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Statistical Overview of the Canadian Greenhouse Vegetable and Mushroom Industry **2023**

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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 \$3.2 billion in farm gate sales and over \$2.1 billion in exports in 2023.

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 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 2023, there were a total of 920 commercial greenhouse vegetable operations in Canada producing 802,163 metric tons of vegetables, representing a 7% increase in production compared to 2022. Ontario continued to lead the greenhouse vegetable sector in 2023, representing 72% of the total production in Canada, followed by British Columbia and Quebec, with 14% and 8% respectively. Other provinces accounted for the remaining 6%.

Canada's greenhouse vegetable growers produce a variety of commodities, including tomatoes, cucumbers, lettuce, bell-peppers, 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 35% of the total greenhouse vegetable sales, followed by cucumbers and peppers, which accounted for 32% and 26%, respectively. Total sales of greenhouse fruit and vegetables rose 9% from 2022 to reach \$2.5 billion in 2023 - continuing the annual increases that began in 2013.

The value of greenhouse vegetable exports rose 19% from 2022 to reach approximately \$1.7 billion in 2023. 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 48% in terms of value of all fresh produce exports. Greenhouse cucumbers accounted for 38% of the total value of exports, followed by greenhouse tomatoes with 32% and peppers with 30%.

Similar to greenhouse vegetables, mushrooms are grown year-round in closed, dark, and climate-controlled facilities that maintain ideal temperatures and humidity, and are harvested on a 24/7-basis. In 2023, Canadian mushroom growers produced 140,787 metric tons of mushrooms, representing an increase of 1.2% over 2022 and reflecting the eighth consecutive annual production increase. Harvested area for mushrooms increased only marginally (+0.1%) in 2023. The total value of mushrooms grew 2.2% to \$710.0 million in 2023, largely due to rise in production and a higher average price for fresh market sales. In 2023, Ontario grew more than half (53%) of Canada's mushrooms and represented 63% of domestic sales value, while British Columbia accounted for 29% of the total value of Canadian mushrooms.

As with greenhouse vegetable exports, the U.S. remained the top export destination for fresh mushrooms in 2023, accounting for more than 98% of export values. Over the last five years, mushroom export values have increased by nearly 40%, growing to \$453.3 million in 2023. Despite an increase in export value over 2022, export volumes fell by more than 4% in 2023 to 63,367 metric tons.

1. Production

1.1. Number of greenhouse vegetable operations¹ by province

	2019	2020	2021	2022	2023	2023 % Share
Atlantic provinces ²	49	65	74	65	67	7.3%
Quebec	235	230	236	212	210	22.8%
Ontario	315	315	321	387	380	41.3%
Prairie provinces ²	94	98	103	99	96	10.4%
British Columbia	150	150	158	167	167	18.2%
Canada	843	858	892	930	920	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)

	2019	2020	2021	2022	2023	2023 % Share
Newfoundland and Labrador	5,340	5,396	6,882	5,580	4,191	0.0%
Prince Edward Island	12,169	18,885	19,586	14,062	2,061	0.0%
Nova Scotia	88,211	84,376	86,114	81,720	80,285	0.4%
New Brunswick	6,983	6,041	7,350	8,444	9,865	0.0%
Quebec	1,257,737	1,419,780	1,491,924	1,613,849	1,668,117	7.6%
Ontario	12,524,892	12,906,198	13,230,470	14,573,470	15,942,911	72.3%
Manitoba	11,484	8,173	15,936	16,219	15,839	0.1%
Saskatchewan	14,706	14,183	16,142	16,907	16,776	0.1%
Alberta	732,695	742,732	817,158	840,775	778,288	3.5%
British Columbia	3,016,166	3,010,912	3,103,775	3,287,751	3,405,066	15.4%
Canada²	17,700,845	18,256,531	18,816,824	20,494,130	22,058,511	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)

	2019	2020	2021	2022	2023	2023 % Share
Tomatoes	6,346,327	6,183,913	6,835,395	7,229,825	7,579,306	34.4%
Peppers	5,760,318	5,895,959	6,152,252	6,389,092	7,038,378	31.9%
Cucumbers	4,739,726	5,060,743	4,666,140	5,364,566	5,759,422	26.1%
Strawberries	..	303,791	321,210	583,648	737,015	3.3%
Lettuce	417,302	344,200	335,216	349,141	358,474	1.6%
Other fruits or vegetables	97,715	84,907	138,385	205,990	216,735	1.0%
Eggplants	121,641	138,509	140,496	139,547	139,550	0.6%
Fine herbs	103,655	116,026	98,292	102,745	97,471	0.4%
Microgreens and shoots	61,663	57,450	52,578	55,022	56,377	0.3%
Chinese vegetables	37,850	54,205	54,319	50,929	51,613	0.2%
Beans (green and wax)	8,914	12,479	17,888	19,009	19,755	0.1%
Sprouts	5,734	4,349	4,653	4,616	4,415	0.0%
Total	17,700,845	18,256,531	18,816,824	20,494,130	22,058,511	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)

	2019	2020	2021	2022	2023	2023 % Share
Newfoundland and Labrador	28	34	41	13	10	0.0%
Prince Edward Island	407	692	756	16	5	0.0%
Nova Scotia	3,147	3,096	3,060	3,102	3,135	0.4%
New Brunswick	301	87	110	125	319	0.0%
Quebec	41,027	46,959	56,905	60,062	62,209	7.8%
Ontario	462,661	477,157	490,416	532,485	576,009	71.8%
Manitoba	218	204	367	381	408	0.1%
Saskatchewan	187	193	203	229	236	0.0%
Alberta	40,391	42,643	43,697	44,089	44,448	5.5%
British Columbia	110,841	115,564	103,956	109,061	112,607	14.0%
Canada²	659,623	687,057	699,793	750,566	802,163	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)

	2019	2020	2021	2022	2023	2023 % Share
Tomatoes	264,737	257,639	279,627	294,408	314,908	39.3%
Cucumbers	231,751	252,581	237,672	273,156	289,465	36.1%
Peppers	145,870	152,437	153,796	156,615	169,857	21.2%
Lettuce	11,843	15,143	19,221	14,528	14,751	1.8%
Strawberries	..	2,554	2,731	5,041	6,334	0.8%
Eggplants	3,141	4,040	4,219	4,221	4,267	0.5%
Fine herbs	938	1,190	1,115	1,133	1,088	0.1%
Microgreens and shoots	594	582	499	562	594	0.1%
Chinese vegetables	368	471	467	441	445	0.1%
Sprouts	337	345	331	329	316	0.0%
Beans (green and wax)	45	76	115	132	138	0.0%
Total	659,623	687,057	699,793	750,566	802,163	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)

	2019	2020	2021	2022	2023	2023 % Share
Newfoundland and Labrador	\$153	\$202	\$205	\$178	\$100	0.0%
Prince Edward Island	\$1,902	\$2,035	\$2,943	\$1	\$116	0.0%
Nova Scotia	\$9,503	\$8,654	\$9,918	\$8,868	\$9,952	0.4%
New Brunswick	\$1,085	\$736	\$1,148	\$1,232	\$1,685	0.1%
Quebec	\$146,811	\$157,251	\$207,973	\$242,639	\$262,331	10.6%
Ontario	\$1,067,388	\$1,190,030	\$1,299,759	\$1,509,515	\$1,658,624	67.1%
Manitoba	\$1,529	\$1,200	\$1,896	\$2,114	\$2,547	0.1%
Saskatchewan	\$1,028	\$1,199	\$455	\$1,307	\$1,843	0.1%
Alberta	\$96,362	\$118,795	\$57,546	\$104,685	\$144,007	5.8%
British Columbia	\$306,335	\$319,630	\$322,729	\$341,433	\$368,992	14.9%
Canada²	\$1,633,553	\$1,832,159	\$1,979,902	\$2,263,345	\$2,471,968	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)

	2019	2020	2021	2022	2023	2023 % Share
Tomatoes	\$594,072	\$660,379	\$714,766	\$795,526	\$869,335	35.2%
Cucumbers	\$473,549	\$539,497	\$604,394	\$740,480	\$801,796	32.4%
Peppers	\$477,680	\$511,359	\$528,163	\$553,103	\$604,478	24.5%
Lettuce	\$50,003	\$64,092	\$65,255	\$69,760	\$74,316	3.0%
Strawberries	..	\$15,522	\$18,486	\$50,063	\$64,577	2.6%
Other fruits or vegetables	\$8,190	\$7,259	\$15,671	\$19,638	\$21,697	0.9%
Eggplants	\$11,725	\$15,336	\$16,172	\$16,614	\$16,873	0.7%
Fine herbs	\$10,344	\$10,173	\$9,341	\$9,712	\$9,908	0.4%
Microgreens and shoots	\$5,764	\$5,601	\$4,349	\$4,943	\$5,408	0.2%
Beans (green and wax)	\$399	\$687	\$1,090	\$1,268	\$1,343	0.1%
Chinese vegetables	\$930	\$1,153	\$1,086	\$1,079	\$1,121	0.0%
Sprouts	\$898	\$1,101	\$1,129	\$1,158	\$1,115	0.0%
Total	\$1,633,553	\$1,832,159	\$1,979,902	\$2,263,345	\$2,471,968	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

		2019	2020	2021	2022	2023
Harvested area (thousands of square feet)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	34,033	33,430	36,039	39,257	39,868
	Prairie provinces	x	x	x	x	x
	British Columbia	22,357	21,938	22,072	22,696	22,188
	Canada²	60,695	59,167	61,916	66,360	66,455
Production (metric tonnes)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	66,687	66,787	71,114	71,279	73,945
	Prairie provinces	x	x	x	x	x
	British Columbia	56,424	x	x	x	x
	Canada²	132,114	132,589	137,796	139,090	140,787
Sales (CAN\$ '000)	Maritime provinces and Quebec	x	x	x	x	x
	Ontario	\$339,329	\$369,977	\$417,415	\$439,267	\$450,528
	Prairie provinces	x	x	x	x	x
	British Columbia	\$207,592	x	196,142	\$204,158	\$206,695
	Canada²	\$589,468	\$619,691	\$653,508	\$694,466	\$710,007

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)

		2019	2020	2021	2022	2023
Exports	Greenhouse vegetables	\$1,107,800	\$1,397,518	\$1,312,604	\$1,418,421	\$1,686,406
	Mushrooms	\$324,140	\$362,443	\$383,910	\$446,053	\$453,285
	Total exports	\$1,431,940	\$1,759,961	\$1,696,514	\$1,864,474	\$2,139,691
Import	Greenhouse vegetables	\$331,151	\$368,871	\$397,592	\$428,322	\$554,722
	Mushrooms	\$69,334	\$67,469	\$65,138	\$68,405	\$58,839
	Total imports	\$400,485	\$436,339	\$462,730	\$496,727	\$613,561
Trade balance (exports - imports)	Greenhouse vegetables	\$776,648	\$1,028,648	\$915,012	\$990,099	\$1,131,685
	Mushrooms	\$254,807	\$294,974	\$318,772	\$377,648	\$394,446
	Overall trade balance	\$1,031,455	\$1,323,622	\$1,233,784	\$1,367,747	\$1,526,131

Source: Statistics Canada (CATSNET, August 2024)

2.2. Exports

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

	2019	2020	2021	2022	2023	2023 % Share
Cucumbers	\$301,827	\$380,162	\$413,714	\$480,199	\$639,423	37.9%
Tomatoes	\$385,558	\$508,389	\$456,201	\$460,294	\$534,538	31.7%
Peppers	\$420,415	\$508,967	\$442,689	\$477,929	\$512,446	30.4%
Total	\$1,107,800	\$1,397,518	\$1,312,604	\$1,418,421	\$1,686,406	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Cucumbers	118,592	130,778	149,180	173,307	201,745	41.8%
Tomatoes	138,555	144,758	158,191	148,747	164,691	34.1%
Peppers	94,022	109,046	115,092	111,864	116,590	24.1%
Total	351,169	384,582	422,463	433,919	483,027	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Prince Edward Island	0s	0s	0s	0s	\$4	0.0%
Nova Scotia	\$2	\$1	0s	\$1	\$8	0.0%
New Brunswick	\$6	\$17	\$14	\$14	\$11	0.0%
Québec	\$18,549	\$19,811	\$19,599	\$28,799	\$51,562	3.1%
Ontario	\$920,159	\$1,162,069	\$1,129,495	\$1,236,382	\$1,481,529	87.9%
Manitoba	\$8	0s	0s	0s	0s	0.0%
Saskatchewan	0s	0s	0s	0s	\$42	0.0%
Alberta	\$4,725	\$3,364	\$5,898	\$4,577	\$2,234	0.1%
British Columbia	\$164,351	\$212,257	\$157,598	\$148,649	\$151,016	9.0%
Total	\$1,107,800	\$1,397,518	\$1,312,604	\$1,418,421	\$1,686,406	100.0%

Note:

0s: Value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded.

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Prince Edward Island	0s	0s	0s	0s	4	0.0%
Nova Scotia	1	0s	0s	0s	3	0.0%
New Brunswick	2	5	4	3	3	0.0%
Québec	4,839	5,693	6,058	7,155	12,422	2.6%
Ontario	296,983	325,600	366,015	382,041	426,694	88.3%
Manitoba	3	0s	0s	0s	0s	0.0%
Saskatchewan	0s	0s	0s	0s	11	0.0%
Alberta	2,570	1,204	2,374	1,895	910	0.2%
British Columbia	46,773	52,079	48,011	42,825	42,980	8.9%
Total	351,169	384,582	422,463	433,919	483,027	100.0%

Note:

0s: Value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded.

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
United States	\$1,102,403	\$1,391,671	\$1,305,093	\$1,411,005	\$1,678,576	99.5%
Japan	\$4,172	\$5,316	\$7,414	\$7,371	\$7,258	0.4%
Taiwan	\$794	\$407	\$11	\$16	\$529	0.0%
France	\$13	\$7	\$2	\$17	\$22	0.0%
Saint Pierre and Miquelon	\$8	\$17	\$14	\$14	\$11	0.0%
Others	\$410	\$100	\$71	\$0	\$0	0.0%
Total	\$1,107,800	\$1,397,518	\$1,312,604	\$1,418,421	\$1,686,395	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
United States	349,533	382,684	420,052	431,539	480,553	99.5%
Japan	1,250	1,722	2,379	2,366	2,286	0.5%
Taiwan	256	136	4	5	175	0.0%
France	4	2	1	5	7	0.0%
Saint Pierre and Miquelon	2	5	4	4	3	0.0%
Others	125	33	23	0	0	0.0%
Total	351,169	384,582	422,463	433,919	483,023	100.0%

Source: Statistics Canada (CATSNET, August 2024)



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

		2019	2020	2021	2022	2023
Cucumbers	United States	\$301,810	\$380,118	\$413,679	\$480,008	\$639,410
	Japan	\$0	\$34	\$29	\$187	\$3
	Saint Pierre and Miquelon	\$1	\$3	\$3	\$4	\$3
	Total	\$301,827	\$380,162	\$413,714	\$480,199	\$639,417
Tomatoes	United States	\$381,081	\$503,247	\$449,424	\$454,403	\$529,042
	Japan	\$3,500	\$4,659	\$6,702	\$5,890	\$4,955
	Taiwan	\$790	\$407	\$11	\$0	\$529
	Total	\$385,558	\$508,389	\$456,201	\$460,294	\$534,533
Peppers	United States	\$419,512	\$508,306	\$441,989	\$476,594	\$510,124
	Japan	\$672	\$623	\$683	\$1,294	\$2,300
	France	\$12	\$6	\$2	\$16	\$14
	Total	\$420,415	\$508,967	\$442,689	\$477,929	\$512,446

Source: Statistics Canada (CATSNET, August 2024)

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

		2019	2020	2021	2022	2023
Cucumbers	United States	118,586	130,763	149,167	173,238	201,741
	Japan	0	12	11	68	1
	Saint Pierre and Miquelon	1	1	1	1	1
	Total	118,592	130,778	149,180	173,307	201,743
Tomatoes	United States	137,155	143,065	155,993	146,812	162,819
	Japan	1,085	1,531	2,173	1,935	1,694
	Taiwan	255	135	4	0	175
	Total	138,555	144,758	158,191	148,747	164,690
Peppers	United States	93,792	108,855	114,892	111,489	115,993
	Japan	165	180	196	364	591
	France	3	2	1	4	4
	Total	94,022	109,046	115,092	111,864	116,590

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Nova Scotia	\$4	0s	0s	0s	0s	0.0%
New Brunswick	\$13	0s	0s	0s	0s	0.0%
Quebec	\$221	\$644	\$23	\$182	\$162	0.0%
Ontario	\$95,819	\$113,102	\$111,783	\$118,335	\$131,945	29.1%
Manitoba	0s	0s	0s	\$13,250	\$17,665	3.9%
Alberta	0s	0s	\$160	\$17	0s	0.0%
British Columbia	\$228,082	\$248,697	\$271,944	\$314,269	\$303,506	67.0%
Canada¹	\$324,140	\$362,443	\$383,910	\$446,053	\$453,279	100.0%

Notes:

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

0s: Value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded.

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Nova Scotia	0s	0s	0s	0s	0s	0.0%
New Brunswick	0s	0s	0s	0s	0s	0.0%
Quebec	26	44	2	5	8	0.0%
Ontario	16,514	19,315	19,252	19,757	20,438	32.3%
Manitoba	0s	0s	0s	1,794	2,346	3.7%
Alberta	0s	0s	95	10	0s	0.0%
British Columbia	35,666	37,953	43,382	44,685	40,575	64.0%
Canada¹	52,206	57,312	62,730	66,251	63,367	100.0%

Notes:

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

0s: Value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded.

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
United States	\$304,859	\$350,518	\$373,865	\$433,734	\$445,060	98.2%
Japan	\$11,969	\$8,866	\$8,424	\$5,412	\$6,913	1.5%
Switzerland	\$858	\$422	\$168	\$2,075	\$436	0.1%
Netherlands	\$841	\$715	\$364	\$1,023	\$425	0.1%
France	\$2,527	\$1,114	\$533	\$2,588	\$322	0.1%
Others	\$3,085	\$808	\$555	\$1,220	\$123	0.0%
Total	\$324,140	\$362,443	\$383,910	\$446,053	\$453,279	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
United States	51,817	56,937	62,333	65,885	63,101	99.6%
Japan	228	280	331	252	238	0.4%
Netherlands	30	28	11	26	13	0.0%
France	75	41	19	47	9	0.0%
Switzerland	9	4	2	18	3	0.0%
Others	47	24	35	24	4	0.0%
Total	52,206	57,312	62,730	66,251	63,367	100.0%

Source: Statistics Canada (CATSNET, August 2024)

2.3. Imports

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

	2019	2020	2021	2022	2023	2023 % Share
Peppers	\$147,443	\$163,389	\$169,867	\$197,379	\$262,820	47.4%
Tomatoes	\$134,822	\$162,224	\$172,876	\$189,557	\$230,045	41.5%
Cucumbers	\$48,484	\$42,822	\$54,463	\$40,671	\$58,525	10.6%
Lettuce	\$402	\$435	\$386	\$715	\$3,331	0.6%
Total	\$331,151	\$368,871	\$397,592	\$428,322	\$554,722	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Tomatoes	59,749	66,996	75,306	77,847	87,047	47.6%
Peppers	47,210	49,150	52,738	61,062	73,526	40.2%
Cucumbers	24,193	21,105	25,412	18,360	21,893	12.0%
Lettuce	111	68	64	142	493	0.3%
Total	131,264	137,319	153,521	157,411	182,959	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Mexico	\$270,515	\$320,621	\$336,180	\$369,826	\$471,119	84.9%
United States	\$42,387	\$37,176	\$54,202	\$52,566	\$68,766	12.4%
Spain	\$11,888	\$4,707	\$3,007	\$3,851	\$11,114	2.0%
Viet Nam	\$104	\$228	\$459	\$462	\$524	0.1%
Netherlands	\$3,202	\$2,285	\$257	\$503	\$180	0.0%
Others	\$3,056	\$3,855	\$3,487	\$1,114	\$3,017	0.5%
Total	\$331,151	\$368,871	\$397,592	\$428,322	\$554,722	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
Mexico	109,512	120,959	128,942	133,149	152,876	83.6%
United States	16,509	13,270	22,684	22,922	27,154	14.8%
Spain	3,252	1,227	715	838	1,942	1.1%
Viet Nam	33	74	108	94	103	0.1%
Netherlands	857	378	40	84	39	0.0%
Others	1,101	1,411	1,033	324	845	0.5%
Total	131,264	137,319	153,521	157,411	182,959	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

		2019	2020	2021	2022	2023
Peppers	Mexico	\$123,180	\$147,060	\$161,206	\$187,324	\$241,025
	Spain	\$10,533	\$4,600	\$2,977	\$3,755	\$9,569
	United States	\$7,796	\$6,674	\$2,006	\$4,413	\$8,822
	Netherlands	\$3,120	\$2,275	\$243	\$496	\$176
	Total	\$147,443	\$163,389	\$169,867	\$197,379	\$262,820
Tomatoes	Mexico	\$109,766	\$142,631	\$144,527	\$154,630	\$186,062
	United States	\$24,893	\$19,031	\$28,278	\$34,924	\$43,983
	New Zealand	\$162	\$360	\$0	\$0	\$0
	Guatemala	\$0	\$203	\$70	\$3	\$0
	Total	\$134,822	\$162,224	\$172,876	\$189,557	\$230,045
Cucumbers	Mexico	\$37,553	\$30,922	\$30,445	\$27,868	\$43,909
	United States	\$9,354	\$11,131	\$23,631	\$12,592	\$12,834
	Spain	\$1,351	\$89	\$10	\$78	\$1,527
	Netherlands	\$82	\$6	\$8	\$1	\$2
	Total	\$48,484	\$42,822	\$54,463	\$40,671	\$58,525
Lettuce	United States	\$344	\$339	\$287	\$637	\$3,127
	Mexico	\$16	\$8	\$2	\$4	\$123
	South Korea	\$37	\$63	\$66	\$41	\$54
	Spain	\$4	\$18	\$20	\$18	\$18
	Total	\$402	\$435	\$386	\$715	\$3,331
Source: Statistics Canada (CATSNET, August 2024)						

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

		2019	2020	2021	2022	2023
Tomatoes	Mexico	49,931	60,013	62,241	62,417	68,937
	United States	9,760	6,730	13,044	15,428	18,109
	New Zealand	58	190	0	0	0
	Guatemala	0	62	21	2	0
	Total	59,749	66,996	75,306	77,847	87,047
Peppers	Mexico	39,819	44,286	50,201	58,292	67,804
	Spain	2,594	1,178	705	820	1,612
	United States	3,017	2,379	818	1,524	3,236
	Netherlands	805	374	36	83	38
	Total	47,210	49,150	52,738	61,062	73,526
Cucumbers	Mexico	19,750	16,659	16,499	12,439	16,089
	United States	3,636	4,099	8,767	5,834	5,368
	Spain	657	48	8	16	328
	Netherlands	52	3	3	0	1
	Total	24,193	21,105	25,412	18,360	21,893
Lettuce	United States	96	60	55	135	441
	Mexico	12	1	1	1	45
	South Korea	3	4	5	3	4
	Spain	1	2	2	2	2
	Total	111	68	64	142	493
Source: Statistics Canada (CATSNET, August 2024)						

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

	2019	2020	2021	2022	2023	2023 % Share
United States	\$39,978	\$41,512	\$37,719	\$38,427	\$28,444	48.3%
China	\$12,008	\$12,581	\$14,926	\$19,235	\$17,549	29.8%
South Korea	\$8,704	\$8,112	\$5,787	\$2,417	\$3,576	6.1%
Italy	\$1,723	\$1,263	\$2,128	\$2,189	\$2,339	4.0%
Japan	\$127	\$53	\$112	\$502	\$1,527	2.6%
Others	\$6,793	\$3,947	\$4,466	\$5,635	\$5,405	9.2%
Total	\$69,334	\$67,469	\$65,138	\$68,405	\$58,839	100.0%

Source: Statistics Canada (CATSNET, August 2024)

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

	2019	2020	2021	2022	2023	2023 % Share
United States	7,595	7,848	6,777	5,585	4,135	47.4%
China	1,339	1,544	2,058	2,927	2,898	33.2%
South Korea	2,940	2,687	1,885	722	1,018	11.7%
Japan	8	2	6	137	409	4.7%
Italy	56	90	248	96	32	0.4%
Others	311	182	287	311	234	2.7%
Total	12,249	12,353	11,261	9,778	8,726	100.0%

Source: Statistics Canada (CATSNET, August 2024)

3. Channels of distribution

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

	2019	2020	2021	2022	2023	2023 % Share
Domestic wholesalers	\$1,090.1	\$1,176.1	\$1,307.8	\$1,493.3	\$1,633.3	66.1%
Mass market chain stores	\$206.1	\$266.7	\$299.0	\$331.3	\$353.0	14.3%
Other channels	\$229.8	\$237.8	\$218.6	\$268.3	\$300.8	14.4%
Other greenhouses	\$78.1	\$109.3	\$126.3	\$138.8	\$150.7	6.1%
Direct sales to the public ³	\$29.5	\$42.3	\$28.2	\$31.6	\$34.1	1.4%
Total sales	\$1,633.6	\$1,832.2	\$1,979.9	\$2,263.3	\$2,472.0	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 and assets

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

	2019	2020	2021	2022	2023	2023 % Share
Gross yearly payroll ³	\$386.1	\$434.6	\$520.8	\$546.3	\$560.2	30.8%
Other operating expenses ⁴	\$305.8	\$361.3	\$382.9	\$409.9	\$449.0	24.7%
Other crop expenses ⁵	\$247.0	\$279.0	\$312.4	\$356.0	\$375.0	20.6%
Fuel ⁶	\$146.2	\$149.0	\$162.7	\$172.7	\$183.6	10.1%
Plant material purchases for growing on ⁷	\$130.9	\$147.6	\$160.7	\$172.5	\$174.0	9.6%
Electricity ⁸	\$42.9	\$50.7	\$66.3	\$68.4	\$74.5	4.1%
Total operating expenses	\$1,259.0	\$1,422.2	\$1,605.7	\$1,725.8	\$1,816.2	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 heating 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)

	2019	2020	2021	2022	2023	2023 % Share
Land	x	\$120,412	\$127,184	\$150,854	\$177,127	17.2%
Buildings ¹	x	\$468,389	\$543,223	\$620,516	\$689,982	66.9%
Processing, packing equipment and other machinery	x	\$146,358	\$154,140	\$159,550	\$164,638	16.0%
Investment, total	x	\$735,159	\$824,547	\$930,921	\$1,031,747	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

		2019	2020	2021	2022	2023
Atlantic provinces	Seasonal employees ¹	77	61	101	105	107
	Permanent employees ²	119	156	148	150	150
	Total employees	196	217	249	255	257
Quebec	Seasonal employees ¹	400	603	724	742	677
	Permanent employees ²	789	844	1,098	1,105	1,023
	Total employees	1,189	1,447	1,822	1,847	1,700
Ontario	Seasonal employees ¹	3,742	4,000	4,266	4,469	4,290
	Permanent employees ²	4,533	5,177	6,186	6,598	6,334
	Total employees	8,275	9,177	10,452	11,067	10,624
Prairie provinces	Seasonal employees ¹	162	255	187	200	187
	Permanent employees ²	706	726	805	807	726
	Total employees	868	981	992	1,007	912
British Columbia	Seasonal employees ¹	819	850	911	913	908
	Permanent employees ²	1,205	1,281	1,391	1,294	1,281
	Total employees	2,024	2,131	2,302	2,207	2,189
Canada	Seasonal employees ¹	5,200	5,769	6,189	6,429	6,169
	Permanent employees ²	7,352	8,184	9,628	9,954	9,513
	Total employees	12,552	13,953	15,817	16,383	15,682

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

	2019	2020	2021	2022	2023
Labour cost, total (thousands of Canadian dollars)	x	\$193,273	\$199,228	\$220,581	\$227,254
Full-time employees (number)	x	4,441	4,692	5,156	5,157
Part-time employees (number)	x	869	875	823	819
Total employees	x	5,310	5,567	5,979	5,976

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