



Statistical Overview of the Canadian Greenhouse Vegetable and Mushroom Industry **2022**

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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 \$2.2 billion in farm gate sales and approximately \$1.9 billion in exports in 2022. Tomatoes, peppers, and cucumbers continue to be the primary vegetables grown in greenhouses, accounting for a combined 96% of greenhouse vegetable production in 2022.

Canadian greenhouse 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.

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 2022, there were a total of 934 commercial greenhouse vegetable operations in Canada that produced 752,685 metric tons of vegetables, representing a 5% increase in the number of operations and a 7% increase in production compared to 2021. Ontario continued to lead the greenhouse vegetable sector in 2022, representing 71% of the total production in Canada, followed by British Columbia and Quebec, with 14.5% and 8% respectively. Other provinces accounted for the remaining 6.5%.

Canada's greenhouse vegetable growers produce tomatoes, cucumbers, lettuce, bell-peppers, green/yellow beans, eggplants, strawberries and various herbs and microgreen vegetables. Of these commodities, tomatoes, cucumbers, and peppers are the main greenhouse vegetable crops grown in Canada. Tomatoes accounted for 36% of the total greenhouse vegetable sales, followed by cucumbers and peppers, which accounted for 33% and 25%, respectively. Total sales of greenhouse fruit and vegetables rose 11% from 2021 to reach \$2.2 billion in 2022 - continuing the annual increases that began in 2013.

The value of greenhouse vegetable exports rose 7.5% from 2021 to reach over \$1.4 billion in 2022. 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 39% in terms of value of all fresh produce exports. Greenhouse cucumbers accounted for 34% of the total value of exports, followed by greenhouse peppers with 34% and tomatoes with 32%.

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. In 2022, Canadian mushroom growers produced 139,090 metric tons of mushrooms, representing an increase of 0.9% over 2021, with associated increases in cultivated (+1.8%) and harvested (+7.2%) area. The total value of mushrooms sold rose 6.3% to \$694.5 million in 2022, largely due to higher prices for both fresh and processed mushrooms. In 2022, Ontario and British Columbia accounted for approximately 93% of the total value of Canadian mushrooms, with more than half of Canada's production volume having been sourced from Ontario.

As 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 66%, rising to \$446.0 million in 2022.

1. Production

1.1. Number of greenhouse vegetable operations¹ by province

	2018	2019	2020	2021	2022	2022 % Share
Atlantic provinces ²	51	49	65	74	65	7.0%
Quebec	238	235	230	236	212	22.7%
Ontario	325	315	315	321	387	41.4%
Prairie provinces ²	102	94	98	103	103	11.0%
British Columbia	150	150	150	158	167	17.9%
Canada	866	843	858	892	934	100.0%

Notes:

- 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.
 - 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)

	2018	2019	2020	2021	2022	2022 % Share
Newfoundland and Labrador	6,539	5,340	5,396	6,882	5,106	0.0%
Prince Edward Island	14,935	12,169	18,885	19,586	14,074	0.1%
Nova Scotia	82,265	88,211	84,376	86,114	83,578	0.4%
New Brunswick	4,617	6,983	6,041	7,350	7,515	0.0%
Quebec	1,228,400	1,257,737	1,419,780	1,491,924	1,549,087	7.7%
Ontario	12,194,927	12,524,892	12,906,198	13,230,470	14,350,730	71.0%
Manitoba	8,287	11,484	8,173	15,936	16,571	0.1%
Saskatchewan	17,300	14,706	14,183	16,142	17,545	0.1%
Alberta	719,049	732,695	742,732	817,158	844,677	4.2%
British Columbia	3,136,709	3,016,166	3,010,912	3,103,775	3,286,822	16.3%
Canada²	17,430,846	17,700,845	18,256,531	18,816,824	20,210,942	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)

	2018	2019	2020	2021	2022	2022 % Share
Tomatoes	6,579,782	6,346,327	6,183,913	6,835,395	7,207,531	35.7%
Peppers	5,615,729	5,760,318	5,895,959	6,152,252	6,396,091	31.6%
Cucumbers	4,559,877	4,739,726	5,060,743	4,666,140	5,352,294	26.5%
Lettuce	236,813	417,302	344,200	335,216	344,496	1.7%
Strawberries	..	..	303,791	321,210	332,787	1.6%
Other fruits or vegetables	131,831	97,715	84,907	138,385	205,990	1.0%
Eggplants	110,519	121,641	138,509	140,496	139,547	0.7%
Fine herbs	69,737	103,655	116,026	98,292	102,745	0.5%
Microgreens and shoots	69,479	61,663	57,450	52,578	55,022	0.3%
Chinese vegetables	43,396	37,850	54,205	54,319	50,929	0.3%
Beans (green and wax)	6,998	8,914	12,479	17,888	19,009	0.1%
Sprouts	6,685	5,734	4,349	4,653	4,501	0.0%
Total	17,430,846	17,700,845	18,256,531	18,816,824	20,210,942	100.0%

Notes:

1. Includes specialized greenhouse fruits.

.. : 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)

	2018	2019	2020	2021	2022	2022 % Share
Newfoundland and Labrador	14	28	34	41	13	0.0%
Prince Edward Island	448	407	692	756	16	0.0%
Nova Scotia	2,872	3,147	3,096	3,060	3,134	0.4%
New Brunswick	45	301	87	110	122	0.0%
Quebec	41,333	41,027	46,959	56,905	62,400	8.3%
Ontario	452,009	462,661	477,157	490,416	530,567	70.5%
Manitoba	205	218	204	367	381	0.1%
Saskatchewan	209	187	193	203	231	0.0%
Alberta	37,161	40,391	42,643	43,697	45,328	6.0%
British Columbia	123,000	110,841	115,564	103,956	109,489	14.5%
Canada²	660,259	659,623	687,057	699,793	752,685	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

1.5. Greenhouse vegetable¹ production by commodity – by volume (metric tons)

	2018	2019	2020	2021	2022	2022% Share
Tomatoes	279,433	264,737	257,639	279,627	293,974	39.1%
Cucumbers	228,764	231,751	252,581	237,672	272,542	36.2%
Peppers	139,153	145,870	152,437	153,796	156,898	20.8%
Lettuce	7,049	11,843	15,143	19,221	19,602	2.6%
Eggplants	3,476	3,141	4,040	4,219	4,221	0.6%
Strawberries	..	..	2,554	2,731	2,851	0.4%
Fine herbs	572	938	1,190	1,115	1,133	0.2%
Microgreens and shoots	919	594	582	499	562	0.1%
Chinese vegetables	442	368	471	467	441	0.1%
Sprouts	405	337	345	331	329	0.0%
Beans (green and wax)	47	45	76	115	132	0.0%
Total	660,259	659,623	687,057	699,793	752,685	100.0%

Notes:

1. Includes specialized greenhouse fruits.

.. : 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)

	2018	2019	2020	2021	2022	2022 % Share
Newfoundland and Labrador	\$94	\$153	\$202	\$205	\$178	0.0%
Prince Edward Island	\$1,897	\$1,902	\$2,035	\$2,943	\$1	0.0%
Nova Scotia	\$4,793	\$9,503	\$8,654	\$9,918	\$9,116	0.4%
New Brunswick	\$189	\$1,085	\$736	\$1,148	\$1,229	0.1%
Quebec	\$143,496	\$146,811	\$157,251	\$207,973	\$233,681	10.5%
Ontario	\$955,527	\$1,067,388	\$1,190,030	\$1,299,759	\$1,481,733	66.4%
Manitoba	\$1,201	\$1,529	\$1,200	\$1,896	\$2,114	0.1%
Saskatchewan	\$1,415	\$1,028	\$1,199	\$455	\$1,324	0.1%
Alberta	\$81,003	\$96,362	\$118,795	\$57,546	\$105,563	4.7%
British Columbia	\$296,885	\$306,335	\$319,630	\$322,729	\$342,333	15.3%
Canada²	\$1,512,118	\$1,633,553	\$1,832,159	\$1,979,902	\$2,230,485	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)

	2018	2019	2020	2021	2022	2022 % Share
Tomatoes	\$569,574	\$594,072	\$660,379	\$714,766	\$793,649	35.6%
Cucumbers	\$443,018	\$473,549	\$539,497	\$604,394	\$738,272	33.1%
Peppers	\$428,451	\$477,680	\$511,359	\$528,163	\$554,309	24.9%
Lettuce	\$33,941	\$50,003	\$64,092	\$65,255	\$70,045	3.1%
Strawberries	..	..	\$15,522	\$18,486	\$19,797	0.9%
Other fruits or vegetables	\$7,459	\$8,190	\$7,259	\$15,671	\$19,638	0.9%
Eggplants	\$11,727	\$11,725	\$15,336	\$16,172	\$16,614	0.7%
Fine herbs	\$7,066	\$10,344	\$10,173	\$9,341	\$9,712	0.4%
Microgreens and shoots	\$8,384	\$5,764	\$5,601	\$4,349	\$4,943	0.2%
Beans (green and wax)	\$406	\$399	\$687	\$1,090	\$1,268	0.1%
Sprouts	\$1,014	\$898	\$1,101	\$1,129	\$1,158	0.1%
Chinese vegetables	\$1,076	\$930	\$1,153	\$1,086	\$1,079	0.0%
Total	\$1,512,118	\$1,633,553	\$1,832,159	\$1,979,902	\$2,230,485	100.0%

Notes:

1. Includes specialized greenhouse fruits.

.. : 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

		2018	2019	2020	2021	2022
Harvested area (thousands of square feet)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	31,965	34,033	33,430	36,039	39,257
	Prairie provinces	x	x	x	x	x
	British Columbia	17,292	22,357	21,938	22,072	22,696
	Canada²	53,558	60,695	59,167	61,916	66,360
Production (metric tonnes)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	69,196	66,687	66,787	71,114	71,279
	Prairie provinces	x	x	x	x	x
	British Columbia	47,352	56,424	x	x	x
	Canada²	125,565	132,114	132,589	137,796	139,090
Sales (CAN\$ '000)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	\$338,350	\$339,329	\$369,977	\$417,415	\$439,267
	Prairie provinces	x	x	x	x	x
	British Columbia	\$173,790	\$207,592	x	\$196,142	\$204,158
	Canada²	\$553,320	\$589,468	\$619,691	\$653,508	\$694,466

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)

		2018	2019	2020	2021	2022
Exports	Greenhouse vegetables	\$1,001,686	\$1,107,800	\$1,397,518	\$1,312,604	\$1,419,284
	Mushrooms	\$268,049	\$324,140	\$362,443	\$383,910	\$445,981
	Total exports	\$1,269,734	\$1,431,940	\$1,759,961	\$1,696,514	\$1,865,265
Import	Greenhouse vegetables	\$332,631	\$331,151	\$368,871	\$397,586	\$428,285
	Mushrooms	\$64,770	\$69,334	\$67,469	\$65,138	\$68,404
	Total imports	\$397,401	\$400,485	\$436,339	\$462,724	\$496,688
Trade balance (exports - imports)	Greenhouse vegetables	\$669,055	\$776,648	\$1,028,648	\$915,018	\$991,000
	Mushrooms	\$203,278	\$254,807	\$294,974	\$318,772	\$377,577
	Overall trade balance	\$872,333	\$1,031,455	\$1,323,622	\$1,233,790	\$1,368,577

Source: Statistics Canada (CATSNET, May 2023)

2.2. Exports

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

	2018	2019	2020	2021	2022	2022 % Share
Cucumbers and gherkins	\$280,554	\$301,827	\$380,162	\$413,714	\$480,773	33.9%
Peppers	\$352,709	\$420,415	\$508,967	\$442,689	\$478,020	33.7%
Tomatoes	\$368,422	\$385,558	\$508,389	\$456,201	\$460,491	32.4%
Total	\$1,001,686	\$1,107,800	\$1,397,518	\$1,312,604	\$1,419,284	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Cucumbers and gherkins	114,221	118,592	130,778	149,180	173,557	40.0%
Tomatoes	138,129	138,555	144,758	158,191	148,819	34.3%
Peppers	83,288	94,022	109,046	115,092	111,864	25.8%
Total	335,638	351,169	384,582	422,463	434,241	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Nova Scotia	\$2	\$2	\$1	\$0	\$1	0.0%
New Brunswick	\$3	\$6	\$17	\$14	\$14	0.0%
Québec	\$17,789	\$18,549	\$19,811	\$19,599	\$28,829	2.0%
Ontario	\$819,805	\$920,159	\$1,162,069	\$1,129,495	\$1,237,215	87.2%
Manitoba	\$6	\$8	\$0	\$0	\$0	0.0%
Alberta	\$9,484	\$4,725	\$3,364	\$5,898	\$4,577	0.3%
British Columbia	\$154,597	\$164,351	\$212,257	\$157,598	\$148,649	10.5%
Total	\$1,001,686	\$1,107,800	\$1,397,518	\$1,312,604	\$1,419,284	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Nova Scotia	1	1	0	0	0	0.0%
New Brunswick	1	2	5	4	3	0.0%
Québec	5,188	4,839	5,693	6,058	7,179	1.7%
Ontario	283,051	296,983	325,600	366,015	382,339	88.0%
Manitoba	6	3	0	0	0	0.0%
Alberta	4,376	2,570	1,204	2,374	1,895	0.4%
British Columbia	43,017	46,773	52,079	48,011	42,825	9.9%
Total	335,638	351,169	384,582	422,463	434,241	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	\$994,815	\$1,102,403	\$1,391,671	\$1,305,093	\$1,411,868	99.5%
Japan	\$5,841	\$4,172	\$5,316	\$7,414	\$7,371	0.5%
France	\$11	\$13	\$7	\$2	\$17	0.0%
Taiwan	\$641	\$794	\$407	\$11	\$16	0.0%
Saint Pierre and Miquelon	\$4	\$8	\$17	\$14	\$14	0.0%
Others	\$373	\$410	\$100	\$71	\$0	0.0%
Total	\$1,001,686	\$1,107,800	\$1,397,518	\$1,312,604	\$1,419,284	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	333,565	349,533	382,684	420,052	431,862	99.5%
Japan	1,753	1,250	1,722	2,379	2,366	0.5%
France	3	4	2	1	5	0.0%
Taiwan	203	256	136	4	5	0.0%
Saint Pierre and Miquelon	1	2	5	4	4	0.0%
Others	113	125	33	23	0	0.0%
Total	335,638	351,169	384,582	422,463	434,241	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

		2018	2019	2020	2021	2022
Cucumbers and gherkins	United States	\$280,524	\$301,810	\$380,118	\$413,679	\$480,582
	Japan	\$0	\$0	\$34	\$29	\$187
	Saint Pierre and Miquelon	\$1	\$1	\$3	\$3	\$4
	France	\$0	\$1	\$1	\$0	\$1
	Total	\$280,554	\$301,827	\$380,162	\$413,714	\$480,773
Peppers	United States	\$351,893	\$419,512	\$508,306	\$441,989	\$476,685
	Japan	\$574	\$672	\$623	\$683	\$1,294
	France	\$10	\$12	\$6	\$2	\$16
	Taiwan	\$16	\$4	\$0	\$0	\$16
	Saint Pierre and Miquelon	\$3	\$6	\$14	\$11	\$10
	Total	\$352,709	\$420,415	\$508,967	\$442,689	\$478,020
Tomatoes	United States	\$362,397	\$381,081	\$503,247	\$449,424	\$454,601
	Japan	\$5,267	\$3,500	\$4,659	\$6,702	\$5,890
	Total	\$368,422	\$385,558	\$508,389	\$456,201	\$460,491

Source: Statistics Canada (CATSNET, May 2023)

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

		2018	2019	2020	2021	2022
Cucumbers and gherkins	United States	114,211	118,586	130,763	149,167	173,488
	Japan	0	0	12	11	68
	Saint Pierre and Miquelon	0	1	1	1	1
	Total	114,221	118,592	130,778	149,180	173,557
Tomatoes	United States	136,275	137,155	143,065	155,993	146,884
	Japan	1,613	1,085	1,531	2,173	1,935
	Total	138,129	138,555	144,758	158,191	148,819
Peppers	United States	83,080	93,792	108,855	114,892	111,490
	Japan	140	165	180	196	364
	France	2	3	2	1	4
	Taiwan	4	1	0	0	5
	Saint Pierre and Miquelon	1	1	4	3	2
	Total	83,288	94,022	109,046	115,092	111,864

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Nova Scotia	\$1	\$4	\$0	\$0	\$0	0.0%
New Brunswick	\$0	\$13	\$0	\$0	\$0	0.0%
Quebec	\$314	\$221	\$644	\$23	\$182	0.0%
Ontario	\$79,049	\$95,819	\$113,102	\$111,783	\$118,335	26.5%
Manitoba	\$3	\$0	\$0	\$0	\$13,250	3.0%
Alberta	\$40	\$0	\$0	\$160	\$17	0.0%
British Columbia	\$188,643	\$228,082	\$248,697	\$271,944	\$314,196	70.5%
Canada¹	\$268,049	\$324,140	\$362,443	\$383,910	\$445,981	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, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Nova Scotia	0	0	0	0	0	0.0%
New Brunswick	0	0	0	0	0	0.0%
Quebec	23	26	44	2	5	0.0%
Ontario	13,505	16,514	19,315	19,252	19,757	29.8%
Manitoba	0	0	0	0	1,794	2.7%
Alberta	6	0	0	95	10	0.0%
British Columbia	32,516	35,666	37,953	43,382	44,680	67.4%
Canada¹	46,051	52,206	57,312	62,730	66,246	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, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	\$256,103	\$304,859	\$350,518	\$373,865	\$433,734	97.3%
Japan	\$4,106	\$11,969	\$8,866	\$8,424	\$5,376	1.2%
France	\$3,040	\$2,527	\$1,114	\$533	\$2,552	0.6%
Switzerland	\$2,077	\$858	\$422	\$168	\$2,075	0.5%
Netherlands	\$670	\$841	\$715	\$364	\$1,023	0.2%
Others	\$2,053	\$3,085	\$808	\$555	\$1,220	0.3%
Total	\$268,049	\$324,140	\$362,443	\$383,910	\$445,981	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	45,863	51,817	56,937	62,333	65,885	99.5%
Japan	85	228	280	331	248	0.4%
France	50	75	41	19	46	0.1%
Netherlands	19	30	28	11	26	0.0%
Switzerland	15	9	4	2	18	0.0%
Others	18	47	24	35	24	0.0%
Total	46,051	52,206	57,312	62,730	66,246	100.0%

Source: Statistics Canada (CATSNET, May 2023)

2.3. Imports

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

	2018	2019	2020	2021	2022	2022 % Share
Peppers	\$138,543	\$147,443	\$163,389	\$169,861	\$197,379	46.1%
Tomatoes	\$149,830	\$134,822	\$162,224	\$172,876	\$189,569	44.3%
Cucumbers and gherkins	\$43,705	\$48,484	\$42,822	\$54,463	\$40,621	9.5%
Lettuce	\$553	\$402	\$435	\$386	\$715	0.2%
Total	\$332,631	\$331,151	\$368,871	\$397,586	\$428,285	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Tomatoes	68,721	59,749	66,996	75,306	77,850	49.5%
Peppers	49,453	47,210	49,150	52,735	61,062	38.8%
Cucumbers and gherkins	23,775	24,193	21,105	25,412	18,346	11.7%
Lettuce	181	111	68	64	142	0.1%
Total	142,131	131,264	137,319	153,517	157,400	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Mexico	\$286,268	\$270,515	\$320,621	\$336,171	\$369,788	86.3%
United States	\$34,778	\$42,387	\$37,176	\$54,206	\$52,566	12.3%
Spain	\$8,139	\$11,888	\$4,707	\$2,944	\$3,851	0.9%
Netherlands	\$1,434	\$3,202	\$2,285	\$320	\$503	0.1%
Viet Nam	\$2	\$104	\$228	\$459	\$462	0.1%
Others	\$2,010	\$3,056	\$3,855	\$3,487	\$1,114	0.3%
Total	\$332,631	\$331,151	\$368,871	\$397,586	\$428,285	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
Mexico	124,857	109,512	120,959	128,937	133,137	84.6%
United States	14,187	16,509	13,270	22,685	22,922	14.6%
Spain	1,928	3,252	1,227	706	838	0.5%
Netherlands	474	857	378	48	84	0.1%
Viet Nam	1	33	74	108	94	0.1%
Others	684	1,101	1,411	1,033	324	0.2%
Total	142,131	131,264	137,319	153,517	157,400	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

		2018	2019	2020	2021	2022
Peppers	Mexico	\$121,986	\$123,180	\$147,060	\$161,197	\$187,324
	United States	\$6,390	\$7,796	\$6,674	\$2,009	\$4,413
	Spain	\$7,478	\$10,533	\$4,600	\$2,914	\$3,755
	Netherlands	\$1,151	\$3,120	\$2,275	\$306	\$496
	Total	\$138,543	\$147,443	\$163,389	\$169,861	\$197,379
Tomatoes	Mexico	\$126,643	\$109,766	\$142,631	\$144,527	\$154,642
	United States	\$22,895	\$24,893	\$19,031	\$28,278	\$34,924
	Guatemala	\$117	\$0	\$203	\$70	\$3
	New Zealand	\$101	\$162	\$360	\$0	\$0
	Total	\$149,830	\$134,822	\$162,224	\$172,876	\$189,569
Cucumbers and gherkins	Mexico	\$37,594	\$37,553	\$30,922	\$30,445	\$27,818
	United States	\$5,025	\$9,354	\$11,131	\$23,631	\$12,592
	Spain	\$646	\$1,351	\$89	\$10	\$78
	Netherlands	\$283	\$82	\$6	\$8	\$1
	Total	\$43,705	\$48,484	\$42,822	\$54,463	\$40,621
Lettuce	United States	\$468	\$344	\$339	\$287	\$637
	South Korea	\$24	\$37	\$63	\$66	\$41
	Spain	\$14	\$4	\$18	\$20	\$18
	Netherlands	\$0	\$0	\$4	\$6	\$6
	Total	\$553	\$402	\$435	\$386	\$715

Source: Statistics Canada (CATSNET, May 2023)

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

		2018	2019	2020	2021	2022
Tomatoes	Mexico	59,124	49,931	60,013	62,241	62,419
	United States	9,500	9,760	6,730	13,044	15,428
	Guatemala	37	0	62	21	2
	New Zealand	30	58	190	0	0
	Total	68,721	59,749	66,996	75,306	77,850
Peppers	Mexico	44,377	39,819	44,286	50,196	58,292
	United States	2,577	3,017	2,379	819	1,524
	Spain	1,618	2,594	1,178	696	820
	Netherlands	365	805	374	44	83
	Total	49,453	47,210	49,150	52,735	61,062
Cucumbers and gherkins	Mexico	21,337	19,750	16,659	16,499	12,425
	United States	1,951	3,636	4,099	8,767	5,834
	Spain	308	657	48	8	16
	Netherlands	109	52	3	3	0
	Total	23,775	24,193	21,105	25,412	18,346
Lettuce	United States	158	96	60	55	135
	South Korea	2	3	4	5	3
	Spain	2	1	2	2	2
	Netherlands	0	0	0	1	1
	Total	181	111	68	64	142

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	\$41,161	\$39,978	\$41,512	\$37,719	\$38,427	56.2%
China	\$10,636	\$12,008	\$12,581	\$14,926	\$19,235	28.1%
South Korea	\$7,427	\$8,704	\$8,112	\$5,787	\$2,417	3.5%
Italy	\$1,532	\$1,723	\$1,263	\$2,128	\$2,188	3.2%
France	\$1,256	\$1,237	\$1,759	\$1,530	\$1,791	2.6%
Others	\$2,758	\$5,683	\$2,241	\$3,048	\$4,345	6.4%
Total	\$64,770	\$69,334	\$67,469	\$65,138	\$68,404	100.0%

Source: Statistics Canada (CATSNET, May 2023)

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

	2018	2019	2020	2021	2022	2022 % Share
United States	8,201	7,595	7,848	6,777	5,585	57.1%
China	1,196	1,339	1,544	2,058	2,927	29.9%
South Korea	2,651	2,940	2,687	1,885	722	7.4%
Italy	26	56	90	248	96	1.0%
France	53	47	61	61	73	0.7%
Others	248	271	123	232	374	3.8%
Total	12,375	12,249	12,353	11,261	9,778	100.0%

Source: Statistics Canada (CATSNET, May 2023)

3. Channels of distribution

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

	2018	2019	2020	2021	2022	2022 % Share
Domestic wholesalers	\$1,062.2	\$1,090.1	\$1,176.1	\$1,307.8	\$1,464.0	65.6%
Mass market chain stores	\$166.1	\$206.1	\$266.7	\$299.0	\$333.1	14.9%
Other channels	\$208.1	\$229.8	\$237.8	\$218.6	\$264.0	14.4%
Other greenhouses	\$50.2	\$78.1	\$109.3	\$126.3	\$138.8	6.2%
Direct sales to the public ³	\$25.6	\$29.5	\$42.3	\$28.2	\$30.6	1.4%
Total sales	\$1,512.1	\$1,633.6	\$1,832.2	\$1,979.9	\$2,230.5	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 and assets

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

	2018	2019	2020	2021	2022	2022 % Share
Gross yearly payroll ³	\$362.9	\$386.1	\$434.6	\$520.8	\$546.4	31.4%
Other operating expenses ⁴	\$298.7	\$305.8	\$361.3	\$382.9	\$413.9	23.8%
Other crop expenses ⁵	\$225.4	\$247.0	\$279.0	\$312.4	\$362.5	20.9%
Fuel ⁶	\$147.4	\$146.2	\$149.0	\$162.7	\$172.9	9.9%
Plant material purchases for growing on ⁷	\$118.5	\$130.9	\$147.6	\$160.7	\$172.5	9.9%
Electricity ⁸	\$42.5	\$42.9	\$50.7	\$66.3	\$70.0	4.0%
Total operating expenses	\$1,195.5	\$1,259.0	\$1,422.2	\$1,605.7	\$1,738.2	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 natural gas, heating oil and other types of heatig fuel e.g., coal and wood chips.
7. Includes value of flowers, plants, cuttings, seedlings, seeds and bulbs purchased (before sales tax).
8. Electricity expenses include electricity for lighting, airflow fans, and heating.

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

4.2. Mushroom operation assets by category (thousands of Canadian dollars)

	2018	2019	2020	2021	2022	2022 % Share
Land	x	x	\$120,412	\$127,184	\$150,854	16.2%
Buildings ¹	x	x	\$468,389	\$543,223	\$620,516	66.7%
Processing, packing equipment and other machinery	x	x	\$146,358	\$154,140	\$159,550	17.1%
Investment, total	x	x	\$735,159	\$824,547	\$930,921	100.0%

Notes:

1. Includes heating and cooling equipment.
- 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

5. Labour

5.1. Total number of employees of specialized greenhouse vegetable operations

		2018	2019	2020	2021	2022
Atlantic provinces	Seasonal employees ¹	90	77	61	101	105
	Permanent employees ²	89	119	156	148	150
	Total employees	179	196	217	249	255
Quebec	Seasonal employees ¹	404	400	603	724	742
	Permanent employees ²	824	789	844	1,098	1,105
	Total employees	1,228	1,189	1,447	1,822	1,847
Ontario	Seasonal employees ¹	3,694	3,742	4,000	4,266	4,469
	Permanent employees ²	4,352	4,533	5,177	6,186	6,598
	Total employees	8,046	8,275	9,177	10,452	11,067
Prairie provinces	Seasonal employees ¹	161	162	255	187	200
	Permanent employees ²	680	706	726	805	807
	Total employees	841	868	981	992	1,007
British Columbia	Seasonal employees ¹	980	819	850	911	913
	Permanent employees ²	1,151	1,205	1,281	1,391	1,294
	Total employees	2,131	2,024	2,131	2,302	2,207
Canada	Seasonal employees ¹	5,329	5,200	5,769	6,189	6,429
	Permanent employees ²	7,096	7,352	8,184	9,628	9,954
	Total employees	12,425	12,552	13,953	15,817	16,383

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

5.2. Total number of employees and labour cost of mushroom operations

	2018	2019	2020	2021	2022
Labour cost, total (thousands of Canadian dollars)	x	x	\$193,273	\$199,228	\$220,581
Full-time employees (number)	x	x	4,441	4,692	5,156
Part-time employees (number)	x	x	869	875	823
Total employees			5,310	5,567	5,979

Note:

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

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