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Project Insights Report

Supporting Rural Agriculture Entrepreneurship: Reframing the Discourse

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Executive Summary

Canada's agriculture sector employs 2.3 million people and generates $150 billion (7% of the country's GDP) annually. Agriculture has evolved from traditional family operations to technology-driven enterprises. Canada ranks among the largest exporters of agri-food and seafood in the world, with $92.8 billion in agriculture and processed food exports in 2022. Despite this success, the sector faces obstacles. There will be 24,000 fewer workers than needed by 2033. Rising operational costs, trade disruptions from tariffs, and transportation restrictions add pressure. Rural entrepreneurs face geographic isolation, limited infrastructure, and distance from urban markets.

This research examined how agriculture sector stereotypes impair the growth and sustainability of the sector. Rural agriculture entrepreneurs face several challenges more than traditional businesses. For example, distance from urban centres increases transportation costs for both inputs and outputs, and makes smaller operations face cost pressures that larger enterprises may absorb. The sector also struggles with fundamental attractiveness and retention issues, with the highest voluntary turnover rate among all Canadian sectors at 14% in 2022. Public perceptions associate agriculture primarily with manual labour and traditional farming methods despite the technological advancements in the industry that require expertise in biotechnology, data analytics and precision agriculture systems. These stereotypes discourage highly skilled entrepreneurs and new sector participants.

Existing agriculture competency frameworks focus on technical components but fail to address the unique challenges and structural barriers faced by rural entrepreneurs from equity-deserving groups. Financial barriers exacerbate these challenges, as agricultural enterprises typically require significant capital investments. Access to credit and investment capital, particularly for entrepreneurs without established agricultural backgrounds or substantial collateral, is still a challenge. The expense-to-revenue ratio for farms averaged 82.9 cents per dollar in 2020, leaving narrow margins for reinvestment in technology or business development. Intergenerational property transfer and costs of business deter new workers from entering the sector and limit the participation of women, Indigenous Peoples and immigrants in sector innovation.

KEY INSIGHTS

1. Canada's agriculture sector faces a "severe and chronic labour shortage," with the sector experiencing a 3.7% decline in sales—equating to an estimated $3.5 billion loss in sales in 2022—and anticipating 24,000 fewer workers than needed by 2033.

2. The review of existing agricultural competency frameworks reveals significant gaps in adopting inclusive, systematic approaches that address sector diversity. Most existing frameworks focus on technical components but fail to address unique challenges faced by entrepreneurs from equity-deserving groups.

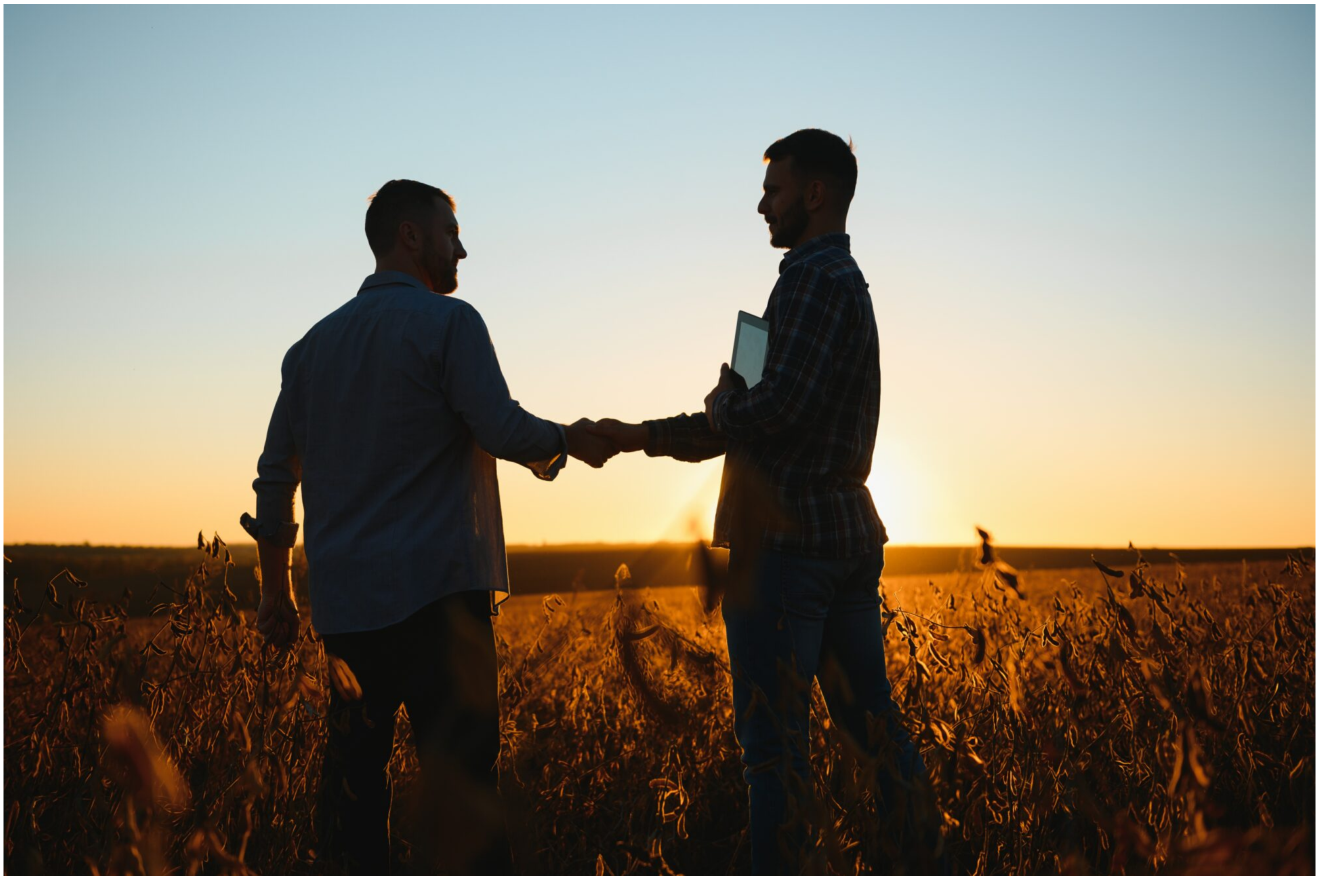
3. Technology adoption is generally led by large farms (4% of operations), with 81% of operations over 5,000 acres using digital agriculture tools; comparatively, smaller farms under 2,000 acres lag at 36% adoption. This is due to both high capital costs of agricultural technologies (e.g., with dairy farmers investing between $1.2 to $3.2 million for technology licensing, infrastructure and servicing contracts) and the skills gaps that prevent effective implementation of complex technological systems.

The Issue

Canada's agriculture sector faces challenges in attracting and retaining workers. Several reasons make agricultural work less attractive, including manual labour, seasonality, rural locations and lower wages. The sector faces a "severe and chronic labour shortage." The domestic labour gap is expected to increase by 15% to 101,100 in 2030 during peak season from 87,700 in 2023. Compared to other sectors, agriculture has an older workforce: about 40% of Canadian farm operators are expected to retire by 2033, and almost one-half of managers and owner-operators are expected to retire within that timeframe.

Rural communities face unique entrepreneurial opportunities and challenges shaped by small population size, low population density and large distance to agglomerations. Transportation and market access present barriers for rural agricultural entrepreneurship. Smaller rural and remote agriculture enterprises are often excluded from market participation due to the high costs of long-distance food transportation.

More than one-half of Canadians still associate agriculture primarily with traditional farming despite the growing need for highly skilled professionals in areas such as biotechnology, food science, engineering and data analytics.



What We Investigated

The project reviewed current trends in agriculture entrepreneurship with respect to technological trends; labour market and skills challenges; and issues around equity, diversity and inclusion. The research explored the ways in which prevailing assumptions and stereotypes present barriers to Canada's rural agriculture sector growth and sustainability, particularly as the sector faces an anticipated shortage of 24,000 workers by 2033 and ongoing challenges in attracting diverse talent.

The study used literature review to examine technological innovation in rural agriculture; labour market and skills challenges; and equity, diversity and inclusion in rural agriculture entrepreneurship. The research 1) examined how digital tools, the Internet of Things, data analytics, robotics and other technologies are transforming rural agriculture, and 2) identified barriers to adoption, with a focus on Indigenous Peoples and equity-deserving groups who face low sector participation.

The project aimed to understand the following:

- What are the technological shifts occurring in Canadian agriculture?
- What labour market and skills gaps exist?
- How do existing competency frameworks address diversity in the sector?
- What barriers do equity-deserving groups face?

This approach provided a comprehensive view of systemic challenges while identifying opportunities to develop rural agricultural entrepreneurship.

The research also examined promising practices and effective approaches to address sector challenges. Several programs take different approaches to overcoming barriers, such as through targeted financial support, culturally responsive training, policy coordination and infrastructure development. Examples include Farm Credit Canada's Women Entrepreneur and Young Entrepreneur loan programs, the National Circle for Indigenous Agriculture and Food's skills development initiatives, the Agricultural Workforce Equity and Diversity Initiative, the Sustainable Canadian Agricultural Partnership, the Rural and Northern Immigration Pilot, the Agri-Food Pilot program and several provincial tax incentives to support value-added agriculture.

What We're Learning

Digital tools for in-field and controlled environments have been proven to boost crop yield, improve enterprise competitiveness and reduce environmental impacts. They provide the potential to unlock a further $750 million to $1.5 billion in annual revenue for rural Canadian agribusiness.

However, barriers exist. First, the capital infrastructure cost remains the greatest barrier for small operations. Second, technologies are not developed for the needs of smaller operations, and are especially not applicable to traditional and culturally appropriate plants cultivated by Indigenous and immigrant communities throughout rural Canada. Third, most agricultural technology data are generated in unstructured data formats, limiting small and midsize enterprises and entrepreneurs in their ability to organize and adapt data to inform operational decisions.

The agricultural sector faces the highest rate of skills misalignment across all economic sectors. Agricultural entrepreneurs need to be agile and adaptive to the changes in their day-to-day operations and decision-making. The review of existing agricultural competency frameworks reveals significant gaps in adopting inclusive, systematic approaches that address sector diversity.

Diverse groups face barriers to participation in the agriculture sector, which lead to gaps in participation and revenue. Indigenous Peoples make up only 2.1% of farm operators despite comprising 5% of the total population. They also face significant revenue gaps compared to non-Indigenous operators ($25,960 compared to $73,440 median annual income). Women farm operators increased from 25.7% to 30.4% between 1991 and 2021 but continue to face barriers. Gender stereotypes and pervasive gender bias not only devalue women's contributions but also create challenges that impede their business success. Immigrants make up almost one-quarter of the Canadian population but only 6.9% of the farming community. Many immigrant sector participants transition to other sectors upon receiving permanent residency.

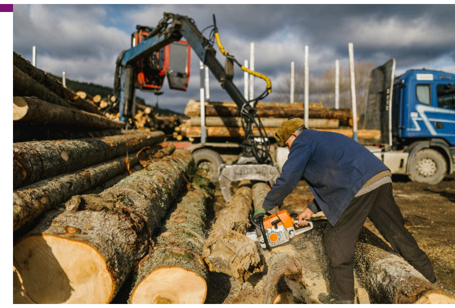
Why It Matters

The agriculture sector is a cornerstone of the Canadian economy. Agricultural entrepreneurs advance innovation, can support a substantial portion of the country's export market, and are potential contributors to economic growth.

Embedded cultural and institutional perceptions are preventing new workers from entering Canadian agriculture and agri-food industries. The current dominant view of agriculture (traditional farming stereotypes) must shift to recognize it as a dynamic, technology-driven and highly entrepreneurial sector.

Without addressing these barriers, Canada faces several risks. The labour gap is expected to increase by 15% from 2023 to 2030. Rural areas generally have a lower GDP compared to urban areas. Rural enterprises can create multiplier effects throughout local economies—research shows that every $1 spent on local food generates up to $2 in local economic activity.

Government economic development strategies must explicitly include agriculture as a priority sector, with dedicated funding allocations, infrastructure investments and policy frameworks that recognize agriculture's role in national economic growth, food security and rural development. Immigration policies need restructuring to recognize broader agricultural skills rather than relying on temporary solutions that fail to address underlying structural labour shortages.



State of Skills: Supporting Indigenous and Northern Entrepreneurship and SMEs

Indigenous and Northern entrepreneurship and businesses play a crucial role in bolstering local economies by supporting economic diversification, job creation and community development.

Read Thematic Report

What's Next

The government should systematically integrate agriculture into its core strategies, such as economic development frameworks, research and development, trade policies and business support services. Strategic investments in transportation infrastructure are essential to facilitate the connection between rural production areas and urban markets.

Agriculture education and skills development must be strategically integrated across multiple education levels and age groups. Implementation should begin in K–12 education through integrated curricula and hands-on experiential learning opportunities. At the postsecondary level, multiple pathways should be created to enable students to gain agriculture entrepreneurship competencies beyond traditional programs.

A comprehensive, culturally appropriate framework should be developed to identify the core knowledge and skills required to succeed across the stages of the agribusiness cycle. The framework must also include culturally responsive approaches along with clear guidance for designing wraparound supports. Immigration policies for the sector should recognize a broader range of agricultural skills, from short-term general labour to specialized or technical expertise.

Have questions about our work? Do you need access to a report in English or French? Please contact communications@fsc-ccf.ca.

How to Cite This Report

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The Future Skills Centre acknowledges that the Anishinaabe, Mississaugas and Haudenosaunee share a special relationship to the 'Dish With One Spoon Territory,' where our office is located, bound to share and protect the land. As a pan-Canadian initiative, FSC operates on the traditional territory of many Indigenous nations across Turtle Island, the name given to the North American continent by some Indigenous peoples. We are grateful for the opportunity to work in this territory and commit ourselves to learning about our shared history and doing our part towards reconciliation.