventing fraud and maintaining consumer trust.”²⁰ For example, the legislation simplified production rules, strengthened the control system, and created a new system of group certification to assist small farmers.

Overall, EU regulations help to standardize the production of organic goods across all member countries. These regulations help to ensure a fair marketplace for producers, distributors, and marketers, and to meet consumer demand.²¹ The EU uses a control and enforcement system to ensure all rules and regulations are followed. Producers, distributors, and marketers of organic products must be registered, inspected, and certified to market their products as organic, and undergo a minimum of annual checks. Certified organic products produced and sold in the EU are labelled with an organic logo.



Figure 1. EU organic logo

20 European Commission (n.d.) “The Future of Organics.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/future-organics_en.

21 European Commission. (n.d.) “Organics at a Glance.” Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organics-glance_en.



2.2 · CANADIAN POLICIES

In Canada, the federal, provincial and territorial governments committed to supporting sustainable food systems and building a resilient agriculture and agri-food sector in the face of climate change. The federal government is developing a green agriculture plan to establish a long-term vision and approach to agri-environmental issues in order to advance the sustainability, competitiveness, and vitality of the sector.²² As a result, governments are increasing their support and investing more in organic science and innovation, market access, development, and maintenance of assurance systems, etc.²³ These investments support efforts to reduce pesticide and chemical fertilizer use, improve soil health, accelerate the growth of domestic organic production, increase trade, and incentivize the adoption of innovative practices and technologies to help meet the growing demand for organic products.

Agriculture and Agri-food Canada (AAFC) is investing more than 25 million CAD in ongoing organic-specific and industry-led initiatives to foster the development and growth of the industry. These investments include:

- Further adoption of climate-smart practices for organic-certified producers
- Linking environmental sustainability to the science of organic production
- Increasing export sales of Canadian organic products and improving their competitiveness
- Strengthening organic supply chains for domestic and export opportunities
- Developing a national framework for the organic sector to ensure its sustainability and growth
- Supporting knowledge transfer and information sharing about best practices in the organic sector under the National Organic Ingredient Strategy
- Supporting internships in the organic sector through AAFC's [Youth Employment and Skills Program](#) in 2019-20 and 2020-21
- And implementing demonstration sites across the country to evaluate and showcase farmer-bred and Canadian-grown low-input organic seed varieties for commercial use

As part of the Government of Canada's climate plan, [A Healthy Environment and a Healthy Economy](#), the [Agricultural Clean Technology](#) (ACT) Program provides support to organizations in the agriculture and agri-food sector for developing and adopting clean technology.²⁴

The Canadian Food Inspection Agency regulates food labelled as organic. The food product must be certified as organic in accordance with the Canadian Organic Standards if it includes:

22 Government of Canada. (June 2022.) "Canada's 2030 Emissions Reduction Plan." Retrieved from: <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030/plan.html>.

23 L'Union des producteurs agricoles. (2021.) Rapport d'analyse "Analyse comparative de mesures de soutien à l'agriculture biologique du Québec avec celles d'autres juridictions."

24 Government of Canada. (2022). "Agricultural Clean Technology Program: Adoption Stream: Step 1. What this program offers." Retrieved from: <https://agriculture.canada.ca/en/agricultural-programs-and-services/agricultural-clean-technology-program-adoption-stream>.



- An organic claim on the packaging and is sold in another province or territory, or
- The Canada Organic Logo on the packaging and is sold domestically or internationally²⁵

While most provincial regulations on organics adopt the requirements of the Canadian Organic Regime, provinces can also develop their own organic regulations. For example, in 2000, the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) created the "reserved designation" for the term organic. Le Conseil des Appellations Réservées et des Termes Valorisants, which acts on behalf of MAPAQ, supervises this certification program.²⁶

Under its [2018-25 Biofood Policy](#), Quebec seeks to "develop a prosperous, sustainable and locally rooted biofood sector."²⁷ By 2025, Quebec wants to double its total acreage under organic production systems compared to 2015.²⁸ Quebec exceeded the target of 98,000 hectares (242,163 acres) in 2019, so plans to set a new target for 2025. The interim target for 2022 was 122,000 hectares (301,467 acres). Quebec also offers support to organic producers and farmers transitioning to organic production. For example, these producers can apply for grants to access technical and advisory services.²⁹ To improve income security for organic producers, Quebec has also adapted its crop insurance programs for organic crops, given the high risks involved in production and market access. Finally, Quebec has implemented a promotional campaign for organic products to help consumers better understand the comparative advantages of these products.

The national Organic Science Cluster (OSC) was launched in 2009.³⁰ It is now in the third iteration, spanning 2018-23, with a focus on Connecting Environmental Sustainability with the Science of Organic Production. The national Organic Science Clusters are industry-led research and development projects led by the [Organic Federation of Canada](#) in collaboration with the [Organic Agricultural Centre of Canada](#) at Dalhousie University. The Organic Science Clusters are supported by Agriculture and Agri-Food Canada and many organic sector partners.

To date, the Organic Science Clusters have supported research at more than 35 institutions including AAFC research stations, universities, and provincial research stations.³¹ As the organic sector spans the country geographically and includes almost all sectors in agriculture, the Organic Science Clusters are one of the most diverse Science Clusters supported by AAFC.

25 Government of Canada. (Dec. 2021.) "Organic Products." Retrieved from: <https://inspection.canada.ca/organic-products/eng/1526652186199/1526652186496>.

26 Le Conseil des Appellations Réservées et des Termes Valorisants. (n.d.) "Organic." Retrieved from: <https://cartv.gouv.qc.ca/en/recognized-designations/organic/>. And Le Conseil des Appellations Réservées et des Termes Valorisants. (n.d.) "About the Organization." Retrieved from: <https://cartv.gouv.qc.ca/en/who-are-we/our-organization/about-the-organization/>.

27 Gouvernement du Québec. (March 2022.) "Politique bioalimentaire." Retrieved from: <https://www.quebec.ca/gouvernement/politiques-orientations/politique-bioalimentaire/>.

28 Québec. (2021.) Plan d'action 2018-2023 pour la réussite de la politique bioalimentaire, Édition 2021, p. 12.

29 Canada Organic Trade Association. (March 2020.) The State of Organics: Federal-Provincial-Territorial Performance Report 2019, p. 17.

30 Organic Agriculture Centre of Canada. (n.d.) "Organic Science Cluster 1 (2009-2013)." Retrieved from: <https://www.dal.ca/faculty/agriculture/oacc/en-home/organic-science-cluster/OSC.html>.

31 Organic Agriculture Centre of Canada. (n.d.) "Organic Science Cluster 4 (2023-2028)." Retrieved from: <https://www.dal.ca/faculty/agriculture/oacc/en-home/organic-science-cluster/OSC4.html>.



RESEARCH UNDERWAY THROUGH ORGANIC SCIENCE CLUSTER 3 (OSC3)

OSC3's research centres on the themes of environment, field crops, horticulture, livestock, and pest management. A few of these projects are as follows:

- Development of breeding strategies for organic field crops and vegetables in Canada
- Welfare friendly alternative to surgical castration for organic pigs
- Soil health in organic tillage-based systems
- Biological options for controlling insect pests and diseases in fruits and vegetables

Source: Organic Agriculture Centre of Canada. (n.d.) "Organic Science Cluster III (2018-2023)." Retrieved from: <https://www.dal.ca/faculty/agriculture/oacc/en-home/organic-science-cluster/OSCIII.html>.

Planning is underway for Organic Science Cluster 4, scheduled for 2023-28.

2.3 · EU AND CANADA JOINT INITIATIVES AND EFFORTS

In 2011, the EU and Canada established an agreement to recognize the equivalency of each partner governments' organic production rules and control systems.³² Organic agricultural products certified in the EU can also be labelled as such in Canada and vice versa.

³² Government of Canada. (March 2021.) "European Union - Canada Organic Equivalency Arrangement (EUCOEA) overview." Retrieved from: <https://inspection.canada.ca/organic-products/equivalence-arrangements/eucoea-overview/eng/1328074578961/1328074648480>.



3

THE CURRENT STATE OF
THE ORGANIC SECTOR
IN CANADA AND THE EU



3 · THE CURRENT STATE OF THE ORGANIC SECTOR IN CANADA AND THE EU

3.1 · ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION

BENEFICIAL MANAGEMENT PRACTICES

Organic production brings many benefits for the climate, environment, soil, water, biodiversity and animal welfare.

Overall, organic production systems³³

- Support biodiversity at the species and ecosystem levels
- Improve soil health and soil structure
- Reduce the risk of nutrient losses and groundwater pollution, thus protecting water quality
- Reduce risks to the environment and human health by not using synthetic pesticides
- Contribute to carbon sequestration
- Contribute to improvements in animal welfare

Organic production systems also show greater promise than conventional systems for mitigating climate change through reduced greenhouse gas (GHG) emissions, researchers say³⁴

Organic producers use nature-based approaches in their management practices and avoid the use of synthetic inputs. Organic production practices help to drive innovation in agricultural sustainability.

Organic producers use many beneficial management practices (BMPs), including:

- Crop rotations to break disease cycles and maintain soil health
- Cover crops and other strategies to keep living roots in the soil as much as possible (e.g., biennial crops and underseeding cereals with clover)
- Smaller field sizes (which allow for more diversity of crops on a farm)
- The application of compost and/or compost tea
- Optimizing nitrogen use on the farm by growing legumes to fix nitrogen, diversifying crop rotation, and using approved organic inputs
- Hedges and windbreaks

33 Food and Agriculture Organization of the United Nations. (n.d.) "What are the Environmental Benefits of Organic Agriculture." Retrieved from: <https://www.fao.org/organicag/oa-faq/oa-faq6/en/>. And A.M. Hammermeister and M.E. Graves. (Dec. 2021.) 2021 Canadian Organic Research Priorities. Organic Science Cluster, p. 4. Retrieved from: https://issuu.com/organicsciencecanada/docs/2021_canadian_organic_research_priorities_final. And European Commission (n.d.) "Organics at a Glance." Retrieved from: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organics-glance_en.

34 12 K.M. Goh. (May 2012.) "Greater Mitigation of Climate Change by Organic than Conventional Agriculture: A Review." *Biological Agriculture & Horticulture* 27, p. 205.



Many organic producers fulfil the 4 Rs of carbon management, which are the right rotation, the right residue management, the right return of manure, and the right tillage intensity.

Organic producers recycle nutrients locally, which lowers the risk of emissions from the manufacturing, transportation and application of synthetic fertilizers used in conventional systems.

Some organic producers are experimenting with management practices to further improve the environmental sustainability of their farm operations. For example, some producers use roller crimpers in no-till management systems. This piece of equipment crimps a cover crop to kill it, so the producer does not have to till the field (or spray it, as in some conventional systems) before planting the next crop.

BALANCING ENVIRONMENTAL AND ANIMAL WELFARE CONSIDERATIONS

Organic producers balance environmental and animal welfare considerations in their management decisions. For example, producers can use confined production systems to control GHG emissions from livestock, but this housing system can have implications for animal welfare, workshop participants said. Organic systems typically aim for a lower livestock density in a pasture-based setting, as this approach helps to minimize the environmental impacts of livestock production while supporting animal welfare.

3.2 · INNOVATION IN THE VALUE CHAIN

OVERVIEW OF VALUE CHAINS

The demand for organic products is increasing.³⁵ In some cases, organic production cannot keep up with demand, or organic products do not reach those places where demand is highest. Lack of organic supplies in some areas is a common challenge for organic food processors.³⁶

Canada has both large and small-scale organic farm operations. In total, about 32% of organic farmland is used to produce grains and oilseeds and Canada exports these commodities. The country's shorter growing season means processors also rely on imports for some organic inputs. Many organic producers in Canada sell directly to consumers.

Notable differences exist in the organic value chains of the EU member states. For example, the organic sector in the central-eastern EU produces such raw materials as grains and oilseeds. These commodities are mainly exported; local value chains are less developed and direct-to-consumer marketing is less prevalent. Spain exports a lot of organic vegetables to northern European markets. Together, Spain and Italy produce nearly all the organic pasta that is produced in the EU. In the EU, a team of partners from eight countries are collaborating through ProOrg to develop a [Code of Practice](#) for organic processors and labelling organizations.³⁷

35 M. Rubiolo. (2022.) "Foreword from SECO." In *The World of Organic Agriculture. Statistics and Emerging Trends 2022*, edited by H. Willer et al. Research Institute of Organic Agriculture FiBL, Frick, and IFOAM – Organics International, Bonn., p. 11.

36 Górska-Warsewicz et. Al. (2021.) "Factors Limiting the Development of the Organic Food Sector—Perspective of Processors, Distributors, and Retailers." *Agriculture*, 11:882. Retrieved from: <https://www.mdpi.com/2077-0472/11/9/882/pdf?version=1631697349>. And P. Demetrakakes, (2021.) "The Supply and Demands of Processing Organic Foods." Retrieved from: <https://www.foodprocessing.com/articles/2021/supply-demands-of-processing-organic-foods/>.

37 ProOrg is an EU research project that is developing a practical and flexible Code of Practice for processors of organic food and labelling organizations.



Both short and long supply chains are necessary for a robust organic sector. Imported products can help to meet consumer demand for items with insufficient production levels in local regions. Imported products can give consumers access to a diversity of high-quality organic products. Commodities such as tropical fruits or coffee, for example, cannot be grown in some countries and regions. However, longer international supply chains raise questions about sustainability due to such considerations as increased carbon dioxide emissions from transportation. Therefore, new, systemic approaches and measures are needed that take into consideration the entire value chain. Research and innovation are vital to support this work.

PRODUCT DEVELOPMENT AND PROCESSING CAPACITY

The organic sector faces some regional or national constraints and bottlenecks throughout the supply chain. For example, organic producers across Canada and the EU face constraints with the current range of pest management products and some inputs, such as copper and mineral oils, which are contentious.³⁸ In Canada, the relatively small size of the organic primary production sector makes it difficult for companies to develop and register pest control products; the market is not large enough to warrant the time and financial investments in the product registration process. Typically, larger companies with international footprints register products for the organic market in Canada.

Since Canada is a geographically large and dispersed country, it can be challenging for small- and medium-scale businesses to establish value-added enterprises. However, at a regional level, many examples exist of successful, vertically integrated organic operations (e.g., [Mapleton's Organic](#) and [Pfenning's Organic](#)). Relatedly, an opportunity exists for investments in shared operations once organic production expands.

Currently, the organic value chain faces challenges with sufficient processing capacity, workshop participants said. For example, Canada does not have sufficient abattoirs to process organic meat. In the EU, the large differences between Member States in relation to the share of agricultural land dedicated to organic farming are partially due to the lack of structures adequate for the processing of organic farm products. Sufficient structures are crucial to enable the proper channelling of organic commodities and to allow farmers to fully benefit from the added value of organic production.

THE ROLE OF PROCESSORS AND RETAILERS

Some processors and retailers support producers in making the transition to organic systems. For example, the Canadian Organic Growers is leading a three-year pilot project on [regenerative organic oats](#). Through the pilot, organic oat growers receive assistance in their journeys to meeting the requirements for the regenerative organic certification. The pilot is funded by two food processors: Nature's Path and Riverside Naturals Foods. In Germany, the discount store PENNY uses its "[Naturgut Junior-Helden](#)" range to sell products from farmers who are transitioning to organic certification.

In 2021, eight partners in Belgium – including producers, a flour mill, a bakery, and an organic supermarket – worked together to develop a strong supply chain for 100% organic Belgian bread. The collaboration helps to ensure the necessary inputs and customers for each "step" in this supply chain. As consumer demand grows, opportunities for other supply chain stakeholders to participate may develop. This example shows how processors and retailers can work together to increase the availability of organic products.

Some retailers, such as the [Farm Boy](#) grocery chain in Ontario, emphasize organic and local products as the

38 European Commission. (June 2018.) "Organic Inputs – Contentious Inputs in Organic Farming." Retrieved from: https://cordis.europa.eu/programme/id/H2020_SFS-08-2017.



new normal, rather than keeping these products in specialty sections. Other small- to mid-scale grocers in Canada – such as [The Big Carrot Community Market](#) and [Mama Earth Organics](#) – were also identified as positive examples. Shelf availability for organic products in stores is crucial. Consumers must see more organic products on the shelves.

3.3 · SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION

COMMUNITY AND ECOSYSTEM HEALTH BENEFITS

Organic production offers many important socio-economic benefits.

As organic producers use biological ways to control pests and enhance the diversity in the landscape to reduce pest pressures, these producers reduce pesticide use and risks. As a result, organic producers themselves could be exposed to fewer risks associated with pesticide use. Nevertheless, contentious inputs (e.g., copper), which are quite harmful for the environment, remain in use in some cases. Research is underway to find alternatives.

As organic producers also have reduced fertilizer use, local communities benefit from lower water pollution risks. Organic producers also do not use antimicrobials or genetically modified organisms (GMOs).

Organic production systems lead to more job creation on farms and in rural areas due to the typically higher labour intensity of organic systems compared to conventional systems, workshop participants said. Organic farms can also contribute to rural development as there can be mutually beneficial synergies with tourism.

Producers can often make a living on smaller acreages compared to conventional systems, some participants said. The expansion of the organic sector at a regional scale can also help to reinvigorate rural communities through additional businesses and local economic activity.

FAIR ACCESS TO HEALTHY AND QUALITY FOOD

Organic fruit and vegetable production in Canada and the EU tends to support local food systems, while grain production supports both local and export markets, workshop participants said.

Place-based projects engage ordinary citizens in projects which have positive impacts in their communities. These projects also support the closer interaction of consumers and producers. An [initiative](#) in the Madrid region of Spain, for example, connects consumers with local producers and local products. Joint public-private [crowdfunding campaigns](#) are even used to support local food projects. The [Alimentando al Campus initiative](#) uses local, sustainable foods in six university cafeterias, offers an online course to help stakeholders learn about sustainable sourcing for cafeterias, and hosts farmers markets on campuses.

In France, organic production stakeholders developed a program in 2008 to reduce water pollution problems in Vannes Valley. When the program began, only 1% of farmland was used for organic production. Now, this figure has reached 25%. This project began with a focus on water quality but has since expanded to a focus on local foods. Organic products from the local community of Vannes Valley are being introduced in public school canteens.

In some communities in Italy, organic producers aim to make their products more accessible and affordable for lower income households, workshop participants said.



3.4 · OVERARCHING THEMES

Organic agriculture is an internationally recognized system of production guided by principles and regulated standards in the EU and Canada. As such, many common themes ran throughout the breakout group discussions. The key points related to these themes are presented in this section of the report, as clear synergies existed between the individual breakout room discussions.

EXPERT ADVISORS

Organic stakeholders throughout the supply chain often lack sufficient access to expert, independent advisors. For example, producers may not have local advisors, such as agronomists, who specialize in organic agriculture. As a result, organic producers may be left to troubleshoot production challenges themselves, workshop participants said.

In Canada, provincially organized producer organizations are vital catalysts for knowledge exchange between producers, researchers, and extension specialists. However, many of these organizations struggle to maintain continuous support and funding to operate their offices.

RESEARCH AND INNOVATION

Research is underway across the EU and Canada to support and advance the organic sector, with scientists studying topics such as crop breeding, disease and pest management, animal husbandry, and socio-economic issues and opportunities.

The strengths of [Horizon Europe](#) (2021-2027) include the European Commission's intention to dedicate 30% of research and innovation funding in the areas of agriculture, forestry and rural development to organic-relevant projects. Unlike in Canada, EU recipients do not need to secure matching funds from industry partners to leverage government funds for research and innovation.

In Canada, the Canadian Organic Growers is releasing a series of research reports from its [Canadian Access Project](#), which explored the barriers in supply chains and possible solutions to these barriers.³⁹ Through this project, the Canadian Organic Growers ranked barriers, examined their market impacts, and identified leaders to help mitigate or eliminate the barriers. The national Organic Science Cluster program supports input development and testing, breeding, production systems improvements, and value-added product development. Leaders of the Organic Science Cluster program are conducting an impact analysis to determine if and how research is impacting stakeholders, and which research and dissemination approaches have the greatest impact. Some Canadian researchers focus on disease and insect management in organic production systems. For example, work is underway on biological controls and treatments to promote healthier plants and soils. Canadian scientists are also developing smart tools for record keeping, pest monitoring and management, and weed control. However, many of these smart technologies are out of the reach of smaller-scale producers.

While the current research landscape has notable strengths, workshop participants highlighted that the sector would benefit from more scientists, technologists, and product development specialists focused on organic production and processing, particularly in Canada.

39 The reports focus on the commodities of beef, blueberries, carrots, field peas, oats, and salad greens.



INDUSTRY DATA AND METRICS

Governments collect data on several aspects of the organic sector, including the number of acres under organic production, organic crop production estimates, and organic livestock numbers. The EU, for example, has a robust [website](#) dedicated to organic farming statistics. In Canada, key statistics are available through both the [federal government](#) and the [Canada Organic Trade Association](#).

The industry would benefit from detailed metrics on the actual practices and inputs used on organic farms across Canada and the EU. Control bodies typically do not have access to farm-level data. For example, industry stakeholders do not have a clear sense of the contentious inputs, such as pesticides, used on farms. The industry also needs more information on the pesticide load index, rather than simply looking at the active ingredients used in the pesticides. This farm-level data is crucial for telling the story of the benefits of the organic sector. This information is also critical to support continuous improvement in the sector; the industry would benefit from a clear baseline to set targets and measure improvements, workshop participants said.

Relatedly, the organics sector does not always collect data to help verify its standards. For example, the [Canadian Organic Standards](#) requires producers to maintain their soil fertility and to maintain or increase their soil organic matter. However, the standard does not require producers to conduct soil tests, so stakeholders cannot know if Canadian organic producers meet these requirements. [Regenerative Organic Certified](#), in contrast, requires soil health testing. While some variability may exist from year to year, these tests show positive trends in soil health over time.

Projects are underway to help address gaps in industry data and metrics. In Germany, for example, the Bioland Foundation is working on a project on GHG climate balancing in organic agriculture. Farmers enter key data related to their crop and livestock production practices, and an algorithm calculates their climate balances.

The sector would benefit from more data relating to consumer demand as well as the global supply of organic inputs, outputs, and ingredients. Producers, processors, and input suppliers need current data to make sound business decisions, including for investments in the organic sector.

Overall, opportunity exists for both Canada and the EU to enhance the collection and quality of data to support decision-making throughout the value chain.

PRICING CONSIDERATIONS AND POLICY

Although organic farmers can begin operations with fewer acres, farmland prices and the competition for land can still make it difficult for first-generation producers to enter the industry, workshop participants said. Organic inputs are also more expensive as they are typically produced in lower volume and are less accessible.

Organic livestock and poultry producers are challenged by high prices for feed, as organic grain farmers often focus on the production of premium, food-grade grains. As a result, organic livestock producers typically need to scale up to realize production efficiencies and/or grow their own grain for feed. Both options require sufficient capital, and integrated crop-livestock operations require more diversified knowledge.

High demand for organic products can lead to higher prices for farmers, as the case of Canadian maple syrup shows. The higher prices for organic products, however, can make them inaccessible for consumers. The tendency to position organic products as “premium products” in niche markets limits the growth of the sector. Decisions made at the retail level also contribute to higher prices for organic products. The cheaper prices of conventional products often make them more appealing and accessible for cost-conscious consumers. However, the argument could also be made that conventional products should not be so cheap considering the potential environmental costs of more intensive modes of production.



Producers experience push and pull factors when deciding to transition from conventional to organic systems and vice versa. Some producers are committed to the principles of the organic production system while others are responsive to market opportunities, workshop participants said. If prices of conventional commodities are high enough, some producers may decide to return to conventional systems. The difference in prices between conventional and organic commodities is a big factor in some producers' decisions to enter and stay in organic systems.

CONSUMER TRUST AND CONSUMER DEMAND

The certification of organic products supports public trust, as consumers can learn where and how their food was sourced. Safeguards are in place to help prevent fraud. Workshop participants noted that false advertising (i.e., products claiming to be organic that are not certified) poses a risk for the organic sector. While it takes a long time to build consumer trust, it can be easily broken, which hurts the value chain and consumers. The industry must be proactive in supporting and ensuring consumer trust.

For about a decade in Austria, demand for organic products exceeded production, which led consumers to be key drivers in growing the country's organic sector. Now, about 26% of the land cultivated in Austria is used for organic production.

In Canada, organic products gradually became popular over a span of about 25 years. The use of organic products in television cooking shows, the increased prevalence of specialty organic stores, and certification bodies helping to create trust all played a role in this process. Consumers also demand more organic products. For example, Canada has experienced a significant increase in demand for organic baby food in the past few years.

Consumer demand is the main incentive for conversion of farmland from conventional to organic production systems, workshop participants said.

MESSAGING FOR CONSUMERS

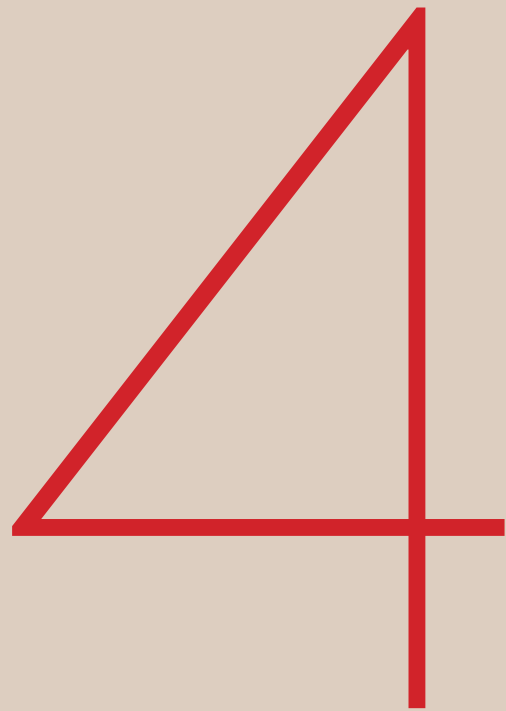
Across the EU and Canada, differences exist in how well consumers recognize and understand organic labels, workshop participants said. In the EU, over 60% of consumers know of the "organic farming" logo.⁴⁰ In Canada and the United States, organic labels face additional competition from labels such as "non-GMO" and regenerative agriculture, so consumer recognition of organic labels might not be as strong as in the EU.

Consumers increasingly seek options to better understand the sustainability of the products they can purchase. To help meet this demand, researchers in the Madrid Region of Spain designed and piloted the [Sustainability Flower](#). The label shows a flower with six petals which provide scores on the following categories:

- Energy and carbon
- Water
- Social and labour
- Packaging
- Distance
- Biodiversity and soil

Clear and transparent labelling is key to consumer trust and the growth of the sector.

40 European Commission (2022.) Special Eurobarometer 520 Report: Europeans, Agriculture and the CAP, p. 134.



OPPORTUNITIES FOR
THE ORGANIC SECTOR
IN CANADA AND THE EU



OPPORTUNITIES FOR THE ORGANIC SECTOR IN CANADA AND THE EU

4.1 · ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION

Support should be provided for continuous maintenance and improvement of the organic standards, workshop participants said. This approach will help to ensure the latest beneficial management practices are reflected in the standards, thus advancing the pursuit of ongoing improvement in sustainability. This approach will also help to ensure continued consumer confidence.

4.2 · INNOVATION IN THE VALUE CHAIN

To help overcome limitations in processing capacity, the organic sector can continue to explore innovative solutions. In Canada, for example, regional, provincial, and federal funding agencies should extend investment opportunities to smaller- and mid-scale abattoirs and processors, as the current system is more targeted to larger-scale operations. Opportunities may also exist to streamline regulatory requirements for smaller abattoirs and processors while still maintaining high food safety and animal welfare standards. Training and education, particularly through the provision of advisory services, is key. Regional development opportunities should be identified and supported; subsidies could assist with this work. Canadian pilot projects are underway with mobile abattoirs to help meet the needs of the organic meat sector.

THE ROLE OF PROCESSORS AND RETAILERS

Processors and retailers can support producers in making the transition to organic systems. Most importantly, building relationships between processors, retailers, and farmers is critical. For example, processors and retailers could provide funding for education on organic production methods, as well as modest premiums for commodities produced during the transition period to organic certification. While only two examples are provided, actors throughout the supply chain can look for opportunities to collaborate to meet market demands and develop new organic products.

Retailers can also support the growth of the organic sector by ensuring shop shelf availability for organic products and incorporating them throughout their stores, rather than keeping them in specialty areas. For example, organic pasta should be located next to conventional pasta on grocery shelves. Policymakers could help to ensure organic products can reach retail shelves.

A code of practice for retailers could benefit the Canadian organics sector. A Steering Committee is currently collaborating to [draft a Grocery Industry Code of Conduct](#). Canadian organic sector stakeholders could learn from their EU colleagues, as the EU has its [Code of Conduct on Responsible Food Business and Marketing Practices](#).

SUPPORTS FOR THE ENTIRE VALUE CHAIN

That the entire value chain would benefit from more support for transitioning from conventional to organic production and processing, as well as for certification and risk mitigation, workshop participants said. All players – stretching from producers through retailers – need to implement and maintain controlled practices to ensure the integrity of organic products, which brings added costs. More industry support would help to offset the extra risks, labour, costs, and administrative burden associated with managing organic inputs and products.

Farmers converting to organic production methods often face some knowledge barriers and they also go through a transition period before they can sell their products as certified organic. Financial and educational



support for farmers during this transition period can be key to their overall success. Once farmers successfully transition to organic production, however, they can still face production challenges. These producers should continue to receive support to ensure they do not face hurdles which lead them to return to conventional systems.

Livestock systems require special support due to additional controls relating to slaughter and processing. Support is needed to ensure small and mid-size producers can access abattoirs and processing facilities that meet organic standards.

Government support should include financial support, investments, and policy updates, workshop participants said. These policies should be flexible so they can be adapted to local conditions. Canadian agricultural policies tend to focus on the export market; an opportunity exists to prioritize local food systems. Education and training, particularly through the provision of advisory services for organic sector stakeholders, are vital.

Community-supported agriculture (CSA) programs and pilot programs can leverage consumer support for research and development initiatives to assist organic producers.

4.3 · SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION

MORE FOCUS ON PLACE-BASED PROJECTS

Place-based projects – including initiatives in Vannes Valley, France, Madrid, Spain, and the [bio-districts in Italy](#) – enable consumers to become more involved in the organic sector. Increased focus on place-based projects supports land conversion to organic production and enhances civic engagement. These projects can strengthen relationships between producers and consumers, and increase consumers’ awareness of the benefits of organic production. As a result, consumers can be better equipped to make informed purchasing decisions. Stakeholders in more regions should collaborate to develop more bio-districts and place-based projects across the EU and Canada. These initiatives would both advance the organic sector and benefit the community.

4.4 · OVERARCHING OPPORTUNITIES

The breakout groups identified many shared opportunities. The key points related to these opportunities are presented in this section of the report.

EXPERT ADVISORS

Overall, stakeholders throughout the value chain would benefit from more access to expert advisors and extension specialists to assist with finding solutions to production and processing challenges. At the farm level, producers would benefit from access to more organic-focused advisors, such as agronomists and veterinarians. Trained experts – including researchers and developers – can help bring new knowledge and technology to practice throughout the value chain.

In Canada, provincially organized producer organizations would benefit from more support, as they serve as valuable connectors between producers, researchers, and extension specialists.



RESEARCH AND INNOVATION

Researchers tend to focus on one specific element of organic production systems, workshop participants said. For example, some research currently centres on the carbon dioxide emissions that can accompany increasing biological activity in the soil. However, to better understand the environmental benefits of organic production, researchers must prioritize a multi-disciplinary systems approach.

For example, GHG emissions can be estimated more easily on an annual basis in a conventional crop which depends on fertilizers and pesticides applied within a single growing season. In contrast, an organic crop depends on building soil fertility and pest management that occurs over several years within a crop rotation cycle, and often over several cycles of a rotation. Thus, scientists must take a systems approach to lifecycle analysis to understand the GHG emissions generated on organic farms to be able to compare those emissions to the emissions generated on conventional farms. The GHG emissions from manure applications in organic fields should not be simply compared to the emissions from synthetic fertilizer applications in conventional systems. Rather, the comparison should also factor in the GHG emissions from the manufacture and transportation of the synthetic fertilizer, as well as the transportation of the manure. Calculations should factor in the carbon dioxide emissions for importing inputs and exporting products. Similarly, a systems approach to understanding the impacts of cover crops in organic systems would quantify GHG emissions and analyse the benefits of this management practice for the soil.

By using a systems approach, researchers will be able to better identify a full range of solutions to production challenges and the environmental benefits resulting from organic systems.

A multi-disciplinary approach to organic research should also draw on the expertise of the social sciences. For example, social scientists could explore the changing motivations of organic producers and collaborate with other scientists to better understand the production and environmental impacts of these motivations. While women and youth are already involved in the organic sector, researchers could study how to further increase inclusion, diversity, equity, and accessibility in the sector, workshop participants said. More socio-economic research would enable sector stakeholders to better understand consumer motivations and the drivers of the whole organic system. Ultimately, policymakers could use the findings from these studies to design policies to increase support for the sector.

Stakeholders must implement ecological innovations alongside technological innovations. By taking this approach, stakeholders can develop new agroecological ideas and explore system redesign opportunities.

Paired studies – involving both conventional and organic systems – are important to facilitate shared learnings. Direct comparisons of organic and conventional systems require a long-term commitment from researchers and funding agencies. Some research funding should also be earmarked specifically for organic production systems to help overcome sector-specific challenges.

Further research can support organic production systems. While the following list is not exhaustive, workshop participants highlighted the following key areas of interest at the farm level:

- Developing a broader range of sustainable pest management products and strategies (e.g., finding alternatives to contentious inputs)
- Improving productivity by optimizing ecological processes on the farm
- Making smart technologies, such as for record keeping and pest control, accessible for all sizes of organic operations
- Improving biodiversity
- Improving efficiency and yield to improve the affordability of organic products
- Identifying methods to advance mixed farming systems



The sector could benefit from learning about organic production methods in other regions. For example, Canadian research on organic livestock production is limited. Perhaps Canadians could leverage key learnings from their EU counterparts. Pest control practices are also often transferrable across similar production systems and agro-climatic zones.

The organic sector would benefit from more post-farm gate research in the following areas:

- Identification of bottlenecks in organic value chains, such as in processing, and solutions to these challenges
- Organic value chain structures
- Shelf-life enhancement for organic products
- Environmentally friendly packaging options
- Consumer demand and market supply
- Behavioural economics and consumer drivers
- Improving efficiency of supply chains

SHARED LEARNING AND KNOWLEDGE TRANSFER

Peer-to-peer learning

Peer-to-peer learning advances organic production and processing practices. Networking and knowledge exchange should happen both locally and broadly. While workshop participants highlighted the importance of peer-to-peer knowledge exchange throughout the value chain, discussions largely centred on the producer level. Producers benefit from connecting with peers in their local areas, as they typically experience similar growing conditions and production challenges. Eastern Ontario, for example, has a peer-to-peer network with integrative mentorship, financial incentives, and on-site experimental learning. Similarly, a group of producers in Saskatchewan shared ideas on environmentally beneficial production techniques, such as intercropping and reduced tillage.

Connecting with peers further afield is also helpful, as they might have new perspectives and management strategies to share with their colleagues. A range of tools – such as social media groups, facilitated discussions, and shared multimedia materials (e.g., pictures, videos, and podcasts) – can be used to stimulate discussion.

Financial support can foster this peer-to-peer learning. Many farmers find it helpful to see new practices “on the ground,” and to be able to ask fellow producers questions in person. For example, producers can discuss technical matters, such as machinery settings.

Knowledge exchange between producers and researchers

The sector would benefit from increased opportunities for collaborative research and knowledge exchange between researchers and farmers; both groups can learn from one another. The Living Lab model – used in both Canada and the EU – could be leveraged to support this knowledge exchange. For example, the [EU Mission: A Soil Deal for Europe](#) seeks to create 100 Living Labs and Lighthouses, with a focus on soil health, by 2030. These Living Labs and Lighthouses use a multi-actor approach to research. Living Labs are spaces for co-creation of solutions to local needs, putting the farmer at the centre of the research and innovation activities, thus accelerating progress on the ground.



An upcoming EU R&I partnership will focus on agroecology Living Labs and research infrastructures.⁴¹ Researchers and farmers involved in Living Labs in Canada and the EU could collaborate to further explore, for example, carbon management in farming systems. Integrating organic and conventional production systems into the Living Lab model is beneficial.

Producers are good at developing innovative ideas. However, producers often lack the time to collect and analyse the data to quantify the impacts of new practices. Researchers should collaborate with producers to test new ideas and share knowledge with broader networks. However, on-farm research involves additional costs associated with, for instance, distance of travel. Sometimes it is difficult to scientifically publish on-farm research; recognition and incentives should be provided to researchers to conduct work on farms with producers. Such programs should not require matching cash contributions as farmers provide in-kind support. However, the lack of compensation measures for producers in case of failure of the innovations they are helping to test can be an important limiting factor.

Farmers and researchers can also collaborate to better understand which BMPs lead to the most beneficial environmental outcomes. For example, farmers often assume their practices lead to positive environmental outcomes, but they cannot always document or quantify these benefits in terms of the amount of carbon sequestered, the quantity and diversity of pollinators, etc.

Within the research community

Typically, research projects are time-bound, which can hinder knowledge development as scientists must regularly secure new funding. As a result, stakeholders tend to focus on short-term outcomes. However, the sector should also prioritize long-term capacity building and long-term engagement. In the EU, stakeholders are trying to address the challenge of time-bound research by undertaking longer-term research and innovation initiatives involving EU Member States. The candidate European partnership on agroecology Living Labs and research infrastructures is one such initiative that aims to bridge this gap.

The organic sector would benefit from the expansion of the network of publicly funded organic research mechanisms to include private networks.

The creation of more centralized databases would enable scientists to identify, leverage, and build on previous research more easily. The sector would benefit from more financial support to help aggregate data and research findings. Some work is underway on this front at the [Organic Agriculture Centre of Canada](#) at Dalhousie University in Nova Scotia. The sector can continue to leverage and promote the [Organic Eprints](#) open-access archive, which includes both research papers and information on relevant organizations, facilities, and projects. Through its R&I programme, the EU funds thematic networks focusing on the organic sector. These thematic networks collect easily accessible practice-oriented knowledge. The networks focus on existing innovative solutions, best practices and research findings that are ready to be put into practice, but not sufficiently known or used by practitioners.

Increased knowledge exchange between Canada and the EU would also be beneficial, workshop participants said. For example, as the [Canadian organic aquaculture production standard](#) is relatively recent, Canadian stakeholders could benefit from knowledge exchange with their EU counterparts.

Industry data and metrics

In addition to the provision of basic Government statistics on the organic sector (e.g., acreage, production and trade data), new tools and techniques are emerging for data collection and

41 European Commission. (n.d.) "European partnership for accelerating farming systems transition: agro-ecology living labs and research infrastructures." Retrieved from: https://ec.europa.eu/info/files/european-partnership-accelerating-farming-systems-transition-agro-ecology-living-labs-and-research-infrastructures_en.



measurement. One such technique is combining geospatial data and direct measurements with machine learning and predictive mapping. Remote sensing offers enormous potential – particularly in the more expansive Canadian landscapes – for gathering a more fulsome picture of organic production systems, workshop participants said.

The creation of monitoring networks could benefit the sector. For example, Prince Edward Island has a georeferenced network of sites across all land uses. So far, this network has collected 25 years of ecological data. The organic operations in this network could become part of a broader organic sector monitoring network. The sector could also benefit from the creation of a monitoring network for biodiversity.

Researchers can leverage tools, systems, and methodologies from other sectors to support organic production. For example, some tools have been developed to estimate and/or track GHG emissions from the Canadian oil and gas industry; these tools could be studied and refined for use in the agricultural industry, workshop participants said.

Industry stakeholders should collaborate in the collection of farm-level management information. Often, producers share this farm-level data with their inspectors, but this information does not necessarily reach the controlling bodies. When analysing farm level data, the process-based approach (i.e., measures for management practices) should be coupled with the indicator-based approach (i.e., success indicators). Compensation could help to incentivize farmers and data collection agencies to compile and share their data.

Landscape-level measurements are also key, as this type of data provides a broader view of the system as a whole. If desired, researchers can use machine learning and algorithms to extrapolate from these landscape-level measurements to better understand what might be happening on the farm and field-levels. Examples may include habitat conversion to support biodiversity, or management of lowland areas and related carbon pools versus GHG emissions.

More fulsome data in the organic sector would help to inform decision-making processes and communications throughout the value chain, workshop participants said. In Germany, for example, stakeholders are developing indicators so that policy support can be more closely associated with the environmental benefits of organic farming.

The value chain would benefit from more information about consumer demand, market opportunities, and supplies of primary products and ingredients. The sector would also benefit from more information about the link between agricultural systems and socio-economic value. Processors and retailers could use this data to make decisions about investments in infrastructure, as well as product and market development.

Ultimately, more fulsome industry data could be used to better educate consumers about the many benefits of organic products.

Pricing considerations and policy

Organic products are often positioned, and priced, as premium products. Cost can be a barrier to some consumers who base purchasing decisions on price only. Although, as noted earlier in the report, some people would argue that the cost of conventional products are artificially low due to the lack of accounting for negative externalities.

Finding the correct balance between fair compensation for organic producers and affordable prices for consumers will be critical to the ongoing development of the organic sector. Under the current system, organic farmers internalize a range of costs associated with the provision of ecological goods and services, and organic consumers help to cover these costs through the premiums for organic products. Direct government support for these ecological goods and services would help to ensure



a good return for farmers while making organic products more affordable for consumers, workshop participants said. This support could also help to encourage conventional producers to transition to organic systems. Increased research and knowledge sharing about BMPs to improve farm-level efficiencies could also help to improve product affordability.

Consumer trust and consumer demand

To protect and enhance consumer trust in organic products, stricter monitoring and enforcement of organic regulations is necessary, workshop participants said. The sector must swiftly deal with any issues of false advertising. Some value chain stakeholders would welcome the opportunity to collaborate with governments on this front. The value chain must also maintain transparency. Continuous maintenance and improvement of the organic standards would help to maintain consumer confidence, workshop participants said.

When possible, shortening the supply chain will help to increase consumers' sense of security. Shorter supply chains can also help to decrease the sector's carbon footprint.

To increase consumer demand, the whole value chain needs to collaborate to increase the availability of organic products; consumers must see more organic products on the shelves. An ongoing strategy is necessary to support growth in organic demand. Denmark is a successful example of how promoting organic sales can increase consumer demand. However, the consumer demand factor can be a bit of a catch-22. On the one hand, organic products need to be more available to increase demand. On the other hand, value chain stakeholders can be leery of transitioning to organic products because of concern over limited consumer demands. To help offset this concern, the increased product availability must exist alongside ongoing consumer education, branding, and promotion to help drive a change in consumption practices.

Messaging for consumers

The organic sector would benefit from strong and clear messaging. Messages about organic products should be grounded in their value proposition, which centres on the guiding principles of ecology, health, fairness, and care. These principles are promoted by the [International Federation of Organic Agriculture Movements](#) (IFOAM Organics International). Stakeholders should develop and implement tools to demonstrate that value and to show how organic products help to improve sustainability.

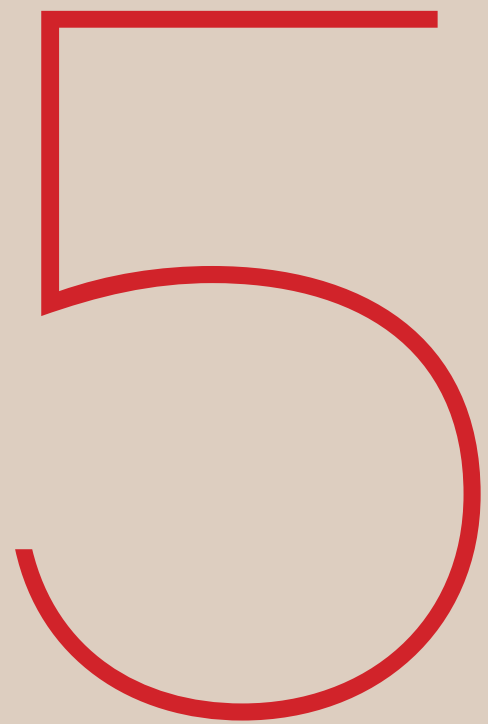
Mass media campaigns should help to educate consumers about:

- The regulations and certification process for organic production and processing systems
- How to identify certified organic products
- The environmental benefits of organic products
- The broader ecological goods and services organic operations provide
- When commodities are in season locally

As new consumers continue to enter the marketplace, promotional and educational organic campaigns must be ongoing.

The sector should leverage the expertise of communications professionals to help strengthen consumer trust. These individuals should draw on the knowledge of organic researchers and experts and leverage the clout of influencers.

Storytelling, in terms of sharing the experiences of producers, is also a powerful communications tool.

A large, stylized red number '5' is centered on the right side of the page. The background is a light beige color with several curved, overlapping lines in a slightly darker beige shade that sweep across the page from the top left towards the bottom right. The top of the page is a solid red color.

5

CONCLUSIONS WITH
RECOMMENDATIONS



CONCLUSIONS WITH RECOMMENDATIONS

Through the adoption and use of organic production systems, the economic, environmental, and social sustainability of the agricultural industry can be increased. Organic producers take a systems approach and implement site-specific practices to meet local conditions. This workshop explored the current state of the organic sector in the EU and in Canada and identified opportunities to advance it.

Producers, of course, are central to the success of the organic sector. Beyond production, the rest of the value chain, including processors and retailers, is also vital to the success of the organic sector.

Research will advance knowledge to support the resilience and sustainability of the organic sector. For example, researchers are exploring ways to improve pest management and weed control at the farm level, as well as to find solutions to bottlenecks in organic supply chains. Expert advisors, extension specialists, and producer organizations help to disseminate knowledge throughout the value chain.

Public authorities play a key role. The public sector more generally can prioritize sustainable procurement policies by purchasing local and organic products. In the process, the public sector can inspire consumers to become more mindful of their purchasing decisions.

Consumers are crucial to the growth of the organic sector; consumer demand will drive the sector's expansion. Consumer trust, fostered by clear messaging, robust and rigorously enforced certification standards, and relationships with producers, underpins this demand.

This diversity of stakeholders – spanning the entire value chain from producers through to consumers and including researchers and public authorities – must collaborate to advance the organic sector. The following recommendations will help these stakeholders chart an action-oriented path ahead to continue to support the economic, environmental, and social sustainability of the organic sector.

RECOMMENDATIONS FOR THE SCIENTIFIC COMMUNITY

- 1. Strengthen scientific networking between the EU and Canada to address regional, national, and global gaps in knowledge related to organic production systems.**
 - 1.1.** Leverage findings from European and Canadian counterparts to develop studies tailored to regional and local conditions.
 - 1.2.** Strengthen and expand centralized databases for knowledge exchange among researchers, building on the work underway through the Organic Agriculture Centre of Canada at Dalhousie University in Nova Scotia and the Organic Eprints open-access archive.
- 2. Focus first and foremost on the resolution of identified bottlenecks in the organic value chain, while taking a systems and multidisciplinary approach.**
 - 2.1.** Leverage systems thinking and lifecycle approaches to compare organic and conventional systems more accurately.
 - 2.2.** Collaborate with social scientists to understand producer and consumer motivations, and their associated environmental impacts.
 - 2.3.** Prioritize research that addresses bottlenecks in the organic supply chain to help increase the availability of organic products.
- 3. Disseminate research results rapidly and extensively.**
- 4. Develop a baseline of measurements for the organic sector. Use this baseline to showcase the sustainability of the sector and to identify opportunities for advances.**
 - 4.1.** Collaborate to advance data collection and analysis systems for the organic sector.



- 4.2. Explore opportunities to develop systems to share aggregated data throughout the supply chain. Engage supply chain stakeholders in the process to ensure sector alignment and to protect individual privacy.

RECOMMENDATIONS FOR THE VALUE CHAIN

5. **Collaborate with, and support, other actors in the value chain during their transition to organic production and/or processing.** Retailers and processors should provide financial investments for training in organic production practices, market opportunities for producers in the transition process, and value chain collaborations to bring new organic products to market.
6. **Enhance the availability and affordability of organic products through mature and efficient supply chains.**
 - 6.1. Review store procurement policies and procedures to help ensure fair market access opportunities for organic products, including products from local producers and smaller processors.
7. **Ensure a fair distribution of added value throughout the supply chain.**

RECOMMENDATIONS FOR PUBLIC AUTHORITIES

8. **Ensure funding opportunities, programs and policies support the broad diversity of organic supply chain stakeholders (e.g., all sizes of operations, operators transitioning to organic production, and operators who have transitioned to organic production).**
 - 8.1. Continue to support education, training, and advisory services for the conversion to and maintenance of organic production systems.
 - 8.2. Explore opportunities to develop more targeted support for innovative solutions to organic sector challenges, such as mobile abattoirs.
9. **Support the control of organic standards to ensure consumer confidence.**
10. **Continue to advance the organic sector through such initiatives as the provision of school education on sustainable food, green public procurement, and advisory services for the conversion and maintenance of organic systems.**

RECOMMENDATIONS FOR ALL ORGANIC PRODUCTION STAKEHOLDERS

11. **Prioritize shared learning and knowledge transfer throughout the organic value chain.**
 - 11.1. Build on the success of the Living Labs and Lighthouses initiatives to advance collaboration between farmers and researchers in support of organic production systems.
 - 11.2. Strengthen the professional capacity (e.g., researchers, agronomists, nutritionists) in the organic sector to provide advisory services for stakeholders.
12. **Collaborate to maintain and improve consumer trust in organic products, which will ultimately help to increase consumer demand.**
 - 12.1. Strengthen public information campaigns to increase and sustain consumer knowledge of organic production systems and products.
 - 12.2. Develop more opportunities for consumers to build direct connections with organic producers, drawing on the successes of place-based initiatives.



ANNEXES



ANNEXES

6.1 · WORKSHOP AGENDA



AGENDA

OPENING PLENARY SESSION

08:45 – 09:40 EST/14:45 – 15:40 CEST

Moderator:

- **Bronwynne Wilton**, Principal and Lead Consultant, Wilton Consulting Group

Speakers representing the European Union:

- **Henri Delanghe**, Deputy Head of Organics, Directorate-General for Agriculture and Rural Development, European Commission of the EU
- **Kerstin Rosenow**, Head of Research and Innovation, Directorate-General for Agriculture and Rural Development, European Commission of the EU

Speakers representing Canada:

- **Claire Mullen**, Director, Climate Policy and Partnerships, Agriculture and Agri-Food Canada
- **Alain Fournier**, Director General of Regional Development, Ministry of Agriculture, Fisheries and Food Quebec

BREAK (5 MINS)

PARALLEL BREAKOUT SESSION

09:45 – 11:00 EST/15:45 – 17:00 CEST

BREAKOUT SESSION 1

Environmental benefits of organic production

Moderator:

- **Stuart Oke**, Vice President of the Canadian Organic Growers, current Youth President of the National Farmers Union and an active certified organic farmer in Ontario

Rapporteur:

- **Dr. Katalin Balazs**, Researcher and Member of the European Association of Environmental and Resource Economists



PARALLEL BREAKOUT SESSION
09:45 – 11:00 EST/15:45 – 17:00 CEST

BREAKOUT SESSION 2
Innovation in the value chain

Moderator:

- **Camilla Patten**, Marketing Manager, Canadian Organic Trade Association

Rapporteur:

- **Dr. Andrew Hammermeister**, Director, Organic Agricultural Centre of Canada, Dalhousie University

BREAKOUT SESSION 3
Socio-economic benefits and drivers of organic production

Moderator:

- **Dr. Gerald Schwartz**, Researcher, Thünen-Institute of Farm Economics, UNESCO project coordinator

Rapporteur:

- **Dr. Susanne Padel**, Researcher, Thünen-Institute of Farm Economics

BREAK (5 MINS)

CLOSING PLENARY SESSION
1:10 EST – 12:15 EST / 17:10 – 18:15 CEST

Lead Moderator:

- **Bronwynne Wilton**, Principal and Lead Consultant, Wilton Group

Rapporteurs from breakout sessions:

- **Dr. Katalin Balazs**, Researcher and Member of the European Association of Environmental and Resource Economists
- **Dr. Andrew Hammermeister**, Director, Organic Agricultural Centre of Canada, Dalhousie University
- **Dr. Susanne Padel**, Researcher, Thünen-Institute of Farm Economics

Discussants:

- **Henri Delanghe**, Deputy Head of Organics, Directorate-General for Agriculture and Rural Development, European Commission of the EU
- **Claire Mullen**, Director, Climate Policy and Partnerships, Agriculture and Agri-Food Canada
- **Alain Fournier**, Director General of Regional Development, Ministry of Agriculture, Fisheries and Food Quebec



6.2 · BIOGRAPHIES OF PANELLISTS, MODERATORS AND RAPPORTEURS

SENIOR EXPERT AND WORKSHOP MODERATOR

Dr. Bronwynne Wilton is the principal and lead consultant at Wilton Consulting Group in Fergus, Ontario. Bronwynne holds a PhD in rural studies and is experienced in managing comprehensive, full value-chain research and stakeholder engagement processes related to sustainability, innovation, strategic planning, regional agriculture, and food strategies. Bronwynne is the project lead for the development of the Canadian Agri-Food Sustainability Initiative (CASI).

PLENARY SESSION I PANELLISTS

Dr. Henri Delanghe holds a master's in international Affairs from Columbia University and a PhD in economic history from the Katholieke Universiteit Leuven, Belgium. He joined the European Commission in 2003, working until 2020 in the Directorate-General for Research and Innovation. He joined the Directorate-General for Agriculture and Rural Development (DG AGRI) of the European Commission in April 2020, joining the organics unit there in February 2021.

Alain Fournier, Director General of Regional Development at the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ), holds a master's degree in regional development. He first worked as an industrial development officer and then as a regional director in the Animal Health and Food Inspection Subdepartment. From 2014 to 2017, he led the Business and Product Development team at the Food Processing and Markets Sub-Ministry.

Claire Mullen is the Director of the Climate Policy and Partnerships Division in Agriculture and Agri-Food Canada's Strategic Policy Branch. She holds a master's degree in International Law and Politics from the University of Canterbury, and a bachelor's degree in Political Science and Communications from Carleton University. Claire has been with AAFC for the better part of 20 years, with most of this time working in international trade and sanitary and phytosanitary issues.

Kerstin Rosenow is the Head of the Research and Innovation unit in DG AGRI of the European Commission. She is responsible for programming and managing and monitoring agricultural research under Horizon Europe and the European Innovation Partnership for Agricultural Productivity and Sustainability. Previously, she was head of unit in the European Commission Research Executive Agency, managing the implementation of the project portfolio for Horizon 2020 Societal Challenge 2.

PARALLEL SESSION MODERATORS

Stuart Oke is the Vice President of the Canadian Organic Growers and former Youth President of the National Farmers Union. He serves on the Policy and Government Relations Working Group of Farmers for Climate Solutions. Stuart is a young farmer from Eastern Ontario who, alongside his partner Nikki, owns and operates Rooted Oak Farm, a 12-acre organic vegetable and cut flower farm.

Camilla Patten has over 25 years of experience in business development and executing strategic marketing and sales tactics. She strives to cultivate collaborative and safe workspaces that strengthen customer service and relationships. She is the Marketing and Communications Manager at Canada Organic Trade Association and an independent marketing and business consultant.

Dr. Gerald Schwartz has a PhD in agricultural economics from Humboldt University Berlin. He worked at the Macaulay Land Use Research Institute in Aberdeen, Scotland. Since 2009, Gerald worked at the Thünen Institute of Farm Economics in Germany. He has been involved in various agroecological and organic farming projects as well as in the EU's FP6, FP7 and Horizon 2020 programmes.



PLENARY SESSION II RAPPORTEURS

Dr. Katalin Balazs is an agricultural engineer in environmental management. She holds a PhD in environmental sciences and works as an independent researcher, analyst, and consultant from Hungary. Katalin has over 20 years of experience on research projects in environmental issues of agriculture, agroecological transition, farm level indicators, and agri-environmental policies and practice.

Dr. Andrew Hammermeister is the Director of the Organic Agriculture Centre of Canada and Associate Professor in the Faculty of Agriculture at Dalhousie University in Nova Scotia. He has a PhD in applied ecology from the University of Alberta. Andrew is the Science Director for Canada’s Organic Science Cluster, the national strategic initiative for organic research in Canada.

Dr. Susanne Padel is a researcher with the Thünen Institute of Farm Economics in Germany. Her research explores the socio-economic aspects of organic farming and, recently, she has been studying the socio-economic aspects of the life and work of women in agriculture in Germany. Previously, Susanne was the Senior Programme Manager at the Organic Research Centre in the United Kingdom.

6.3 · PARALLEL SESSION SPEAKERS AND NOTETAKERS

GROUP A: ENVIRONMENTAL BENEFITS OF ORGANIC PRODUCTION

ROLE	LOCATION	NAME	AFFILIATION
Moderator		Stuart Oke	Canadian Organic Growers, National Farmers Union
Rapporteur		Katalin Balazs	European Association of Environmental and Resource Economist
Speaker	Canada	Allison Squires	Upland Organics
		Stuart McMillan	Legend Organic Farms
		Sébastien Houle	EcoCert
		Kris Nichols	Canadian Organic Growers
		Derek Lynch	Dalhousie University
	EU	Alfred Grand	Grand Farm
		Julia Smigielska-Siarkowska	The “Farmer” magazine & website
		Nic Lampkin	Thünen-Institute of Farm Economics
		Andreas Gattinger	University of Liessen
		Roosi Soosaar	NGO Soil Innovation Cluster



GROUP B: INNOVATION IN THE VALUE CHAIN

ROLE	LOCATION	NAME	AFFILIATION
Moderator		Camilla Patten	Canadian Organic Trade Association
Rapporteur		Andrew Hammermeister	Organic Agriculture Centre of Canada, Dalhousie University
Speaker	Canada	Tia Loftsgard	Canada Organic Trade Association
		David Mazur-Goulet	Canadian Organic Growers
		Richa Gupta	Good Food for Good
		Nima Fotovat	Riverside Natural Foods
	EU	Leena Whittaker	Eurocommerce
		Ivana Trkulja	International Centre for Research in Organic Food Systems
		Jose Luis Cruz Macein	Agricultural Research Institute of Madrid Region (IMIDRA)
		Dora Drexler	ÖMKi (Hungarian Institute for Research)

GROUP C: SOCIO-ECONOMIC BENEFITS AND DRIVERS OF ORGANIC PRODUCTION

ROLE	LOCATION	NAME	AFFILIATION
Moderator		Gerald Schwarz	Thünen-Institute of Farm Economics, UNESCO
Rapporteur		Susanne Padel	Thünen-Institute of Farm Economics
Speaker	Canada	Pascal Desilets	La Fromagerie l'Ancetre
		Eric Debleick	Grain Millers Inc.
		Eric Caron	New Brunswick Maple Syrup Association
		Emmanuel K. Yiridoe	Agricultural Economics, Dept. of Business & Social Sciences, Dalhousie University
		Marla Carlson	SaskOrganics
	EU	Audrey Vincent	ISARA
		Jörn Sanders	FIBL Switzerland
		Anne Mottet	Food and Agriculture Organization of the United Nations
		Marie-Giovanna Serra	Organic Distribution of the Appennino Bologne
		Alfredo Escribano	Independent

ORGANIC ORGANIZATIONS WHO'S WHO IN CANADA (2021)



ADVOCACY/POLICY



EXPORT ASSISTANCE



INTERNATIONAL
PROMOTION AND
MARKETING



RESEARCH



ACCREDITATION



EXTENSION SERVICES



TRANSITION
PROGRAMS



DOMESTIC PROMOTION
AND MARKETING



FARM INFORMATION



ORGANIC STANDARDS



PUBLIC
COMMUNICATIONS

NATIONAL ORGANIZATIONS

AAFC Organic
Research Program



Canadian Organic
Growers



Canada Organic Trade
Association (COTA)



Canadian Organic Seafood
Association (COSA)



Organic Federation
of Canada



Organic Agriculture Centre
of Canada, Dalhousie University



Growers of Organic
Food Yukon



Organic BC



Organic Alberta



SaskOrganics



Manitoba Organic
Alliance



Organic Food
Council of
Manitoba



Pacific
Organic Seafood
Association



Organic Council
of Ontario



Ecological Farmers
Association of Ontario



Conseil des appellations réservées
et des termes valorisants



Centre d'expertise et de
transfert en agriculture
biologique et de proximité



Filière biologique du Québec



Union des producteurs agricoles :
Table de développement de la
production biologique



Institut de R&D en
agroenvironnement



Prince Edward Island Certified
Organic Producers Co-operative



Atlantic Canadian Organic
Regional Network



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



Canada



NAME	PROV.	CONTACT	ORGANIZATION'S STATED OBJECTIVES
Growers of Organic Food Yukon (GoOFY)	Yukon	Kate Mechan Chair 867-335-4323 elementalfarm@riseup.net	Promotes organic practices and provides support, education, and advocacy about organic growing and processing within the Yukon.
Organic BC	BC	Eva-Lena Lang Executive Director 250-260-4429 ed@organicbc.org organicbc.org	behalf of the British Columbian organics sector. Maintains a network of organic certifiers, farmers, processors and consumers to build healthy soil, ecosystems, people and communities.
Pacific Organic Seafood Association (POSA)	BC	Tim Rundle Chair 250-725-2884 info@pacificorganicseafood.com www.pacificorganicseafood.com	Improves organic aquaculture and shares best practices for the producing, harvesting, processing, marketing, and selling of organic seafood products from the Pacific.
Organic Alberta	AB	Iris Vaisman Executive Director 587-521-2400, iris.vaisman@organicalberta.org www.organicalberta.org	Represents all organic producers, processors and businesses across the organic community in Alberta. Maintains strong standards and regulations for organics, supports growth in the value chain, works with producers to increase soil health and product quality, and advocates for the organics sector.
SaskOrganics	SK	Marla Carlson Executive Director 306-535-3456 admin@saskorganic.com www.saskorganics.org	Advocates for a sustainable and thriving organic community in Saskatchewan through leadership in research, market development, communications, promoting strategic alliances, representing organic sector interest to government/agencies, and assisting in the maintenance of the National Organic Standard.
Manitoba Organic Alliance (MOA)	MB	Elizabeth Karpinchick Chair 204-894-5395 info@manitobaorganicalliance.com www.manitobaorganicalliance.com	Represents and advocates for the organic value chain in Manitoba. Helps promote interests and issues of importance to the organic sector in Manitoba and assists with market development.
Organic Food Council of Manitoba (OFCM)	MB	Janine Gibson Chair 204-434-6018 www.organicfoodcouncil.org	Educates, promotes change, builds community and supports farmers in Manitoba. Strives toward making people more aware of the potential health and environmental benefits of organic and other sustainably grown foods, and support people who are trying to grow, process, store, and distribute these foods.
Organic Council of Ontario	ON	Carolyn Young Executive Director 519-827-1221 ext. 101 carolyn@organiccouncil.ca www.organiccouncil.ca	Promotes the interests of organic businesses in Ontario through advocacy, marketing, promotion and research. Works to foster excellence and encourage growth by acting as a unifying voice for Ontario organic, from field to plate. Strives to protect and promote organic farms, businesses and value chain members through advocacy, research, capacity building, and education.
Ecological Farmers Association of Ontario	ON	Ali English Executive Director 519-760-5606 info@efao.ca www.efao.ca	Supports Ontario farmers to build resilient ecological farms and grow a strong knowledge-sharing community through farmer-led education, research and events. Brings farmers together to learn from each other and improve the health of their soils, crops, livestock and the environment, while running profitable farm businesses.
Institut de R&D en agroenvironnement (IRDA)	QC	Caroline Côté Coordinator 450-653-7368 # 310 www.irda.qc.ca	Promotes research, development and technology transfer and development of an organic agriculture innovation platform in Quebec.
Centre d'expertise et de transfert en agriculture biologique et de proximité (CETAB +)	QC	Jean Duval Coordinator 819-758-6401 # 2770 duval.jean@cegepvicto.ca info@cetab.org www.cetab.org/en	Provides applied research, technology transfer, technical and management consulting, and training for the organics sector in Quebec. Also provides information through demonstrations, conferences, and sector intelligence reports.
Filière biologique du Québec (FBQ)	QC	Daniel Dubuc President 418-564-6366 info@filierebio.qc.ca www.filierebio.qc.ca	To contribute to market development and to represent the interests of the whole organic sector with other governmental and nongovernmental stakeholders.



NAME	PROV.	CONTACT	ORGANIZATION'S STATED OBJECTIVES
Union des producteurs agricoles (UPA) : Table de développement de la production biologique (TDPB)	QC	Jérôme-Antoine Brunelle Coordinator 450-679-0540 # 8684 jabrunelle@upa.qc.ca	Works to develop Quebec's organic product supply based on market needs and consumer expectations. Achieves this through cooperation among production sectors and partnerships with support organizations and governments.
Conseil des appellations réservées et des termes valorisants (CARTV)	QC	Pascale Tremblay President and CEO 514-864-8999 info@cartv.gouv.qc.ca cartv.gouv.qc.ca	Advises the Quebec Minister of Agriculture, Fisheries and Food on the recognition of reserved designations. Arranges consultations related to the recognition of these designations, accredits certification bodies and monitors the use of reserved designations, including the term "organic".
Atlantic Canadian Organic Regional Network (ACORN)	NB NL NS PEI	Desirée Jans, Administration and Communication Assistant 506-536-2867 admin@acornorganic.org acornoffice@acornorganic.org www.acornorganic.org	Enhances the viability and growth of Atlantic Canada's organic community through a unified network. Focuses on educating and empowering producers and consumers, fostering the organic network, and supporting policies, programs, environmental health/sustainability and food sovereignty.
Prince Edward Island Certified Organic Producers Co-operative (PEI COPC)	PEI	Karen Murchison Research Coordinator 902-894-9999 research@organicpei.com www.organicpei.com	A producer and consumer group in PEI that supports industry's growth, environmental protection and a fair income for organic farmers. Provides support by coordinating research, organizing events and education opportunities, and serving as a voice for PEI's organic farmers.
Canada Organic Trade Association (COTA)	National	Tia Loftsgard Executive Director 613-482-1717 ext 200 tloftsgard@canada-organic.ca www.canada-organic.ca	A membership-based business association for organic agriculture and products in Canada whose mission is to promote and protect organic and engage its diverse members from farm to marketplace.
AAFC Organic Research Program	National	Myriam R. Fernandez Ph.D. Head, Organic Research Program at the Swift Current (306) 770-4459 Research and Development Centre myriam.fernandez@agr.gc.ca	Conducts research on the most pressing needs and priorities for sustainable and profitable organic production in the brown soil zone of the Canadian Prairies and beyond.
Organic Federation of Canada (OFC)	National	Nicole Boudreau Biologist, Manager 514-488-6192 info@organicfederation.ca www.organicfederation.ca	Promotes national regulations that validate the organic designation; leads the revision and interpretation of the Canadian Organic Standards; manages the Organic Science Cluster; and strategically communicates issues of concern to farmers.
Canadian Organic Seafood Association (COSA)	National	Tim Rundle Chair 250-725-2884 info@canadianorganicseafood.com www.canadianorganicseafood.com	Supports organic aquaculture and its members through networking and knowledge sharing of best practices for producing, harvesting, processing, and marketing, as well as domestic and export sales of organic seafood products.
Organic Agriculture Centre of Canada, Dalhousie University (OACC)	National	Dr. Andrew Hammermeister Director 902-893-8037 Andrew.Hammermeister@dal.ca www.dal.ca/oacc	Plays a leading role in coordinating and promoting organic research and education in Canada. Facilitates research, education and scientific knowledge transfer for organic sector stakeholders. Co-manages the science coordination and communication activities of the Organic Science Cluster.
Canadian Organic Growers (COG)	National	Deirdre Laframboise Executive Director 1-888-375-7383 info@cog.ca www.cog.ca	A national organic farmer association and charity that envisions a regenerative organic farming system. Provides education, advocacy and leadership to build an agricultural system that empowers farmers, builds community and mitigates climate change while increasing Canadian food security.

Financé par le
gouvernement
du Canada

Funded by the
Government
of Canada

| **Canada** 



**Funded by
the European Union**

**Financé par
l'Union européenne**