AGRI-LMI
LABOUR MARKET INFORMATION

How Labour Challenges Will Shape the Future of Agriculture in Alberta:
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 Alberta between now and 2029.

Provincial Overview

A significant employer with a bright production outlook, Alberta's agriculture sector faced a costly labour gap in 2018, and that gap is expected to widen over the next decade.

In 2017, Alberta was home to the third-largest agriculture sector in Canada, employing 54,500 people, or 16% of Canada's agricultural workforce. Alberta's agriculture sector has a very low reliance on foreign workers: only 4.3% of the province's workforce is foreign workers. Of those, more than half work in the 'greenhouse, nursery, and floriculture'* industry, which tends to be highly seasonal and labour intensive.

Alberta's agriculture sector has an aging workforce: in 2016, roughly two out of three workers were aged 45 years or older. Over the next twelve years, the impact of retirements on the workforce is expected to be acute, with the province's domestic agricultural labour supply declining by an average of 1.8% per year.

The province's agricultural employers must compete for labour with the high-paying energy sector of Alberta's economy, which makes it harder to attract and retain the labour force required to meet production targets.

Alberta's agriculture sector at a glance

In 2017:
- 54,455 people employed
- 4% foreign workforce
- 2,800 jobs left unfilled
- 821 million in lost sales due to labour shortages

In 2029:
- 62,000 workers needed
- 42% of the workforce lost to retirement
- 19,600 jobs at risk of going unfilled

In 2017, the province was unable to find enough workers, and 2,800 jobs went unfilled as a result of labour shortages. Those shortages resulted in production losses and delays, as well as $821 million in lost sales.

Between now and 2029, Alberta's key agriculture industries are all predicted to have strong productivity and a growing demand for labour. However, the province's domestic labour supply is predicted to shrink during that time, which will more than quadruple the labour gap and create even greater labour challenges in the years ahead.


*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'.

Key Agricultural Industries

Alberta has a diverse agriculture sector, with 'beef', 'grain and oilseed', and 'greenhouse, nursery, and floriculture' employing most of the province's agricultural workers.

While Alberta is known for its 'beef' industry, which employs 28% of the province's agricultural workers, the 'grain and oilseed' and the 'greenhouse, nursery, and floriculture' industries are also significant employers with 14% and 9% of the sector's workers, respectively.

Alberta employs a high share of Canada's agricultural workers in a number of industries. The province employs over one-third (34%) of the nation's 'beef' workers, which is more than Saskatchewan or Ontario, at 20% and 19%, respectively. Alberta also employs 20% of Canada's 'grain and oilseed' workers and 17% of its 'swine' workers, making this province the third-largest employer in both of these industries. Additionally, the province accounts for 31% of the nation's 'sheep and goat' workers.

Alberta's Agricultural Employment Profile

Beef
28%

Grain and oilseed
14%

Greenhouse, nursery, and floriculture
9%

Other industries
49%
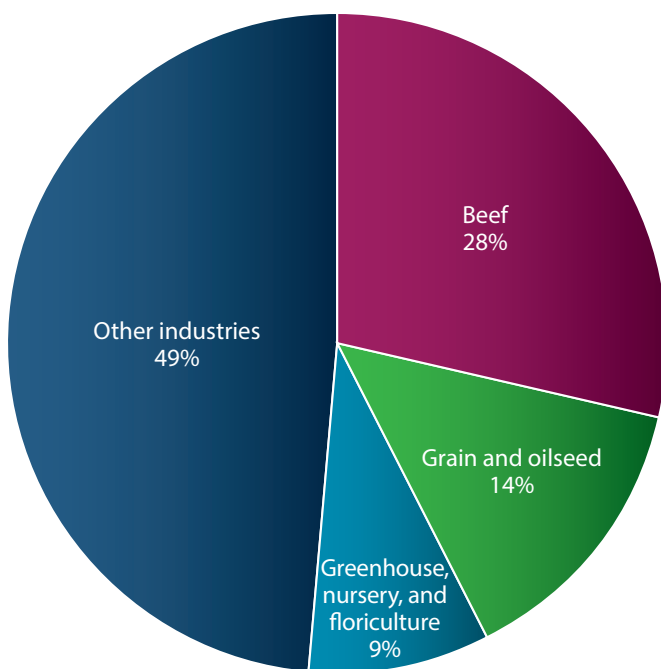
Production Trends

A strong production outlook for Alberta's top three agricultural commodities will boost the demand for labour across the province.

Alberta's agriculture sector has undergone a transformation in recent years, shifting from 'beef' production to 'grain and oilseed' production. As a result, the demand for 'beef'-industry labour has dropped by an average of 1.1% per year over the past decade, compared to a decline of 0.7% per year across the entire agricultural sector.

Looking at the decade ahead, strong market demand for products in all three of these industries will support a growing demand for labour. Production for the 'grain and oilseed' industry is predicted to grow by an average of 2.5% per year until 2029, while production for the 'greenhouse, nursery, and floriculture' and the 'beef' industry is predicted to grow by 2.3% and 2.1% per year, respectively.

The 'grain and oilseed' industry will see stronger productivity, which is the output each worker can produce, and this will enable the industry to maintain production levels with fewer workers. However, with other industries still needing additional workers to meet production targets, Alberta's agricultural labour force is expected to grow by 0.7% per year over the next 10 years to keep pace. This is higher than the average of 0.5% per year across all provinces.

Labour Forecast

A growing demand for labour and a shrinking supply of domestic workers will widen Alberta's labour gap considerably, with the 'beef' industry hardest hit by labour shortages.

The demand for agricultural workers in Alberta is expected to grow by 0.7% per year between 2017 and 2029, rising from 57,300 to 62,000 workers required by the province's agriculture sector. However, the supply of domestic workers is predicted to shrink, with 10,400 fewer Canadian residents available to work in Alberta's agriculture sector by 2029. As a result, the gap between the number of workers needed and the domestic workers available will widen by 13.4% per year. This means that over the next decade, the number of jobs that can't be filled with domestic labour will more than quadruple, increasing from 4,400 to 19,600, and the percentage of jobs at risk will rise from 8% to 32% of the total workforce required to support the industry. In other words, within 10 years, roughly one

RESEARCH HIGHLIGHTS

- **48%** of Alberta farmers were not able to find all the workers they needed in 2018, compared to 47% across Canada.
- **48%** of Alberta farmers expect employment at their farm to rise over the next five years, while only 21% expect to see a decline.

in three agricultural jobs in this province will remain vacant unless more foreign or domestic workers can be found.

The labour gap will widen more for some industries than others, and unfortunately, some of the industries with the brightest production outlook will be hardest hit by labour shortages. By 2029, Alberta's 'beef' industry will see 5,600 jobs that can't be filled by the domestic labour pool. Its 'grain and oilseed' industry will see 2,500 jobs at risk of going unfilled, and its 'greenhouse, nursery, and floriculture' industry will see 2,800 jobs at risk.

The Labour Gap Widens for Alberta's Agriculture Sector
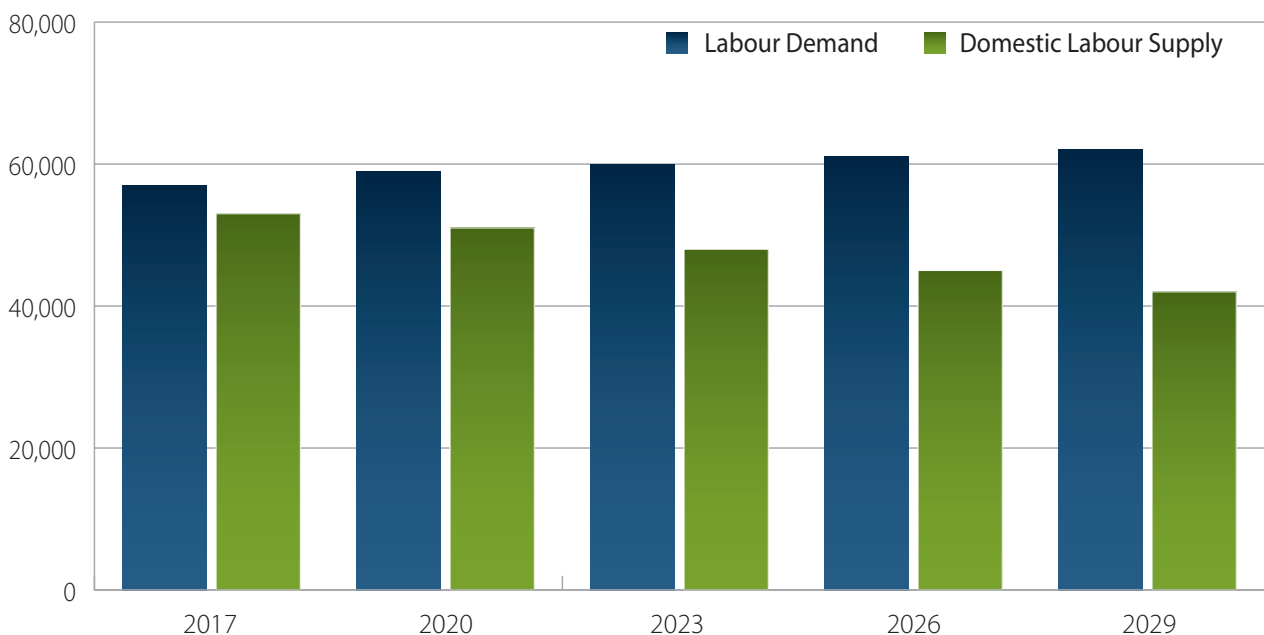
Foreign Workers

Alberta's agriculture sector has a relatively low reliance on foreign workers. Foreign workers accounted for only 4.3% of the province's agricultural workforce in 2017, compared to 17% for all of Canada. However, while Alberta's share of foreign workers is low compared to Ontario (at 30%) and Nova Scotia (at 29%), it is higher than the other Prairie provinces: Manitoba's share is just 2.8%, and Saskatchewan's is 1.6%.

Alberta's high percentage of foreign workers, compared to Manitoba and Saskatchewan, is due to the size of its 'greenhouse, nursery, and floriculture' industry. With many products needing to be hand-picked and/or packaged, particularly during seasonal peaks, the industry is more labour intensive compared to the 'grain and oilseed' industry, which dominates the other Prairie provinces.
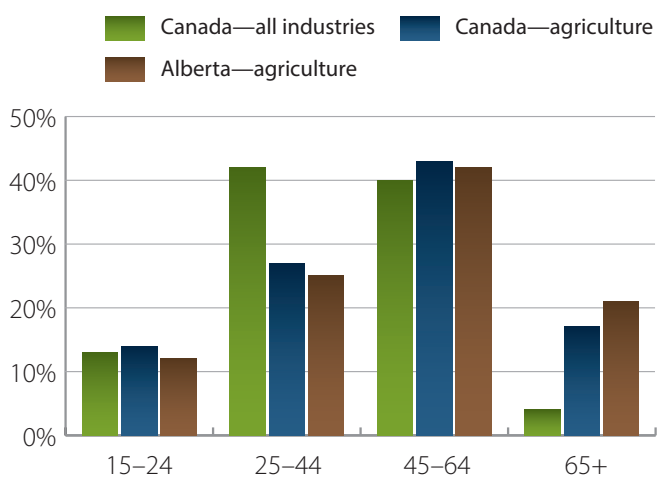
Demographic Trends

The aging of Alberta's agricultural workforce will reduce the supply of available workers in the coming decade.

While Alberta benefits from above-average rates of interprovincial migration and a stable supply of school graduates, these factors will not offset the rising number of retirements driven by the province's older-than-average agricultural workforce.

In 2016, 63% of Alberta's agriculture sector workforce was 45 years of age or older, compared to 59% for the Canadian agriculture sector as a whole and just 45% across all industries. Only Saskatchewan had a greater share of older workers, with 65% of its agriculture sector workforce being over the age of 45. Because of the province's age profile, it is predicted to lose more than two in five workers (42%) to retirement between now and 2029. That number would be even higher if management level occupations (which include owner-operators) didn't make up a higher-than-average share of the workforce (49% compared to 45% for all of Canada). Managers in agriculture tend to retire several years later than the average worker, which will help to reduce the province's retirement rate over the forecast period.

2016 Workforce Age Distribution

Legend: Canada—all industries, Canada—agriculture, Alberta—agriculture

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Financial Impact

Labour shortages hurt the province financially in 2018 and will continue to restrict profitability and future growth over the forecast period.

Alberta's agriculture sector was unable to fill 2,800 jobs in 2017, which is equivalent to 5.1% of the total workforce needed. While this is lower than the nationwide sector average of 5.4%, these labour challenges still cost the province $821 million, or 5.8% of sales. No other province lost more sales in dollar terms as a result of labour shortages.

Alberta's agricultural producers also reported other issues related to labour shortages: Of producers who reported labour shortages, 90% reported excessive stress for owner and other staff, 56% reported lost sales, and 53% reported production delays. Labour shortages will also impede the province's future growth potential, as over two in five (44%) of respondents indicated that delayed or cancelled expansion plans were a direct result of not having enough workers.

Impacts of Labour Shortages

Legend: Alberta* (green), Canada (blue)

Impact	Alberta*	Canada
Excessive stress for owner and other staff	90%	87%
Lost sales	56%	55%
Production delays	53%	57%
Delayed expansion	44%	46%
Overtime costs	26%	32%

*Based on responses of 61 producers in Alberta who reported not having access to all needed workers.

Labour Challenges

Alberta'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 the rural locations of agricultural operations, a lack of qualified workers, and work conditions.

Recruiting Workers

The province's agriculture sector is affected by many of the same recruitment issues facing the sector across the country, including the manual labour, and the seasonal nature of work.

However, this province also faces some unique challenges. Prior research conducted by the Canadian Agricultural Human Resource Council has found that only 28% of producers surveyed said that they were close to a population centre of more than 10,000 people, compared to 35% for agricultural operations nationwide. As a result, Alberta producers are more likely to have issues related to rural locations: 50% cited this as a recruitment problem compared to 38% of producers across Canada. In particular, 31% of survey respondents indicated that the rural location of operations was not of interest to workers, compared to just 27% of producers nationwide.

Producers in Alberta were also slightly more likely to have difficulty finding workers with enough experience: 43% reported this as an issue, compared to 30% of producers nationwide. In addition, just under one in three Alberta operators (29%) cited rules and regulations for temporary foreign workers as a barrier to recruitment, the second-highest share among provinces.

On a positive note, producers in this province were much less likely to cite perceptions of low wages in agriculture as a key recruitment barrier; fewer than one in four employers (24%) cite this as a recruitment challenge, compared to 38% across Canada. This may be due to the high level of mechanization in the 'grain and oilseed' industry, which supports higher wages for employees working with complex machinery.

Challenges in Recruiting Workers

Legend: **Alberta*** (green), **Canada** (dark blue)

Challenge	Alberta*	Canada
Rural location of operation	50%	38%
Manual labour	48%	54%
Lack of qualified workers	44%	32%
Lack of experience in sector	43%	30%
Seasonal nature of work	41%	43%

*Based on responses of 147 producers in Alberta.

Retaining Workers

Alberta's agricultural producers have difficulties retaining workers. For one, the involuntary turnover rate, at 3.2%, is above the national average of 2.5%. More concerning is the voluntary turnover rate, at 16%, which is much higher than the national average of 10%, and the third highest in the country. Retention is a bigger issue for Alberta in part because of competition from the province's high paying energy sector.

Work conditions, including seasonality and long hours in season, are the top retention challenges for Alberta's producers, with 60% of them reporting it as an issue. More than two in five (43%) cite limited advancement opportunities as an issue, and over one in three (37%) cite the remote location of operations as a top barrier to retention. These percentages are higher than the national average of 41% and 24%, respectively.

Toughest Jobs to Fill

Alberta's agriculture sector will have the most trouble filling managers in agriculture positions, which includes both owner-operators and hired managers, and general farm worker positions. Together, these positions accounted for 68% of the province's sector employment in 2017 and 63% of the jobs that couldn't be filled by domestic workers. By 2029, there will be an additional 7,000 general farm worker jobs that can't be filled by the available labour pool, bringing the total number for this position up to 8,000. There will also be an additional 3,700 managers in agriculture jobs potentially going unfilled.

Challenges in Retaining Workers

Legend: **Alberta*** (green), **Canada** (dark blue)

Challenge	Alberta*	Canada
Work conditions (e.g., hours, seasonal, contract)	60%	62%
Work is too physical	52%	52%
Limited opportunities for advancement	43%	41%
Remote location of operation	37%	24%
Insufficient wages and benefits compared to other sectors	37%	45%
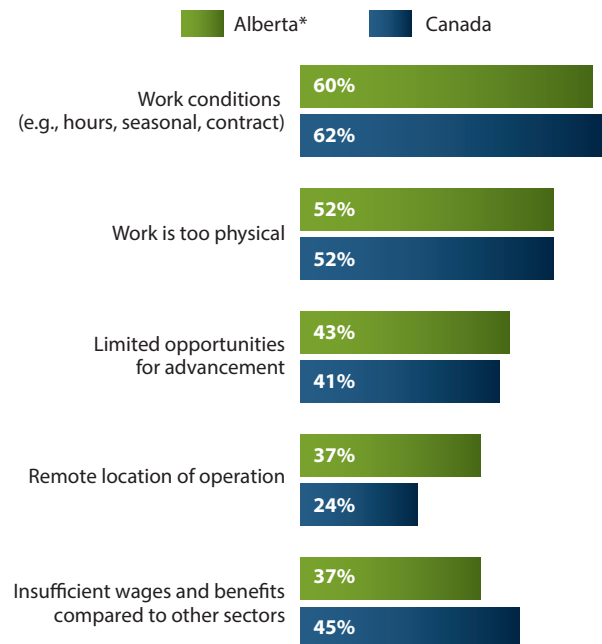
*Based on responses of 147 producers in Alberta.

Conclusion

With a strong production outlook, a growing demand for labour, and a shrinking domestic labour supply, Alberta's agriculture sector faces challenges ahead. Unless the province can find ways to build the sector's labour force, the widening labour gap will threaten its growth and profitability.

Driven by changes in the province's 'beef' industry, the agricultural workforce in Alberta has undergone a significant transformation over the past decade. Since 2007, 'beef' operations have diminished by a third, and many farms have transitioned to the 'grain and oilseed' industry. However, the province's agricultural employment has been volatile in the past decade, with significant growth observed immediately following the end of the financial crisis, followed by a sharp contraction in recent years. Nevertheless, total agricultural employment is still slightly greater today than in 2007.

Looking ahead to the future, Alberta's three largest agriculture industries have a strong production outlook, which will create an even greater need for more workers. However, the labour force is predicted to shrink for the agriculture sector, creating a widening labour gap. By 2029, that gap will be equivalent to 32% of the total labour demand. In other words, just under one in three agricultural jobs in Alberta are at risk of going unfilled unless more workers can be found, a reality that will hamper the sector's ability to thrive in the province.

Alberta faces challenges in growing its workforce:

➔ The rural location of operations is a major recruitment barrier, with many workers unwilling to move to rural areas or commute to work from the city.

➔ Retirement will shrink the workforce considerably, with 42% of today's workers predicted to retire between now and 2029.

➔ Attracting workers with enough experience to the agriculture sector is difficult, with more than two out of five employers reporting this as a key recruitment issue.

➔ Agricultural operations have higher-than-average voluntary and involuntary turnover rates.

In terms of meeting these challenges, the province could leverage these strengths:

➔ The perception of low wages in agriculture is less likely to impede recruitment by agricultural employers within the province.

➔ The province has above-average immigration rates and a stable number of school graduates predicted over the forecast period.

➔ The sector has the potential to create more advancement opportunities to attract and retain more workers.

Finding solutions to labour challenges and increasing the pool of available workers will ensure that Alberta is better prepared to take advantage of an upcoming decade of growth.

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.

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