



Sectoral Profile

Agriculture

Ontario

2018-2020



Sectoral Profiles provide an overview of recent labour market developments and outlooks for key industries for various regions of the country.

AGRICULTURAL INDUSTRY ADAPTS TO MEET STRUCTURAL AND CONSUMER DEMANDS

- The number of farms fell in Ontario but operations were larger and more valuable
- Machinery and new technologies have allowed farms to maintain production with fewer inputs
- The industry faces challenges to attract workers and relies heavily on temporary labour
- The buy local movement has increased the demand for Ontario's agricultural products
- Employment growth will likely remain flat in the agricultural industry over the 2018 to 2020 period

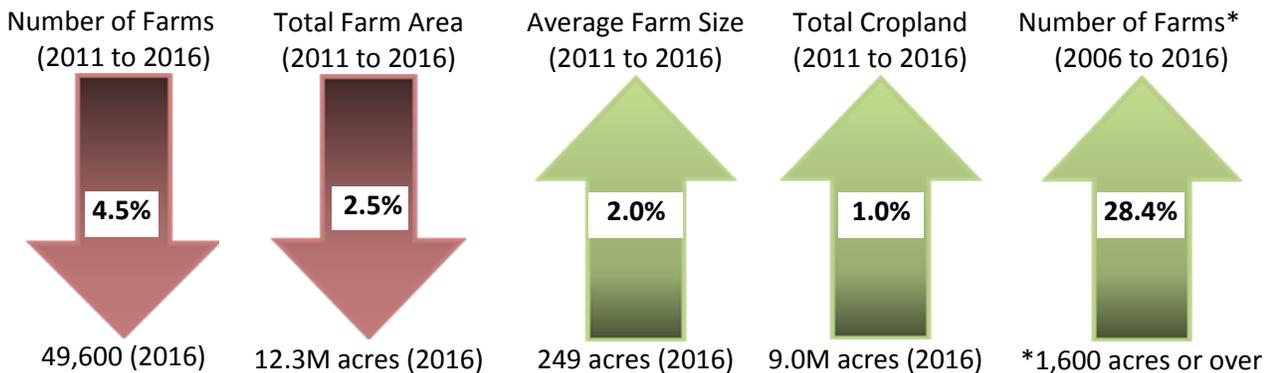
Ontario has a fertile agricultural base that supplies the food chain with a rich basket of goods at home and abroad. The province has the highest number of census farms^a in Canada with 49,600.¹ This represents about one-quarter of all Canadian farms.² Ontario's farmers produce more than 200 different commodities.³ Employment in primary agriculture fell to 68,500 in Ontario in 2017, after a slight gain in the previous year.⁴ Farming has deep roots in several communities particularly in the southwestern region of the province. The industry works in tandem with food and beverage manufacturers, retail and food service providers, wholesale distributors, and research and environmental partners to deliver products to consumers. Primary agriculture made up just 0.7% of Ontario's total gross domestic product in 2017,⁵ but that figure jumped to 6.1% for the broader agri-food industry. The agri-food industry includes food, beverage and tobacco manufacturing and other industries related to agriculture.

^a Census farm refers to a farm, ranch or other agricultural operation that produces at least one of the following products intended for sale: crops, livestock, poultry, animal products, greenhouse or nursery products, Christmas trees, mushrooms, sod, honey or bees, and maple syrup products. Also included are feedlots, greenhouses, mushroom houses and nurseries; farms producing Christmas trees, fur, game (animals and birds), sod, maple syrup, or fruit and berries; beekeeping and poultry hatchery operations; operations with alternative livestock (bison, deer, elk, llamas, alpacas, wild boars, etc.) or alternative poultry (ostriches, emus, etc.), when the animal or derived products are intended for sale; backyard gardens if agricultural products are intended for sale; and operations involved in boarding horses, riding stables, and stables for housing or training horses, even if no agricultural products are sold. Sales in the previous 12 months are not required, but there must be the intention to sell. (based on the definition from Statistics Canada)

Snapshot of Ontario’s Farms

The number of farms continued to fall in Ontario between 2011 and 2016, driven by a drop in livestock and dairy farms (See Figure 1).⁶ Despite a decline in total farm area, agricultural operations across the province were larger and utilized a higher share of land to produce crops.⁷ Farm consolidation over the last several years has been a key reason for this trend as smaller operations merged. Some of this may have stemmed from greater use of technology, heightened competition, and structural shifts. Large-scale farms are often more capital-intensive and are able to boost production with fewer inputs. The total value of all farm capital grew to \$139.5B in Ontario in 2017.⁸ Most of this came from a jump in the value of land and buildings such as greenhouses, which were a thriving part of the provincial industry. The total value of tractors used also rose, as farmers across Canada used larger and more powerful machinery.⁹ As a result, the share of farms with capital worth \$1M or more increased in the province between 2006 and 2016 with a substantial rise in those worth at least \$3.5M.¹⁰ Although farmers continued to see an increase in the prices received for agricultural goods, the cost of inputs required to sustain and grow operations have also climbed.^b The expense-to-receipt ratio^c for Ontario’s farmers increased in 2015 to 0.85.¹¹

Figure 1: Highlights of the Agricultural Industry in Ontario



Source: Statistics Canada, Census of Agriculture

Breakdown of Ontario’s Agricultural Base

A key driver of Ontario’s agricultural industry has been the buy local movement. Consumer preferences towards locally sourced food, healthier options, specialty products, and convenience items continued to create opportunities for farmers. Innovation in crop science, farming practices, and marketing, has opened the door for farmers to sell a wider range of goods with this pattern likely to remain in the years ahead. Farmers must decide what crops to plant based on multiple factors such as soil and climate suitability, pest and disease management, and prices and market opportunities. Outside of Ontario, farmers should benefit from a stronger export market, as the United States is the top export destination for Ontario’s agricultural goods. A growing middle class, particularly in China, will further raise the demand for sustainable, traceable, and specialty items abroad.

^b Based on the Farm Product Price Index (FPPI) and Farm Input Price Index (FIPI) from Statistics Canada. The FPPI measures the change through time in prices received by farmers from the sale of agricultural products and the FIPI estimates the change in price that farmers pay for inputs into their farming operation through time.

^c The expense-to-receipt ratio is the average amount incurred in operating expenses for a dollar in gross farm receipts per Statistics Canada’s Census of Agriculture

Close to 70.0% of all farms in the province were oilseed and grain farms, cattle ranches and farms, and other crop farms in 2016 (See Table 2).¹² There has been an ongoing shift in the industry away from animal production and dairy farming to crop-based production over the last several years. Ontario is a major player in several agricultural operations with the highest number of farms in poultry production, soybean farming, corn farming, and mushroom and floriculture production across Canada. Even though there were fewer animal-based farms, animal production employed slightly more workers than crop production as livestock farming tends to be more labour-intensive. Nearly 57.0% of the primary agriculture workforce was in cattle ranching and farming, other crop farming, and greenhouse, nursery and floriculture production in 2017 (See Table 3).¹³

Table 2: Number of Census Farms in Ontario by Farm Type and Rank across Canada in 2016

Farm Type	Total Number of Farms in Ontario	Rank Across Canada	Share of Total Ontario Farms (%)
Cattle ranching and farming	10,225	2	20.6%
Beef cattle ranching and farming, including feedlots	6,786	3	13.7%
Dairy cattle and milk production	3,439	2	6.9%
Hog and pig farming	1,229	2	2.5%
Poultry and egg production	1,816	1	3.7%
Sheep and goat farming	1,097	1	2.2%
Other animal production	5,902	1	11.9%
Oilseed and grain farming	16,876	2	34.0%
Vegetable and melon farming	1,856	1	3.7%
Fruit and tree nut farming	1,362	3	2.7%
Greenhouse, nursery and floriculture production	2,050	1	4.1%
Other crop farming	7,187	3	14.5%
Total	49,600	1	100.0%

Source: Statistics Canada, Census of Agriculture

Table 3: Employment in Primary Agriculture in Ontario in 2017

Farming Activity	Total Employment	Share of Total Primary Agriculture Employment (%)
Farming (N.E.C.)	4,000	5.8%
Crop production	29,900	43.6%
Oilseed and grain farming	1,800	2.6%
Vegetable and melon farming	3,800	5.5%
Fruit and tree nut farming	2,700	3.9%
Greenhouse, nursery and floriculture production	10,200	14.9%
Other crop farming	11,400	16.6%
Animal production	31,100	45.4%
Cattle ranching and farming	17,300	25.3%
Hog and pig farming	-	-
Poultry and egg production	4,400	6.4%
Sheep and goat farming	-	-
Aquaculture	-	-
Other animal production	7,400	10.8%
Support activities for crop and animal production	3,500	5.1%
Total crop and animal production (primary agriculture)	68,500	100.0%

Note: N.E.C - not elsewhere classified means when the type of farm activity cannot be distinguished between crop and livestock farming (e.g. mixed farming)

Employment for hog and pig farming, sheep and goat farming, and aquaculture were not available in 2017

Source: Government of Ontario, Ontario Ministry of Agriculture, Food and Rural Affairs

Farm Finance in Ontario

Total farm cash receipts reached \$13.1B in the province in 2017.¹⁴ Ontario accounted for 21.3% of all farm cash receipts in Canada, third to only Alberta and Saskatchewan.¹⁵ Receipts from crop-based farming were slightly higher than for livestock and livestock products (See Table 4). Dairy products, soybeans, cattle, hogs and corn were the top five farming operations with about 55.2% of all farm cash receipts in Ontario in 2017.¹⁶ Total cash farm receipts have grown by 41.5% in the province since 2007, with gains in both crop and livestock and livestock products.¹⁷

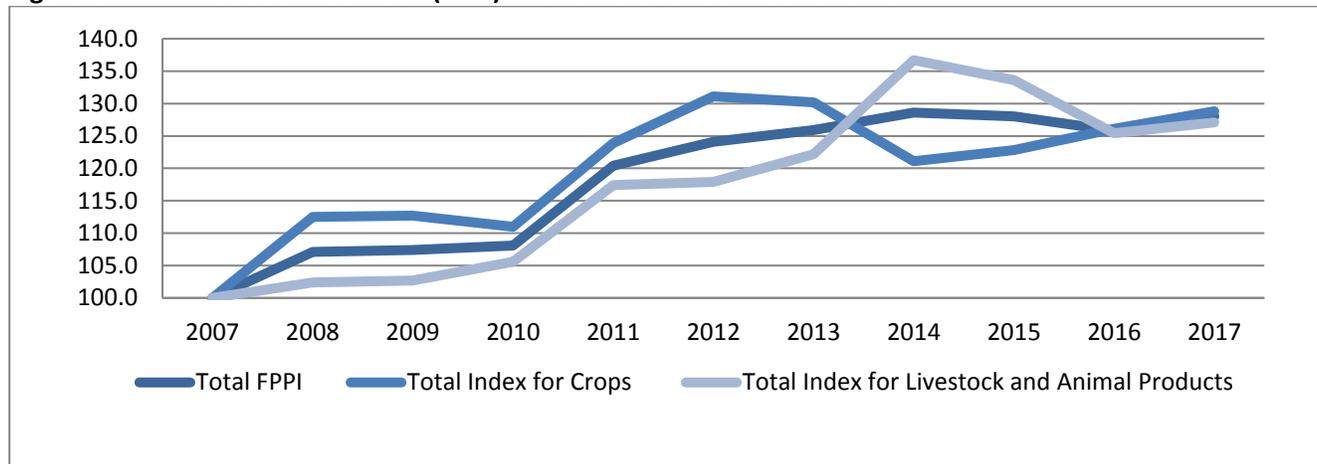
Table 4: Total Farm Cash Receipts (FCR) for the Top Farming Operations in Ontario in 2017

Farming Operation	Total FCR in Ontario (\$ '000)	Share of Total Canadian FCR (%)
Total crop receipts	6,452,937	18.9%
Soybeans	1,414,131	52.1%
Corn	1,180,206	58.8%
Greenhouse vegetables	922,146	64.7%
Field vegetables	835,321	48.0%
Wheat, excluding durum	238,377	4.7%
Ginseng	224,599	98.6%
Floriculture, nursery and sod	776,125	44.0%
Total tree fruits	146,743	37.8%
Total small fruits	133,304	20.2%
Total receipts from livestock and livestock products	6,350,126	25.4%
Dairy products	2,118,419	32.3%
Cattle	1,278,211	15.8%
Hogs	1,248,801	27.8%
Hens and chicken	831,582	32.8%
Total eggs	402,265	36.7%
Turkey	167,472	43.6%
Total farm cash receipts	13,124,589	21.3%

Note: Only the top six farming operations by cash receipts were listed for crop production and livestock and livestock products along with the total receipts for other specialized farming operations such as floriculture, nursery and sod, tree fruits, and small fruits

Sources: Statistics Canada, Census of Agriculture and Government of Ontario, Ontario Ministry of Agriculture, Food and Rural Affairs

Prices received for crops have generally trended higher than for livestock and animal products over the past decade in Ontario except in 2014 and 2015 when there was a spike in the price of hogs, cattle and calves (See Figure 5).¹⁸ The price received for oilseed and specialty crops has been particularly strong. This may be part of the reason for the steady shift towards crop farming and the rise in land dedicated to grow these products. On the input side, costs in animal production have generally trended above those in crop production over the past few years in Ontario.¹⁹ This was mainly because of higher costs to purchase livestock. Livestock operations such as dairy, eggs, poultry, and hog farming often require more capital and infrastructure to house animals and support production.

Figure 5: Farm Product Price Index (FPPI) in Ontario between 2007 and 2017

Source: Statistics Canada. Table 32-10-0099-01 Farm product price index (FPPI), annual (2007=100)

Labour Challenges Persist for the Agricultural Industry

Although productivity gains and farm consolidation will likely keep employment growth limited, the agricultural industry faces ongoing difficulties to attract and retain labour in Ontario. Some of the main reasons include strenuous working conditions, seasonality, rural locations, competition from other industries, and a lack of awareness or negative views on agriculture. A survey of Ontario's agricultural employers revealed that the majority were not able to find sufficient labour and that more than one-half plan to increase the number of new hires in the next five years.²⁰ Respondents also indicated that a fair number of positions require post-secondary education. To try to fill this gap there has been greater recruitment efforts by educational institutions and talks to alter training to meet employer needs.

Some of the key occupations in the agricultural industry in Ontario include:

- Managers in agriculture (NOC 0821)
- General farm workers (NOC 8431)
- Nursery and greenhouse workers (NOC 8432)
- Transport truck drivers (NOC 7511)
- Agricultural service contractors, farm supervisors and specialized livestock workers (NOC 8252)
- Managers in horticulture (NOC 0822)
- Harvesting labourers (NOC 8611)
- Agricultural representatives, consultants and specialists (NOC 2123)

Challenges exist to fill vacancies across the board from lower-skilled labourers to high-skilled positions. The lack of workers may result in lost revenues, delayed expansion plans, or the move to less labour-intensive operations such as oilseed and grain farming. To help cope, the industry relies heavily on temporary foreign workers to supplement the domestic workforce, especially for general farm workers, nursery and greenhouse workers, and harvesting labourers during peak seasons.²¹ The horticulture industry may see a deeper shortage since work is highly seasonal and many of the tasks are manual. In contrast, other areas such as dairy farming may experience less pressure because of productivity gains and steadier working conditions. Based on an industry report the most difficult positions to fill in the coming years will be managers in agriculture, and general farm workers, followed by nursery and greenhouse workers, harvesting labourers, and managers in horticulture.²²

Another hurdle that faces the industry is the older age profile of farm operators. In 2016, 55.1% of operators were over the age of 55 and many had no succession plan in place.²³ While there seems to be some interest to join the agricultural community from younger individuals, high start-up costs for land and capital is a roadblock for many. As such, there are industry initiatives to bridge the financial gap between older farmers and prospective entrants as well as the option to rent land or participate in crop sharing.²⁴

Closer Look at Ontario's Key Crop and Livestock Commodities

Several of Ontario's major agricultural commodities should benefit from greater demand for local goods, a favourable Canada-United States exchange rate, and positive global market conditions going forward. Recent steps to negotiate and ratify trade agreements may increase global access for some agricultural industries while greater domestic competition is a concern for others. For producers in beef, hog, crop and horticulture farming, the agreements will help open the door to a wider customer base but for those in supply-managed commodities such as dairy, eggs and poultry, they could curb market share.

Livestock and Livestock Products

- **Dairy Products:** though the number of dairy cattle and milk production farms and dairy cows and heifers has been on a downwards trend for many years, milk production has increased because of greater output per animal.²⁵ Advancements in robotic milking systems, herd management, housing controls, feed quality, and genetics have allowed farmers to raise milk output with fewer cows. Farm cash receipts from dairy products grew by 19.0% between 2010 and 2017 in Ontario.²⁶ The national outlook for dairy product consumption is positive.²⁷ While milk consumption has weakened overall, consumer demand for yogurt, butter, cheese including specialty varieties, and innovative and low-fat products are up.²⁸ One of the biggest concerns for the industry is the change in the trade environment. Under the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and Canada-United States-Mexico Agreement (CUSMA), Canada may cede up to ten per cent of the dairy market to foreign producers.²⁹ CETA will also allow for greater imports of European cheese and CUSMA will eliminate a milk-pricing category for ultra-filtered milk and set limits on certain Canadian dairy exports.
- **Beef Cattle:** the number of beef cattle ranches and farms, including feedlots decreased in the province over the past decade.³⁰ Ontario's cattle inventory has been relatively stable over the past few years,³¹ and the demand for beef products remains high.³² Farm cash receipts from cattle increased by 43.1% between 2010 and 2017 in Ontario.³³ Canadian beef prices softened in 2018 and feed grain prices may remain low in the near term if there are no weather disruptions to hay yields. In addition to domestic needs, there is growing demand for Canadian beef abroad.³⁴ Most beef exports head to the United States but other markets such as Japan, Mexico and China are gaining ground. On the trade front, greater market access to China³⁵ and member CPTPP nations,³⁶ the ability to export a specific amount of hormone beef to Europe duty-free under CETA,³⁷ and the end of Japan's spike in frozen beef tariffs³⁸ should continue to push exports.
- **Hogs:** the number of hog and pig farms decreased in the province over the past decade,³⁹ but Ontario's pig inventory has grown over the past few years.⁴⁰ Improvements to manage disease outbreaks, nutrition, and genetics have helped farming operations. Pork consumption continues to be strong worldwide.⁴¹ Farm cash receipts from hogs increased by 64.4% between 2010 and 2017 in Ontario.⁴² A rise in pork processing capacity in Canada along with steadier feed prices should support the industry going forward.⁴³ Grain feed accounts

for a large share of input costs for hog farmers. Contract hog farming operations^d tend to have a lower cost ratio compared to non-contract operations.⁴⁴ This is likely because those under contract can better estimate the costs of production and safeguard against price swings. Meanwhile, hog and pork exports to the United States softened in early 2018 because of larger American hog supplies.⁴⁵ Exports to other countries such as Mexico, South Korea, and Japan have grown, and demand from China remains a key driver. Many hog and pork producers have welcomed the CPTPP deal, as it will allow greater access to the expanding Asian market.⁴⁶ CETA will also allow for access to the European pork market through a duty-free tariff rate quota for Canadian producers.⁴⁷

- **Poultry and Egg Production:** the number of broiler and other meat-type chicken, chicken egg, and turkey production farms increased in the province over the past decade.⁴⁸ Ontario's chicken inventory has grown over the past few years and the turkey stock has been rather steady.⁴⁹ The total number of eggs produced has continued to climb since 2006.⁵⁰ Ontario had about 36.1% of the national egg quota allocation in the country in 2017.⁵¹ There has been rising demand for various types of poultry and eggs in Canada, which has boosted production of these goods.⁵² Farm cash receipts from hens and chickens, turkeys and eggs rose by 32.8% between 2010 and 2017 in Ontario.⁵³ This positive trend should persist because of strong local demand for chicken, a wider range of processed turkey products, increased egg consumption with the shift towards protein-based diets, and greater demand for goods with egg whites only.⁵⁴ Recent changes to the trade environment sparked concerns in the poultry and egg industry, as CPTPP and CUSMA will provide new market access to foreign producers of poultry and egg products through volume-limited quotas.⁵⁵

Crop Production

- **Field Crops:** the largest field crops in terms of acres harvested were soybeans, grain corn, hay and winter wheat in Ontario in 2017.⁵⁶ Farm cash receipts from soybeans increased by 24.3% and receipts from corn grew by 14.6% between 2010 and 2017.⁵⁷ Similarly, the amount of acres seeded to grow soybeans and grain corn increased while total land used for hay and winter wheat production fell in 2017.⁵⁸ Overall, the number of oilseed and grain farms rose and the number of hay farms declined in the province over the past decade.⁵⁹ The drop in hay farming may stem from a decline in the number of cattle farms and the overall herd size in Canada. There has been a general move away from food crops such as wheat and feed grains towards cash crops. This may be because of profitability, advances in yield volumes and crop management, and local and international demand. Ontario has the largest area dedicated to soybean farming in the country. Soybean farmers will likely continue to see strong demand from the large Chinese market that relies on soybeans for animal feedstock and human consumption but trade tensions between the United States and China may lead to price uncertainty.⁶⁰ Global demand for corn including for ethanol production, and reduced corn stocks should keep production profitable. Pulses are becoming more popular to farm as well. Though small compared to other commodities, Ontario is a leader for dry white beans in Canada.
- **Horticultural Crops-Vegetables:** the number of vegetable and melon farms increased in the province over the past decade.⁶¹ The largest field crops in terms of acres harvested were sweet corn, green peas, field tomatoes, and green and wax beans in 2017.⁶² Farm cash receipts from field vegetables rose by 63.6% between 2010 and 2017 in the province.⁶³ Ontario is a core region for mushroom farming, which has seen greater demand locally and abroad. The area harvested for mushroom production increased in 2017 and the value of all mushrooms produced grew over the last few years.⁶⁴ The most valuable horticulture field crop grown in the province is ginseng.⁶⁵ The value of all farm cash receipts from ginseng totalled close to \$225M in Ontario in 2017 with most of the crop exported to China.⁶⁶

^d Contract hog farming involves contracting services such as the supply of feed, vet services, transport and marketing to another party.

- **Horticultural Crops-Fruits:** the number of fruit and tree-nut farms decreased in the province over the past decade.⁶⁷ The largest fruit crops in terms of acres harvested in were grapes, apples and peaches in 2017.⁶⁸ Farm cash receipts from tree fruits (such as apples) increased by 38.6% between 2010 and 2017 in Ontario.⁶⁹ Similarly, receipts from small fruits (such as grapes) rose by 31.1% over the same period. The large viticulture industry centres on wine and icewine production in the Niagara region.
- **Greenhouse, Sod and Nursery:** Ontario is the centre for greenhouse production in the country with two-thirds of all greenhouse vegetable area in Canada.⁷⁰ The industry continues to play a greater role in the provincial agricultural base by extending the growing season and raising output. The area used for greenhouse operations rose by 65.8% between 2001 and 2016 led by gains in greenhouse vegetables.⁷¹ The top three crops produced in Ontario's greenhouses were cucumbers, tomatoes and peppers. Meanwhile, operators that grow flowers face tougher competition from imported goods though some producers hope to see opportunities to supply Ontario's diverse population with specialty plants and branch out to new export markets. The increase in multi-dwelling housing compared to single detached homes with traditional yards may have also hurt sod and nursery producers.

One area that has grabbed much of the attention lately in the industry is cannabis production. Several companies built or transformed existing greenhouse facilities to cultivate cannabis to support the demand for legalized recreational usage. There is budding demand for this good worldwide as well with more countries easing regulations. Some local producers have already launched into the global market as Ontario works to establish itself as an industry leader in both high-tech production and research.

Field and greenhouse vegetables and fruits should benefit from the push to buy Ontario-grown produce, increased demand for healthier food options, and greater market opportunities outside of Ontario. In 2016, 15.1% of farms in the province sold goods directly to consumers through avenues such as farmer's markets and stands.⁷² Farmers may also choose to venture into new crop varieties to serve a specialty market or a segment of food manufacturing such as hazelnut or hops production. Based on a recent survey, more than 20.0% of farmers in Ontario tried to grow a new crop over the past five years and 7.0% plan to introduce a new crop within the next two years.⁷³ Farmers and researchers are experimenting with a large number of crops that includes okra, hemp, quinoa, kale and bok choy, to determine optimal growing conditions. In addition to new crop varieties, a greater number of farms produced organic goods in 2016.⁷⁴ Some of these niche markets have attracted younger farmers to set up micro-operations. The recent trade pacts generally bode well for crop producers as it will broaden access, especially to the Asia-Pacific market, and maintain cross-border trade with the United States.⁷⁵

Technology is playing a role across the agricultural industry to increase efficiency that will not only improve yields and profits but also help address labour shortfalls.⁷⁶ About two-thirds of all farms in Canada used technology to advance farming operations in 2015.⁷⁷ The top choices were computers/laptops, smartphone/tablets, GIS technology and automated steering. Larger farms are more likely to use technology to maximize agricultural precision for seeding, harvesting and input usage. Technologies such as computerized harvesting aids, robotic pickers, automated tractors and sensors can reduce the amount of labour needed and lower costs.⁷⁸ This is a key priority especially in the horticulture industry.⁷⁹ Close to 20.0% of all farms in greenhouse, nursery and floriculture production used automation technologies in Canada in 2015.⁸⁰ Although still in the early stages, the industry is starting to utilize Artificial Intelligence (AI) to raise productivity.⁸¹ Use of AI can help forecast and increase yields, reduce costs through targeted applications of fertilizers and water, and improve dairy production and manage livestock disease. There is growing interest to use unmanned aerial systems such as drones to gather data to monitor farming operations and conduct soil sampling as well.⁸² Further,

about 10.4% of all farms in Ontario used renewable energy systems with solar panels as the most common choice.⁸³

A number of external shocks can affect the viability of farming operations such as inclement weather, disease, supply of feed, and international and domestic policy changes. The federal, provincial and territorial governments established the Canadian Agricultural Partnership to help farmers manage these risks and strengthen the industry to compete better locally and abroad.⁸⁴

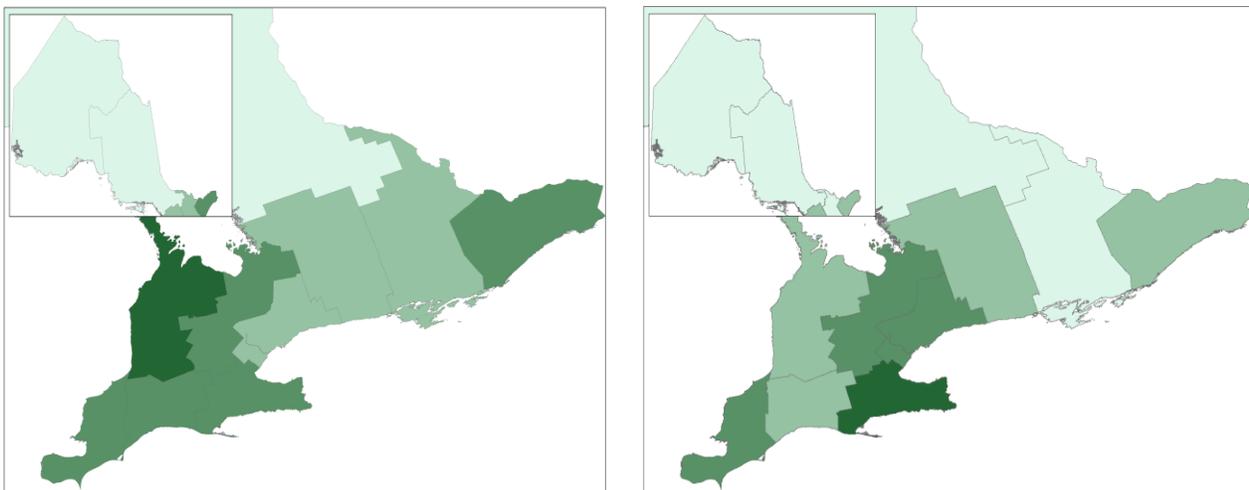
Ontario's Agricultural Industry will continue to Adapt to Satisfy Consumers

Greater use of technology and mechanization to drive efficiency and scale will remain a key component of the agricultural industry. Advances in crop science and animal production will allow farmers to grow more products and better adapt to consumer tastes and international markets. At the same time, higher input costs and stiffer competition in some areas of farming could create headwinds going forward. Though employment will likely see little gains as farms consolidate and increase productivity, challenges to find sufficient labour and skill sets will persist as farmers look to boost output in the years ahead.

Ontario's Agricultural Industry at the Regional Level

The agricultural industry has roots in every region of the province with farming specialties in certain areas. Most farms and greenhouses are in the agricultural heartland in southwestern Ontario though sizeable pockets exist in the central and eastern regions (See Figure 6).⁸⁵ The top economic regions by agricultural employment in Ontario were Hamilton–Niagara Peninsula, Stratford–Bruce Peninsula, Kitchener–Waterloo–Barrie, Windsor–Sarnia, and London. The province is also a key player in agricultural innovation with farmers, scientists and industry experts working together. Guelph is the core of Ontario's agri-food industry anchored by research and development activities at the University of Guelph, along with other agricultural-related companies and institutions.

Figure 6: Share of Farms (left) and Greenhouses (right) by Economic Region in Ontario in 2016



Source: Statistics Canada, Census of Agriculture

The **Ottawa** economic region had about 10.4% all of farms and 7.9% of all greenhouses^e in Ontario.⁸⁶ About 9.2% of all workers in the provincial agricultural industry^f worked in the Ottawa region.⁸⁷ Some of the key farming communities in the area were Stormont, Dundas and Glengarry, Ottawa, and Leeds and Grenville. The main farming activities were oilseed and grain, and beef cattle ranches. Prescott and Russell was the only area in the region to see an increase in both employment and total area of land used for farming activities in 2016. There were a few announcements in the local industry. Wilkridge Farm opened a new \$2.3M dairy barn with advanced robotic milking systems near Fournier. Further, cannabis producer Canopy Growth Corporation announced that it would increase its workforce by 600 in Smiths Falls in a variety of departments including production and cultivation.

The **Kingston–Pembroke** economic region had about 7.1% all of farms and 4.2% of all greenhouses in Ontario. About 4.9% of all workers in the provincial agricultural industry worked in the Kingston–Pembroke region.⁸⁸ Some of the key farming communities in the area were Renfrew and Hastings, and the main farming activities were beef cattle ranches, and oilseed and grain. The county of Prince Edward was the top area for agricultural employment in the region. There were a few announcements in the local industry. Performance Plants Inc. opened a new facility in Kingston. The company is a technology provider to the agricultural industry, especially crop farming. In addition, Beacon Medical announced that it would invest \$30M to expand its Napanee cannabis facility, which will lead to 25 jobs.

The **Muskoka–Kawarthas** economic region had about 6.8% all of farms and 5.2% of all greenhouses in Ontario. About 4.1% of all workers in the provincial agricultural industry worked in the Muskoka–Kawarthas region.⁸⁹ Some of the key farming communities in the area were Kawartha Lakes, Northumberland and Peterborough. The main farming activities were beef cattle ranches, and oilseed and grain. There were a few announcements in the local industry. TCO Agromart Ltd. announced that it would build a facility in Northumberland to serve local farmers in the region with crop inputs and services. Mariposa Dairy announced that it would invest in automated equipment to increase processing capabilities by more than 60 per cent. FV Pharma Inc. announced that it would hire 200 workers in packaging, trimming, growing and maintenance positions.

The **Toronto** economic region had about 5.1% all of farms and 12.4% of all greenhouses in Ontario. About 9.6% of all workers in the provincial agricultural industry worked in the Toronto region.⁹⁰ Some of the key farming communities in the area were York and Durham. York had the highest number of mushroom producers in the province. The Toronto area saw an increase in greenhouse, nursery, and floriculture establishments in 2016. There were a few announcements in the local industry. Ripple Farms Inc. announced that it would establish a new aquaponics growing facility on Seneca College's Newnham Campus in Toronto. Sharon Mushroom Farm expanded its mushroom growing operation in York to keep up with demand. In addition, Sargent Farms announced that it would invest \$10M over three years to retrofit its chicken processing facility in Milton.

The **Kitchener–Waterloo–Barrie** economic region had about 12.9% all of farms and 12.0% of all greenhouses in Ontario. About 13.7% of all workers in the provincial agricultural industry worked in the Kitchener–Waterloo–Barrie region.⁹¹ Simcoe, Wellington, and Waterloo all had a larger agricultural workforce than many other parts of the province. Wellington was one of the main producers of poultry and eggs in Ontario. Recent developments included the opening of a new cannabis cultivation facility by James E. Wagner Cultivation in Kitchener. Further, Bell's Edge Farm announced that it would upgrade machinery and develop products under its flavoured butter line.

^e Unless otherwise stated, all data referenced in the regional sections is from Statistics Canada's Census of Agriculture and all comparisons are between 2011 and 2016

^f Agricultural industry includes: NAICS 111 crop production and NAICS 112 animal production and aquaculture

The **Hamilton–Niagara Peninsula** economic region had about 12.0% all of farms and 28.4% of all greenhouses in Ontario. About 15.6% of all workers in the provincial agricultural industry worked in the Hamilton–Niagara Peninsula region.⁹² Some of the key farming communities in the area were Haldimand-Norfolk, Niagara, Hamilton and Brant. Agricultural employment increased sharply in Haldimand-Norfolk and modestly in Brant in 2016. The Niagara area had the greatest number of fruit and tree nut farms, which included a large number of vineyards that support the wine and icewine industry. Niagara also had the highest number of greenhouses as the top floriculture, and nursery and tree producer in Ontario. Recently, there were several expansion and hiring announcements from cannabis producers such as Tweed Farms, CannTrust, Aleafia Health Inc., Green Relief, and Emblem Cannabis.

The **London** economic region had about 11.2% all of farms and 6.5% of all greenhouses in Ontario. About 11.5% of all workers in the provincial agricultural industry worked in the London region.⁹³ Some of the key farming communities in the area were Middlesex, Oxford and Elgin. Middlesex was one of the top farming communities in the province. Unlike many other economic regions, the total area of land used for farming activities grew across London, especially in Oxford. Middlesex saw the biggest increase in the number of nursery and tree producers in Ontario in 2016. There were a few announcements in the local industry. Sargent Farms and Boire & Frères Inc. jointly opened the Thames River Hatchery in Woodstock at a cost of \$15M. There were also several expansion and hiring announcements from cannabis producers in the region such as WeedMD Inc., High Park Company, INDIVA, and Beleave Cannabis Corporation.

The **Windsor–Sarnia** economic region had about 12.0% all of farms and 12.3% of all greenhouses in Ontario. About 12.1% of all workers in the provincial agricultural industry worked in the Windsor–Sarnia region.⁹⁴ Some of the key farming communities in the area were Chatham-Kent, Lambton and Essex. This region had one of the largest agricultural workforces in Ontario and contained many of the province’s biggest farms. The number of farms increased sharply in Chatham-Kent and modestly in Essex in 2016. Unlike many other economic regions, the total area of land used for farming activities grew across Windsor–Sarnia, with large gains in Chatham-Kent and Essex. Essex had the second highest number of greenhouses and was the centre for greenhouse crop production in the province. The Leamington and Kingsville localities were the main growing areas for greenhouse vegetables such as tomatoes.

The **Stratford–Bruce Peninsula** economic region had about 18.1% all of farms and 6.0% of all greenhouses in Ontario. About 15.5% of all workers in the provincial agricultural industry worked in the Stratford–Bruce Peninsula region.⁹⁵ Some of the key farming communities in the area were Huron, Perth, Grey and Bruce. This region had one of the largest agricultural workforces in Ontario, as Huron, Grey, Perth, and Bruce were all top farming communities. The number of farms increased in Grey and Huron in 2016 with Huron having the highest number of farms in the province. Unlike many other economic regions, the total area of land used for farming activities grew in Stratford–Bruce, with gains in Perth, Huron and Grey. The county of Grey has been able to attract younger farmers and West Grey has a sizeable organics sector.

The **Northeast** economic region had about 3.5% all of farms and 3.4% of all greenhouses in Ontario and the **Northwest** had about 1.0% all of farms and 1.8% of all greenhouses. About 2.8% of all workers in the provincial agricultural industry worked in the Northeast region and about 0.9% worked in the Northwest.⁹⁶ Some of the key farming communities in the area were Timiskaming, Algoma, Parry Sound, Rainy River and Thunder Bay. The main farming activities were beef cattle ranches, oilseed and grain farming, and dairy cattle and milk production. The agricultural workforce increased in several areas including Timiskaming, Algoma, Greater Sudbury, Thunder Bay, Rainy River, and Kenora. A longer growing season because of warmer temperatures and more abundant and cheaper land is expected to encourage new farming activities throughout the regions. Northern Ontario was the largest maple syrup producer in the province. Algoma and Greater Sudbury had the highest number of greenhouses in the Northeast and Thunder Bay had the highest number in the Northwest. There were a few

announcements in the local industry. The University of Guelph will conduct research through its facilities in New Liskeard to help northern Ontario farmers increase beef production. Collège Boréal opened its Applied Research Centre for Biodiversity at its Sudbury campus. DelShen Therapeutics Corp. (48North Cannabis Corp.) announced that it would hire various positions at its medical cannabis cultivation facility in Kirkland Lake. The Government of Ontario will collaborate with Lakehead University to promote agricultural research in northwestern Ontario. The partnership will include a \$1.7M investment from the provincial government over the next five years. In April 2018, the Government of Ontario announced that it would invest \$15.6M in 27 agricultural projects across northern Ontario through the Northern Ontario Heritage Fund Corporation.

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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