



How Labour Challenges Will Shape the Future of Agriculture in Nova Scotia:

Agriculture Forecast to 2029



Across Canada, the agriculture sector will face unique labour market challenges in the coming years. This report explores the ways in which those challenges will impact the province of Nova Scotia between now and 2029.



Provincial Overview

With a high reliance on foreign labour and a rapidly widening labour gap, Nova Scotia's agriculture sector faces considerable challenges over the next decade.

In 2017, the province of Nova Scotia employed 6,600 people, or roughly 2% of Canada's agricultural workforce. Although it was the fourth smallest agriculture sector employer in Canada, it did have the highest share of agricultural workers of any Atlantic province.

The 'tree fruit and vine'* industry is the dominant agricultural employer in the province, accounting for just under one-third of the province's agricultural workforce.

The province's agriculture sector relies heavily on foreign workers. In 2017, the sector employed 1,900 foreign workers, which represents roughly 29% of its total workforce. Only Ontario has a heavier reliance on this source of labour.

The province's foreign workers are concentrated in three agriculture industries. Just under one in three (30%) are employed in the 'tree fruit and vine' industry, slightly more than one in ten (11%) are employed in the 'greenhouse, nursery, and floriculture' industry, and slightly less than one in ten (9%) are employed in the 'field fruit and vegetable' industry.

The 'tree fruit and vine' industry, the province's largest agricultural employer, is also one of the most labour intensive, with many products needing to be picked and packed by hand. Because of this, the industry faces labour challenges, especially during seasonal peaks.

In 2017, the province's agriculture sector saw a significant labour gap, with its workforce

*The Labour Market Information data classifies Canada's agriculture sector into 11 commodity areas: 1) 'apiculture'; 2) 'aquaculture'; 3) 'beef'; 4) 'dairy'; 5) 'field fruit and vegetable'; 6) 'grain and oilseed'; 7) 'greenhouse, nursery, and floriculture'; 8) 'poultry and egg'; 9) 'sheep and goat'; 10) 'swine'; and 11) 'tree fruit and vine'.

Nova Scotia's agriculture sector at a glance

In 2017:

- 6,585 people employed
- 29% foreign workforce
- 251 jobs left unfilled
- 33 million in lost sales due to labour shortages

In 2029:

- 7,190 workers needed
- 43% of the workforce lost to retirement
- 2,600 jobs at risk of going unfilled

requirements exceeding the domestic labour supply by 1,400 jobs. Between now and 2029, an aging agricultural workforce and a declining number of young people in the province will further reduce the number of domestic workers available. At the same time, the province's need for agricultural labour will rise as a result of bright production outlooks for a number of key agricultural industries, including the 'tree fruit and vine' and the 'greenhouse, nursery, and floriculture' industries.

As a result of these demographic and production trends, Nova Scotia's agricultural labour gap is expected to expand to 2,600 workers by 2029, which will be equivalent to 37% of total demand for labour at that time.

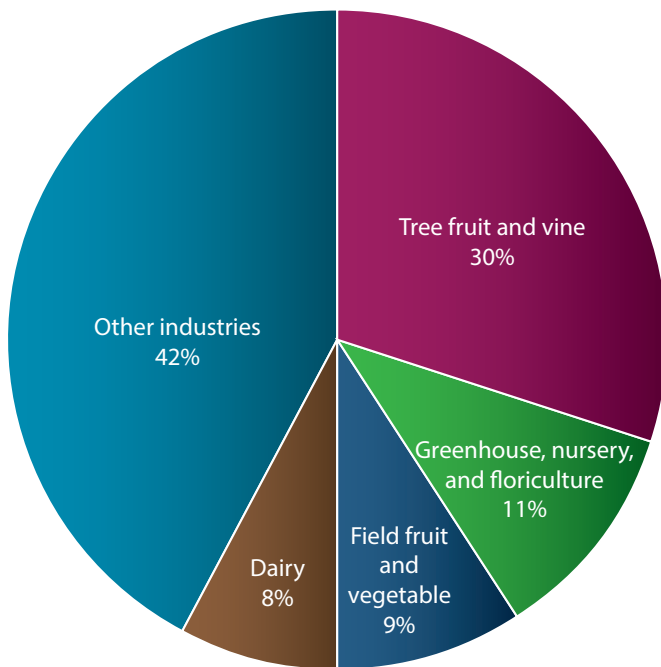


Key Agricultural Industries

Nova Scotia's commodity mix has changed somewhat over the past decade, with the 'dairy', 'greenhouse, nursery, and floriculture', and the 'swine' workforces shrinking and the 'tree fruit and vine' workforce increasing. As a result, the province's agriculture sector has become increasingly dominated by the 'tree fruit and vine' industry. This industry is now the largest agricultural employer in the province, accounting for 30% of the province's agricultural workforce. Other important employers include the 'greenhouse, nursery, and floriculture' industry at 11%, the 'field fruit and vegetable' industry at 9%, and the 'dairy' industry at 8%.

Although Nova Scotia's share of Canada's agricultural workforce is small, Nova Scotia accounts for an outsized number of Canadian 'tree fruit and vine' workers and those employed in 'aquaculture'.

Nova Scotia's Agricultural Employment Profile



Production Trends

While the demand for labour in Nova Scotia's agriculture sector will be limited somewhat by the 'dairy' industry's stable production outlook, a number of the province's other agriculture industries are expected to see strong production growth which will boost the overall demand for labour.

Over the next decade, strong production growth of 2.5% per year in the 'tree fruit and vine' industry will increase the demand for labour, even though increased productivity will enable each worker to generate greater output on average. Strong production growth in the 'greenhouse, nursery, and floriculture' industry is also expected to contribute to the need for more labour.

Total labour demand is expected to grow by 0.4% per year over the forecast period, which is slightly below the rate of 0.5% per year for all of Canada.



Labour Forecast

While the demand for labour in Nova Scotia will increase, the available pool of labour will trend in the opposite direction, causing the labour gap between the two to widen. Over the past decade, the demand for labour in Nova Scotia's agriculture sector has seen above-average growth, rising by 1.5% per year, compared to a national average that declined by 0.7% per year. This growth is expected to continue through 2029, albeit at a more moderate pace.

Rising production growth in some of Nova Scotia's key agriculture industries will increase the demand for labour by an average of 0.4% per year from now until 2029. In 2017, the sector required 6,800 workers; by 2029, it will need 7,200.

However, the domestic supply of labour will undergo a rapid decline over this same period. Mounting retirements and a shrinking number of young people in the province will result in a 1.4% per year reduction in the size of the province's agricultural labour pool.

As a result, the gap between the labour requirements of Nova Scotia's agriculture sector and the domestic

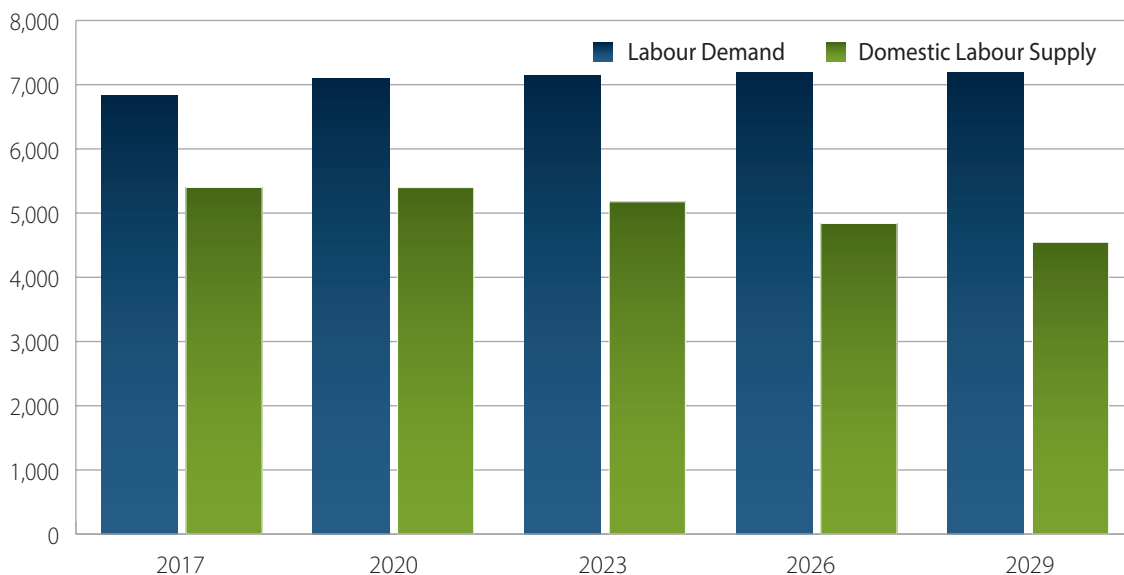
RESEARCH HIGHLIGHTS

- **41%** of Nova Scotia farmers were not able to find all the workers they needed in 2018, compared to 47% across Canada.
- **40%** of Nova Scotia farmers expect employment at their farm to rise over the next five years, while only 24% expect to see a decline.

labour pool is forecast to widen by an average of 5.2% per year. By 2029, 2,600 jobs are expected to be at risk of going unfilled due to a lack of domestic labour.

The labour shortage will hit some industries harder than others. The province's 'tree fruit and vine' industry and its 'field fruit and vegetable' industry will account for the largest portions of the agricultural labour gap: approximately 1,500 jobs and 400 jobs in these industries respectively are expected to be at risk by 2029. What is more, the 'tree fruit and vine' industry, the province's largest employer, will also face the most severe labour pressures relative to its needs. By 2029, the percentage of jobs at risk in this industry will increase to 37% relative to demand, which means that roughly one out of every three jobs in the industry will be at risk.

The Labour Gap Widens for Nova Scotia's Agriculture Sector



Foreign Workers

Nova Scotia's agriculture sector has a high reliance on foreign workers. With 29% of its total agricultural workforce comprised of foreign workers, Nova Scotia has the second-highest reliance on the source of labour of any province. Only Ontario, at 30%, has a higher reliance.

The province's agriculture sector employed approximately 1,900 foreign workers in 2017, almost all of whom worked in one of three agriculture industries that require labour-intensive hand-picking and packaging, especially during seasonal peaks. The 'tree fruit and vine' industry employed approximately 1,400 foreign workers (76% of all foreign workers), the field fruit and vegetable industry employed approximately 270 (14%), and the 'greenhouse, nursery, and floriculture' industry employed approximately 180 (10%).



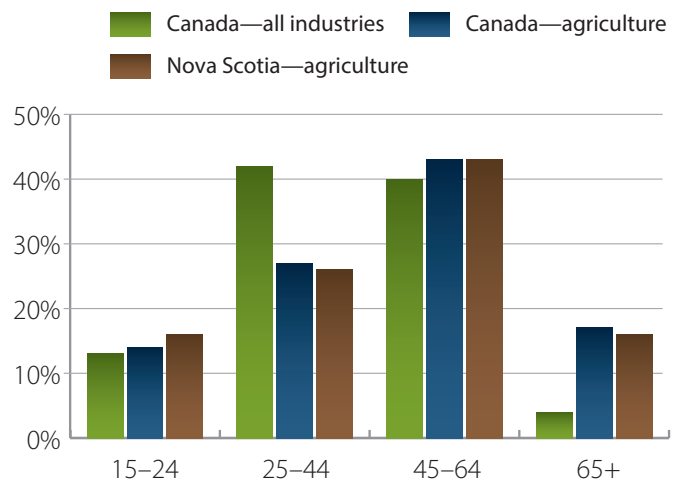
Demographic Trends

Retirement and a shrinking number of young people in the province will be the key factors reducing the agricultural labour supply.

Nova Scotia's agricultural labour supply will decline rapidly over the forecast, by 1.4% a year on average, driven mainly by the impacts of retirements and fewer young people entering the industry. In 2016, 59% of Nova Scotia's workforce in the agriculture sector was 45 years of age or older. This is on par with the 59% average across the Canadian agriculture sector but significantly higher than the average of 45% across all Canadian industries. By 2029, Nova Scotia is expected to see 43% of its current agricultural workforce retire, which is the second-highest share among the provinces after Newfoundland and Labrador.

At the same time, the province is facing a declining number of young people. Over the next decade, the number of young people entering agriculture in the province will decline by 22%, which is the third-highest decline of any province.

2016 Workforce Age Distribution



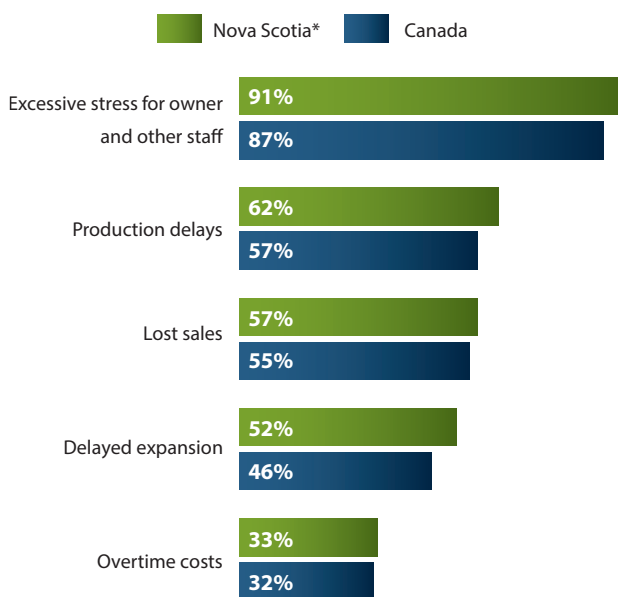
Financial Impact

The province's growing agricultural labour shortages can be expected to trigger financial losses in the sector and limit potential growth.

Nova Scotia's agriculture sector was unable to fill 250 jobs in 2017, which is equivalent to 5.1% of the total workforce needed. While this is lower than the nationwide agricultural average of 5.4%, these labour challenges still cost the province \$33 million, or 5.9% of sales.

An inability to find enough workers affected Nova Scotia's agricultural employers in other ways as well. Of producers who reported labour shortages, 91% reported excessive stress for owner and other staff, compared to 87% across Canada. The province's employers were also slightly more affected than the national average by production delays and lost sales. Labour shortages also impeded future growth potential, with 52% of respondents indicating that delayed or cancelled expansion plans were a direct result of not having enough workers.

Impacts of Labour Shortages



*Based on responses of 21 producers in Nova Scotia who reported not having access to all needed workers.

Labour Challenges

Nova Scotia's agriculture sector faces a number of challenges in recruiting and retaining enough workers.

The sector's ability to find and retain enough agricultural workers is impeded by rural operations, an inability to find workers with the appropriate skills or experience, insufficient compensation, and work conditions.

Recruiting Workers

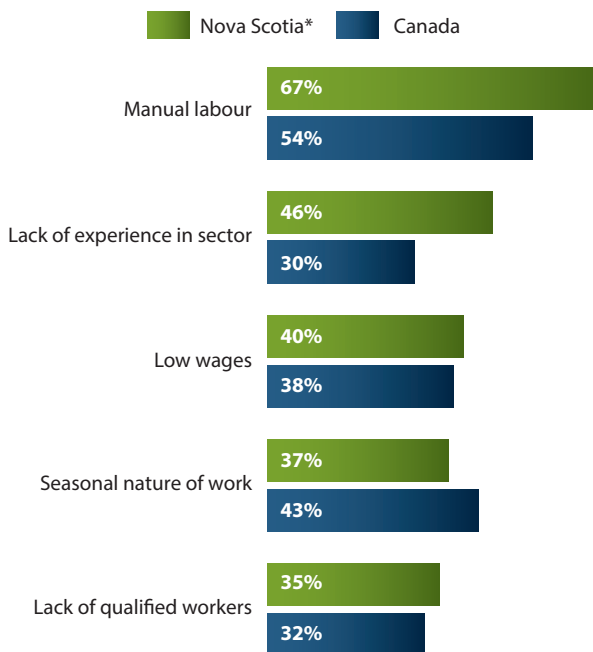
When it comes to recruiting agricultural workers, Nova Scotia faces challenges similar to the rest of Canada. However, the province's agricultural employers are much more likely to be challenged by an inability to find workers with the right experience. Almost one in two employers (46%) cited lack of experience in the sector as a barrier to recruitment, compared to 30% for agricultural operations across Canada.

Nova Scotia employers were also more likely to cite manual labour as an impediment to hiring, with roughly two in every three employers (67%) citing it as a barrier to recruitment, compared to the national average of 54%.

On a positive note, one in four agricultural employers in this province (25%) cited the rural location of operations as a recruitment barrier, which is the lowest share among the provinces.



Challenges in Recruiting Workers



*Based on responses of 57 producers in Nova Scotia.

Retaining Workers

Nova Scotia's agriculture sector has an involuntary turnover rate that is half the national average (1.2%, compared to 2.5%). At the same time, its voluntary turnover rate of 2.4% is the lowest in the country, and less than one quarter of the national average of 10%. The province also benefits from very low turnover rates among its seasonal workforce.

The province's agricultural employers face similar challenges to other provinces when it comes to retaining workers. Working conditions (e.g. the seasonal nature of work) were an issue for roughly two in three employers (64%) compared to 62% of agricultural employers nationwide, and 11% of Nova Scotia's employers cite unstable earnings as a key retention challenge compared to 10% across Canada. Insufficient compensation relative to other sectors in the province does stand out as having a larger impact in Nova Scotia, as 52% of employers cited

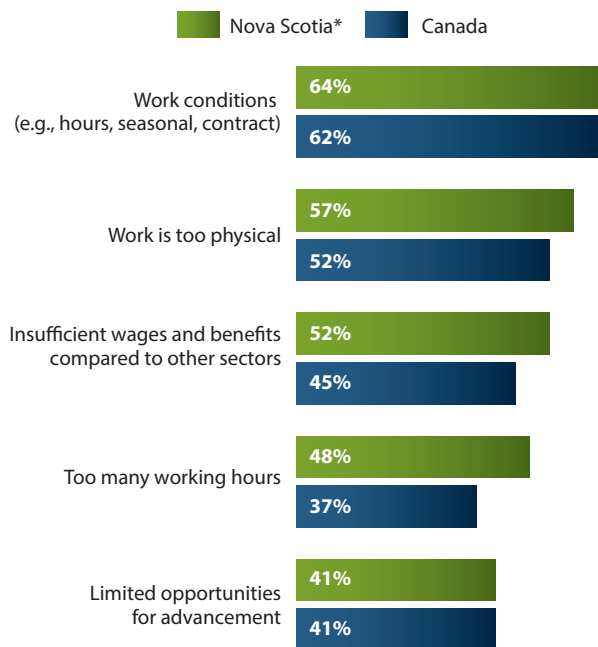
this as a challenge, notably higher than the 45% who identified this as a problem nationwide.

Another key challenge, which was cited by 57% of the province's agricultural employers, is the physical nature of the work.

Toughest Jobs to Fill

Over the forecast period, Nova Scotia's agriculture sector will have the most trouble filling general farm worker positions and harvesting labourer positions. Together, these occupations accounted for half of the province's agricultural workforce in 2017. Between now and 2029, they will continue to account for most of the province's labour gap, with approximately 1,500 general farm worker and 300 harvesting labourer jobs potentially going unfilled due to a lack of workers. Managers in agriculture and nursery and greenhouse workers will also be difficult positions to fill—each is at risk of seeing 200 jobs going unfilled by the end of the forecast.

Challenges in Retaining Workers



*Based on responses of 56 producers in Nova Scotia.



Conclusion

With a heavy reliance on foreign workers and a rapidly widening labour gap, Nova Scotia's agriculture sector will face challenges in the years ahead.

Nova Scotia has a high number of jobs that can't be filled by domestic workers, and a heavy reliance on foreign workers. As a result, in 2017, the province had the third-largest labour gap relative to demand among Canadian provinces.

Over the next few years, mounting retirements and a dwindling supply of young people in the province will increase this gap considerably. By 2029, there will not be enough domestic workers to fill more than one in every three jobs (37%) that will be required for the provincial agriculture sector to reach its production potential.

To address its agricultural labour issues, the province will need to overcome a number of key challenges:

- Declining populations in rural areas make it difficult for employers with operations in rural areas to attract workers. More than one in three employers (35%) cited this as a challenge, compared to an average of 27% across Canada.
- More than half of employers (52%) suggested that insufficient compensation compared to other sectors was a retention challenge, which is one of the highest shares of any province.
- Lack of experience in the sector hinders recruitment in Nova Scotia. Nearly half of agricultural employers (46%) cite this as a barrier to recruitment, compared to a national average of just 30%.
- A high reliance on foreign workers puts the province's agriculture sector at risk, as policy changes could reduce or even eliminate this source of labour in the future.



However, the province's agriculture sector also has strengths that it could leverage:

- Nova Scotia's agriculture sector has the lowest voluntary turnover rate in the country. The province's voluntary turnover rate is just 2%, compared to 10% across Canada.
- Tapping into pools of workers who may only be interested in working part of the year (e.g. retired people) may help to address the sector's need for large numbers of workers for limited periods of time.
- Access to training programs, mentorships, and internships has the potential to create more skilled labour.

Over the forecast period, Nova Scotia will need to find ways to grow the domestic labour pool in order to address its quickly expanding labour gap, avoid financial losses, and reach its growth potential.



About this Report

This report represents an update to the Labour Market Information (LMI) study that the Canadian Agricultural Human Resource Council (CAHRC) undertook between 2014 and 2016. The purpose is to re-assess the labour market, project supply and demand for agricultural workers from 2018 until 2029, and recommend potential solutions to labour issues.

The Conference Board of Canada, commissioned by CAHRC, constructed an economic model that forecasts agricultural labour demand and supply for each province, for 11 different commodity groups, and for 25 occupational groups.

The economic model was validated through several industry consultation activities conducted Canada-wide, including:

- **A large-scale survey** of 1,316 employers, 278 workers, and 110 industry stakeholders
- **Eight webinars** focused on specific commodity groups, with 160 participants in total.
- An Advisory Group presentation.

This data was used to produce the following reports:

Commodity-specific reports and fact sheets

Apiculture ■ Aquaculture ■ Beef ■ Dairy ■ Field Fruit and Vegetable ■ Grain and Oilseed ■ Greenhouse, Nursery, and Floriculture ■ Poultry and Egg ■ Sheep and Goat ■ Swine ■ Tree Fruit and Vine

Regional reports and fact sheets

National ■ British Columbia ■ Alberta ■ Saskatchewan ■ Manitoba ■ Ontario ■ Quebec ■ New Brunswick ■ Prince Edward Island ■ Nova Scotia ■ Newfoundland and Labrador

For more information on the research, and to access additional commodity-specific, national, and provincial reports, please visit the CAHRC website at www.AgriLMI.ca.

About CAHRC

The Canadian Agricultural Human Resources Council (CAHRC) is a national, nonprofit organization focused on addressing human resource issues faced by agricultural businesses across Canada. CAHRC conducts industry research and develops products and services designed to help agricultural employers attract, retain, and develop the workforce they need to succeed.

For more information about the Council and its products and services for Canada's agriculture sector, please visit www.cahrc-ccrha.ca.





Acknowledgements

The Canadian Agricultural Human Resource Council (CAHRC) acknowledges the support and guidance of volunteers, the Advisory Group, the Provincial LMI Panel, and the Strategic Steering Committee.

LMI Advisory Group

Chair: Alberta Federation of Agriculture, Humphrey Banack
Aboriginal Aquaculture Association: Marguerite Parker
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Newfoundland and Labrador: Advanced Education, Skills and Labour, Derrick Barrett
Agriculture and Agri-Food Canada: Li Xue and Alejandro De Maio-Sukic

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Canadian Agricultural Human Resource Council
Published September 2019

T: 613.745.7457

E: info@cahrc-ccrha.ca

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