

*Quality*  
is in our **nature**



## **Statistical Overview of the Canadian Greenhouse Vegetable Industry** **2020**

Prepared by:  
Crops and Horticulture Division  
Agriculture and Agri-Food Canada  
December 2021



Government  
of Canada

Gouvernement  
du Canada

**Canada** 



© Her Majesty the Queen in Right of Canada, represented by the Minister of Agriculture and Agri-Food, (2021).

Electronic version available at

<https://agriculture.canada.ca/en/canadas-agriculture-sectors/horticulture/horticulture-sector-reports>

ISSN : 2562-8720

AAFC No. : 13096E

Paru également en français sous le titre :

*Aperçu statistique de l'industrie des légumes de serre du Canada, 2020*

ISSN : 2562-8739

No d'AAC : 13096F

For more information, reach us at [www.agr.gc.ca](http://www.agr.gc.ca) or call us toll-free at 1-855-773-0241.



## Table of contents

<b>Overview</b>	<b>1</b>
<b>1. Production</b>	<b>2</b>
1.1. Number of greenhouse vegetable operations by province	3
1.2. Harvested area of greenhouse vegetables by province	3
1.3. Harvested area of greenhouse vegetables by commodity	4
1.4. Greenhouse vegetable production by province – by volume	4
1.5. Greenhouse vegetable production by commodity – by volume	5
1.6. Farm gate value of greenhouse vegetables by province	5
1.7. Farm gate value of greenhouse vegetables by commodity	6
<b>2. Trade</b>	<b>7</b>
2.1. Canadian greenhouse vegetable trade balance	7
2.2. Exports	8
2.2.1. Canada's greenhouse vegetable exports by commodity – by value	8
2.2.2. Canada's greenhouse vegetable exports by commodity – by volume	8
2.2.3. Canada's greenhouse vegetable exports by province – by value	9
2.2.4. Canada's greenhouse vegetable exports by province – by volume	9
2.2.5. Canada's top greenhouse vegetable export destinations – by value	10
2.2.6. Canada's top greenhouse vegetable export destinations – by volume	10
2.2.7. Greenhouse vegetable destinations by commodity – by value	11
2.2.8. Greenhouse vegetable destinations by commodity – by volume	12
2.3. Imports	13
2.3.1. Canada's greenhouse vegetable imports by commodity – by value	13
2.3.2. Canada's greenhouse vegetable imports by commodity – by volume	13
2.3.3. Top sources of Canada's greenhouse vegetable imports – by value	14
2.3.4. Top sources of Canada's greenhouse vegetable imports – by volume	14
2.3.5. Greenhouse vegetable import sources by commodity – by value	15
2.3.6. Greenhouse vegetable import sources by commodity – by volume	16
<b>3. Channels of distribution</b>	<b>17</b>
3.1. Channels of distribution for greenhouse vegetable sales and resales	17
3.2. Channels of distribution for greenhouse vegetable sales and resales, 2016 to 2020	18
<b>4. Operating expenses</b>	<b>19</b>
4.1. Greenhouse vegetable producers' operating expenses by category	19
<b>5. Labour</b>	<b>20</b>
5.1. Total number of employees of specialized greenhouse vegetable operations	20
<b>6. Key Resources</b>	<b>21</b>

# Overview

Canada has a technologically advanced indoor agriculture sector with long-standing success in the global marketplace. This sector is an important part of Canadian agriculture and a source of significant economic activity within Canada, contributing \$1.8 billion in farm gate sales and approximately \$1.4 billion in exports in 2020.

Greenhouse farming produces agricultural products in self-contained 'controlled environments' with systems supplying heat, water, and nutrients, and often employing artificial lighting (in addition to sunlight) to nourish the plants. This method of farming requires investment in infrastructure and a strong understanding of the technology. In the early 1990s, Canada emerged as the leading producer of greenhouse products in North America.

The vegetable greenhouse industry is primarily clustered near the southern border, notably the Fraser Valley region in BC, Southern Ontario, and Quebec. These locations are in proximity to large consumer markets, transportation networks, and favourable growing conditions. In 2020, there were a total of 837 commercial greenhouse vegetable operations in Canada that produced 679,465 metric tons of vegetables. Ontario continued to lead the greenhouse vegetable sector in 2020, representing 71% of the total production in Canada, followed by British Columbia and Quebec, with 16% and 6% respectively. Other provinces accounted for the remaining 1%.

Canadian producers have made significant capital investments in high-tech greenhouses to meet the increasing demand for fresh vegetables year-round. Today, the majority of Canadian greenhouse facilities are highly automated with growers typically investing in the latest technology available. Growers are continuously seeking to obtain improved and advanced technology to increase production efficiency, reduce labour costs/inputs, and enhance product quality. These innovative technologies have allowed farmers to extend the natural harvest seasons and fueled continuous efficiency gains, which in turn, has increased their competitiveness and improved product quality.

Canada's largest greenhouse vegetable trade partner is the United States. In 2020, the value of exports to the United States accounted for over 99% of all Canadian greenhouse vegetable exports. Canadian greenhouse vegetables are available in Canadian and U.S. markets from early spring through to late fall.

The onset of the COVID-19 pandemic coincided with the beginning of the peak harvest of the 2020 crop, making it a particularly challenging year for the greenhouse industry along the full supply chain. As a result, greenhouse facilities in Canada faced business disruptions due to outbreaks of the virus and public health mandated closures of production facilities in 2020. Despite these challenges, greenhouse production increased 3% in 2020 due to higher consumer demand. While the sector proved to be resilient, concerns regarding the availability and access to agricultural labour for the 2020 crop and related worker housing issues persisted throughout the year.



# 1. Production

Farmers who produce greenhouse vegetables tend to specialize in producing one type of vegetable. Greenhouse growers produce indoor crops such as tomatoes, cucumbers, lettuce, bell-peppers, green/yellow beans, eggplant and various herbs and microgreen vegetables. Of these commodities, tomatoes, cucumbers, and peppers are by far the principle greenhouse vegetable crops grown in Canada.

Greenhouse vegetables are scheduled so that new plants come into production when domestic field crops are still months away. Around early December, after an annual complete cleaning of the greenhouse facility and removal of all previous plant material, new plantlets are brought in from plant propagators and placed evenly along rows of growing media. In mid-winter, as days start getting longer, the plants enter a productive cycle which continues through the summer and fall. In late November or December, when natural light levels are near their lowest and heating costs are highest, production stops and the annual clean-out/sterilization of the greenhouse starts again in preparation for the next growing cycle. For plants requiring pollination such as tomatoes, boxes of bumblebees are placed in the greenhouse for the season. Canada is in peak production from April to October.

In 2020, with approximately 837 commercial greenhouse vegetable operations, harvested area rose 2% to 18.1 million square metres from the previous year while the production increased 3% to 679,465 metric tons. Tomatoes accounted for 34% and 38% of the harvested area and total production respectively, followed by cucumbers (with 28% and 36%) and peppers (33% and 22%), respectively. Ontario continued to lead the greenhouse vegetable production in 2020, representing 71% of the total production in Canada, followed by British Columbia and Quebec, with 16% and 6% respectively.

Total farm gate sales of greenhouse fruit and vegetables rose 12% from \$1.6 billion in 2019 to over \$1.8 billion in 2020, mostly due to higher prices. While tomato production volume fell by 3% in 2020, it increased in value by 12% (from \$594 million in 2019 to \$666 million in 2020). Greenhouse cucumbers and bell pepper farm gate values also increased by 9% and 7% respectively in 2020. However, total greenhouse vegetable operating expenses rose 13% from \$1.259 billion in 2019 to \$1.4 billion in 2020.



### 1.1. Number of greenhouse vegetable operations<sup>1</sup> by province

	2016	2017	2018	2019	2020	2020 % Share
Atlantic provinces <sup>2</sup>	52	52	51	49	49	5.9%
Quebec	247	250	238	235	230	27.5%
Ontario	323	330	325	315	315	37.6%
Prairie provinces <sup>2</sup>	107	101	102	94	95	11.4%
British Columbia	160	154	150	150	148	17.7%
<b>Canada</b>	<b>894</b>	<b>889</b>	<b>866</b>	<b>843</b>	<b>837</b>	<b>100.0%</b>

Notes:

1. Number of operations represents the number of specialized greenhouse vegetable and fruit operations and includes all other types of enclosed protection used for growing plants, such as rigid insulation, mine shafts, barns and shelters. Mixed operations (vegetables, flowers and plants) are excluded.

2. Provincial breakdowns for Atlantic and Prairie provinces are not shown due to the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada. Table 32-10-0019-01 Estimates of specialized greenhouse operations, greenhouse area, and months of operation

### 1.2. Harvested area of greenhouse vegetables<sup>1</sup> by province (square metres)

	2016	2017	2018	2019	2020	2020 % Share
Newfoundland and Labrador	647	5,900	6,539	5,340	4,884	0.0%
Prince Edward Island	N/A	13,531	14,935	12,169	20,056	0.1%
Nova Scotia	N/A	83,556	82,265	88,211	78,563	0.4%
New Brunswick	121	4,086	4,617	6,983	5,353	0.0%
Quebec	915,475	1,145,549	1,228,400	1,257,737	1,247,073	6.9%
Ontario	10,972,697	11,670,213	12,194,927	12,524,892	12,995,385	71.9%
Manitoba	496	6,955	8,287	11,484	6,170	0.0%
Saskatchewan	2,003	15,954	17,300	14,706	13,998	0.1%
Alberta	547,626	670,984	719,049	732,695	676,928	3.7%
British Columbia	3,088,435	3,222,661	3,136,709	3,016,166	2,995,119	16.6%
<b>Canada<sup>2</sup></b>	<b>15,928,094</b>	<b>16,878,194</b>	<b>17,430,846</b>	<b>17,700,845</b>	<b>18,085,974</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

2. Totals may not add up as some data was suppressed to meet confidentiality requirements of the *Statistics Act*.

N/A : Not available for a specific reference period or suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables



### 1.3. Harvested area of greenhouse vegetables<sup>1</sup> by commodity (square metres)

	2016	2017	2018	2019	2020	2020 % Share
Tomatoes	5,990,278	6,356,198	6,579,782	6,346,327	6,063,023	33.5%
Peppers	5,385,939	5,625,383	5,615,729	5,760,318	5,895,708	32.6%
Cucumbers	4,005,746	4,321,832	4,559,877	4,739,726	4,985,780	27.6%
Lettuce	174,696	209,183	236,813	417,302	432,272	2.4%
Strawberries	N/A	N/A	N/A	N/A	318,003	1.8%
Eggplants	90,123	109,631	110,519	121,641	137,450	0.8%
Fine herbs	26,922	90,429	69,737	103,655	115,880	0.6%
Microgreens and shoots	N/A	16,773	69,479	61,663	56,846	0.3%
Other fruits or vegetables	194,393	85,214	131,831	97,715	35,204	0.2%
Chinese vegetables	55,471	48,740	43,396	37,850	30,979	0.2%
Beans (green and wax)	4,526	6,630	6,998	8,914	10,499	0.1%
Sprouts	N/A	8,181	6,685	5,734	4,330	0.0%
<b>Total</b>	<b>15,928,094</b>	<b>16,878,194</b>	<b>17,430,846</b>	<b>17,700,845</b>	<b>18,085,974</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

N/A : Not available for a specific reference period.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables

### 1.4. Greenhouse vegetable<sup>1</sup> production by province – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Newfoundland and Labrador	3	8	14	28	27	0.0%
Prince Edward Island	N/A	2	448	407	679	0.1%
Nova Scotia	1,248	2,914	2,872	3,147	2,812	0.4%
New Brunswick	1	N/A	45	301	76	0.0%
Quebec	27,938	38,772	41,333	41,027	42,455	6.2%
Ontario	424,451	438,680	452,009	462,661	481,763	70.9%
Manitoba	3	186	205	218	190	0.0%
Saskatchewan	22	224	209	187	190	0.0%
Alberta	23,150	33,170	37,161	40,391	41,382	6.1%
British Columbia	90,881	120,864	123,000	110,841	109,392	16.1%
<b>Canada<sup>2</sup></b>	<b>604,990</b>	<b>636,723</b>	<b>660,259</b>	<b>659,623</b>	<b>679,466</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

2. Totals may not add up as some data was suppressed to meet the confidentiality requirements of the *Statistics Act*.

N/A : Not available for a specific reference period or suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables





### 1.5. Greenhouse vegetable<sup>1</sup> production by commodity – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Tomatoes	271,006	279,494	279,433	264,737	256,361	37.7%
Cucumbers	189,704	206,227	228,764	231,751	243,897	35.9%
Peppers	135,657	139,060	139,153	145,870	152,661	22.5%
Lettuce	4,876	6,256	7,049	11,843	15,127	2.2%
Strawberries	N/A	N/A	N/A	N/A	4,894	0.7%
Eggplants	2,904	3,456	3,476	3,141	3,968	0.6%
Fine herbs	219	755	572	938	1,196	0.2%
Microgreens and shoots	N/A	164	919	594	582	0.1%
Sprouts	N/A	776	405	337	343	0.1%
Chinese vegetables	587	495	442	368	295	0.0%
Beans (green and wax)	36	40	47	45	142	0.0%
<b>Total</b>	<b>604,990</b>	<b>636,723</b>	<b>660,259</b>	<b>659,623</b>	<b>679,466</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

N/A : Not available for a specific reference period.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables

### 1.6. Farm gate value of greenhouse vegetables<sup>1</sup> by province (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Newfoundland and Labrador	42	141	94	153	163	0.0%
Prince Edward Island	N/A	8	1,897	1,902	2,194	0.1%
Nova Scotia	8,012	7,516	4,793	9,503	8,235	0.4%
New Brunswick	29	115	189	1,085	737	0.0%
Quebec	98,861	128,839	143,496	146,811	141,948	7.7%
Ontario	859,787	917,857	955,527	1,067,388	1,209,321	65.9%
Manitoba	82	975	1,201	1,529	1,112	0.1%
Saskatchewan	715	708	1,415	1,028	1,200	0.1%
Alberta	54,689	69,386	81,003	96,362	116,691	6.4%
British Columbia	294,435	289,930	296,885	306,335	316,558	17.3%
<b>Canada<sup>2</sup></b>	<b>1,331,163</b>	<b>1,437,089</b>	<b>1,512,118</b>	<b>1,633,553</b>	<b>1,833,876</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

2. Totals may not add up as some data was suppressed to meet the confidentiality requirements of the *Statistics Act*.

N/A : Not available for a specific reference period or suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables





### 1.7. Farm gate value of greenhouse vegetables<sup>1</sup> by commodity (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Tomatoes	537,032	555,196	569,574	594,072	665,948	36.3%
Cucumbers	336,050	395,760	443,018	473,549	518,159	28.3%
Peppers	409,980	421,873	428,451	477,680	512,364	27.9%
Lettuce	27,366	32,036	33,941	50,003	63,963	3.5%
Strawberries	N/A	N/A	N/A	N/A	35,099	1.9%
Eggplants	7,757	11,531	11,727	11,725	15,178	0.8%
Fine herbs	3,559	8,576	7,066	10,344	12,154	0.7%
Microgreens and shoots	N/A	3,585	8,384	5,764	5,601	0.3%
Other fruits or vegetables	7,839	6,047	7,459	8,190	2,536	0.1%
Sprouts	N/A	993	1,014	898	1,066	0.1%
Beans (green and wax)	353	313	406	399	924	0.1%
Chinese vegetables	1,226	1,180	1,076	930	884	0.0%
<b>Total</b>	<b>1,331,163</b>	<b>1,437,089</b>	<b>1,512,118</b>	<b>1,633,553</b>	<b>1,833,876</b>	<b>100.0%</b>

Notes:

1. Includes specialized greenhouse fruits.

N/A : Not available for a specific reference period.

Source: Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables



## 2. Trade

Greenhouse vegetable imports and exports continue to show a healthy positive trade balance of about \$1 billion. In 2020, Canadian marketers exported almost 394 thousand metric tons of greenhouse vegetables, equivalent to 57% of total production, worth \$1.4 billion, while importing around \$369 million worth of greenhouse products, mostly in the winter season when domestic production is at its lowest.

The value of greenhouse vegetable exports is the highest of all fresh produce (fruits, greenhouse vegetables, mushrooms, field vegetables, and potatoes) in Canada, accounting for 47% of all fresh produce exports. The United States is Canada's main export destination for greenhouse vegetables. In 2020, the value of exports to the United States accounted for over 99% of all Canadian greenhouse vegetable exports.

In 2020, the top import countries were Mexico and the United States, representing 87%, and 10%. In terms of value, peppers are the largest imported commodity, followed by tomatoes and cucumbers.

### 2.1. Canadian greenhouse vegetable trade balance (thousands of Canadian dollars)

	2016	2017	2018	2019	2020
Exports	862,769	964,121	1,001,686	1,107,800	1,396,455
Import	460,392	383,735	332,631	331,123	368,735
<b>Trade balance (exports - imports)</b>	<b>402,377</b>	<b>580,386</b>	<b>669,055</b>	<b>776,676</b>	<b>1,027,720</b>
Source: Statistics Canada (CATSNET, May 2021)					



## 2.2. Exports

### 2.2.1. Canada's greenhouse vegetable exports by commodity – by value (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Peppers	317,935	331,568	352,709	420,415	508,985	36.4%
Tomatoes	341,598	391,123	368,422	385,558	507,964	36.4%
Cucumbers and gherkins	203,236	241,431	280,554	301,827	379,506	27.2%
<b>Total</b>	<b>862,769</b>	<b>964,121</b>	<b>1,001,686</b>	<b>1,107,800</b>	<b>1,396,455</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)

### 2.2.2. Canada's greenhouse vegetable exports by commodity – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Tomatoes	140,083	152,617	138,129	138,555	144,563	37.6%
Cucumbers and gherkins	96,310	104,038	114,221	118,592	130,369	34.0%
Peppers	83,114	83,582	83,288	94,022	109,054	28.4%
<b>Total</b>	<b>319,507</b>	<b>340,237</b>	<b>335,638</b>	<b>351,169</b>	<b>383,986</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)



### 2.2.3. Canada's greenhouse vegetable exports by province – by value (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Prince Edward Island	7	0	0	0	0	0.0%
Nova Scotia	1	0	2	2	1	0.0%
New Brunswick	8	2	3	6	17	0.0%
Québec	6,970	11,616	17,789	18,549	19,414	1.4%
Ontario	684,573	788,194	819,805	920,159	1,161,427	83.2%
Manitoba	0	0	6	8	0	0.0%
Alberta	620	4,687	9,484	4,725	3,364	0.2%
British Columbia	170,591	159,622	154,597	164,351	212,231	15.2%
<b>Total</b>	<b>862,769</b>	<b>964,121</b>	<b>1,001,686</b>	<b>1,107,800</b>	<b>1,396,455</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)

### 2.2.4. Canada's greenhouse vegetable exports by province – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Prince Edward Island	2	0	0	0	0	0.0%
Nova Scotia	0	0	1	1	0	0.0%
New Brunswick	2	1	1	2	5	0.0%
Québec	4,394	4,906	5,188	4,839	5,378	1.4%
Ontario	264,352	283,369	283,051	296,983	325,325	84.7%
Manitoba	0	0	6	3	0	0.0%
Alberta	354	2,263	4,376	2,570	1,204	0.3%
British Columbia	50,402	49,699	43,017	46,773	52,073	13.6%
<b>Total</b>	<b>319,507</b>	<b>340,237</b>	<b>335,638</b>	<b>351,169</b>	<b>383,986</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)



### 2.2.5. Canada's top greenhouse vegetable export destinations – by value (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
United States	858,359	958,155	994,815	1,102,403	1,390,634	99.6%
Japan	3,456	4,718	5,841	4,172	5,290	0.4%
Taiwan	513	673	641	794	407	0.0%
Jamaica	0	0	0	0	69	0.0%
Hong Kong	373	464	373	392	26	0.0%
Others	68	110	15	39	28	0.0%
<b>Total</b>	<b>862,769</b>	<b>964,121</b>	<b>1,001,686</b>	<b>1,107,800</b>	<b>1,396,455</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)

### 2.2.6. Canada's top greenhouse vegetable export destinations – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
United States	318,059	338,372	333,565	349,533	382,094	99.5%
Japan	1,139	1,483	1,753	1,250	1,716	0.4%
Taiwan	164	208	203	256	136	0.0%
Jamaica	0	0	0	0	23	0.0%
Hong Kong	112	142	113	119	8	0.0%
Others	34	33	4	12	8	0.0%
<b>Total</b>	<b>319,507</b>	<b>340,237</b>	<b>335,638</b>	<b>351,169</b>	<b>383,986</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)



## 2.2.7. Greenhouse vegetable destinations by commodity – by value (thousands of Canadian dollars)

		2016	2017	2018	2019	2020
<b>Peppers</b>	United States	317,559	330,817	351,893	419,512	508,325
	Japan	15	337	574	672	623
	Hong Kong	316	277	213	203	16
	Saint Pierre and Miquelon	2	1	3	6	14
	France	14	8	10	12	6
	<b>Total</b>	<b>317,935</b>	<b>331,568</b>	<b>352,709</b>	<b>420,415</b>	<b>508,985</b>
<b>Tomatoes</b>	United States	337,592	385,920	362,397	381,081	502,847
	Japan	3,442	4,381	5,267	3,500	4,633
	Taiwan	503	630	626	790	407
	Hong Kong	51	175	132	175	8
	France	0	0	0	0	0
	<b>Total</b>	<b>341,595</b>	<b>391,123</b>	<b>368,422</b>	<b>385,557</b>	<b>507,894</b>
<b>Cucumbers and gherkins</b>	United States	203,208	241,418	280,524	301,810	379,462
	Japan	0	0	0	0	34
	Saint Pierre and Miquelon	0	1	1	1	3
	Hong Kong	7	11	28	14	3
	China	0	0	0	0	3
	<b>Total</b>	<b>203,236</b>	<b>241,431</b>	<b>280,554</b>	<b>301,827</b>	<b>379,506</b>
Source: Statistics Canada (CATSNET, May 2021)						



## 2.2.8. Greenhouse vegetable destinations by commodity – by volume (metric tons)

		2016	2017	2018	2019	2020
<b>Tomatoes</b>	United States	138,767	150,961	136,275	137,155	142,877
	Japan	1,135	1,397	1,613	1,085	1,525
	Taiwan	161	196	199	255	135
	Hong Kong	16	58	43	55	3
	France	0	0	0	0	0
	<b>Total</b>	<b>140,082</b>	<b>152,617</b>	<b>138,129</b>	<b>138,555</b>	<b>144,540</b>
<b>Cucumbers and gherkins</b>	United States	96,301	104,034	114,211	118,586	130,354
	Japan	0	0	0	0	12
	Saint Pierre and Miquelon	0	0	0	1	1
	Hong Kong	2	4	10	6	1
	China	0	0	0	0	1
	<b>Total</b>	<b>96,310</b>	<b>104,038</b>	<b>114,221</b>	<b>118,592</b>	<b>130,369</b>
<b>Peppers</b>	United States	82,990	83,377	83,080	93,792	108,864
	Japan	4	86	140	165	180
	Hong Kong	93	79	61	58	5
	Saint Pierre and Miquelon	1	0	1	1	4
	France	4	2	2	3	2
	<b>Total</b>	<b>83,114</b>	<b>83,582</b>	<b>83,288</b>	<b>94,022</b>	<b>109,054</b>
Source: Statistics Canada (CATSNET, May 2021)						





## 2.3. Imports

### 2.3.1. Canada's greenhouse vegetable imports by commodity – by value (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Peppers	172,910	140,311	138,543	147,434	163,302	44.3%
Tomatoes	239,829	197,474	149,830	134,801	162,169	44.0%
Cucumbers and gherkins	46,885	45,088	43,705	48,486	42,829	11.6%
Lettuce	768	863	553	402	435	0.1%
<b>Total</b>	<b>460,392</b>	<b>383,735</b>	<b>332,631</b>	<b>331,123</b>	<b>368,735</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)

### 2.3.2. Canada's greenhouse vegetable imports by commodity – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Tomatoes	83,720	75,506	68,721	59,746	66,979	48.8%
Peppers	45,415	43,567	49,453	47,205	49,126	35.8%
Cucumbers and gherkins	25,305	23,473	23,775	24,197	21,122	15.4%
Lettuce	353	374	181	111	68	0.0%
<b>Total</b>	<b>154,792</b>	<b>142,919</b>	<b>142,131</b>	<b>131,259</b>	<b>137,295</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)



### 2.3.3. Top sources of Canada's greenhouse vegetable imports – by value (thousands of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Mexico	394,317	338,678	286,268	269,898	320,485	86.9%
United States	41,738	34,167	34,778	42,377	37,176	10.1%
Spain	18,305	5,825	8,139	11,888	4,707	1.3%
Canada	275	357	361	2,736	2,930	0.8%
Netherlands	1,948	1,468	1,434	3,202	2,285	0.6%
Others	3,809	3,240	1,651	1,021	1,153	0.3%
<b>Total</b>	<b>460,392</b>	<b>383,735</b>	<b>332,631</b>	<b>331,123</b>	<b>368,735</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)

### 2.3.4. Top sources of Canada's greenhouse vegetable imports – by volume (metric tons)

	2016	2017	2018	2019	2020	2020 % Share
Mexico	133,162	127,895	124,857	109,339	120,935	88.1%
United States	14,839	12,196	14,187	16,503	13,270	9.7%
Spain	5,031	1,646	1,928	3,252	1,227	0.9%
Canada	90	99	132	955	1,049	0.8%
Netherlands	597	480	474	857	378	0.3%
Others	1,073	603	553	353	436	0.3%
<b>Total</b>	<b>154,792</b>	<b>142,919</b>	<b>142,131</b>	<b>131,259</b>	<b>137,295</b>	<b>100.0%</b>

Source: Statistics Canada (CATSNET, May 2021)



### 2.3.5. Greenhouse vegetable import sources by commodity – by value (thousands of Canadian dollars)

		2016	2017	2018	2019	2020
<b>Peppers</b>	Mexico	144,679	124,743	121,986	122,664	146,973
	United States	7,224	6,209	6,390	7,787	6,674
	Spain	16,059	5,093	7,478	10,533	4,600
	Netherlands	1,529	1,238	1,151	3,120	2,275
	<b>Total</b>	<b>172,910</b>	<b>140,311</b>	<b>138,543</b>	<b>147,434</b>	<b>163,302</b>
<b>Tomatoes</b>	Mexico	211,696	175,043	126,643	109,683	142,575
	United States	27,593	22,017	22,895	24,893	19,031
	New Zealand	41	60	101	162	360
	Guatemala	98	74	117	0	203
	<b>Total</b>	<b>239,829</b>	<b>197,474</b>	<b>149,830</b>	<b>134,801</b>	<b>162,169</b>
<b>Cucumbers and gherkins</b>	Mexico	37,932	38,890	37,594	37,535	30,929
	United States	6,186	5,102	5,025	9,354	11,131
	Canada	34	38	66	66	657
	Spain	2,135	720	646	1,351	89
	Honduras	0	0	0	44	16
	<b>Total</b>	<b>46,885</b>	<b>45,088</b>	<b>43,705</b>	<b>48,486</b>	<b>42,829</b>
<b>Lettuce</b>	United States	735	840	468	344	339
	Korea, South	16	7	24	37	63
	Spain	0	12	14	4	18
	Mexico	9	2	46	16	8
	Netherlands	0	0	0	0	4
	<b>Total</b>	<b>768</b>	<b>863</b>	<b>553</b>	<b>402</b>	<b>435</b>
Source: Statistics Canada (CATSNET, May 2021)						



### 2.3.6. Greenhouse vegetable import sources by commodity – by volume (metric tons)

		2016	2017	2018	2019	2020
<b>Tomatoes</b>	Mexico	73,401	67,488	59,124	49,912	59,997
	United States	10,138	7,882	9,500	9,760	6,730
	New Zealand	9	20	30	58	190
	Guatemala	36	22	37	0	62
	<b>Total</b>	<b>83,720</b>	<b>75,506</b>	<b>68,721</b>	<b>59,746</b>	<b>66,979</b>
<b>Peppers</b>	Mexico	38,071	39,397	44,377	39,672	44,262
	United States	1,994	2,035	2,577	3,012	2,379
	Spain	4,047	1,290	1,618	2,594	1,178
	Netherlands	381	338	365	805	374
	<b>Total</b>	<b>45,415</b>	<b>43,567</b>	<b>49,453</b>	<b>47,205</b>	<b>49,126</b>
<b>Cucumbers and gherkins</b>	Mexico	21,686	21,009	21,337	19,744	16,675
	United States	2,362	1,913	1,951	3,636	4,099
	Canada	14	17	27	38	289
	Spain	951	352	308	657	48
	Honduras	0	0	0	28	7
	<b>Total</b>	<b>25,305</b>	<b>23,473</b>	<b>23,775</b>	<b>24,197</b>	<b>21,122</b>
<b>Lettuce</b>	United States	345	366	158	96	60
	Korea, South	2	2	2	3	4
	Spain	0	4	2	1	2
	Mexico	5	1	19	12	1
	Netherlands	0	0	0	0	0
	<b>Total</b>	<b>353</b>	<b>374</b>	<b>181</b>	<b>111</b>	<b>68</b>
Source: Statistics Canada (CATSNET, May 2021)						



### 3. Channels of distribution

Greenhouse products which offer sustained predictable availability, high quality, and more varieties, have taken a dominant market share in the fresh vegetable markets at the retail level. Greenhouse peppers, cucumbers, and a wide variety of tomatoes (i.e., cluster, grape, cherry) are now widely available at retail throughout Canada and the U.S. throughout the year.

#### 3.1. Channels of distribution for greenhouse vegetable<sup>1</sup> sales and resales<sup>2</sup> (millions of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Domestic wholesalers	883.8	999.5	1,062.2	1,090.1	1,155.5	63.0%
Mass market chain stores	183.3	156.8	166.1	206.1	264.9	14.4%
Other channels	205.6	214.5	208.1	229.8	264.9	14.4%
Other greenhouses	33.0	46.6	50.2	78.1	107.9	5.9%
Direct sales to the public <sup>3</sup>	25.5	19.6	25.6	29.5	40.7	2.2%
<b>Total sales</b>	<b>1,331.2</b>	<b>1,437.1</b>	<b>1,512.1</b>	<b>1,633.6</b>	<b>1,833.9</b>	<b>100.0%</b>

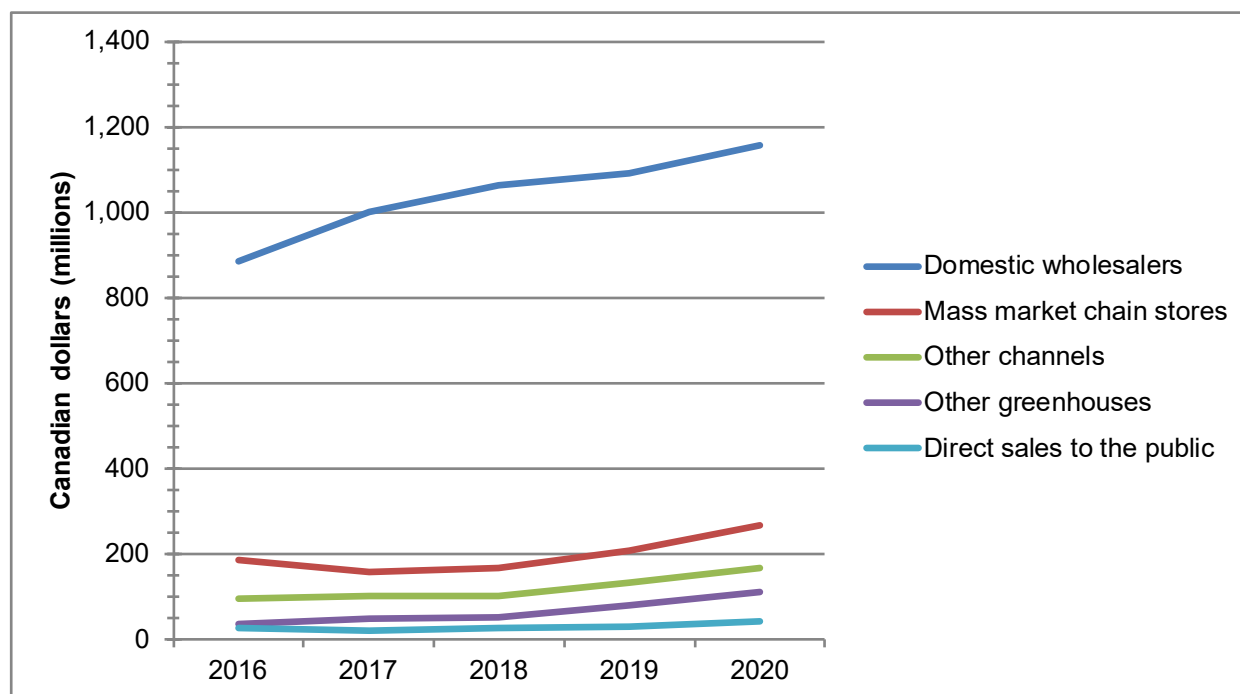
Notes:

1. Includes specialized greenhouse fruits.
2. Farm gate value (before sales tax).
3. Includes roadside stands and owner-operated retail outlets.

Source: Statistics Canada. Table 32-10-0022-01 Channels of distribution for horticulture product sales and resales



### 3.2. Channels of distribution for greenhouse vegetable sales and resales, 2016 to 2020



Source: Statistics Canada. Table 32-10-0022-01 Channels of distribution for horticulture product sales and resales



## 4. Operating expenses

Total greenhouse vegetable operating expenses rose 13% from \$1.3 billion in 2019 to \$1.4 billion in 2020. Payroll is the largest single variable cost facing the greenhouse growers. In 2020, greenhouse operators saw payroll expenses rise over \$48 million compared to the previous year.

### 4.1. Greenhouse vegetable<sup>1,2</sup> producers' operating expenses by category (millions of Canadian dollars)

	2016	2017	2018	2019	2020	2020 % Share
Gross yearly payroll <sup>3</sup>	309.6	351.3	362.9	386.1	434.6	30.6%
Other operating expenses <sup>4</sup>	341.6	312.1	298.7	305.8	361.3	25.4%
Other crop expenses <sup>5</sup>	169.7	210.4	225.4	247.0	279.0	19.6%
Fuel	134.6	147.0	147.4	146.2	149.0	10.5%
Plant material purchases for growing on <sup>6</sup>	92.7	108.5	118.5	130.9	147.6	10.4%
Electricity <sup>7</sup>	38.9	41.6	42.5	42.9	50.7	3.6%
<b>Total operating expenses</b>	<b>1,087.2</b>	<b>1,170.9</b>	<b>1,195.5</b>	<b>1,259.0</b>	<b>1,422.2</b>	<b>100.0%</b>

Notes:

1. This category excludes mixed operations (vegetables, flowers, and plants).

2. Includes specialized greenhouse fruits.

3. Includes seasonal and permanent labour.

4. Includes interest, land taxes, insurance, advertising, repairs to farm buildings, machinery, agricultural equipment and vehicles, contract work, and telephone and telecommunications services.

5. Includes fertilizer, pesticides, pollination, irrigation, containers, packaging, bioprograms, and growing mediums such as soil, peat moss, vermiculite, perlite, sand, Styrofoam and sawdust.

6. Includes value of flowers, plants, cuttings, seedlings, seeds and bulbs purchased (before sales tax).

7. Electricity expenses include electricity for lighting, airflow fans, and heating.

Source: Statistics Canada. Table 32-10-0025-01 Specialized greenhouse producers' operating expenses





## 5. Labour

Greenhouse vegetable producers rely on both domestic and foreign workers to manage production and employ both seasonal and permanent employees. Seasonal employees work less than eight months during the year, while permanent employees work more than eight months during the year. The total number of employees of specialized greenhouse operations has been relatively stable over the past five years. In 2020, 12,529 people were employed in the greenhouse vegetable sector: 7,484 (or 60%) permanent employees and 5,145 (or 40%) seasonal employees. Ontario accounted for 66% of the total number of greenhouse employees in Canada.

### 5.1. Total number of employees of specialized greenhouse vegetable operations

		2016	2017	2018	2019	2020
<b>Atlantic provinces</b>	Seasonal employees <sup>1</sup>	47	81	90	77	37
	Permanent employees <sup>2</sup>	56	83	89	119	156
	<b>Total employees</b>	<b>103</b>	<b>164</b>	<b>179</b>	<b>196</b>	<b>193</b>
<b>Quebec</b>	Seasonal employees <sup>1</sup>	549	463	404	400	303
	Permanent employees <sup>2</sup>	758	800	824	789	844
	<b>Total employees</b>	<b>1,307</b>	<b>1,263</b>	<b>1,228</b>	<b>1,189</b>	<b>1,147</b>
<b>Ontario</b>	Seasonal employees <sup>1</sup>	3,231	3,550	3,694	3,742	3,600
	Permanent employees <sup>2</sup>	4,183	4,438	4,352	4,533	4,477
	<b>Total employees</b>	<b>7,414</b>	<b>7,988</b>	<b>8,046</b>	<b>8,275</b>	<b>8,077</b>
<b>Prairie provinces</b>	Seasonal employees <sup>1</sup>	129	183	161	162	255
	Permanent employees <sup>2</sup>	373	669	680	706	726
	<b>Total employees</b>	<b>502</b>	<b>852</b>	<b>841</b>	<b>868</b>	<b>981</b>
<b>British Columbia</b>	Seasonal employees <sup>1</sup>	846	1,033	980	819	850
	Permanent employees <sup>2</sup>	1,311	1,268	1,151	1,205	1,281
	<b>Total employees</b>	<b>2,157</b>	<b>2,301</b>	<b>2,131</b>	<b>2,024</b>	<b>2,131</b>
<b>Canada</b>	Seasonal employees <sup>1</sup>	4,805	5,310	5,329	5,200	5,045
	Permanent employees <sup>2</sup>	6,701	7,254	7,096	7,352	7,484
	<b>Total employees</b>	<b>11,506</b>	<b>12,564</b>	<b>12,425</b>	<b>12,552</b>	<b>12,529</b>

Notes:

1. Seasonal employees who worked less than 8 months during the year.

2. Permanent employees who worked more than 8 months during the year.

Source: Statistics Canada. Table 32-10-0028-01 Total number of employees of specialized greenhouse operations



## 6. Key Resources

- Statistics Canada. Table 32-10-0456-01 Production and value of greenhouse fruits and vegetables
- Statistics Canada. Table 32-10-0019-01 Estimates of specialized greenhouse operations, greenhouse area, and months of operation
- Statistics Canada. Table 32-10-0028-01 Total number of employees of specialized greenhouse operations
- Statistics Canada. CATSNET