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Canada

A Snapshot of the Canadian Vegetable Industry, 2010

Prepared by:
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OVERVIEW OF VEGETABLE SECTOR IN CANADA

The Canadian horticultural sector includes field-grown vegetables, potatoes, greenhouse¹ vegetables, fruits, ornamental products (floriculture, nursery, Christmas trees, and sod), honey, maple products, ginseng and herbs and spices. Due to the scope of this report, the areas of focus will be limited to fresh, processed and greenhouse vegetables.²

There were 9,499 vegetable farms in Canada in 2006, representing 4% of total farms. According to the 2006 Census of Agriculture, Ontario ranked first with 41% of the total vegetable farms in Canada, followed by Quebec (22%) and British Columbia (18%).

Ontario also ranked first in terms of the physical area where vegetables are grown with 62,967 hectares, down 9% compared to its share in 2001. It was followed by Quebec and British Columbia which also saw a decrease in the area dedicated to vegetables. Despite an overall decline of 6% of the area planted with vegetables, two provinces reported an increase between 2001 and 2006. Manitoba reported an increase both in the number of farms (6%) and the area planted (11%). Most of this was due to an increase of cultivation of shallots, green onions and onions. As well, Prince Edward Island reported a 9% increase in area planted while the number of farms decreased by 8% in 2006.

Field Vegetable Farms

Table 1 – Number and Area of Field Vegetable Farms by Province

Province	2001	2006	% change	2001	2006	% change
	Number of Reporting Farms			Area (Hectares)		
Newfoundland and Labrador	189	154	-19%	440	432	-2%
Prince Edward Island	124	114	-8%	1,008	1,103	9%
Nova Scotia	404	367	-9%	3,546	2,684	-24%
New Brunswick	220	207	-6%	1,028	864	-16%
Quebec	2,114	2,052	-3%	43,501	42,223	-3%
Ontario	3,938	3,909	-1%	68,856	62,967	-9%
Manitoba	258	273	6%	2,053	2,283	11%
Saskatchewan	271	210	-23%	397	329	-17%
Alberta	509	508	0%	5,744	5,339	-7%
British Columbia	1,802	1,705	-5%	7,277	6,957	-4%
Canada	9,829	9,499	-3%	133,851	125,181	-6%

Source: Statistics Canada, 2006 Census of Agriculture, Farm Data and Farm Operator Data, catalogue no. 95-629-XWE

Sweet corn area declined by 15% in 2006 when compared to 2001 even though it occupied 24% of all vegetable area. Green peas and green/wax beans ranked second and third with 13% and 9% of all vegetable area respectively. As shown in Table 2, the top four vegetables grown in Canada have been sweet corn, green peas, green/wax beans and carrots, representing over half of all vegetables grown excluding potatoes.

¹ According to Statistics Canada, a greenhouse can be defined as an operation where plants are grown under glass, plastic or similar type of protection.

² The data includes mushrooms and excludes potatoes, unless otherwise indicated.



Table 2 – Total Number and Area of Field Vegetable Farms by Commodity

	2001		2006	
	Farms Reporting	Hectares	Farms Reporting	Hectares
Sweet corn	3,637	35,489	3,383	30,229
Green peas	1,903	17,455	1,972	16,831
Green or wax beans	2,302	12,141	2,437	10,998
Carrots	2,099	9,382	2,303	9,857
Tomatoes	2,793	9,658	3,026	9,010
Pumpkins, squash and zucchini	2,850	5,742	3,356	6,668
Onions (dry, yellow, Spanish, cooking, etc.)	1,475	5,423	1,743	5,823
Other vegetables*			2,986	5,257
Broccoli	1,187	3,911	1,163	4,489
Cabbage	1,584	5,080	1,507	4,331
Lettuces	1,272	3,502	1,484	3,911
Cucumbers	2,401	5,100	2,447	2,903
Peppers	1,411	2,587	1,581	2,458
Cauliflower	1,059	2,881	959	2,144
Rutabagas and turnips	876	2,266	881	1,908
Asparagus, producing	587	1,280	729	1,765
Beets	1,650	1,155	1,924	1,231
Chinese cabbage	241	1,175	305	1,159
Shallots, green onions	750	816	941	1,008
Celery	254	797	323	908
Spinach	674	645	790	711
Radishes	625	983	812	682
Brussels sprouts	375	586	363	561
Asparagus, non-producing	326	348	301	339
Total vegetables	9,829	133,851	9,499	125,181

* Note: Since the components of "Other" categories vary from census to census, no comparable data are available. Total vegetables include Other vegetables not shown in the table.

Source: *Statistics Canada, 2006 Census of Agriculture, Farm Data and Farm Operator Data, catalogue no. 95-629-XWE.*

Greenhouse Vegetable Farms

According to the 2006 Census of Agriculture, the number of farms reported declined by 7.6% from 2,532 in 2001 to 2,338 for greenhouse vegetables. In the same year, the area under cover increased by almost 37% since 2001 to nearly 114,000 square feet. Ontario has the largest number of greenhouse vegetable farms, accounting for 28% of all greenhouse vegetable farms in Canada. (Table 3)

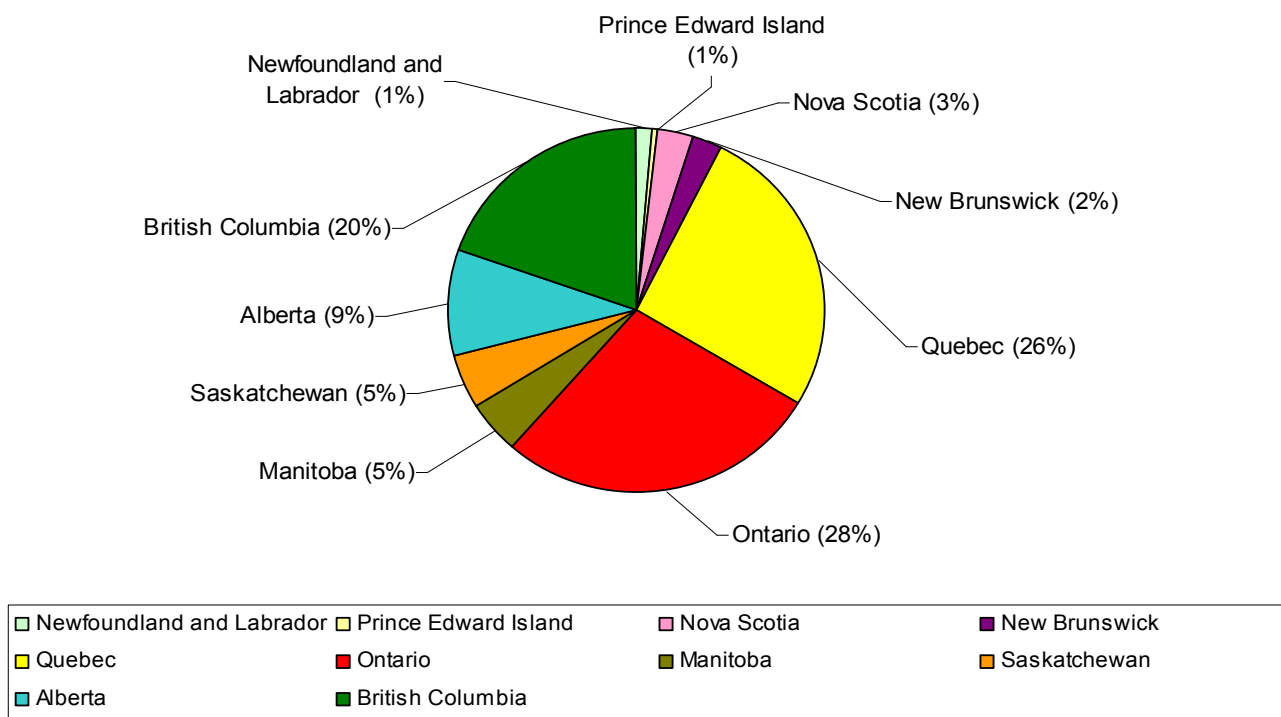


Table 3 – Number and Area of Greenhouse Vegetable Farms by Province

Province	2001	2006	% change	2001	2006	% change
	Number of Reporting Farms			Area ('000 Square Feet)		
Newfoundland and Labrador	47	33	-30%	65	56	-14%
Prince Edward Island	25	15	-40%	113	137	21%
Nova Scotia	80	68	-15%	967	657	-32%
New Brunswick	67	58	-13%	216	231	7%
Quebec	597	609	2%	9,706	10,560	9%
Ontario	681	654	-4%	47,728	69,809	46%
Manitoba	120	108	-10%	165	231	39%
Saskatchewan	142	112	-21%	285	248	-13%
Alberta	252	219	-13%	3,645	4,730	30%
British Columbia	521	462	-11%	20,360	27,163	33%
Canada	2,532	2,338	-8%	83,250	113,820	37%

Source: Statistics Canada, 2006 Census of Agriculture, Farm Data and Farm Operator Data, catalogue no.95-629-XWE.

Figure 1 – Percentage of Greenhouse Vegetable Farms Reporting by Province, 2006



Source: Statistics Canada, 2006 Census of Agriculture.



Farm Cash Receipts

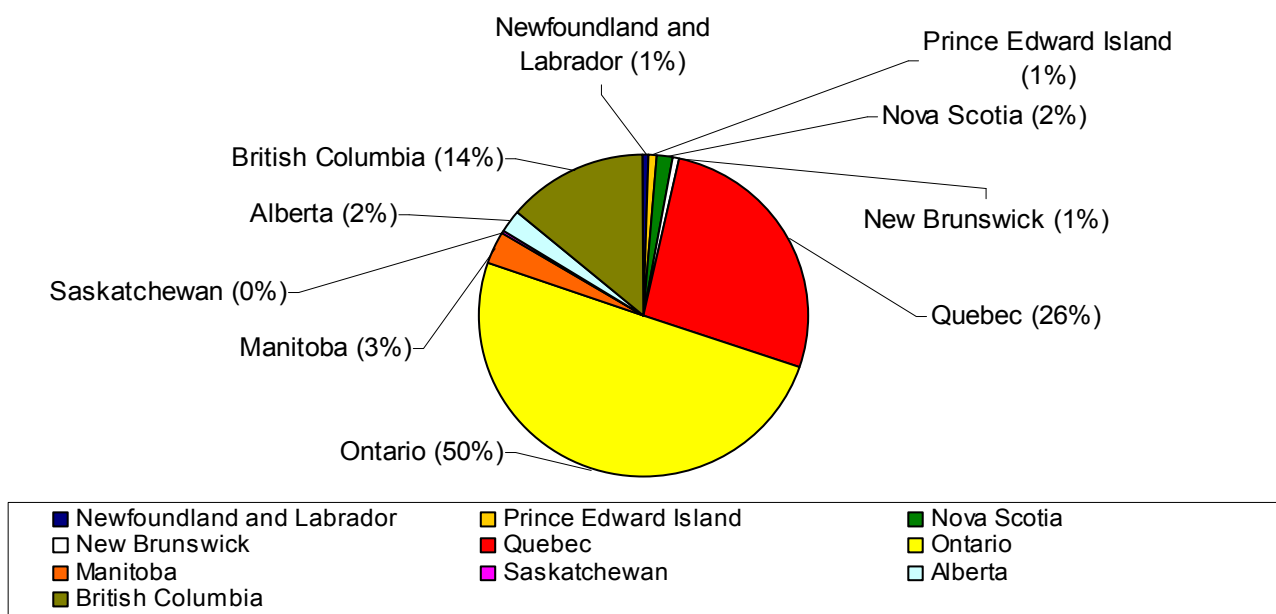
In 2010, the vegetable sector in Canada represented \$1,022 million in farm cash receipts³ (FCR) a 2% increase compared to the previous year. Ontario ranked highest in FCR with \$511 million or 50% of total Canadian farm cash receipts.

Table 4 – Field Vegetable Farm Cash Receipts by Province⁴

Province	2006	2007	2008	2009	2010	% change 2010/2009
Value (\$ Million)						
Newfoundland and Labrador	5	5	4	4	6	38%
Prince Edward Island	9	8	7	8	8	-3%
Nova Scotia	24	17	16	17	18	5%
New Brunswick	6	7	6	6	7	6%
Quebec	258	247	256	276	272	-1%
Ontario	476	466	470	484	511	6%
Manitoba	39	33	33	36	33	-8%
Saskatchewan	2	1	2	2	2	9%
Alberta	50	30	26	29	23	-21%
British Columbia	127	140	137	142	142	0%
Canada	996	954	957	1,004	1,022	2%

Source: Statistics Canada (Farm Cash Receipts, 21-011-X).

Figure 2 – Percentage of Field Vegetable Farm Cash Receipts by Province, 2010



Source: Statistics Canada (Farm Cash Receipts, 21-011-X, November 2010)

³ Farm Cash Receipts represent the cash income received from the sale of agricultural commodities as well as direct program payments made to support the agricultural sector.

⁴ Excludes sugarbeets, greenhouse vegetables and potatoes.



Table 5 – Greenhouse Vegetable Farm Cash Receipts by Province

Province	2006	2007	2008	2009	2010
Value (\$ Million)					
Newfoundland	140	X	X	209	X
Prince Edward Island	290	543	X	X	356
Nova Scotia	4,536	4,641	X	X	4,967
New Brunswick	360	472	X	432	X
Quebec	67,630	69,899	74,780	82,808	94,395
Ontario	464,725	484,970	529,964	608,037	656,951
Manitoba	260	X	X	558	972
Saskatchewan	852	691	754	X	1,151
Alberta	32,778	37,345	33,000	33,818	41,554
British Columbia	232,803	178,857	223,542	245,938	276,537
Canada	804,374	778,415	870,221	980,262	1,077,908

X: suppressed to meet the confidentiality requirements of the *Statistics Act*.

Source: *Statistics Canada (Farm Cash Receipts, 21-011-X)*.

PRODUCTION

According to Statistics Canada (Table 6), in 2010 the production of vegetables for fresh market was 1,089,176 metric tonnes with a farm gate value⁵ of nearly \$594 million, up 2% in volume and down 3% in value from 2009. The farm gate value was up for most of the major fresh market vegetables except for cucumbers and gherkins, broccoli, and corn which saw a decrease in farm gate value of 26%, 13% and 13% respectively compared to 2009. Overall, the farm gate value for fresh market vegetables was up 24% when compared to the five-year average (\$479.5 million), and production was also up 29% in comparison to the five-year average (844,795 metric tonnes).

⁵ Farm Gate Value represents production values expressed as remuneration obtained at the “Farm Gate” and are related to gross returns to growers. This does not include program payments or other support payments made to producers.



Table 6 – Major Field Vegetables Grown for the Fresh Market

Vegetable*	2006	2007	2008	2009	2010
	Value (\$000)				
Carrots - Regular	N/A	N/A	52,430	70,654	80,928
Onions - Dry	57,475	55,880	49,630	56,333	71,053
Corn	41,565	35,155	43,545	54,378	47,330
Lettuce - Leaf	36,170	25,420	28,510	40,378	37,143
Cabbage - Regular	N/A	N/A	32,875	30,777	34,865
Broccoli	N/A	N/A	N/A	35,330	30,781
Peppers	28,710	24,380	N/A	23,506	26,772
Tomatoes	24,794	20,740	16,715	24,756	26,466
Lettuce - Head	15,955	14,020	17,915	20,583	22,288
Cauliflower	17,840	15,855	19,800	21,782	22,180
Beans	18,371	16,805	15,905	14,559	20,840
Squash and Zucchini	14,340	15,035	15,525	19,900	19,458
Rutabagas and Turnips	N/A	17,615	14,070	21,215	18,259
Other Vegetables**	27,085	32,115	17,770	22,866	16,774
Onions - Green (Shallots)	25,075	20,560	20,225	24,225	14,301
Pumpkins	10,075	9,835	11,275	14,435	14,284
Celery	11,695	10,775	11,827	12,145	14,065
Radishes	9,140	9,150	9,865	11,578	11,481
Cucumbers and Gherkins	8,355	8,580	9,205	14,703	10,898
Cabbage - Chinese	10,300	6,735	N/A	9,217	9,819
Beets	5,105	6,230	5,785	7,764	8,356
Spinach	4,075	4,405	5,280	7,512	8,015
Leeks	N/A	5,220	N/A	7,786	7,217
Parsnips	2,590	2,645	3,270	3,929	4,831
Carrots - Baby	N/A	N/A	N/A	3,246	4,720
Peas - Green	2,990	2,745	3,365	4,125	4,340
Parsley	3,275	3,545	2,125	3,218	2,955
Brussels Sprouts	N/A	N/A	N/A	2,258	2,232
Rhubarb	N/A	875	700	882	893
Asparagus	12,875	13,730	14,085	24,136	N/A
Garlic	1,060	2,060	2,210	2,989	N/A
Total	388,915	380,110	423,907	611,165	593,544

* Excludes greenhouse vegetables, mushrooms and potatoes.

** Indicates fresh vegetables not defined in this table.

N/A : Data unavailable.

Source: *Statistics Canada (Fruits and Vegetables Production, 22-003-X)*.



Table 6 – Major Field Vegetables Grown for the Fresh Market

Vegetable*	2006	2007	2008	2009	2010
Volume (tonnes)					
Carrots - Regular	N/A	N/A	156,027	221,818	283,986
Onions - Dry	202,613	200,864	149,402	196,043	183,257
Cabbage - Regular	N/A	N/A	99,668	113,963	114,508
Corn	74,754	58,835	72,448	69,686	66,508
Lettuce - Leaf	44,840	37,086	40,422	48,186	47,360
Rutabagas and Turnips	N/A	36,147	33,827	41,208	43,933
Pumpkins	33,926	30,466	36,535	46,275	38,967
Broccoli	N/A	N/A	N/A	37,322	32,451
Peppers	35,083	30,529	N/A	28,389	32,132
Lettuce - Head	25,437	26,880	29,980	26,336	31,940
Cauliflower	25,682	22,632	27,438	30,723	29,228
Tomatoes	39,719	31,790	27,891	26,745	26,507
Celery	24,766	32,450	24,705	28,839	25,670
Squash and Zucchini	26,839	24,047	19,396	25,832	23,485
Beets	13,517	10,464	9,398	15,304	16,017
Cabbage - Chinese	16,670	12,481	12,739	19,391	15,365
Cucumbers and Gherkins	14,796	15,068	13,170	16,713	14,949
Radishes	9,476	8,843	9,498	12,663	12,898
Beans	11,167	9,965	15,905	9,442	11,784
Onions - Green (Shallots)	18,033	16,488	15,375	17,159	10,300
Carrots - Baby	N/A	N/A	N/A	5,946	5,688
Spinach	3,370	3,998	3,944	5,307	5,473
Leeks	N/A	3,615	N/A	4,864	5,247
Parsnips	3,726	2,812	3,470	4,523	4,797
Peas - Green	2,331	1,413	1,665	1,490	2,721
Parsley	2,356	2,193	1,302	1,989	1,870
Brussels Sprouts	N/A	N/A	N/A	1,705	1,448
Rhubarb	N/A	669	488	596	687
Asparagus	4,504	4,591	4,765	7,835	N/A
Garlic	206	435	474	N/A	N/A
Other Vegetables**	N/A	N/A	N/A	N/A	N/A
Total	633,812	624,763	809,930	1,066,291	1,089,176

* Excludes greenhouse vegetables, mushrooms and potatoes.

** Indicates fresh vegetables not defined in this table.

N/A : Data unavailable.

Source: *Statistics Canada (Fruits and Vegetables Production, 22-003-X)*.



According to Statistics Canada (Table 7), in 2010 the production of vegetables for the processing market was 797,691 metric tonnes with a farm gate value of \$128 million, down 11% in volume and down 16% in value from 2009. Production decreased significantly for green peas (29%) with a corresponding drop in farm gate value (42%), while the production of cauliflower was up 115% and 44% in value.

Table 7 – Major Field Vegetables Grown for the Processing Market

Vegetable*	2006	2007	2008	2009	2010
Value (\$000)					
Tomatoes	60,000	61,200	59,200	62,100	48,868
Corn	20,350	21,925	14,735	16,073	12,822
Cucumbers and Gherkins	7,685	10,400	8,970	16,996	11,650
Peas - Green	16,000	15,350	19,740	19,335	11,237
Beans	9,700	9,200	9,605	10,629	9,786
Carrots - Regular	N/A	N/A	8,175	8,725	9,082
Peppers	4,475	7,820	4,530	4,762	6,094
Broccoli	N/A	N/A	N/A	4,387	4,813
Other Vegetables**	6,695	2,100	2,935	2,338	2,942
Cauliflower	2,710	1,535	2,495	1,390	2,003
Carrots - Baby	N/A	N/A	N/A	1,570	1,963
Beets	740	950	868	1,666	1,572
Squash and Zucchini	700	785	410	583	1,540
Celery	1,800	2,000	2,025	N/A	1,497
Pumpkins	1,375	1,200	1,070	842	1,055
Rhubarb	N/A	845	610	788	904
Rutabagas and Turnips	N/A	N/A	700	N/A	508
Cabbage - Regular	N/A	N/A	3,313	N/A	N/A
Garlic	70	0	N/A	N/A	N/A
Onions - Dry	1,650	2,100	3,675	N/A	N/A
Total	133,950	137,410	143,056	152,184	128,336

* Excludes greenhouse vegetables, mushrooms and potatoes.

** Indicates fresh vegetables not defined in this table.

N/A : Data unavailable.

Source: Statistics Canada (Fruits and Vegetables Production, 22-003-X).



Table 7 – Major Field Vegetables Grown for the Processing Market

Vegetable*	2006	2007	2008	2009	2010
Volume (tonnes)					
Tomatoes	563,135	563,362	535,239	475,528	415,816
Corn	204,534	216,999	141,684	142,654	125,595
Carrots - Regular	N/A	N/A	82,722	91,709	77,593
Peas - Green	65,934	59,330	67,631	55,907	39,737
Beans	41,730	39,825	40,828	35,341	34,068
Cucumbers and Gherkins	22,997	28,123	24,526	45,438	30,647
Carrots - Baby	N/A	N/A	N/A	16,842	24,626
Peppers	11,639	12,047	10,832	10,642	12,247
Beets	6,940	7,453	7,303	10,331	9,132
Pumpkins	7,802	7,802	11,104	3,071	7,708
Celery	8,618	9,979	8,165	N/A	6,804
Broccoli	N/A	N/A	N/A	4,156	6,467
Cauliflower	5,561	3,236	3,624	1,465	3,148
Rutabagas and Turnips	N/A	N/A	2,771	N/A	2,799
Rhubarb	N/A	1,134	1,043	1,430	1,304
Cabbage - Regular	N/A	N/A	17,282	N/A	N/A
Garlic	25	0	N/A	N/A	N/A
Onions - Dry	6,804	8,391	10,251	N/A	N/A
Squash and Zucchini	2,177	2,767	1,919	N/A	N/A
Other Vegetables**	N/A	N/A	N/A	N/A	N/A
Total	947,897	960,448	966,923	894,515	797,691

* Excludes greenhouse vegetables, mushrooms and potatoes.

** Indicates fresh vegetables not defined in this table.

N/A : Data unavailable.

Source: *Statistics Canada (Fruits and Vegetables Production, 22-003-X)*.



Greenhouse Production

Statistics Canada's annual 2010 survey of the greenhouse industry reported a farm gate value⁶ of \$1,056 million for tomatoes, cucumbers, peppers and lettuce crops, a 9.8% increase compared to the 2009 crop value of \$962 million.

Table 8 – Farm Gate Value of Major Greenhouse Vegetables

	2006	2007	2008	2009	2010
Value (\$ Million)					
Tomatoes	383	356	384	459	509
Cucumbers	191	179	212	246	254
Peppers	196	201	236	235	270
Lettuce	25	23	20	22	23
Total	795	759	852	962	1,056

Source: Statistics Canada (Greenhouse, Sod and Nursery Industries, 22-202-X).

Table 9 – Major Greenhouse Crop Production

	2006	2007	2008	2009	2010
Volume ('000 tonnes)					
Tomatoes	204	204	217	243	260
Peppers	61	71	83	88	93
Volume ('000 dozens)					
Cucumbers	30,393	27,041	30,102	39,380	49,344
Volume ('000 heads)					
Lettuce	25,235	23,989	N/A	18,659	22,519

Source: Statistics Canada (Greenhouse, Sod and Nursery Industries, 22-202-X).

⁶ Farm Gate Value represents production values expressed as remuneration obtained at the "Farm Gate" and are concerned with gross returns to growers.



TRADE

Due to the largely seasonal nature of vegetable production, Canada has traditionally been a net importer of vegetables (fresh and processed). In 2010 Canada had a net trade deficit in fresh vegetables with imports exceeding exports in value by \$1,646 million. Total vegetable imports, including fresh, dried, frozen and processed, were valued at \$2,853.5 million dollars and vegetable exports totaled \$1,206.8 million in 2010.

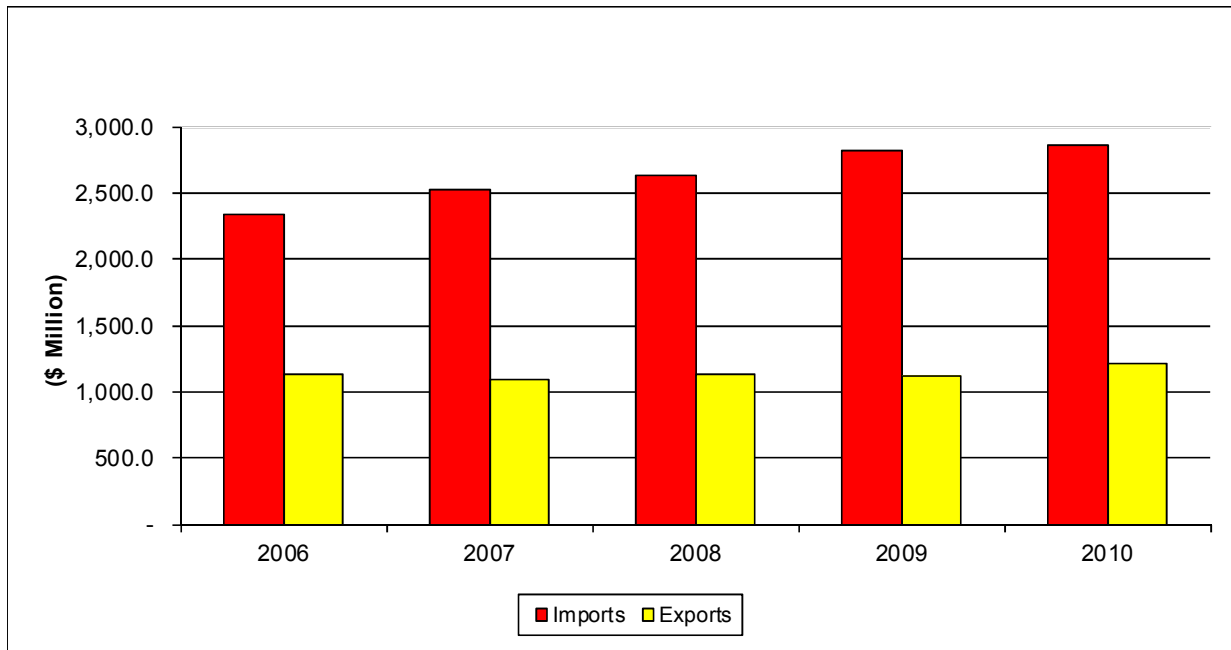
Table 10 – Canadian Vegetable Trade Highlights

(\$ Million)						
Fruit Category	2006	2007	2008	2009	2010	% change 2009 - 2010
Imports						
Fresh, Dried, Frozen	1,866.1	2,021.6	2,090.7	2,242.2	2,277.2	2%
Processed	466.1	500.3	538.3	575.5	576.2	0%
Total	2,332.2	2,522.0	2,629.0	2,817.7	2,853.5	1%
Exports						
Fresh, Dried, Frozen	951.9	910.7	969.8	964.0	1,056.7	10%
Processed	177.4	175.3	168.5	153.9	150.1	-2%
Total	1,129.3	1,086.0	1,138.4	1,117.9	1,206.8	8%
Net Trade (exports less imports)						
Fresh, Dried, Frozen	(914.2)	(1,110.9)	(1,120.9)	(1,278.2)	(1,220.5)	
Processed	(288.7)	(325.0)	(369.8)	(421.6)	(426.2)	
Total	(1,202.9)	(1,435.9)	(1,490.6)	(1,699.9)	(1,646.7)	

Source: CATS Net (May 2011).



Figure 3 – Canadian Vegetable Imports and Exports



Source: CATS Net (May 2011).



Exports

Table 11 – Top 10 Vegetable Export Destinations

	1990 (\$ Million)	2010	Leading product exports
United States	95,867,523	1,169,334,521	Tomatoes, Peppers, Mushrooms, Cucumbers and gherkins, Tomato ketchup, Frozen vegetables, Onions and shallots, Carrots.
Japan	6,678,692	6,629,750	Mushrooms, Tomatoes, Peas, Sweet corn.
Mexico	71,325	4,441,551	Tomato juice.
China	99,778	3,001,074	Peas (fresh), Frozen vegetables, Peas (frozen).
Trinidad and Tobago	1,087,650	2,587,414	Mix of vegetables, Sweet corn, Carrots, Cabbages.
France	1,464,468	2,105,800	Mushroom, Sweet corn.
Sweden	1,982,225	1,909,925	Sweet corn, Mushrooms.
United Kingdom	14,542,257	1,527,434	Sweet corn, Peas, Tomato ketchup.
Norway	681,840	1,162,472	Sweet corn, Mushrooms.
Germany	5,199,295	899,654	Sweet Corn, Peppers, Mushrooms.

Source: CATS Net (May 26, 2011).



Table 12 – Export to Top 5 Countries by Province

Exports to top 5 countries		1990	2010	Top 5 commodity exports
\$ Value				
Newfoundland and Labrador	France	0	9,643	Frozen Vegetables, Tomato
	Saint Pierre and Miquelon	0	4,363	Sauce, Beans, Frozen
	Total	0	14,006	Sweet Corn, Tomatoes (Greenhouse)
Prince Edward Island	United States	828,152	896,707	Cauliflower and Headed Broccoli, Carrots, Onions and Shallots, Cabbages, Kohlrabi and Kale, Mushrooms.
	Trinidad and Tobago	275,452	192,816	
	Costa Rica	0	85,293	
	Japan	0	83,741	
	Guatemala	0	54,348	
	Other	324,993	135,874	
	Total	1,428,597	1,448,779	
Nova Scotia	United States	5,746,641	18,289,240	Frozen Vegetables, Cabbages, Kohlrabi and Kale, Onions and Shallots, Tomatoes (Greenhouse), Tomatoes.
	France	28,404	54,529	
	Saint Pierre and Miquelon	9,695	38,191	
	Germany	15,478	13,104	
	Barbados	0	1,098	
	Other	567,648	66	
	Total	6,367,866	18,396,228	
New Brunswick	United States	5,083,654	7,761,941	Onions and Shallots, Beans, Mushrooms, Carrots, Cabbages, Kohlrabi and Kale.
	Saudi Arabia	88,431	318,904	
	Kuwait	79,615	272,833	
	United Arab Emirates	25,994	232,752	
	Brazil	0	216,445	
	Other	710,970	692,863	
	Total	5,988,664	9,495,738	
Quebec	United States	21,475,320	160,090,595	Onions and Shallots, Cabbages, Kohlrabi and Kale, Cabbage Lettuce, Mixtures of Frozen Vegetables, Lettuce.
	Trinidad and Tobago	235,031	2,098,732	
	Sweden	689,759	1,738,224	
	Norway	379,009	1,085,355	
	United Kingdom	5,341,079	1,079,827	
	Other	3,767,146	5,909,673	
	Total	31,887,344	172,002,406	

Source: CATS Net (August 5, 2011).



Table 12 – Export to Top 5 Countries by Province (Continued)

Exports to top 5 countries		1990	2010	Top 5 commodity exports
\$ Value				
Ontario	United States	48,418,893	759,768,123	Tomatoes (Greenhouse), Peppers, Cucumbers and Gherkins, Tomato Ketchup, Mushrooms.
	Japan	165,281	497,165	
	Saudi Arabia	126,798	414,592	
	South Africa	62,158	325,706	
	Israel	55,264	302,908	
	Other	13,471,211	1,999,300	
	Total	62,299,605	763,307,794	
Manitoba	United States	104,900	2,823,190	Onions and Shallots, Beans, Mushrooms, Carrots, Cabbages, Kohlrabi and Kale.
	Venezuela	0	415,532	
	Angola	0	112,067	
	Kuwait	0	3,104	
	Other	71,799	4,086	
	Total	176,699	3,357,979	
Saskatchewan	China	0	1,439,712	Peas, Beans, Frozen peas, Leguminous Vegetables.
	United States	147,678	963,094	
	Turkey	0	770,760	
	United Arab Emirates	0	318,301	
	Venezuela	0	182,520	
	Other	18,488	1,184,899	
	Total	166,166	4,859,286	
Alberta	United States	687,732	14,414,131	Peppers, Tomato Juice, Frozen Sweet Corn, Mixture of Frozen Vegetable, Frozen Peas, Peas.
	Mexico	0	4,420,448	
	China	0	1,526,587	
	Japan	19,152	445,834	
	Greece	0	164,800	
	Other	587,241	450,732	
	Total	1,294,125	21,422,532	
British Columbia	United States	12,578,832	204,302,663	Tomatoes (Greenhouse), Mushrooms, Peppers, Cucumbers and Gherkins, Frozen Vegetables.
	Japan	6,438,959	5,163,788	
	France	710,475	1,362,190	
	Netherlands	38,994	432,337	
	Switzerland	225,228	334,201	
	Other	7,821,305	814,352	
	Total	27,813,793	212,409,531	
Canada	Total	137,422,859	1,206,714,279	

Source: CATS Net (August 5, 2011).



Imports

Table 13 – Top 10 Sources of Canada's Vegetable Imports

	1990 (\$ Million)	2010	Leading product Imports
United States	651.5	1,828.2	Lettuce, Tomato ketchup and other tomato sauces, Cabbage and kohlrabi and kale, Onions, Carrots, Tomatoes.
Mexico	83.5	563.2	Tomatoes, Peppers, Cucumbers and gherkins, Onions,
China	27.3	125.4	Garlic, Mushrooms and truffles, Dehydrated vegetables, Peas.
Spain	26.8	50.1	Tomatoes (whole or pieces), Vegetable mix.
Peru	0.3	46.9	Mix of vegetables, Edible parts of plants, Bamboo shoots, Pickles.
Italy	8.5	29.0	Leeks, Mushrooms, Dehydrated vegetables, Vegetable juices.
India	0.6	25.0	Frozen vegetables, Onions and shallots, Edible parts of plants.
Greece	4.0	22.5	Edible parts of plants, Pickles, Mix of vegetables.
Guatemala	1.6	13.0	Vegetables and parts of plants, Mix of vegetables.
Netherlands	17.7	11.6	Arrowroot, Sweet potatoes, Salad beetroot, Celeriac, Radishes and edible roots, Tomato ketchup.

Source: CATS Net (May 26, 2011).



Table 14 – Imports from Top 5 Countries by Province

Imports from top 5 countries		1990	2010	Top 5 commodity imports
\$ Value				
Newfoundland and Labrador	Belgium	3,151	0	Tomatoes, Cabbage
	Chile	3,973	0	Lettuce, Cabbages, Kohlrabi
	Colombia	1,220	0	and Kale, Peppers, Celery.
	Dominican Republic	828	0	
	Guatemala	5,961	0	
	Other	3,496,228	0	
	Total	3,511,361	0	
Prince Edward Island	Mexico	21,346	0	Frozen Vegetables, Tomatoes, Cabbage
	United States	32,570	0	Lettuce, Lettuce.
	Total	53,916	0	
Nova Scotia	China	3,880,703	1,582,599	Frozen Vegetables,
	Jamaica	0	652,493	Arrowroot Salep, Sim Roots
	Spain	141,506	271,342	and Tubers, Mushrooms,
	Poland	0	141,697	Tomatoes.
	Costa Rica	0	101,990	
	Other	1,837,539	460,266	
	Total	5,859,748	3,210,387	
New Brunswick	United States	28,965,152	23,465,368	Sweet Potatoes, Cabbage
	Mexico	2,107,480	2,306,586	Lettuce, Tomatoes,
	Peru	5,481	230,528	Peppers, Cabbages,
	Guatemala	49,551	53,335	Kohlrabi and Kale.
	Turkey	0	16,611	
	Other	2,339,761	903,624	
	Total	33,467,425	26,976,052	
Quebec	United States	79,085,871	96,867,264	Peppers, Olives, Tomatoes,
	China	8,574,561	25,300,882	Mushrooms, Lettuce,
	Spain	13,175,401	20,506,703	Beans.
	Italy	2,889,351	12,139,524	
	Peru	163,318	11,187,503	
	Other	39,183,972	71,176,356	
	Total	143,072,474	237,178,232	

Source: CATS Net (August 5, 2011).



Table 14 – Imports from Top 5 Countries by Province (Continued)

Imports from top 5 countries		1990	2010	Top 5 commodity imports
\$ Value				
Ontario	United States	335,185,875	1,048,965,297	Lettuce, Peppers, Cabbages, Kohlrabi and Kale, Tomatoes (Greenhouse), Onions and Shallots, Cabbage Lettuce.
	Mexico	41,673,668	374,219,625	
	China	8,348,218	50,070,771	
	Peru	108,075	26,881,857	
	Spain	9,925,826	20,492,594	
	Other	49,444,129	116,738,623	
	Total	444,685,791	1,637,368,767	
Manitoba	United States	20,150,411	51,051,576	Lettuce, Tomato Sauce, Cabbages, Kohlrabi and Kale, Onions and Shallots, Tomatoes (excluding Greenhouse).
	Mexico	4,043,925	6,215,581	
	Peru	0	3,846,840	
	China	17,352	400,669	
	Spain	43,932	116,288	
	Other	225,058	540,306	
	Total	24,480,678	62,171,260	
Saskatchewan	United States	15,821,363	22,094,662	Lettuce, Tomatoes, Cabbage Lettuce, Cabbages, Kohlrabi and Kale, Peppers.
	Mexico	1,651,105	3,738,786	
	Guatemala	0	75,796	
	Peru	0	57,356	
	China	0	17,756	
	Other	1,294	27,221	
	Total	17,473,762	26,011,577	
Alberta	United States	47,410,739	202,734,035	Lettuce, Cabbages, Kohlrabi and Kale, Peppers, Cauliflower, Broccoli
	Mexico	10,809,668	71,581,012	
	Spain	929,400	2,804,019	
	Peru	42,224	1,544,073	
	China	84,528	1,194,108	
	Other	980,484	4,481,790	
	Total	60,257,043	284,339,037	
British Columbia	United States	121,036,174	382,958,630	Onions and Shallots, Lettuce, Cabbages, Kohlrabi and Kale, Peppers, Carrots and Turnips.
	Mexico	18,462,742	98,807,652	
	China	6,333,347	46,818,655	
	India	97,439	6,842,299	
	Spain	2,593,103	5,924,221	
	Other	14,162,734	34,086,241	
	Total	162,685,539	575,437,698	
Canada	Total	895,547,737	2,852,693,010	

Source: CATS Net (August 5, 2011).



Greenhouse Vegetables Trade

In 2010, total greenhouse vegetable exports amounted to \$629.7 million and total greenhouse imports were valued at \$223.6 million. Canada was a net exporter of greenhouse vegetable crops with a positive trade balance of \$406 million in 2010. The industry's major export market is the United States representing just over 99% of all exports with a value of \$629 million. Canadian exports of greenhouse vegetables to the United States have increased since 2008. In 2010, greenhouse tomatoes were the top commodity exported to the United States with a share of 48% of the greenhouse vegetables, followed by peppers with 37% and cucumbers with 15%.

Table 15 – Major Greenhouse Vegetable Exports to all Countries

	2006	2007	2008	2009	2010
Volume ('000 tonnes)					
Tomatoes	135	112	116	124	138
Cucumbers	47	50	47	47	53
Peppers	182	162	164	171	191
Total	364	324	327	342	382
Value (\$ Million)					
Tomatoes	324.4	255.0	281.3	281.1	304.7
Cucumbers	89.1	85.9	86.5	93.5	94.1
Peppers	174.0	181.6	201.5	188.6	231.0
Total	587.5	522.5	569.3	563.2	629.8

Source: CATS Net (July 7, 2011).

Tomato imports represented \$120.1 million with Mexico as the largest supplier valued at nearly \$104 million followed by the United States with \$13 million. Cucumber imports from Mexico represented over \$19 million of the \$27 million total imports. Canada imported \$223.6 million worth of greenhouse vegetable crops during 2010 with 24% of peppers (\$73.3 million) entering from Mexico.

Table 16 – Major Greenhouse Vegetable Imports from all Countries

	2006	2007	2008	2009	2010
Volume ('000 tonnes)					
Tomatoes	25.2	40.2	53.6	59.9	55.3
Cucumbers	0.3	3.5	2.7	2.2	1.6
Peppers	0.1	1.6	0.6	0.4	0.3
Cabbage Lettuce	7.3	15.5	15.4	13.4	17.3
Lettuce	15.0	18.8	22.2	23.6	25.0
Total	47.9	79.6	94.6	99.6	99.4
Value (\$ Million)					
Tomatoes	52.3	85.5	109.3	108.3	120.1
Cucumbers	13.1	27.2	25.3	19.6	27.2
Peppers	44.2	62.2	66.4	69.5	73.3
Cabbage Lettuce	0.5	3.9	4.3	4.1	2.4
Lettuce	0.2	2.5	1.4	0.9	0.6
Total	110.5	181.3	206.6	202.5	223.6

Source: CATS Net (November 9, 2011).



CONSUMPTION

Table 17 – Consumption of Fresh Vegetables in Canada

Vegetable*	2006	2007	2008	2009	2010	Percent Change (2006-2010)
	(kg per person)					
Potatoes, White	15.55	14.49	13.54	13.59	13.57	(13)
Lettuce	6.08	5.77	5.53	5.40	5.65	(7)
Carrots	4.16	4.42	3.95	4.54	5.46	31
Tomatoes	4.74	5.08	4.90	4.77	4.31	(9)
Onions and shallots	4.47	4.30	3.73	5.37	4.12	(8)
Cabbage	2.75	2.81	2.59	3.00	2.97	8
Cucumbers	2.71	2.35	2.43	2.45	2.29	(16)
Peppers	2.45	2.37	2.51	2.54	2.17	(11)
Celery	2.12	2.23	2.05	2.08	2.08	(2)
Pumpkins and squash	1.42	1.37	1.42	1.55	1.51	6
Broccoli	1.28	1.39	1.30	1.24	1.14	(11)
Mushrooms	0.96	0.92	1.12	0.94	0.86	(10)
Cauliflower	0.62	0.57	0.64	0.71	0.76	23
Corn	0.76	0.63	0.72	0.68	0.72	(5)
Potatoes, Sweet	0.36	0.33	0.37	0.46	0.67	89
Rutabagas and turnips	0.46	0.59	0.47	0.54	0.58	26
Beans green and wax	0.65	0.60	0.57	0.58	0.55	(15)
Cabbage, Chinese	0.42	0.43	0.45	0.48	0.47	12
Radishes	0.36	0.36	0.35	0.41	0.42	15
Spinach	0.27	0.28	0.30	0.33	0.37	39
Beets	0.29	0.23	0.20	0.31	0.32	10
Eggplant	0.23	0.24	0.24	0.27	0.27	13
Asparagus	0.22	0.22	0.24	0.26	0.26	18
Other edible roots	0.16	0.22	0.22	0.23	0.25	58
Garlic	0.21	0.28	0.27	0.27	0.24	13
Kohlrabi	0.11	0.13	0.13	0.14	0.19	67
Peas	0.21	0.18	0.17	0.19	0.16	(24)
Brussels sprouts	0.09	0.10	0.10	0.19	0.15	75
Leeks	0.13	0.13	0.13	0.14	0.15	17
Parsley	0.13	0.13	0.13	0.13	0.13	(4)
Rappini	0.08	0.10	0.09	0.08	0.09	3
Parsnips	0.07	0.05	0.06	0.08	0.08	24
Okra	0.06	0.06	0.05	0.06	0.06	7
Manioc (Cassava)	0.04	0.05	0.04	0.05	0.05	26
Artichokes	0.01	0.02	0.02	0.01	0.02	15
Olives	0.01	0.01	0.00	0.00	0.01	(29)
Other leguminous vegetables	0.01	0.00	0.00	0.01	0.00	(36)
Unspecified fresh vegetables	0.68	0.66	0.36	0.61	0.63	(8)
Total	55.31	54.06	51.40	54.70	53.72	

* Caution : The data have been adjusted for retail, household, cooking and plate loss.

Source: *Statistics Canada (Food Available for Consumption Data Series)*.



ISSUES FACING THE CANADIAN VEGETABLE INDUSTRY

Labour Costs and Supply:

Vegetable operations, especially in terms of those taking place in the field, are exceedingly labour intensive by nature and as such, labour contributes to a large proportion of the industry's cost of production and requires producers to be dependent on the Federal Seasonal Agricultural Workers Program (FSAWP). Access to a sufficient, skilled workforce and the relatively lower wages of lower-cost competitors such as Mexico and Chile are key challenges for this sub-sector. In response to labour issues, industry is exploring innovative technologies, promotional activities, and capacity development.

Decline of the Canadian Vegetable Processing Industry:

Fruit and vegetable processing is a major Canadian industry. It is the third largest agri-food processing industry, is present in all provinces, and employs around 25,000 workers Canada-wide.

The competitive position of vegetable processors is a key factor in maintaining the viability of the Canadian field vegetable industry.

Although most of the vegetables supplied to processing plants come from Canada, imports of vegetables for processing are playing an increasing role due to price competitiveness and improvements to the quality and shelf life of foreign products.

In 2010, the total area planted with vegetables destined for the processing market was reported at 35,063 hectares, a decline of 12.2% (from 39,936 hectares from 2009).

Greenhouse Capital Costs:

Greenhouse vegetable operations have very high capital investment requirements. The glass or plastic structures, lighting, heating/venting/shading systems, plant nutrition, automation and harvesting components together cost between \$600,000 and \$1,000,000 per acre with an average operation being around nine acres in size.

The pace of technological change in the industry demands that greenhouse systems need to be updated or fully replaced every five to ten years to keep up with productivity and efficiency gains.

Seasonality and Supply Coordination with Major Retailers:

As most fresh vegetables are not storable commodities, the buyers of these goods must purchase them within a short time of harvest. Canada's northern climate only allows for two harvests per year of most vegetable commodities compared to three or four harvests in California and year-round production in Mexico.

Retailers are now often contracting only where year-round supply can be assured and this has made meaningful market access increasingly difficult. While greenhouse operations allow for approximately nine months of production for certain commodities, there is still the period between December and March where a gap in production requires Canadian retailers to rely on imported products to meet market demand.

Industry is responding with supply agreements and/or strategic alliances with major buyers or through marketing entities such as "Peak of the Market" in Manitoba and other co-operative ventures. Initiatives are also being taken to improve communications for coordination of retail market requirements with the availability of Canadian-grown product.

**Access to Water:**

Due to environmental and economic pressures, vegetable producers face water restrictions from water regulators. Increasingly, producers are seeing security of water as something that impacts their business viability. Secure water access is an important issue for the economic profitability of the sector. Water restrictions caused by changes in water supply may result in potential replanting cost and affect the predictability of fulfilling contractual obligations. Industry is responding to this challenge with collaborative projects such as the Leamington Area Drip Irrigation project.



KEY RESOURCES

Statistics Canada. Publication 21-011-X "Farm Cash Receipts".

Statistics Canada. Agriculture and Agri-Food Canada Fall Survey (2010).

Statistics Canada. 2006 Census of Agriculture, Farm data and farm operator data, Publication 95-629-XWE.

Statistics Canada. Publication 21-020-XIE.

Statistics Canada. Publication 22-202-X.

Statistics Canada CATS database. Canadian Export and Import Data (May 2011).

Import and export data is based on the following Harmonized System Codes (H.S. Codes):

Vegetables: Includes fresh, frozen, dried and provisionally preserved vegetables. Greenhouse vegetables included unless otherwise indicated. These vegetables fall under the following H.S. Code headings for imports and exports: 0702, 0703, 0704, 0705, 0706, 0707, 0708, 0709, 071021 to 071090, 0711, 07122000 to 07129020, 0712909090 and 0714.

Processed Vegetables and Vegetable-based Beverages: Includes vegetables that are canned, and are pulp, pastes, purée, sauces and juices. These processed vegetables fall under the following H.S. Code headings for imports: 200110, 20019010, 2001909020 to 2001909099, 2002, 2003, 200490, 200510, 200540 to 200599, 200950, 20098020, 20099040 and 210320. For exports, processed vegetables fall under the following H.S. Code headings: 2001, 2002, 2003, 200490, 200510, 200540 to 200599, 200950, 20098031, 20098039 and 210320.