



Sectoral Profile

Agriculture

Atlantic Region

2018



KEY HIGHLIGHTS

- While Agricultural output has expanded steadily over the past decade, industry consolidation and efficiency gains have resulted in declining employment over this period. Looking ahead, this trend is expected to persist, resulting in no job growth over the outlook period.
- On average, Atlantic Canada's Agriculture sector accounts for just 1.0% of the region's overall Gross Domestic Product (GDP). However, its relative importance at the provincial level varies, ranging from 0.4% of total GDP in Newfoundland and Labrador to 4.0% in Prince Edward Island.
- On average, those who work in the Agriculture sector earn significantly less than those who work in other sectors. Unfortunately, this gap has widened over the past decade, making it even more difficult for employers to attract and retain workers.
- Labour shortages are not uncommon in this sector and employers across all four Atlantic provinces rely on foreign workers, to some extent, to fill job vacancies.

INDUSTRY PROFILE

According to the North American Industry Classification System (NAICS), Agriculture is comprised of two main subsectors (Crop production and Animal production) and two smaller subsectors (Support activities for crop production and Support activities for animal production). Crop production includes the growth of edible grains, fruits, vegetables and nuts, as well as greenhouse products (both edible and ornamental), while Animal production includes meat production, livestock trade, egg and dairy production, equine production, beekeeping, wool and fur production and aquaculture including salmon, mussels and oysters. Some examples of support activities include crop dusting and spraying, grain drying, breeding services for livestock and milk testing.

Atlantic Canada's Agriculture sector generated more than \$900M in economic activity in 2017. While this represents a fairly small share (1.0%) of the region's overall economy, these operations are very important to the many smaller rural communities that depend on Agriculture as the primary source of employment income. In addition to the wages paid out to workers employed within the sector itself, Agricultural operations also generate activity through supply chain purchases, increasing the demand for manufactured and wholesaled goods, transportation services, etc.¹.

A significant volume (nearly \$700M in 2017) of Atlantic Canada’s Agricultural output is exported, with the vast majority (over 80%) destined for the United States (U.S.). Many products are also sold as inputs to other products or for further processing before being shipped to other markets. The Atlantic region is home to several large food manufacturers, including the world’s largest producers of frozen fries (McCain Foods) and frozen wild blueberries (Oxford Frozen Foods). The alcoholic beverage industry is also a major source of demand, with several large players (Moosehead Breweries and Alexander Keith’s Brewery) already in operation and rapidly expanding production of craft beer, cider, and spirits generating additional demand for various strains of hops, fruits and other farm products from within the Atlantic region.

In 2017, Animal production accounted for nearly half (49.2%) of the Agriculture sector’s value, while a slightly smaller share (43.8%) was attributable to Crop production. Support activities for crop and animal production made up the remaining 7.2%².

For the purpose of this profile, we further break-down Animal production into Aquaculture and non-aquaculture Animal production, each of which accounts for around half of the subsector’s total GDP. The Atlantic region, it turns out, is a significant contributor to Canada’s overall Aquaculture production, generating close to half (44%) of the total, on a tonnage basis³. Within the Atlantic region’s non-aquaculture Animal production subsector, dairy and egg production are the main sources of activity⁴.

The vast majority (nearly 90%) of Crop production output in Atlantic Canada is generated on traditional farms, with very little in the way of Greenhouse, nursery and floriculture production. In general, crop output is heavily influenced by global market conditions and seasonal weather, causing it to fluctuate from year-to-year. While prices remained relatively stable in 2017, dry weather conditions weighed on production in some areas within the region⁵.

The Agriculture sector is not a major employer, accounting for only 1.3% of the Atlantic region’s total workforce, in 2017. Of the 14,800 jobs identified, the vast majority of workers were employed on farms, while Aquaculture operations accounted for a relatively small number of workers, considering its relatively larger contribution to the sector’s overall output. Due to data limitations, the rate of unemployment in the region in 2017 is unknown.

Table One Employed Labour Force - Agriculture & Aquaculture Atlantic Canada and Canada		
	Atlantic	Canada
Agriculture and Aquaculture	100%	100%
Farms	76.1%	85.2%
Greenhouses and Nurseries	9.9%	10.1%
Aquaculture	10.8%	1.2%
Support Activities for Farms	3.1%	3.5%

Source: Statistics Canada, 2016 Census of Canada, Table 98-400-X2016290

The Agriculture sector is inherently seasonal, with employment typically peaking between May and October, reaching levels that are considerably higher (as much as 40%) than those in the off-season. While the vast majority of positions are full-time, few of them last for the duration of the year. Rather, work is carried-out for a specific term or contract, reflecting the sector’s seasonality⁶.

RECENT HISTORY

Agriculture sector GDP in Atlantic Canada grew at a much more rapid pace (+26.8%) than the region’s overall economy (+4.6%), over the past decade. Some of this can be attributable to success within the sector itself, which saw expanded production within certain subsectors (aquaculture in particular) and increased productivity,

generally. Furthermore, Agriculture activity was less impacted by the 2008-09 Recession, which resulted broadly in several years of stagnation and even outright declines in economic activity within other sectors.

Overall Crop production GDP expanded by 36.8% over this period, due to increased farm production. Animal production GDP grew by 19.0%, largely because of considerable growth in Aquaculture, which has risen from essentially a non-existent subsector 20 years ago to one that contributes approximately \$200M in GDP to the region, annually. Indeed, the sector's growth of 81.5% over the past decade is notable.

Food and dietary trends have influenced some important changes in the region's crop and animal operations, as farms have adapted to better align with changing market demand. In particular, a noticeable increase in appetite for locally grown foods has led to a growing number of farms selling products directly to consumers, at the farm gate itself, as well as through stands, kiosks, U-picks and farmers markets⁷. Others are selling directly to restaurants and manufacturers that are also attempting to capitalize on the buy-local momentum. To that end, increased beer and wine production in the region has made specialty crops like hops⁸ and grape⁹ production more viable.

Despite relatively strong output growth, Atlantic Canada's Agriculture sector shed nearly 2,000 jobs over the past decade¹⁰, due in part to strong efficiency gains over this period. Among other factors, an increase in automation and greater use of technology has allowed producers to operate with fewer workers.

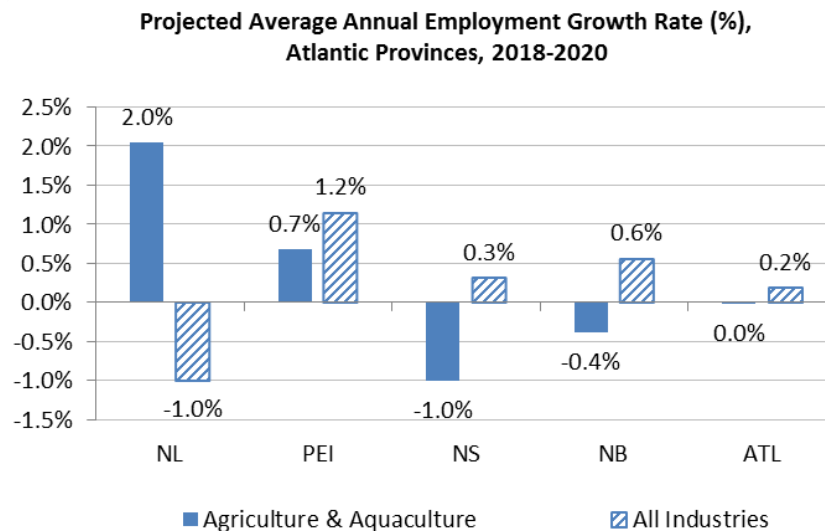
However, the decline in employment during the past decade has not been due entirely to lower demand for workers. In fact, a shortage of labour in various subsectors within Agriculture is well documented and this has resulted in employers from all Atlantic provinces having to rely on the Temporary Foreign Worker Program (TFWP), which allows employers to hire foreign workers when Canadians and permanent residents are not available¹¹. According to the Conference Board of Canada (CBoC), factors like seasonality, negative perceptions about the industry, the rural location of most operations and low rates of pay are all factors driving labour shortages. Unfilled vacancies have been the most prevalent in Aquaculture.

Contrary to what one might expect, labour shortages across much of the sector have not resulted in above average wage growth and rates of pay for Agricultural workers. Wages remain well below the all-sector average due to the generally lower skill requirements for most relevant occupations. In fact, the wage gap has actually widened over the past decade in all Atlantic provinces but Nova Scotia, where it remained relatively unchanged. As has been mentioned previously, agricultural activities are becoming more efficient with some operators offsetting labour shortages through a greater use of technology and capital-intensive activities¹², rather than offering higher wages. Unfortunately, this widening gap is making it even more difficult for employers to attract and retain employees, as workers presented with the possibility of a higher wage offer elsewhere are much more likely to leave¹³.

Aside from a general reduction in the workforce, two major demographic trends are taking place within the Agricultural sector in Atlantic Canada. The first is an aging of the existing workforce, and the second is the entry of younger workers. While aging is occurring in many sectors, it is particularly apparent in Agriculture where, in the past five years alone¹⁴, the share of older workers (aged 55 years and older) grew from 25.0% in 2011 to 31.1% in 2017, far exceeding the share of older workers across the economy, in 2017 (23.0%). The share of younger workers (aged 15 to 24 years) also grew (from 14.0% to 17.6%) over the same time period, going against the trend of declining workforce participation across the broader economy. The impact of these trends has been a thinning-out of the prime working age group (25 to 54 years), which comprised just over half (51.4%) of the workforce in 2017, down from 61.0% in 2011.

EXPECTED OUTLOOK

Despite several positive developments, employment within Atlantic Canada’s Agriculture sector is not expected to grow (0.0%) over the 2018-2020 forecast period, as ongoing efficiency gains will limit the need for additional workers, despite a projected increase in output. However, considering that the level of employment fell by over 20% during the two decades between 1997 and 2017, this relative stability is encouraging. Outcomes are slightly varied at the provincial level, with job gains in N.L. (+2.0%) and P.E.I. (+0.7%) expected to just offset losses in N.S. (-1.0%) and N.B. (-0.4%).



Agricultural output in Atlantic Canada is expected to continue to grow at a healthy pace, over the forecast period, thanks to a supportive exchange rate, increased market access, and the legalization of recreational cannabis.

After weakening considerably between early 2014 and late 2016, the Canada-U.S. exchange rate is not expected to increase over the next few years and this will allow agricultural products from Atlantic Canada to remain relatively affordable to American consumers, who are the largest purchasers of the region’s exports.

Recent trade agreements concluded between Canada and its trading partners should also assist producers in the Atlantic region to capitalize on economic opportunities associated with new markets outside of the U.S. The most notable is the Comprehensive Economic and Trade Agreement (CETA) between Canada, the European Union and its Member States, which represents significant opportunity given its proximity to Atlantic Canada.

Finally, the recent legalization of cannabis provides a significant opportunity for producers in the Atlantic region. Several have already established significant volumes of production and have announced plans for further expansion, as well as distribution to foreign markets¹⁵.

While these factors should all enable further expansion, the overall demand for labour will ultimately be limited by continued productivity gains. A certain degree of risk also exists in the form of the recently signed Canada-United States-Mexico Agreement (CUSMA), which replaces the North American Free Trade Agreement (NAFTA). While the agreement may result in expanded opportunities for Atlantic Canadian producers, it also allows for its partners to access increasing shares of certain key market, such as dairy and poultry. The net impacts are yet to be determined, as the agreement has yet to be fully implemented by the three member nations and outcomes may vary depending on a number of environmental, economic and policy outcomes.

SUB-REGIONAL DYNAMICS

Newfoundland and Labrador

- N.L.'s Agriculture sector is currently a relatively small contributor to the province's overall economy, especially as Crop production is limited by the province's rocky terrain, cool and wet climate and short growing season.
- Aquaculture accounts for over half of N.L.'s Agriculture GDP, with well-established operations concentrated in the South Coast-Burin Peninsula and Notre Dame-Central Bonavista Bay economic regions¹⁶, where Atlantic salmon and shellfish are the most commonly farmed products.
- The Government of Newfoundland and Labrador has introduced a variety of programs geared towards growing the Agriculture sector, including increased allocation of land for farming¹⁷ and funding for various projects through a new Canadian Agricultural Partnership agreement¹⁸.

Prince Edward Island

- P.E.I. is the most dependent of all Atlantic provinces on its Agriculture sector, which contributed 4.0% and 4.2% of the province's GDP and employment, respectively¹⁹.
- The island's fertile soil lends itself particularly well to the production of potatoes. Despite the fact that production was at its lowest level since 2001, it nonetheless lead all Canadian provinces in 2017²⁰.
- A new crop program, being implemented through a new federal-provincial Canadian Agricultural Partnership, will support agriculture diversification in P.E.I. by encouraging farmers to start planting more crops like apples, high bush blueberries and grapes²¹.

Nova Scotia

- The Annapolis Valley is notable for its grape production which, thanks to a relatively milder micro-climate and ongoing government support, has expanded rapidly over the past three decades²².
- The majority of Atlantic Canada's greenhouse crops originate in N.S.²³ and the Southern economic region is responsible for nearly half of Canada's mink pelt supply²⁴.
- The Government of Nova Scotia (with support from the Government of Canada) has introduced medium-term funding for a number of cost-sharing programs aimed at promoting productivity and profitability within the Agriculture sector, including a Small Farm Accelerator Program and a Wild Blueberry Harvest Efficiency Program²⁵.

New Brunswick

- N.B.'s Agriculture sector is the largest of the four Atlantic provinces, employing 5,100 people and contributing over \$350M to the province's economy²⁶.
- Nearly half of Atlantic Canada's blueberries are produced in N.B., which has benefited in recent years from the opening of an Oxford Frozen Foods processing facility and significant land development – particularly in Gloucester County²⁷.
- N.B. also boasts a significant share of the Atlantic region's Aquaculture production, with the highest concentration of output located in the Saint John-St. Stephen economic region²⁸.

APPENDIX

Table Two Real GDP and Employment for Atlantic Canada, 2017						
	Agriculture			All Industries		
	Number	Share of Total	AAGR* 2008-17	Number	Share of Total	AAGR* 2008-17
Real GDP (M\$)	\$1,033.3	100.0%	2.8%	\$103,262.4	100.0%	0.4%
Newfoundland and Labrador	\$85.9	8.3%	3.6%	\$31,585.2	30.6%	-0.1%
Prince Edward Island	\$246.7	23.9%	1.5%	\$5,540.0	5.4%	1.5%
Nova Scotia	\$319.9	31.0%	1.3%	\$35,955.4	34.8%	0.7%
New Brunswick	\$380.8	36.9%	5.0%	\$30,181.8	29.2%	0.4%
Employment (000s)	14.8	100.0%	-1.2%	1099.8	100.0%	0.0%
Male	10.4	70.3%	-1.3%	550.8	50.1%	-0.2%
Female	4.4	29.7%	-1.0%	549.0	49.9%	0.1%
15-24 years old	2.5	16.9%	-1.3%	140.3	12.8%	-1.7%
25-54 years old	7.6	51.4%	-1.7%	706.1	64.2%	-0.8%
55 years and older	4.7	31.8%	0.0%	253.4	23.0%	3.9%
Worked full-time	12.8	86.5%	-1.1%	918.9	83.6%	0.0%
Worked part-time	2.0	13.5%	-2.0%	180.9	16.4%	-0.2%
Self-employed	5.1	34.5%	-1.4%	131.5	12.0%	-0.2%
Employees	9.7	65.5%	-1.1%	968.3	88.0%	0.0%
Permanent job	6.5	43.9%	-0.7%	788.2	71.7%	0.0%
Temporary job	3.2	21.6%	-1.9%	180.1	16.4%	-0.2%
Less than high school	3.1	20.9%	-6.0%	103.3	9.4%	-5.2%
High school graduate	5.2	35.1%	-0.2%	286.2	26.0%	-0.8%
Postsecondary cert. or diploma	4.9	33.1%	1.5%	430.5	39.1%	0.6%
University degree	1.6	10.8%	0.7%	279.8	25.4%	2.8%
Newfoundland and Labrador	1.9	12.8%	8.7%	224.1	20.4%	0.1%
Prince Edward Island	3.1	20.9%	-0.4%	73.7	6.7%	0.7%
Nova Scotia	4.7	31.8%	-3.5%	449.0	40.8%	-0.1%
New Brunswick	5.1	34.5%	-1.6%	352.9	32.1%	-0.2%

Source: Statistics Canada, Labour Force Survey - Custom Table; Table 36-10-0402-01

*Average Annual Growth Rate

Note: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information

presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.

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¹ Statistics Canada. Industry Accounts Division. Provincial Symmetric Input-Output Tables.

² Statistics Canada. 36-10-0402-01.

³ Statistics Canada. Table 32-10-0107-01.

⁴ Statistics Canada. Tables 32-10-0113-01, 32-10-0110-01 and 32-10-0121-01.

⁵ Agriculture and Agri-Food Canada. 2017 Annual Report of Agroclimate Conditions Across Canada.

<http://www.agr.gc.ca/eng/programs-and-services/drought-watch/2017-annual-report-of-agroclimate-conditions-across-canada/?id=1519400741748#a4>.

⁶ Statistics Canada. Table 14-10-0072-01.

⁷ Statistics Canada. Growing opportunity through innovation in agriculture. Catalogue no. 95-640-X. 2017.

⁸ Farm Focus. Craft brewery boom keeps N.B. farmers on the hop. <https://www.atlanticfarmfocus.ca/farm-focus-august-2017/2017/8/9/craft-brewery-boom-keeps-nb-farmers-on-the-hop>.

⁹ Maclean's. Nova Scotia's hobby farms are thriving. <https://www.macleans.ca/economy/business/nova-scotias-hobby-farms-are-thriving/>.

¹⁰ Statistics Canada. Table 14-10-0023-01.

¹¹ Canadian Agricultural Human Resource Council. Agricultural Labour Market Forecast to 2025.

¹² Statistics Canada. Growing opportunity through innovation in agriculture. Catalogue no. 95-640-X. 2017.

¹³ Canadian Agricultural Human Resources Council. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future.

¹⁴ 2011 is the earliest year for which complete Labour Force Survey data by age group is available.

¹⁵ CBC. <https://www.cbc.ca/news/canada/new-brunswick/organigram-medical-cannabis-international-business-1.4669479>.

¹⁶ Newfoundland and Labrador. Licensed Aquaculture Sites. 2015. https://www.fishaq.gov.nl.ca/pdf/aquaculture_2015_year.pdf.

¹⁷ AGCanada. Newfoundland expands Crown land base for farming. <https://www.agcanada.com/daily/newfoundland-expands-crown-land-base-for-farming>.

¹⁸ Newfoundland and Labrador. Canadian Agricultural Partnership to Grow Industry and Promote Food Self-sufficiency in Newfoundland and Labrador. <https://www.releases.gov.nl.ca/releases/2018/exec/0510n02.aspx>.

¹⁹ Statistics Canada. Tables 36-10-0402-01 and 14-10-0023-01.

²⁰ Statistics Canada. Table 32-10-0358-01.

²¹ The Guardian. New crop program will support agriculture diversification on P.E.I. <https://www.theguardian.pe.ca/news/local/new-crop-program-will-support-agriculture-diversification-on-pe-222081/>.

²² Statistics Canada. Table 32-10-0364-01.

²³ Statistics Canada. Table 32-10-0456-01.

²⁴ Statistics Canada. Tables 32-10-0116-01 and 32-10-0403-01; SUS data.

²⁵ Nova Scotia. Canadian Agricultural Partnership. <https://novascotia.ca/canadian-agricultural-partnership/>.

²⁶ Statistics Canada. Tables 14-10-0023-01 and 36-10-0402-01.

²⁷ Statistics Canada. Table 32-10-0364-01.

²⁸ Statistics Canada. Table 32-10-0403-01; SUS data.