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Statistical Overview of the Canadian Greenhouse Vegetable and Mushroom Industry **2021**

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Overview

Canada has a technologically advanced indoor agriculture sector with long-standing success in the global marketplace. Canada's greenhouse vegetable and mushroom sectors are an important part of Canadian agriculture and a source of significant economic activity within Canada, contributing \$2.7 billion in farm gate sales and approximately \$1.7 billion in exports in 2021.

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. Tomatoes, peppers, and cucumbers continue to be the primary vegetables grown in greenhouses, accounting for a combined 96% of greenhouse vegetable production in 2021.

The Canadian vegetable greenhouse industry is primarily clustered near the southern U.S. 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 2021, there were a total of 892 commercial greenhouse vegetable operations in Canada that produced 722,890 metric tons of vegetables. Ontario continued to lead the greenhouse vegetable sector in 2021, representing 71% of the total production in Canada, followed by British Columbia and Quebec, with 14% and 8% respectively. Other provinces accounted for the remaining 7%.

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 2021, 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 early Fall.

Similar to greenhouse vegetables, mushrooms are grown year-round in closed, dark climate-controlled facilities that maintain ideal temperatures and humidity, and are harvested on a 24/7-basis. Canadian mushroom growers produced 137,796 metric tons of mushrooms in 2021, up 3.9% compared with 2020 mainly due to increases in cultivated (+1.8%) and harvested (4.7%) area as the industry recovered from losses associated with the COVID-19 pandemic in 2020. The total value of mushrooms sold rose 5.5% to \$653.5 million in 2021, due to higher prices and quantity produced for both fresh and processed mushrooms. Ontario and British Columbia account for approximately 94% of the total value of Canadian mushrooms, with more than half of Canada's production volume being sourced from Ontario.

Consistent with greenhouse vegetable exports, the U.S. is also the top export destination for fresh mushrooms, accounting for more than 97% of export values. Over the last five years, mushroom export values have increased by more than 75% reaching \$383.9 million in 2021.



1. Production

1.1. Number of greenhouse vegetable operations¹ by province

	2017	2018	2019	2020	2021	2021 % Share
Atlantic provinces ²	52	51	49	65	74	8.3%
Quebec	250	238	235	230	236	26.5%
Ontario	330	325	315	315	321	36.0%
Prairie provinces ²	101	102	94	98	103	11.5%
British Columbia	154	150	150	150	158	17.7%
Canada	889	866	843	858	892	100.0%

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 vegetables¹ by province (square metres)

	2017	2018	2019	2020	2021	2021 % Share
Newfoundland and Labrador	5,900	6,539	5,340	5,396	6,975	0.0%
Prince Edward Island	13,531	14,935	12,169	18,885	19,586	0.1%
Nova Scotia	83,556	82,265	88,211	84,376	86,206	0.4%
New Brunswick	4,086	4,617	6,983	6,041	7,229	0.0%
Quebec	1,145,549	1,228,400	1,257,737	1,419,780	1,511,924	7.8%
Ontario	11,670,213	12,194,927	12,524,892	12,906,198	13,787,888	70.9%
Manitoba	6,955	8,287	11,484	8,173	15,564	0.1%
Saskatchewan	15,954	17,300	14,706	14,183	16,142	0.1%
Alberta	670,984	719,049	732,695	742,732	817,158	4.2%
British Columbia	3,222,661	3,136,709	3,016,166	3,010,912	3,168,807	16.3%
Canada²	16,878,194	17,430,846	17,700,845	18,256,531	19,458,956	100.0%

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*.

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



1.3. Harvested area of greenhouse vegetables¹ by commodity (square metres)

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	6,356,198	6,579,782	6,346,327	6,183,913	6,835,395	35.1%
Peppers	5,625,383	5,615,729	5,760,318	5,895,959	6,794,980	34.9%
Cucumbers	4,321,832	4,559,877	4,739,726	5,060,743	4,666,019	24.0%
Lettuce	209,183	236,813	417,302	344,200	335,216	1.7%
Strawberries	N/A	N/A	N/A	303,791	321,210	1.7%
Eggplants	109,631	110,519	121,641	138,509	140,496	0.7%
Other fruits or vegetables	85,214	131,831	97,715	84,907	137,921	0.7%
Fine herbs	90,429	69,737	103,655	116,026	98,292	0.5%
Chinese vegetables	48,740	43,396	37,850	54,205	54,319	0.3%
Microgreens and shoots	16,773	69,479	61,663	57,450	52,578	0.3%
Beans (green and wax)	6,630	6,998	8,914	12,479	17,888	0.1%
Sprouts	8,181	6,685	5,734	4,349	4,642	0.0%
Total	16,878,194	17,430,846	17,700,845	18,256,531	19,458,956	100.0%

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 vegetable¹ production by province – by volume (metric tons)

	2017	2018	2019	2020	2021	2021 % Share
Newfoundland and Labrador	8	14	28	34	42	0.0%
Prince Edward Island	2	448	407	692	756	0.1%
Nova Scotia	2,914	2,872	3,147	3,096	3,074	0.4%
New Brunswick	N/A	45	301	87	109	0.0%
Quebec	38,772	41,333	41,027	46,959	57,331	7.9%
Ontario	438,680	452,009	462,661	477,157	513,074	71.0%
Manitoba	186	205	218	204	368	0.1%
Saskatchewan	224	209	187	193	203	0.0%
Alberta	33,170	37,161	40,391	42,643	43,697	6.0%
British Columbia	120,864	123,000	110,841	115,564	103,956	14.4%
Canada²	636,723	660,259	659,623	687,057	722,890	100.0%

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 vegetable¹ production by commodity – by volume (metric tons)

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	279,494	279,433	264,737	257,639	279,627	38.7%
Cucumbers	206,227	228,764	231,751	252,581	237,671	32.9%
Peppers	139,060	139,153	145,870	152,437	176,917	24.5%
Lettuce	6,256	7,049	11,843	15,143	19,221	2.7%
Eggplants	3,456	3,476	3,141	4,040	4,219	0.6%
Strawberries	N/A	N/A	N/A	2,554	2,731	0.4%
Fine herbs	755	572	938	1,190	1,115	0.2%
Microgreens and shoots	164	919	594	582	499	0.1%
Chinese vegetables	495	442	368	471	445	0.1%
Sprouts	776	405	337	345	330	0.0%
Beans (green and wax)	40	47	45	76	115	0.0%
Total	636,723	660,259	659,623	687,057	722,890	100.0%

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 vegetables¹ by province (thousands of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
Newfoundland and Labrador	\$141	\$94	\$153	\$202	\$82	0.0%
Prince Edward Island	\$8	\$1,897	\$1,902	\$2,035	\$9	0.0%
Nova Scotia	\$7,516	\$4,793	\$9,503	\$8,654	\$9,973	0.5%
New Brunswick	\$115	\$189	\$1,085	\$736	\$1,150	0.1%
Quebec	\$128,839	\$143,496	\$146,811	\$157,251	\$211,375	10.6%
Ontario	\$917,857	\$955,527	\$1,067,388	\$1,190,030	\$1,314,425	65.7%
Manitoba	\$975	\$1,201	\$1,529	\$1,200	\$1,870	0.1%
Saskatchewan	\$708	\$1,415	\$1,028	\$1,199	\$455	0.0%
Alberta	\$69,386	\$81,003	\$96,362	\$118,795	\$57,546	2.9%
British Columbia	\$289,930	\$296,885	\$306,335	\$319,630	\$326,729	16.3%
Canada²	\$1,437,089	\$1,512,118	\$1,633,553	\$1,832,159	\$2,001,980	100.0%

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*.

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



1.7. Farm gate value of greenhouse vegetables¹ by commodity (thousands of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	\$555,196	\$569,574	\$594,072	\$660,379	\$714,766	35.7%
Cucumbers	\$395,760	\$443,018	\$473,549	\$539,497	\$604,384	30.2%
Peppers	\$421,873	\$428,451	\$477,680	\$511,359	\$550,310	27.5%
Lettuce	\$32,036	\$33,941	\$50,003	\$64,092	\$65,255	3.3%
Strawberries	N/A	N/A	N/A	\$15,522	\$18,486	0.9%
Eggplants	\$11,531	\$11,727	\$11,725	\$15,336	\$16,172	0.8%
Other fruits or vegetables	\$6,047	\$7,459	\$8,190	\$7,259	\$15,641	0.8%
Fine herbs	\$8,576	\$7,066	\$10,344	\$10,173	\$9,341	0.5%
Microgreens and shoots	\$3,585	\$8,384	\$5,764	\$5,601	\$4,349	0.2%
Sprouts	\$993	\$1,014	\$898	\$1,101	\$1,129	0.1%
Beans (green and wax)	\$313	\$406	\$399	\$687	\$1,090	0.1%
Chinese vegetables	\$1,180	\$1,076	\$930	\$1,153	\$1,057	0.1%
Total	\$1,437,089	\$1,512,118	\$1,633,553	\$1,832,159	\$2,001,980	100.0%

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



1.8. Area, production and sales¹ of Canadian mushrooms

		2017	2018	2019	2020	2021
Harvested area (thousands of square feet)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	29,199	31,965	34,033	33,430	36,039
	Prairie provinces	x	x	x	x	x
	British Columbia	16,989	17,292	22,357	21,938	22,072
	Canada²	50,764	53,558	60,695	59,167	61,916
Production (metric tonnes)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	63,103	69,196	66,687	66,787	71,114
	Prairie provinces	x	x	x	x	x
	British Columbia	47,325	47,352	56,424	x	x
	Canada²	120,253	125,565	132,114	132,589	137,796
Sales (CAN\$ '000)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	311,346	338,350	339,329	369,977	417,415
	Prairie provinces	x	x	x	x	x
	British Columbia	173,785	173,790	207,592	x	196,142
	Canada²	527,570	553,320	589,468	619,691	653,508

Notes:

1. Regional distribution shown as presented by Statistics Canada.

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

x : Suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: Statistics Canada. Table 32-10-0356-01 Area, production and sales of mushrooms



2. Trade

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

		2017	2018	2019	2020	2021
Exports	Greenhouse vegetables	\$964,121	\$1,001,686	\$1,107,800	\$1,397,760	\$1,312,609
	Mushrooms	\$218,405	\$268,289	\$325,563	\$362,517	\$383,931
	Total exports	\$1,182,526	\$1,269,975	\$1,433,363	\$1,760,278	\$1,696,540
Import	Greenhouse vegetables	\$383,735	\$332,631	\$331,151	\$368,852	\$397,568
	Mushrooms	\$50,893	\$65,184	\$69,656	\$67,837	\$65,389
	Total imports	\$434,629	\$397,815	\$400,807	\$436,690	\$462,957
Trade balance (exports - imports)	Greenhouse vegetables	\$580,386	\$669,055	\$776,648	\$1,028,908	\$915,040
	Mushrooms	\$167,512	\$203,105	\$255,907	\$294,680	\$318,542
	Overall trade balance	\$747,897	\$872,160	\$1,032,556	\$1,323,588	\$1,233,583

Source: Statistics Canada (CATSNET, June 2022)



2.2. Exports

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

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	\$391,123	\$368,422	\$385,558	\$508,638	\$456,204	34.8%
Peppers	\$331,568	\$352,709	\$420,415	\$508,967	\$442,689	33.7%
Cucumbers and gherkins	\$241,431	\$280,554	\$301,827	\$380,156	\$413,715	31.5%
Total	\$964,121	\$1,001,686	\$1,107,800	\$1,397,760	\$1,312,609	100.0%

Source: Statistics Canada (CATSNET, June 2022)

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

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	152,617	138,129	138,555	144,863	158,191	37.4%
Cucumbers and gherkins	104,038	114,221	118,592	130,775	149,187	35.3%
Peppers	83,582	83,288	94,022	109,046	115,092	27.2%
Total	340,237	335,638	351,169	384,684	422,470	100.0%

Source: Statistics Canada (CATSNET, June 2022)



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

	2017	2018	2019	2020	2021	2021 % Share
Nova Scotia	\$0	\$2	\$2	\$1	\$0	0.0%
New Brunswick	\$2	\$3	\$6	\$17	\$14	0.0%
Québec	\$11,616	\$17,789	\$18,549	\$19,805	\$19,597	1.5%
Ontario	\$788,194	\$819,805	\$920,159	\$1,162,317	\$1,129,502	86.1%
Manitoba	\$0	\$6	\$8	\$0	\$0	0.0%
Alberta	\$4,687	\$9,484	\$4,725	\$3,364	\$5,898	0.4%
British Columbia	\$159,622	\$154,597	\$164,351	\$212,257	\$157,598	12.0%
Total	\$964,121	\$1,001,686	\$1,107,800	\$1,397,760	\$1,312,609	100.0%

Source: Statistics Canada (CATSNET, June 2022)

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

	2017	2018	2019	2020	2021	2021 % Share
Nova Scotia	0	1	1	0	0	0.0%
New Brunswick	1	1	2	5	4	0.0%
Québec	4,906	5,188	4,839	5,690	6,063	1.4%
Ontario	283,369	283,051	296,983	325,705	366,017	86.6%
Manitoba	0	6	3	0	0	0.0%
Alberta	2,263	4,376	2,570	1,204	2,374	0.6%
British Columbia	49,699	43,017	46,773	52,079	48,011	11.4%
Total	340,237	335,638	351,169	384,684	422,470	100.0%

Source: Statistics Canada (CATSNET, June 2022)



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

	2017	2018	2019	2020	2021	2021 % Share
United States	\$958,155	\$994,815	\$1,102,403	\$1,391,914	\$1,305,097	99.4%
Japan	\$4,718	\$5,841	\$4,172	\$5,316	\$7,414	0.6%
United Kingdom	\$7	\$0	\$0	\$0	\$46	0.0%
Hong Kong	\$464	\$373	\$392	\$26	\$12	0.0%
Taiwan	\$673	\$641	\$794	\$407	\$11	0.0%
Others	\$104	\$15	\$39	\$97	\$28	0.0%
Total	\$964,121	\$1,001,686	\$1,107,800	\$1,397,760	\$1,312,609	100.0%

Source: Statistics Canada (CATSNET, June 2022)

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

	2017	2018	2019	2020	2021	2021 % Share
United States	338,372	333,565	349,533	382,786	420,059	99.4%
Japan	1,483	1,753	1,250	1,722	2,379	0.6%
United Kingdom	2	0	0	0	15	0.0%
Hong Kong	142	113	119	8	4	0.0%
Taiwan	208	203	256	136	4	0.0%
Others	30	4	12	31	9	0.0%
Total	340,237	335,638	351,169	384,684	422,470	100.0%

Source: Statistics Canada (CATSNET, June 2022)



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

		2017	2018	2019	2020	2021
Tomatoes	United States	\$385,920	\$362,397	\$381,081	\$503,495	\$449,427
	Japan	\$4,381	\$5,267	\$3,500	\$4,659	\$6,702
	United Kingdom	\$7	\$0	\$0	\$0	\$46
	Guatemala	\$0	\$0	\$0	\$0	\$12
	Taiwan	\$630	\$626	\$790	\$407	\$11
	Total	\$391,123	\$368,422	\$385,558	\$508,638	\$456,204
Peppers	United States	\$330,817	\$351,893	\$419,512	\$508,306	\$441,989
	Japan	\$337	\$574	\$672	\$623	\$683
	Saint Pierre and Miquelon	\$1	\$3	\$6	\$14	\$11
	Hong Kong	\$277	\$213	\$203	\$16	\$5
	France	\$8	\$10	\$12	\$6	\$2
	Total	\$331,568	\$352,709	\$420,415	\$508,967	\$442,689
Cucumbers and gherkins	United States	\$241,418	\$280,524	\$301,810	\$380,112	\$413,681
	Japan	\$0	\$0	\$0	\$34	\$29
	Saint Pierre and Miquelon	\$1	\$1	\$1	\$3	\$3
	Hong Kong	\$11	\$28	\$14	\$3	\$2
	France	\$0	\$0	\$1	\$1	\$0
	Total	\$241,431	\$280,554	\$301,827	\$380,156	\$413,715
Source: Statistics Canada (CATSNET, June 2022)						



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

		2017	2018	2019	2020	2021
Tomatoes	United States	150,961	136,275	137,155	143,170	155,993
	Japan	1,397	1,613	1,085	1,531	2,173
	United Kingdom	2	0	0	0	15
	Guatemala	0	0	0	0	4
	Taiwan	196	199	255	135	4
	Total	152,617	138,129	138,555	144,863	158,191
Cucumbers and gherkins	United States	104,034	114,211	118,586	130,760	149,174
	Japan	0	0	0	12	11
	Saint Pierre and Miquelon	0	0	1	1	1
	Hong Kong	4	10	6	1	1
	France	0	0	0	0	0
	Total	104,038	114,221	118,592	130,775	149,187
Peppers	United States	83,377	83,080	93,792	108,855	114,892
	Japan	86	140	165	180	196
	Saint Pierre and Miquelon	0	1	1	4	3
	Hong Kong	79	61	58	5	1
	France	2	2	3	2	1
	Total	83,582	83,288	94,022	109,046	115,092

Source: Statistics Canada (CATSNET, June 2022)



2.2.9. Canada's mushroom exports by province – by value (thousands of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
Newfoundland and Labrador	\$0	\$0	\$0	\$0	\$0	0.0%
Prince Edward Island	\$0	\$0	\$0	\$0	\$0	0.0%
Nova Scotia	\$0	\$1	\$4	\$0	\$0	0.0%
New Brunswick	\$113	\$0	\$13	\$0	\$0	0.0%
Quebec	\$353	\$314	\$221	\$644	\$23	0.0%
Ontario	\$64,545	\$79,195	\$95,819	\$113,115	\$111,825	29.1%
Manitoba	\$13	\$3	\$0	\$0	\$0	0.0%
Saskatchewan	\$8	\$0	\$0	\$0	\$0	0.0%
Alberta	\$49	\$40	\$0	\$0	\$160	0.0%
British Columbia	\$153,291	\$188,737	\$229,505	\$248,758	\$271,923	70.8%
Canada¹	\$218,405	\$268,289	\$325,563	\$362,517	\$383,931	100.0%

Note:

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

Source: Statistics Canada (CATSNET, June 2022)

2.2.10. Canada's mushroom exports by province – by volume (metric tons)

	2017	2018	2019	2020	2021	2021 % Share
Newfoundland and Labrador	0	0	0	0	0	0.0%
Prince Edward Island	0	0	0	0	0	0.0%
Nova Scotia	0	0	0	0	0	0.0%
New Brunswick	3	0	0	0	0	0.0%
Quebec	34	23	26	44	2	0.0%
Ontario	11,856	13,533	16,514	19,317	19,256	30.7%
Manitoba	0	0	0	0	0	0.0%
Saskatchewan	0	0	0	0	0	0.0%
Alberta	10	6	0	0	95	0.2%
British Columbia	27,595	32,532	35,913	37,964	43,381	69.2%
Canada¹	39,497	46,094	52,454	57,325	62,733	100.0%

Note:

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

Source: Statistics Canada (CATSNET, June 2022)



2.2.11. Canada's top mushroom export destinations – by value (thousands of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
United States	\$209,070	\$256,249	\$304,859	\$350,518	\$373,908	97.4%
Japan	\$3,707	\$4,199	\$13,392	\$8,928	\$8,403	2.2%
France	\$1,531	\$3,040	\$2,527	\$1,114	\$533	0.1%
Germany	\$447	\$94	\$513	\$640	\$407	0.1%
Netherlands	\$1,401	\$670	\$841	\$715	\$364	0.1%
Others	\$2,249	\$4,038	\$3,430	\$603	\$316	0.1%
Total	\$218,405	\$268,289	\$325,563	\$362,517	\$383,931	100.0%

Source: Statistics Canada (CATSNET, June 2022)

2.2.12. Canada's top mushroom export destinations – by volume (metric tons)

	2017	2018	2019	2020	2021	2021 % Share
United States	39,229	45,891	51,817	56,937	62,337	99.4%
Japan	108	101	475	291	329	0.5%
China	1	0	17	4	25	0.0%
France	53	50	75	41	19	0.0%
Netherlands	51	19	30	28	11	0.0%
Others	56	34	39	26	11	0.0%
Total	39,497	46,094	52,454	57,325	62,733	100.0%

Source: Statistics Canada (CATSNET, June 2022)



2.3. Imports

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

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	\$197,474	\$149,830	\$134,822	\$162,224	\$172,876	43.5%
Peppers	\$140,311	\$138,543	\$147,443	\$163,371	\$169,863	42.7%
Cucumbers and gherkins	\$45,088	\$43,705	\$48,484	\$42,822	\$54,443	13.7%
Lettuce	\$863	\$553	\$402	\$435	\$386	0.1%
Total	\$383,735	\$332,631	\$331,151	\$368,852	\$397,568	100.0%

Source: Statistics Canada (CATSNET, June 2022)

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

	2017	2018	2019	2020	2021	2021 % Share
Tomatoes	75,506	68,721	59,749	66,996	75,306	49.1%
Peppers	43,567	49,453	47,210	49,144	52,735	34.4%
Cucumbers and gherkins	23,473	23,775	24,193	21,105	25,399	16.5%
Lettuce	374	181	111	68	64	0.0%
Total	142,919	142,131	131,264	137,313	153,504	100.0%

Source: Statistics Canada (CATSNET, June 2022)



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

	2017	2018	2019	2020	2021	2021 % Share
Mexico	\$338,678	\$286,268	\$270,515	\$320,603	\$336,172	84.6%
United States	\$34,167	\$34,778	\$42,387	\$37,176	\$54,187	13.6%
Spain	\$5,825	\$8,139	\$11,888	\$4,707	\$2,944	0.7%
Netherlands	\$1,468	\$1,434	\$3,202	\$2,285	\$320	0.1%
Guatemala	\$2,565	\$874	\$27	\$234	\$70	0.0%
Others	\$1,032	\$1,137	\$3,132	\$3,849	\$3,875	1.0%
Total	\$383,735	\$332,631	\$331,151	\$368,852	\$397,568	100.0%

Source: Statistics Canada (CATSNET, June 2022)

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

	2017	2018	2019	2020	2021	2021 % Share
Mexico	127,895	124,857	109,512	120,953	128,937	84.0%
United States	12,196	14,187	16,509	13,270	22,672	14.8%
Spain	1,646	1,928	3,252	1,227	706	0.5%
Netherlands	480	474	857	378	48	0.0%
Guatemala	389	363	11	76	21	0.0%
Others	314	322	1,123	1,409	1,119	0.7%
Total	142,919	142,131	131,264	137,313	153,504	100.0%

Source: Statistics Canada (CATSNET, June 2022)



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

		2017	2018	2019	2020	2021
Tomatoes	Mexico	\$175,043	\$126,643	\$109,766	\$142,631	\$144,527
	United States	\$22,017	\$22,895	\$24,893	\$19,031	\$28,278
	Guatemala	\$74	\$117	\$0	\$203	\$70
	New Zealand	\$60	\$101	\$162	\$360	\$0
	Total	\$197,474	\$149,830	\$134,822	\$162,224	\$172,876
Peppers	Mexico	\$124,743	\$121,986	\$123,180	\$147,042	\$161,199
	United States	\$6,209	\$6,390	\$7,796	\$6,674	\$2,009
	Spain	\$5,093	\$7,478	\$10,533	\$4,600	\$2,914
	Viet Nam	\$0	\$2	\$104	\$228	\$459
	Netherlands	\$1,238	\$1,151	\$3,120	\$2,275	\$306
	Total	\$140,311	\$138,543	\$147,443	\$163,371	\$169,863
Cucumbers and gherkins	Mexico	\$38,890	\$37,594	\$37,553	\$30,922	\$30,444
	United States	\$5,102	\$5,025	\$9,354	\$11,131	\$23,612
	Jordan	\$4	\$0	\$0	\$0	\$64
	Spain	\$720	\$646	\$1,351	\$89	\$10
	Netherlands	\$227	\$283	\$82	\$6	\$8
	Total	\$45,088	\$43,705	\$48,484	\$42,822	\$54,443
Lettuce	United States	\$840	\$468	\$344	\$339	\$287
	Korea, South	\$7	\$24	\$37	\$63	\$66
	Spain	\$12	\$14	\$4	\$18	\$20
	Mexico	\$2	\$46	\$16	\$8	\$2
	Netherlands	\$0	\$0	\$0	\$4	\$6
	Total	\$863	\$553	\$402	\$435	\$386

Source: Statistics Canada (CATSNET, June 2022)



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

		2017	2018	2019	2020	2021
Tomatoes	Mexico	67,488	59,124	49,931	60,013	62,241
	United States	7,882	9,500	9,760	6,730	13,044
	Guatemala	22	37	0	62	21
	New Zealand	20	30	58	190	0
	Total	75,506	68,721	59,749	66,996	75,306
Peppers	Mexico	39,397	44,377	39,819	44,280	50,196
	United States	2,035	2,577	3,017	2,379	819
	Spain	1,290	1,618	2,594	1,178	696
	Viet Nam	0	1	33	74	108
	Netherlands	338	365	805	374	44
	Total	43,567	49,453	47,210	49,144	52,735
Cucumbers and gherkins	Mexico	21,009	21,337	19,750	16,659	16,499
	United States	1,913	1,951	3,636	4,099	8,754
	Jordan	2	0	0	0	26
	Spain	352	308	657	48	8
	Netherlands	140	109	52	3	3
	Total	23,473	23,775	24,193	21,105	25,399
Lettuce	United States	366	158	96	60	55
	Korea, South	2	2	3	4	5
	Spain	4	2	1	2	2
	Mexico	1	19	12	1	1
	Netherlands	0	0	0	0	1
	Total	374	181	111	68	64

Source: Statistics Canada (CATSNET, June 2022)



2.3.7. Top sources of Canada's mushroom imports – by value (thousands of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
United States	\$28,771	\$41,163	\$39,993	\$41,563	\$37,827	57.8%
China	\$9,911	\$11,043	\$12,251	\$12,803	\$15,042	23.0%
Korea, South	\$7,156	\$7,427	\$8,705	\$8,119	\$5,788	8.9%
Italy	\$1,168	\$1,533	\$1,725	\$1,286	\$2,134	3.3%
France	\$1,372	\$1,256	\$1,240	\$1,767	\$1,538	2.4%
Others	\$2,514	\$2,761	\$5,743	\$2,300	\$3,060	4.7%
Total	\$50,893	\$65,184	\$69,656	\$67,837	\$65,389	100.0%

Source: Statistics Canada (CATSNET, June 2022)

2.3.8. Top sources of Canada's mushroom imports – by volume (metric tons)

	2017	2018	2019	2020	2021	2021 % Share
United States	5,819	8,202	7,608	7,870	6,814	60.0%
China	1,437	1,566	1,556	1,617	2,101	18.5%
Korea, South	2,638	2,651	2,941	2,690	1,886	16.6%
Italy	22	28	57	97	250	2.2%
France	58	53	50	65	64	0.6%
Others	265	250	326	149	236	2.1%
Total	10,239	12,750	12,539	12,488	11,350	100.0%

Source: Statistics Canada (CATSNET, June 2022)



3. Channels of distribution

3.1. Channels of distribution for greenhouse vegetable¹ sales and resales² (millions of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
Domestic wholesalers	\$999.5	\$1,062.2	\$1,090.1	\$1,176.1	\$1,326.5	66.3%
Mass market chain stores	\$156.8	\$166.1	\$206.1	\$266.7	\$302.4	15.1%
Other channels	\$214.5	\$208.1	\$229.8	\$237.8	\$218.6	14.4%
Other greenhouses	\$46.6	\$50.2	\$78.1	\$109.3	\$126.3	6.3%
Direct sales to the public ³	\$19.6	\$25.6	\$29.5	\$42.3	\$28.2	1.4%
Total sales	\$1,437.1	\$1,512.1	\$1,633.6	\$1,832.2	\$2,002.0	100.0%

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



4. Operating expenses

4.1. Greenhouse vegetable^{1,2} producers' operating expenses by category (millions of Canadian dollars)

	2017	2018	2019	2020	2021	2021 % Share
Gross yearly payroll ³	\$351.3	\$362.9	\$386.1	\$434.6	\$520.8	32.4%
Other operating expenses ⁴	\$312.1	\$298.7	\$305.8	\$361.3	\$382.9	23.8%
Other crop expenses ⁵	\$210.4	\$225.4	\$247.0	\$279.0	\$312.4	19.5%
Fuel	\$147.0	\$147.4	\$146.2	\$149.0	\$162.7	10.1%
Plant material purchases for growing on ⁶	\$108.5	\$118.5	\$130.9	\$147.6	\$160.7	10.0%
Electricity ⁷	\$41.6	\$42.5	\$42.9	\$50.7	\$66.3	4.1%
Total operating expenses	\$1,170.9	\$1,195.5	\$1,259.0	\$1,422.2	\$1,605.7	100.0%

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

5.1. Total number of employees of specialized greenhouse vegetable operations

		2017	2018	2019	2020	2021
Atlantic provinces	Seasonal employees ¹	81	90	77	61	101
	Permanent employees ²	83	89	119	156	148
	Total employees	164	179	196	217	249
Quebec	Seasonal employees ¹	463	404	400	603	724
	Permanent employees ²	800	824	789	844	1,098
	Total employees	1,263	1,228	1,189	1,447	1,822
Ontario	Seasonal employees ¹	3,550	3,694	3,742	4,000	4,266
	Permanent employees ²	4,438	4,352	4,533	5,177	6,186
	Total employees	7,988	8,046	8,275	9,177	10,452
Prairie provinces	Seasonal employees ¹	183	161	162	255	187
	Permanent employees ²	669	680	706	726	805
	Total employees	852	841	868	981	992
British Columbia	Seasonal employees ¹	1,033	980	819	850	911
	Permanent employees ²	1,268	1,151	1,205	1,281	1,391
	Total employees	2,301	2,131	2,024	2,131	2,302
Canada	Seasonal employees ¹	5,310	5,329	5,200	5,769	6,189
	Permanent employees ²	7,254	7,096	7,352	8,184	9,628
	Total employees	12,564	12,425	12,552	13,953	15,817

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
- Source: Statistics Canada. Table 32-10-0356-01 Area, production and sales of mushrooms
- Statistics Canada. CATSNET