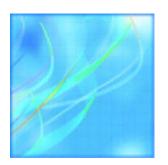
Catalogue no. 22-202-X

Greenhouse, Sod and Nursery Industries



2009



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Greenhouse, Sod and Nursery Industries

2009

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Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the Statistics Act
- E use with caution
- F too unreliable to be published

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Note to readers

The following tables and chart have been revised:

- 2008 values in Tables 3-1, 3-2, 3-3, 6, 8, 10, 11, 12, 13, 19, 20 and 21
- 2008 values in Chart 1

April 8, 2011

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Highlights

Overall trends

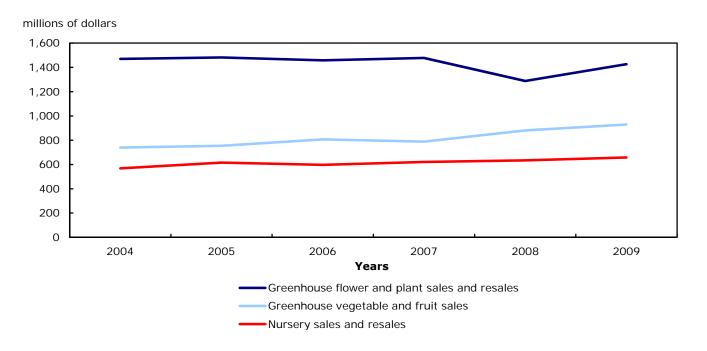
In Canada, the total greenhouse area increased in 2009. This situation was accompanied by an increase in production and sales of greenhouse products. The nursery sector also experienced an increase in sales from 2008.

In 2009, the total greenhouse area was 22.9 million square metres, compared with 21.8 million square metres in 2008. Sales of greenhouse products increased by 8.5% amounting to approximately \$2.4 billion in 2009. After a decrease in 2008, flower and plant production and sales have returned to historical levels in 2009.

As for total operating expenses, the cost increased by 8.8% reaching \$2.1 billion in 2009. Labour costs totalled \$578 million and represented 27.2% of total operating expenses for greenhouses. The total number of seasonal and permanent greenhouse workers increased to 38,565 in 2009, a 2.2% increase over 2008.

In 2009, sales of nursery products totalled \$658 million, compared with \$635 million in 2008, an increase of 3.5%. Regarding sod farms, sales of cultivated sod rose by 8.7%, reaching \$142 million in 2009.

Chart 1
Sales progression of greenhouse and nursery products, Canada, 2004-2009



Flowers and plants

The survey revealed that production of flowers and plants was responsible for 48.9% of total greenhouse area and represented 60.5% of total sales of greenhouse products in 2009. Total sales of flowers and plants amounted to \$1.4 billion, compared with \$1.3 billion in 2008, which is an increase of 10.8%. Resale of flowers and plants hold 18.6% of total flower and plant sale shares.

Production of potted flowers and plants ranked first, with sales of \$674 million. Sales of ornamental bedding plants and cut flowers reached \$176 and \$138 million respectively. Ornamental bedding plant sales decreased by 20.9% while vegetable bedding plant sales increased by 31.7% between 2008 and 2009.

In 2009, Canadian greenhouses produced more than 218 million potted flowers and plants, 261 million cut flowers, 498 million ornamental bedding plants, 564 million vegetable bedding plants and 96.0 million cuttings.

Costs for specialized producers of greenhouse flowers and plants were more than \$1.0 billion. Labour costs represented 30.1% of total costs for greenhouses specializing in the production of flowers and plants. Labour costs were comparable between 2008 and 2009, however the total number employees decreased by 3.9%, representing 23,405 employees.

Greenhouse Vegetables

Between 2008 and 2009, sales of greenhouse fruits and vegetables increased by 5.2% which amounted to \$929 million. Ontario production represented 60.0% of sales of greenhouse fruits and vegetables in Canada. Sales of tomatoes increased by 10.6% to almost \$434 million. This growth was observed mainly in British Columbia and Ontario. Sales of peppers, cucumbers and lettuce reached \$230 million, \$227 million and \$21.9 million respectively. Despite an increase of 7.6% in the production of peppers, sales went down by 2.4% in 2009. Imports of Holland peppers at low prices had a negative impact for Canadian producers.

Total operating costs for specialized fruit and vegetable producers reached \$853 million in 2009. Other operating expenses which included interest, property taxes, insurance, packaging, repairs and labour contracts was estimated at \$285 million which represented one third of the total costs. Labour costs, the principal expenditure item, totalled \$204 million, accounting for one quarter of total operating expenditures.

Nurseries and sod farms

From 2008 to 2009, nursery sales have increased by 3.5% to reach \$658 million. The total sales of nursery products were represented by Ontario (46.8%), British Columbia (29.9%) and Quebec (11.8%). Resale activities of nursery products, for example, the sale of products not grown on site, represented 24.2% of total sales. Nursery products were principally sold to landscape contractors (24.5%), garden centres (22.4%), mass market chain stores (14.4%) as well as direct sales (9.9%).

The survey provides information on nursery plants produced in the field and in containers. The different categories of cultivated plants appear here in decreasing order of importance in terms of volume: tree seedlings, fruit-bearing plants and shrubs, conifers, perennials and deciduous shrubs (including rose bushes). Tree seedlings produced in both greenhouses and nurseries reached 387 million trees.

In 2009, total costs for producers of nursery operators increased by 13.3% reaching \$579 million. Labour costs were estimated at \$218 million and represented 37.6% of total operating costs. In 2009, nurseries employed 14,260 seasonal and permanent workers, of this total 71.5% were seasonal workers.

In Canada, nearly 200 farms were involved in sod cultivation. The total sod area increased by 6.0% to 23,933 hectares. A total of 9,834 hectares of sod were sold in 2009. Alberta, Ontario and Quebec are among the main sod-producing provinces. In 2009, total sales of sod, including resale activities, rose to \$151 million which is an increase of 13.9% compared to 2008.

In 2009, costs for sod producers increased by 8.0% reaching \$114 million. The principal expenditure was other operating costs which amounted to \$66.0 million. This estimate included expenditures for fertilizer, pesticides, property taxes, interest, insurance, repairs, fuel, and electricity. Labour costs totalled \$43.3 million. The sod sector employed 1,835 workers, of whom three quarters were seasonal workers.

Related products

Selected publications from Statistics Canada

21-010-X	Net Farm Income - Agriculture Economic Statistics
21-011-X	Farm Cash Receipts - Agriculture Economic Statistics
21-206-X	Statistics on Income of Farm Operators
22-003-X	Fruit and Vegetable Production
22-008-U	Canadian Potato Production - Updates
23-221-X	Production and Value of Honey and Maple Products

Selected CANSIM tables from Statistics Canada

001-0006	Production and value of greenhouse vegetables, annual
001-0046	Estimates of greenhouse total area and months of operation, annual
001-0047	Estimates of specialized greenhouse operations, greenhouse area, and months of operation, annual
001-0048	Production and sale of greenhouse flowers and plants by category, annual
001-0049	Production of potted plants, cut flowers, cuttings, by variety and tree seedlings, annual
001-0050	Channels of distribution for horticulture product sales and resales, annual
001-0051	Total value of greenhouse products, annual
001-0052	Greenhouse producers' operating expenses, annual
001-0053	Specialized greenhouse producers' operating expenses, annual
001-0054	Total greenhouse, sod and nursery employees, annual
001-0055	Total specialized greenhouse employees, annual
001-0056	Estimates of nursery area, annual
001-0057	Nursery tree and plant production, annual
001-0058	Nursery stock sales and resales, annual
001-0059	Channels of distribution for nursery product sales and resales, annual

001-0000 Estimates of sou area, sales and resales, annua	001-0060	Estimates of sod area	, sales and resales, annua
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001-0061 Nursery and sod producers' operating expenses, annual

Selected surveys from Statistics Canada

3416 Annual Greenhouse, Sod and Nursery Survey

Statistical tables

Table 1
Greenhouse total area and months of operation

	Total				Area					Total
	greenhouses •	Total greenh	nouse area	Glas	s	Rigid pl	astic ¹	Poly-	film	months of operation
	number	square feet	square metres	square feet	square metres	square feet	square metres	square feet	square metres	number
2008										
Newfoundland and Labrador	50	714,325	66,363	x	X	x	X	628,400	58,380	320
Prince Edward Island	15	270,950	25,172	х	X	х	X	252,300	23,439	84
Nova Scotia	105	2,078,500	193,099	F	F	41,700	3,874	1,411,700	131,151	675
New Brunswick	75	1,744,025	162,025	х	X	X	X	1,698,300	157,777	465
Quebec	740	26,936,100	2,502,444	3,168,100	294,326	1,886,000	175,215	21,882,000	2,032,903	5,240
Ontario	1,190	135,675,700	12,604,680	35,275,000	3,277,153	16,882,000	1,568,388	83,518,700	7,759,138	10,522
Manitoba	125	3,275,100	304,267	1,900 €	177 ⊑	F	F	2,972,300	276,136	750
Saskatchewan	145	2,237,350	207,857	78,000	7,246	222,350	20,657	1,937,000	179,953	825
Alberta	335	10,419,000	967,956	820,350	76,213	1,221,250	113,458	8,377,400	778,286	2,400
British Columbia	515	51,755,600	4,808,251	36,436,800	3,385,088	2,300,000	213,677	13,018,800	1,209,486	4,500
Canada	3,295	235,106,650	21,842,113	76,440,550	7,101,556	22,969,200	2,133,908	135,696,900	12,606,649	25,781
2009										
Newfoundland and Labrador	50	743,150	69,041	F	F	70,150	6,517	665,220	61,801	330
Prince Edward Island	15	322,780	29,987	X	x	F	F	258,910 E	24,054E	99
Nova Scotia	100	2,283,490	212,143	F	F	F	F	1,516,440	140,882	655
New Brunswick	70	1,844,630	171,372	F	F	9,020 €	838 E	1,804,390	167,633	430
Quebec	730	28,744,110	2,670,414	4,084,150	379,430	2,596,780	241,249	22,063,180	2,049,736	5,060
Ontario	1,250	143,205,450	13,304,216	39,580,130	3,677,113	10,434,490	969,395	93,190,830	8,657,708	10,310
Manitoba	115	4,382,620 E	407,159 E	х	X	F	F	F	F	810
Saskatchewan	145	2,117,000	196,676	F	F	195,000	18,116	1,850,000	171,871	865
Alberta	335	10,973,100	1,019,434	676,660	62,864	380,090	35,312	9,916,350	921,259	2,460
British Columbia	495	52,882,940	4,912,984	38,072,760	3,537,074	F	F	12,610,410	1,171,545	4,060
Canada	3,305	247,499,270	22,993,425	83,191,630	7,728,752	16,268,990	1,511,438	148,038,650	13,753,235	25,079

^{1.} Includes all other types of enclosed protection used for growing plants, such as rigid insulation, mine shafts, barns and shelters. **Note(s):** Includes greenhouse vegetables and greenhouse flowers.

Table 2
Specialized greenhouse vegetable and fruit producers' area

	Total				Area					Total
	greenhouses	Total greenh	ouse area	Glas	S	Rigid p	lastic 1	Poly-	film	months of operation
	number	square feet	square metres	square feet	square metres	square feet	square metres	square feet	square metres	number
2008										
Atlantic provinces	45	F	F	x	X	31,000	2,880	F	F	310
Quebec	170	6,533,500	606,982	F	F	F	F	4,346,660	403,818	1,320
Ontario	215	79,476,204	7,383,578	18,710,317	1,738,245	10,869,200	1,009,781	49,896,687	4,635,552	2,225
Prairie provinces	95	3,773,700	350,588	74,500 E	6,921 E	F	F	3,228,300	299,919	825
British Columbia	105	27,825,300	2,585,054	25,499,500	2,368,980	543,400	50,483	F	F	900
Canada	630	118,121,104	10,973,805	46,222,387	4,294,198	12,284,770	1,141,292	59,613,947	5,538,315	5,580
2009										
Atlantic provinces	30	472,130 E	43,862 E	F	F	x	X	333,460 €	30,979 €	199
Quebec	190	8,014,680	744,588	F	F	F	F	4,578,950	425,398	1,487
Ontario	240	81,411,390	7,563,362	23,067,610	2,143,050	6,938,130	644,573	51,405,650	4,775,739	2,840
Prairie provinces	80	4,521,950	420,103	x	x	F	F	4,345,160	403,678	730
British Columbia	105	28,256,455	2,625,109	26,198,920	2,433,958	F	F	1,894,495 □	176,004 €	920
Canada	645	122,676,605	11,397,025	51,689,370	4,802,098	8,429,520	783,128	62,557,715	5,811,799	6,176

^{1.} Includes all other types of enclosed protection used for growing plants, such as rigid insulation, mine shafts, barns and shelters.

Table 3-1 Area, production and value — Greenhouse tomatoes

	Area		Production	ı	Farm gate value
<u>.</u>	square feet	square metres	pounds	kilograms	dollars
2008					
Newfoundland and Labrador	18,550 ^E	1,723 ^E	F	F	F
Prince Edward Island	X	X	X	X	X
Nova Scotia	F	F	F	F	F
New Brunswick	F	F	F	F	F
Quebec	5,844,600 r	542,981 r	46,255,600 Er	20,981,187 Er	60,465,800 E
Ontario	32,501,000	3,019,440	300,903,000	136,487,305	216,579,000
Manitoba	59,500	5,528	F	F	F
Saskatchewan	54,200 Er	5,035 Er	173,100 Er	78,517 Er	373,700 r
Alberta	920,000	85,471	8,870,500	4,023,591	8,188,700
British Columbia	11,849,700	1,100,873	118,481,250	53,742,191	100,442,300
Canada	51,931,400 r	4,824,583	480,228,250 r	217,827,870 r	392,265,700 r
2009					
Newfoundland and Labrador	16,920	1,572	13,300 E	6,033 €	16,590 □
Prince Edward Island	F	-,, F	F	F	F
Nova Scotia	F	F	F	F	F
New Brunswick	32,800	3,047	124.000 €	56,245 E	145,000 ₽
Quebec	5,540,120	514.694	45.141.380 €	20,475,786 €	55.669.850 ₽
Ontario	34,072,190	3,165,409	313,943,770	142,402,499	241,304,510
Manitoba	45,190	4,198	185,120	83,969	330,350
Saskatchewan	F	.,F	F	F	F
Alberta	1,000,000	92,903	10.809.225	4,902,982	10,232,050
British Columbia	12,150,690 €	1,128,836 €	132,268,190 E	59,995,842 E	120,644,150
Canada	53,510,860	4,971,319	507,497,465	230,196,978	434,018,490

Table 3-2 Area, production and value — Greenhouse cucumbers

-	Area		Production	Farm gate value
	square feet	square metres	dozens	dollars
2008				
Newfoundland and Labrador	X	X	X	X
Prince Edward Island	X	X	ž	ž
Nova Scotia	ļ.	F F	F	F F
New Brunswick Quebec	1,119,700 r	104,023 r	770 400 r	2 425 600 5
Ontario	23,387,000	2,172,722	370,400 ^r 22,736,000	3,135,600 ^r 150,658,000
Manitoba	23,367,000 F	2,172,722 F	22,730,000 F	130,038,000 F
Saskatchewan	; F	; F	, F	, F
Alberta	2,032,350 r	188,811 r	6,435,500 r	18,621,700 r
British Columbia	4,795,000	445,470	4,975,500	40,446,240
Canada	31,515,910 r	2,927,923 r	34,658,730 r	214,232,530 r
2009				
Newfoundland and Labrador	1,430 €	133 E	170 E	2,240 E
Prince Edward Island	X	X	X	×
Nova Scotia	F	F	F	F
New Brunswick	F	F	F	F
Quebec	746,030	69,308	205,010 ^E	1,853,400
Ontario	24,420,340	2,268,723	23,651,280	163,240,743
Manitoba	7,220	67 <u>1</u>	3,660	36,14 <u>0</u> E
Saskatchewan	F	F	F	F
Alberta	1,700,000	157,935	1,800,000	15,500,000
British Columbia Canada	4,339,890	403,189	74 0E9 40E	44,045,090
Callaua	31,487,320	2,925,266	31,058,405	226,627,223

Table 3-3 Area, production and value — Greenhouse lettuce

	Area		Production	Farm gate value
	square feet	square metres	heads	dollars
2008				
Newfoundland and Labrador	X	X	X	X
Prince Edward Island	Х	X	X	X
Nova Scotia	13,300	1,236	3,400	13,400
New Brunswick	F	F	F	· F
Quebec	1,229,400 E	114,215 ^E	F	F
Ontario	263,000 E	24,433 E	X	X
Manitoba	0	0	0	0
Saskatchewan	Ě	Ě	Ě	Ě
Alberta	F	F	F	F
British Columbia	F	F	F	F
Canada	1,673,096 Er	155,436 Er	18,540,420	20,052,775
2009				
Newfoundland and Labrador	X	X	x	X
Prince Edward Island	Ë	Ë	Ë	Ë
Nova Scotia	19,360 E	1,799 E	F	F
New Brunswick	X	x	×	×
Quebec	Ê	Ê	Ê	Ê
Ontario	308,940 E	28,701 E	F	4,021,740 E
Manitoba	4,500 E	418 E	F	.,02., F
Saskatchewan	1,000 F	F	F	Y
Alberta	F	F	F	Ê
British Columbia	F	F	F	F
Canada	1,975,73 ⁰	183,551	20,051,570 ^E	21,993,260

Table 3-4 Area, production and value — Greenhouse peppers

	Area		Production		Farm gate value
	square feet	square metres	pounds	kilograms	dollars
2008					
Newfoundland and Labrador	0	0	0	0	0
Prince Edward Island	X	X	X	X	X
Nova Scotia	20,000 €	1,858 E	F	F	19,900 E
New Brunswick	F	F	F	F	F
Quebec	F	F	F	F	F
Ontario	22,328,000	2,074,338	116,872,000	53,012,247	149,563,000
Manitoba	F	F	F	, F	F
Saskatchewan	F	F	F	F	×
Alberta	682,200	63,378	3,391,800	1,538,495	5.744.450
British Columbia	13,200,000	1,226,320	62,747,500	28,461,787	80,128,250
Canada	36,309,090	3,373,223	183,230,490	83,111,952	235,807,000
2009					
Newfoundland and Labrador	2,740 ^E	255 E	6,720 E	3,048 E	F
Prince Edward Island	_,o	X	x	x	X
Nova Scotia	8,050 E	748 E	4,520 E	2,050 E	F
New Brunswick	3,000 €	279 E	F.	_,F	F
Quebec	F	F	F	F	F
Ontario	22,885,600	2,126,141	122,348,220	55,496,219	139,025,390
Manitoba	4,120 E	383 E	5,290	2,400	7,960 €
Saskatchewan	4,120 F	F	5,255 F	<u> </u>	7,000 F
Alberta	900,000	83,613	4,850,000	2,199,923	6,500,000
British Columbia	13,400,000	1,244,900	69,700,000	31,615,388	84,200,000
Canada	37,278,160	3,463,253	197,150,380	89,425,908	230,191,380

Table 4
Vegetable and fruit sales distribution, 2009 1

	Domestic wholesalers	Mass market chain stores	Other greenhouses	Exported	Direct ² sales to the public	Other channels	Total sales
				dollars			
Newfoundland and Labrador	0	х	0	0	35,720	х	209,180 E
Prince Edward Island	Х	X	0	0	F	X	F
Nova Scotia	F	F	0	0	F	X	F
New Brunswick	0	0	0	0	X	X	231,520 E
Quebec	23,209,160	38,548,400 E	Х	9,959,195 E	3,762,345	X	76,645,340
Ontario	401,041,330	29,109,332	F	21,221,072 E	F	88,652,530	557,604,840
Manitoba	Х	X	Х	X	239,100 E	Х	557,810
Saskatchewan	0	X	Х	0	F	X	F
Alberta	21,382,050	F	Х	0	F	5,327,000 E	33,777,050
British Columbia	83,622,450	55,742,060	F	F	1,994,540 E	40,109,290 E	251,338,760
Canada	534,876,330	127,845,172	19,878,286 ^E	94,665,337 ^E	15,551,605	136,076,690	928,981,000

^{1.} Before sales tax.

Table 5
Specialized greenhouse flower and plant producers' area

	Total				Area					Total
	greenhouses -	Total green	house area	Gla	ass	Rigid p	lastic 1	Poly	-film	months of operation
	number	square feet	square metres	number						
2008										
Atlantic provinces	170	3,527,600	327,725	F	F	125,600	11,669	3,113,000	289,207	1,050
Quebec	440	15,022,680	1,395,652	F	F	F	F	12,524,100	1,163,526	3,005
Ontario	885	45,795,540	4,254,543	14,158,390	1,315,357	5,282,800	490,788	26,354,350	2,448,398	7,710
Prairie provinces	445	10,813,850	1,004,639	440,500	40,924	1,008,550	93,697	9,364,800	870,018	2,850
British Columbia	350	18,024,160	1,674,499	7,732,980	718,417	2,191,700	203,616	F	F	3,190
Canada	2,290	93,183,830	8,657,057	23,694,700	2,201,309	10,033,400	932,133	59,455,730	5,523,616	17,805
2009										
Atlantic provinces	170	3,905,640	362,846	F	F	F	F	3,391,610	315,091	1,068
Quebec	410	15,400,380	1,430,742	1,271,630 E	118,138 E	1,225,550	113,857	12,903,200	1,198,746	2,640
Ontario	830	46,384,820	4,309,289	13,281,990	1,233,937	3,387,250	314,686	29,715,580	2,760,667	6,560
Prairie provinces	420	11,675,230	1,084,664	377,360	35,058	625,720	58,131	10,672,150	991,475	2,828
British Columbia	300	17,696,675	1,644,074	6,819,540	633,556	F	F	8,995,265	835,687	2,540
Canada	2,130	95,062,745	8,831,614	22,047,590	2,048,287	7,337,350	681,662	65,677,805	6,101,665	15,636

^{1.} Includes all other types of enclosed protection used for growing plants, such as rigid insulation, mine shafts, barns and shelters.

Includes roadside stands and owner-operated retail outlets.

Table 6
Greenhouse flower and plant production and sales by category

	Total potted	plants	Total cuttin	gs 1	Total cut flo	wers
	Production	Sales	Production	Sales	Production	Sales
	pots	dollars	number	dollars	number	dollars
2008						
Newfoundland and Labrador	479,310	2,346,670	х	х	х	х
Prince Edward Island	78,050	325,000	0	0	Х	Х
Nova Scotia	[′] F	F	0	0	F	F
New Brunswick	2,607,545	10,680,600 E	Х	х	Х	х
Quebec	43,453,240	107,121,000	F	5,019,020	F	F
Ontario	113,157,924 r	326,819,900	23,818,730	16,305,990	154,923,520	75,792,100
Manitoba	F	14,478,950 E	F	F	X	Х
Saskatchewan	2,778,825 r	5,427,800	63,800 E	7,000	X	Х
Alberta	7,564,950	33,899,300	3,848,800 E	2,645,800	F	F
British Columbia	35,379,660	141,536,800	F	26,373,200	83,877,910 r	44,183,885
Canada	211,556,570 r	650,711,420	78,419,870	55,515,310	248,257,950 r	127,343,695
2009						
Newfoundland and Labrador	725,340	3,800,500	0	0	X	Х
Prince Edward Island	F	F	0	0	X	Х
Nova Scotia	F	6,668,070 E	0	0	X	Х
New Brunswick	F	8,512,550 E	F	F	F	F
Quebec	40,885,850	102,526,400	F	5,294,970	F	F
Ontario	121,383,710	351,820,870	28,459,370	X	174,969,607	90,942,860
Manitoba	F	F	F	F	F	F
Saskatchewan	1,770,720 ^E	6,780,000	F	X	0	0
Alberta	10,633,270	40,647,000	F	4,074,200 E	Х	X
British Columbia	32,515,820	130,400,850	33,268,190 E	29,993,910	77,396,855	40,813,540
Canada	218,237,005	673,848,890	96,039,840	63,484,590	260,787,956	138,050,000

	Bedding plants, ornan	nental	Bedding plants, veget	ables
	Production	Sales	Production	Sales
_	number	dollars	number	dollars
2008 Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	5,111,700 1,060,000 E F X 91,498,400 222,541,110 F 14,739,000 37,455,800	2,531,325 1,040,200 3,071,100 12,441,900 38,184,900 78,948,600 F 6,548,000 24,642,200	331,650 94,600 E F X F 302,935,286 4,042,000 2,454,000 3,518,200 37,193,100	236,500 E 68,800 E 519,700 1,641,500 14,500,000 26,032,550 1,809,100 903,000 2,882,850
Canada	78,837,000 618,832,810	40,432,250 223,121,675	520,933,036	11,278,400 59,882,400
2009 Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia Canada	4,122,520 F 6,786,880 F 80,274,670 153,531,240 F F 28,141,300 28,596,260 497,878,230	2,556,550 F 2,643,410 F 33,503,960 56,253,780 F 7,200,000 18,939,800 17,257,550 176,279,110	224,560 F F 148,000,000 348,965,260 5,011,710 E 2,758,800 E 4,913,500 F 563,847,715	201,290 50,670 E 489,000 F 13,173,410 44,833,320 2,360,000 1,100,000 F F 78,847,310

^{1.} Excludes tree seedling plant sales.

Table 7 Indoor potted plant production by variety

	Azaleas	Lilies	Poinsettias	s Africai violet:		nd en	Miniature roses	Orchids
				рс	ots			
2008 Newfoundland and Labrador Prince Edward Island Nova Scotia	x 0 x	x x F	x x F	· ())	x 6,100 0 0 F F	0 x	0 0 0
New Brunswick Quebec Ontario Manitoba Saskatchewan	x x 1,260,190 x F	F F 3,268,480 F F	211,270 687,150 4,237,344 F F) ! ! :	K		E F 6,447,710 500 E F	x x 3,385,500 x 0
Alberta British Columbia Canada	F F 1,305,510	63,800 ^E F 4,037,660	378,200 1,589,250 7,506,314	673,460		671,200	F F 7,031,080	0 F 3,960,325 ^E
2009 Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba	x 0 x 1,910 ^E F F	4,390 E 0 F 3,310 125,300 E 2,332,940 F F	F x F 691,250 3,815,860 F	((((((((((((((((((() 	50E 2,424,750 F 13,830		0 0 0 x x F x
Saskatchewan Alberta British Columbia Canada	x F x F	254,890 E 2,888,220	276,400 F 6,837,340) E	E DE 1,567,33	F 10,000 586,640	F X F	x 0 F 5,819,240 E
	Kalanchoe	Chrysantl	nemums (potted mums)	Primula	Cyclamen	Tulips	Indoor hanging pots	Other indoor pots
				рс	ots			
2008 Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba	x 0 x F F 3,090,210 x		 	F	x 0 x x F 1,247,970 F	x 0 x F F 2,126,650 x	F 17,800 205,800 E 645,000 E	x 0 F x F 28,235,770 F
Saskatchewan Alberta British Columbia Canada	F F 828,000 ^E 3,968,056		 1	F 30,750 997,700 ,756,030	x X F 1,561,335	x F 19,450 ^E 2,198,530	4,200 7,100 ^E F 1,024,850 ^E	F F 30,753,620
2009 Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia Canada	0 0 0 x x F 2,522,580 E x F F 745,050 E 3,289,890		x 0 x 4,630 ^E 56,460 471,380 F x F F 482,330	F F 17,000 E 352,630 E	0 0 x x 71,830 E 1,775,960 x F F F 2,053,905	x x F 500 E F 1,833,510 E x F x F 1,883,760 E	x 0 F F 113,910 407,370 F F F F 773,840	x 0 F 922,570 F F F 1,022,800 37,888,470

Note(s): Includes flowers grown, or given some cultural treatment, and sold.

Table 8
Outdoor potted plant production by variety

	Begonias	Chrysanthemums	Geraniums	Impatiens	Petunias	Hosta
			pots			
2008						
Newfoundland and Labrador Prince Edward Island	90,800 2,300	F 3,500 ^E	42,560 24,700	44,100 ^E 3,500	46,825	14,100 E
Nova Scotia	2,300 F	3,500 ^L	24,700 F	3,500 F	2,880 F	3,890 5,900 ^E
New Brunswick	95,660	326,950	F	144,300	143,250	F
Quebec	811,100	695,500	5,162,750	6,416,900 E	F	98,000
Ontario Manitoba	2,812,180 126,800 ^E	6,288,230 F	F F	2,051,770 F	1,859,700	129,310 38,000 ^E
Saskatchewan	62.000	, F	239.000	52,500	100,000	12.500
Alberta	291,900	F	921,250	76,500	947,700	13,500
British Columbia Canada	1,287,700 5,672,040	1,314,100 ^E 9,642,980	5,417,000 23,399,320 r	1,031,270 10,006,840	1,305,000 7,252,805	F 432,260
2009	, ,	. ,	, ,	, ,		,
Newfoundland and Labrador	51,450	F	35,410	38,380 E	37,080	
Prince Edward Island	F	<u>F</u>	F	x	Χ	
Nova Scotia New Brunswick	74,000 62,460	F	F	F F	98,490 E	·
Quebec	1,360,070 ^E	598,800 E	2,810,390	F	F	
Ontario	1,324,260 _	2,427,490	6,726,990	1,422,490	2,013,130	
Manitoba Saskatchewan	175,870 ^E 56.000 ^E	14,520 ^E F	F 195.000 ^E	F F	F 123.000	
Alberta	284,350	475,000	750,000	80,000	915,000	
British Columbia	1,119,350	390,590 €	4,903,840	1,166,610	1,240,200	
Canada	4,524,500	4,291,420	17,282,120	9,560,920	7,618,930	
	Herbaceous	Argyranthemum	Outdoor		other	Total ¹
	perennials	Argyrantilemum	hanging		door	potted
			pots		pots	plants
			pots			
2008 Newfoundland and Labrador			111,110	42	,120 ^E	479,310
Prince Edward Island			18,900	42	, 120 - X	78,050
Nova Scotia			F		F	F
New Brunswick			186,700		,900	2,607,545
Quebec Ontario			1,753,400 5,359,160	21,991 15,528		43,453,240 113,157,924 r
Manitoba			F	.0,020	F	F
Saskatchewan		••	137,000	0.000	F	2,778,825 r
Alberta British Columbia			542,500 1,285,450	3,329 14,200		7,564,950 35,379,660
Canada	 	 	10,079,820	60,450		211,556,570 r
2009	04.000.5	= 400			_	======
Newfoundland and Labrador Prince Edward Island	61,970 ^E x	5,190 x	115,430 F		F x	725,340 F
Nova Scotia	52,710	Ê	F		Ê	F
New Brunswick	F	F	216,070		F	F
Quebec Ontario	3,778,390 ^E 1,512,200	64,510 108,480	1,580,510 5,155,620	18,504 16,088		40,885,850 121,383,710
Manitoba	1,512,200 F	29,280 E		10,088	,090 F	121,303,710 F
Saskatchewan	F	6,200	F		F	1,770,720 E
Alberta	766,860	48,270	400,000	6,298		10,633,270
British Columbia Canada	F 8,079,610	148,980 440,870	989,980 9,316,610	13,023 58,520		32,515,820 218,237,005
	0,013,010	440,070	3,310,010	30,320	,000	£10,237,003

^{1.} Includes both indoor and outdoor plants (Tables 7 and 8).

Table 9 Cuttings, tree seedlings and other propagating material

			Cuttings				Tree
	Chysanthemums	Poinsettias	Geraniums	Impatiens	Other cuttings	Total cuttings	seedlings greenhouse production
				number			
2008							
Newfoundland and Labrador	0	0	X	Х	0	X	0
Prince Edward Island	0	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0	Х
New Brunswick	X	Х	X	X	X	Х	X
Quebec	х	0	F	Х	F	F	X
Ontario	х	Х	4,142,260	4,044,030	13,753,850	23,818,730	49,905,520
Manitoba	0	0	3,500 €	Х	F	F	X
Saskatchewan	0	0	3,300 €	F	F	63,800 E	X
Alberta	Х	0	83,800 E	F	3,749,000 E	3,848,800 E	39,393,900
British Columbia	Х	X	F	F	18,710,000	F	70,249,700
Canada	F	4,199,270	F	5,884,930	49,928,800	78,419,870	206,100,620
2009							
Newfoundland and Labrador	0	0	0	0	0	0	C
Prince Edward Island	0	0	0	0	0	0	C
Nova Scotia	0	0	0	0	0	0	F
New Brunswick	х	Х	Х	Х	F	F	>
Quebec	х	Х	3,577,580 E	F	F	F	F
Ontario	X	F	F	F	16,890,320 E	28,459,370	33,180,630
Manitoba	0	0	F	F	F	F	(
Saskatchewan	х	0	Х	0	X	F)
Alberta	0	0	F	F	F	F_	27,980,540
British Columbia	X	X	F	F	F	33,268,190 E	F
Canada	F	6,368,370 ⊟	14,625,320	5,928,630	60,154,980	96,039,840	177,349,420

Table 10
Greenhouse cut flower production by variety

			Ster	ms			
	Alstroemeria	Chrysanthemums	Daffodils	Freesia	Gerberas	Iris	Roses
			numl	ber			
2008							
Newfoundland and Labrador	0	0	x 0	0	0	0	0
Prince Edward Island Nova Scotia	0 X	U X	0	U X	U X	0	0
New Brunswick	X	x	X	x	x	X	0
Quebec	Х	Х	0	0	Х	х	X
Ontario	8,029,700	10,923,400	X	X	33,248,630	X	8,407,560
Manitoba Saskatchewan	0	0	х 0	0	0	0	0
Alberta	X	0	0	0	0	X	0
British Columbia	Ê	7,527,930 Er	ř	x	ř	Ê	ř
Canada	14,680,490 r	18,576,070 r	F	F	58,261,375 r	5,798,480	15,618,405
2009 Newfoundland and Labrador	0	0	v	0	0	0	0
Prince Edward Island	0	0	x 0	0	0	0	0
Nova Scotia	X	X	ŏ	ő	X	ő	ő
New Brunswick	F	F	X	0	X	X	х
Quebec	X _	0	0	0	X	X	X
Ontario	14,450,118 ^E	11,774,432 0	X	x 0	36,038,924 E	x 0	9,551,060 ¹ 0
Manitoba Saskatchewan	0	0	х 0	0	0	0	0
Alberta	0	0	Ö	Ö	ő	ő	0
British Columbia	F	F	F	x	F	F	х
Canada	21,731,968	18,745,142	F	F	62,167,784	F	12,756,580
			Ster	ms			
	Snapdragons	Tulips	Lilies	Lisian	thus	Other	Total
						cut flowers	cut flowers
			num	ber			
2008							
Newfoundland and Labrador	0	Х	0		0	0	X
Prince Edward Island Nova Scotia	0 x	х 0	0 x		0 x	0 F	x F
New Brunswick	X	X	X		X	X	X
Quebec	x	X	F		X	F	F
Ontario	12,582,500	51,940,320	F			,433,700	154,923,520
Manitoba Saskatchewan	x 0	х 0	X 0		0	X X	X
Alberta	X	X	×		X	X	X F
British Columbia	Ê	19,234,075 Er	3,911,880 Er		X	Ê	83,877,910
Canada	14,915,435	73,637,425 r	F	456		, 276,210 r	248,257,950 r
2009 Newfoundland and Labrador	0	x	0		0	0	х
Prince Edward Island	ő	x	Ő		Ö	ő	x
Nova Scotia	<u>x</u>	0	x		x	x	X
New Brunswick	F	X	X		0	F F	F F
Quebec Ontario	X F	x 59,048,784 ^E	x 10,035,509		x F 12	,725,115	174,969,607
Manitoba	X	39,046,764 = X	F		0	,. <u>-</u> 0,115 F	174,909,007 F
Saskatchewan	0	0	0		0	0	0
Alberta	X	0	X		0	X	X X
British Columbia	F F	21,158,840 E	F	EF4		,928,600	77,396,855
Canada	۲	84,390,824	12,029,289	551	,624 ^E 20	,088,995	260,787,956

Note(s): Includes flowers grown, or given some cultural treatment, and sold.

Table 11 Channels of distribution for flower and plant sales and resales 1

	Retail florists	Domestic wholesalers	Mass market chain stores	Other greenhouses	Exported	Direct ² sales to the public	Government and public agencies	Other channels	Total sales
_					dollars				
2008									
Newfoundland and Labrador	390,660 E	X	1,416,200	X	0	3,653,300	F	X	6,010,280
Prince Edward Island	X	0	Х	X	0	1,804,000	0	X	2,426,400
Nova Scotia	F	F	F	X	X	4,131,820	62,330 E	F	F
New Brunswick	3,887,500	X	2,824,600	X	X	6,102,000	209,270	X	32,160,660
Quebec	39,906,000	20,005,600	48,550,800	4,570,000	15,913,150	46,343,700	3,930,900	6,310,300 E	185,530,450
Ontario	60,811,501 r	173,566,677 r	173,378,562 r	44,283,406 r	71,508,308 r	93,941,811 r	5,539,805 r	14,125,858 r	637,155,928
Manitoba	F	F	F	1,196,300	F	10,534,600	376,050 E	F	33,484,800
Saskatchewan	951,000	F	F	973,000	X	7,315,000	489,000	F	17,954,000
Alberta	5,204,200 r	2,256,300 r	9,764,200 r	X	X	46,851,700 r	1,794,600 Er	6,526,000 Er	74,958,800
British Columbia	37,501,976 r	56,483,988 r	83,372,013 r	19,164,289 r	36,093,003 r	23,318,515 r	7,539,274 r	17,143,640	280,616,699
Canada	157,982,737 r	255,900,775 r	346,128,025 r	73,919,355 r	141,265,861 r	243,996,446 r	19,969,229 r	48,394,838 r	1,287,557,267
2009									
Newfoundland and Labrador	466,230 E	X	F	31,770 €	0	4,532,905	F	F	8,856,720
Prince Edward Island	X	X	X	0	0	F	F	X	4,382,980
Nova Scotia	F	F	F	F	0	11,886,840 E	151,070 €	F	22,395,120
New Brunswick	F	F	F	F	х	5,819,460	263,610	F	39,522,780
Quebec	32,845,740	18,610,460	53,032,250	16,146,460 E	F	42,553,950	3,642,420	2,829,310	184,807,050
Ontario	75,543,580	178,274,900	222,990,820 E	65,410,470	101,067,387	71,338,133	3,878,350	23,932,520	742,436,160
Manitoba	F	F	F	1,328,300 €	F	18,352,980	F	F	49,086,090
Saskatchewan	F	х	F	925,000 €	х	7,530,000	F	F	18,730,000
Alberta	8,777,200	2,500,000	14,178,900 E	F	х	39,241,300	652,200 E	10,000,000 E	82,351,700
British Columbia	38,109,290	52,192,660	81,837,440	30,107,760 €	33,022,520 €	23,971,530	2,670,230	9,873,130	271,784,560
Canada	170,366,940	256,586,160	407,923,885	122,624,390	173.001.597	227,405,098	14,604,620	51,840,470	1,424,353,160

Table 12 Total value of greenhouse products

		2008		2009					
	Total ¹	Total ¹ Total		Total flower and	plant sales	Total	Total		
	flower and plant sales	fruit and vegetable sales	greenhouse sales	sales	resales	fruit and vegetable sales	greenhouse sales		
				dollars					
Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	6,010,280 2,426,400 F 32,160,660 185,530,450 637,155,928 r 33,484,800 E 17,954,000 74,958,800 r 280,616,699 r 1,287,557,267 r	F 256,000 F F F 84,625,150 F 529,963,800 F 821,900 r 33,698,650 r 223,541,765 880,584,015 r	6,200,280 2,682,400 23,976,250 32,524,660 270,155,600° 1,167,119,728° 33,890,550 18,775,900° 108,657,450° 504,158,464° 2,168,141,282°	6,560,930 4,382,980 E 10,605,830 E F 161,007,450 566,256,890 F 15,830,000 75,351,700 238,730,370 1,158,656,470	F 4,430,780 E 23,799,600 176,179,270 E F F 7,000,000 33,054,190 265,696,690	209,180 F F 231,520 ^E 76,645,340 557,604,840 557,810 F 33,777,050 251,338,760 928,981,000	9,065,900 4,838,370 29,551,230 39,754,300 261,452,390 1,300,041,000 49,643,900 19,735,000 116,128,750 523,123,320 2,353,334,160		

^{1.} Includes resale value.

Before sales tax.
 Includes roadside stands and owner-operated retail outlets.

Table 13 Total greenhouse producers' operating expenses

	Plant material 1	Plant material ¹	Gross ²	Electricity 3	Natural
	purchases for growing on	purchases for resale	yearly payroll		gas
			dollars		
2008					
Newfoundland and Labrador Prince Edward Island Nova Scotia	1,486,450 624,650 F	1,133,680 x F	2,202,200 762,900 F	155,600 ^E 132,200 ^E 533,560 ^E	0 0 x
New Brunswick	7,478,400	2,338,750	11,156,300	573,250	X
Quebec Ontario	29,325,900 141,866,000	15,275,300 40,015,310	71,748,430 261,146,000	9,046,990 26,416,000	9,829,492 r 115,347,760 r
Manitoba	6,667,800	F	12,497,200 E	510,700	1,584,500
Saskatchewan	4,110,000	496,000	5,917,150	456,000	950,000
Alberta British Columbia	15,427,700 78,153,000	4,542,100 27,500,700	33,617,700 132,993,900	3,363,400 11,253,600	10,457,201 36,455,800
Canada	287,783,900	95,524,840	540,619,780	52,441,300	174,684,753
2009		_			
Newfoundland and Labrador Prince Edward Island	1,282,370	F x	2,629,860 1,103,010 ^E	220,330 F	0
Nova Scotia	1,364,350	Ê	1,103,010 = F	667,370 E	X
New Brunswick	F	1,500,000	12,317,670 E	633,702 €	F
Quebec Ontario	28,218,780	14,318,110	72,853,000	7,231,500	10,644,610
Manitoba	150,262,180 9,202,330 ^E	30,054,270 F	293,508,420 F	34,677,170 620,600	117,841,080 2,311,220
Saskatchewan	4,720,000	F	5,385,650	500,000	900,000
Alberta	12,604,200	4,416,30 <u>0</u> E	36,779,500	4,397,800	8,418,000
British Columbia Canada	78,584,160 293,923,630	F 78,998,180	128,161,970 578,332,560	12,555,350 61,636,242	40,070,070 180,267,840
Canada	230,320,000	70,000,100	370,332,300	01,000,242	100,207,040
	Heating	Other	Other	Other	Total
	oil	types of fuel	crop expenses	operating expenses	operating expenses
			dollars		
2008					
Newfoundland and Labrador	670,750	25,100	695,400	960,550	7,329,730
Prince Edward Island Nova Scotia	225,500 752,450	X F	224,800 F	468,000 F	2,521,850
New Brunswick	732,430 F	603,000	6,885,825	6,627,990	36,810,915
Quebec	13,870,797 r	5,382,706 r	25,074,345	52,809,600	232,363,560
Ontario	17,358,800	17,717,000 368,800 ^E	114,647,000	248,396,000 F	982,909,870
Manitoba Saskatchewan	89,100 F	340.000 E	3,122,750 1,981,000	6,411,000 ^E 2,410,000	32,693,850 ¹ 16,949,150
Alberta	0	934,209 r	9,559,600	20,478,000	98,379,910
British Columbia	722,400 Er	13,000,000	85,028,200	131,378,585	515,697,085
Canada	35,086,197 r	40,142,915 r	249,577,520	479,916,025	1,954,988,130
2009 Newfoundland and Labrador	600,980	F	988,230	1,117,950	8,453,670
Prince Edward Island	F	<u>F</u>	F	F	F
Nova Scotia New Brunswick	673,180 719,980 ^E	F x	1,662,280	3,797,958 ^E	20,973,628
Quebec	9,088,630	5,751,940	24,732,400	64,467,140	237,306,110
Ontario	25,855,970	17,617,490	145,487,380	318,000,000	1,133,303,960
Manitoba	113,900	F F	F	9,962,670 E	46,354,440
			2,500,000	3,300,000	19,086,150
Saskatchewan	F 0	•			
Marinoba Saskatchewan Alberta British Columbia	F 0 226,970	563,560 8,303,840	14,842,200 71,883,340	26,185,500 153,053,170	108,207,060 513,939,870

^{1.} Includes value of flowers, plants, cuttings, seedlings, seeds and bulbs purchased (before sales tax).

Includes seasonal and permanent labour.
 Electricity expenses for lighting, airflow fans and heating.

Table 14 Specialized greenhouse vegetable producers' operating expenses

	Plant ¹ material purchases for growing on	Plant ¹ material purchases for resale	Gross ² yearly payroll	Electricity ³	Fuel	Other crop expenses	Other operating expenses	Total operating expenses
				dolla	rs			
2008 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	F x x 2,999,200 x 51,090,200	x x x x x F	F 16,019,000 E 98,214,700 7,629,800 40,428,900 163,168,900	F F 11,212,700 3,289,900 3,717,800 24,261,895	F 8,437,700 ^E 94,634,616 5,948,100 26,766,350 136,297,006	7,851,100 ^E 52,817,000 2,654,000 26,174,600 89,847,600	F 19,684,600 E 111,845,900 8,893,150 64,524,600 205,621,030	F 59,152,570 ^E 399,938,456 31,454,000 176,189,250 670,984,721
2009 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	F 43,776,720 2,440,220 x 71,860,105	0 x 0 x x F	F 21,417,550 123,953,400 8,956,160 48,561,370 203,837,940	198,580 2,121,340 17,487,210 2,279,630 ^E 5,524,220 27,610,980	F 9,678,740 106,010,230 6,256,310 31,492,070 154,104,430	F 6,904,770 E 73,487,440 F 23,664,150 110,540,920	F 25,000,010 145,932,400 11,184,250 E 102,395,220 284,910,140	F 67,786,000 510,647,400 37,390,060 234,559,115 853,193,365

^{1.} Includes value of plants, seedlings, seeds and bulbs purchased (before sales tax).

Table 15 Specialized greenhouse flower and plant producers' operating expenses

	Plant ¹ material purchases for growing on	Plant ¹ material purchases for resale	Gross ² yearly payroll	Electricity ³	Fuel	Other crop expenses	Other operating expenses	Total operating expenses
				dollar	S			
2008 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	11,730,700	6,073,600 F	19,322,300	996,950	3,744,000	9,233,500	15,851,350 E	66,952,400
	23,363,575	12,735,500	45,575,940	3,869,100	16,023,750	13,104,500	24,567,400	139,239,765
	100,802,200	37,663,900	147,302,400	13,419,200	52,152,700	48,699,000	116,471,900	516,511,300
	21,019,750	6,315,250	41,945,500	3,289,950	8,521,700	11,480,650	19,735,100	112,307,900
	59,469,800	25,106,570	65,328,960	5,303,400	16,537,700	41,911,700	47,287,250	260,945,380
	216,386,025	87,894,820	319,475,100	26,878,600	96,979,850	124,429,350	223,913,000	1,095,956,745
Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	9,749,380 E	F	21,014,820	1,206,370	3,058,020	F	8,610,640 E	57,566,960
	22,393,940	13,284,500	39,838,040	3,933,140	13,186,920	12,946,860	28,826,140	134,409,540
	103,089,450	29,000,140	154,059,270	14,154,140	47,931,970	59,645,130	116,525,920	524,406,020
	22,758,680	6,979,110	47,857,300	2,875,280	9,113,700	14,087,190	26,487,170	130,158,430
	48,719,760	F	54,561,935	3,796,240	13,499,300	31,482,900	37,617,520	208,437,895
	206,711,210	72,788,140	317,331,365	25,965,170	86,789,910	127,325,660	218,067,390	1,054,978,845

^{1.} Includes value of flowers, plants, cuttings, seedlings, seeds and bulbs purchased (before sales tax).

^{2.} Includes seasonal and permanent labour.

^{3.} Electricity expenses for lighting, airflow fans and heating.

^{2.} Includes seasonal and permanent labour.

Electricity expenses for lighting, airflow fans and heating.
 Note(s): Excludes vegetable bedding plant producers.

Table 16 Labour - Total greenhouse employees

		2008			2009					
	Total gr	eenhouse employees		Total greenhouse employees						
	Seasonal ¹	Permanent ²	Total	Seasonal ¹	Permanent ²	Total				
		number								
Newfoundland and Labrador	250	50	300	260	50	310				
Prince Edward Island	70	10	80	130 E	15	145				
Nova Scotia	540	F	820	490	F	700				
New Brunswick	550	375	925	590	F	1,000				
Quebec	4,630	2,120	6,750	4,450	2,090	6,540				
Ontario	9,600	6,500	16,100	9,760	7,250	17,010				
Manitoba	825	225	1,050	1,110	270	1,380				
Saskatchewan	1,100	150	1,250	915	175	1,090				
Alberta	2,400	800	3,200	2,500	1,010	3,510				
British Columbia	3,920	3,350	7,270	3,720	3,160	6,880				
Canada	23,885	13,860	37,745	23,925	14,640	38,565				

Table 17 Labour - Specialized greenhouse producers

	Specialized greenho	ouse vegetable produc	cers	Specialized greenhou	se flower and plant pro	oducers
	Seasonal ¹	Permanent ²	Total	Seasonal ¹	Permanent ²	Total
			num	ber		
2008						
Atlantic provinces	140	F	190	1,100	600	1,700
Quebec	490	660 E	1,150	3,040	1,145	4,185
Ontario	2,750	2,240	4,990	6,275	3,910	10,185
Prairie provinces	275	220	495	3,750	920	4,670
British Columbia	1,090	870	1,960	1,995	1,610	3,605
Canada	4,745	4,040	8,785	16,160	8,185	24,345
2009						
Atlantic provinces	100	40 E	140	1,180	590 E	1,770
Quebec	610	770	1,380	2,850	990	3,840
Ontario	3,050	2,590	5,640	5,800	4,020	9,820
Prairie provinces	260	370	630	3,790	980	4,770
British Columbia	1,090	935	2,025	1,635	1,570	3,205
Canada	5,110	4,705	9,815	15,255	8,150	23,405

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

Seasonal employees who worked less than 8 months during the year.
 Permanent employees who worked more than 8 months during the year.
 Note(s): Including mixed operations (vegetables, flowers and plants).

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

Table 18 **Nursery area**

	Total nurseries	Total field	area	Total contai	ner area	Total nurse	ry area
	number	acres	hectares	acres	hectares	acres	hectares
2008							
Newfoundland and Labrador	10	0	0	F	F	F	F
Prince Edward Island	0	Ō	Ō	0	0	0	0
Nova Scotia	20	F	F	35	14	345 E	140 E
New Brunswick	15	170	69	25	10	195	79
Quebec	220	4,830	1,955	710	287	5,540	2,242
Ontario	460	21,000	8,498	1,880	761	22,880	9,259
Manitoba	35	800	324	120	49	920	372
Saskatchewan	30	F	F	50	20	F	F
Alberta	190	6,300	2,550	F	F	10,100	4,087
British Columbia	330	6,300	2,550	F	F	9,000	3,642
Canada	1,310	40,910	16,556	9,330	3,776	50,240	20,331
2009							
Newfoundland and Labrador	10	5 E	2 E	10 E	4 E	15	6
Prince Edward Island	0	0	0	0	0	0	0
Nova Scotia	20	F	F	30 E	12 ^E	350 E	142 E
New Brunswick	15	F	F	F	F	F	F
Quebec	225	4,870	1,971	910	368	5,780	2,339
Ontario	460	21,290	8,616	2,160	874	23,450	9,490
Manitoba	30	830	336	110	45	940	380
Saskatchewan	40	F	F	F	F	F	F
Alberta	170	5,090	2,060	3,280	1,327	8,370	3,387
British Columbia	325	6,350	2,570	2,450	991	8,800	3,561
Canada	1,295	41,864 ^E	16,942 ⊑	9,023 ⋿	3,651 ⊑	50,887	20,593

Table 19 Nursery tree and plant production (field and container)

	Coniferous trees	Fruit trees	Shade or ornamental trees	Coniferous evergreen shrubs	Evergreen broadleaf shrubs	Deciduous shrubs (including roses)	Vines	Perennials and annuals	Small fruit bushes	Nursery tree seedlings	Other trees and plants
						number					
2008											
Field grown	_		_	_		_					_
Atlantic provinces	<u>F</u>	Х	E	E	×	<u>F</u>	Х	x	x	x	0
Quebec	F	101,100 E		F	F	F	X	F	F	F	×
Ontario	768,630	711,940 E		F	F =		×	64,225 E	x	F	F
Prairie provinces	93,635 r	X	209,410 r	9,160 Er		108,710 r	F	E	E	631,500	2,500
British Columbia	1,962,580 Er	593,050 E		519,970 r	F	601,670 Er	9,385 Er	<u>F</u>	F = 1 = 2 = 2 = 2 = 2	F	F
Canada	3,585,755 r	1,437,700 r	F	918,680 r	615,445 r	1,117,600 r	1,506,505 Er	F	71,551,090 Er	5,047,400	1,629,600 E
Container grown											
Atlantic provinces	F	х	F	F	F	F	F	F	2.700	F	х
Quebec	24,256,000 E	80,300	68.170 E	F	F	327,900	F	842,700 E	F	x	F
Ontario	289,700	43,780	193,670	942,320	678,790	2,438,880	206,150	F	F	x	326,126
Prairie provinces	106,350 €	×	81,200 E	×	5,270	1,220,600	16,700 €	705,800	40,500	8,708,400	148,150
British Columbia	F	F	F	5,130,900 E	749,800	2,247,600	F	5,784,450	F	55,618,430 E	F
Canada	34,459,720	220,230	990,890	6,641,020	1,980,025	6,292,030	459,460	12,950,800	644,410	98,189,570 □	1,686,746
2009											
Field grown											
Atlantic provinces	F	F	F	F	F	F	x	F	F	х	0
Quebec	899.420 E	79.130 €	•	52,820	F	91.940E	Ê	F	16,414,150 E	Ê	534,450 E
Ontario	972.330 E	503.750	770.420	325.480	127,230	795.080	1.739.320 E	80.850 €	X	1,973,250	Х
Prairie provinces	145,200	85.240 E		7.010E	121,200 F	115.620	1,700,020 F	48,960 €	100.360 €	1,070,200 F	5.330 €
British Columbia	2,688,030 E	719,965 E		451,600 E	F	1,473,410 E	F	.0,000 F	F	F	F
Canada	4,708,050	1,394,525	F	837,130	542,680	2,484,790	1,742,860 €	F	49,878,480 ^E	4,768,300	552,550
Container grown	F	F	2.860 €	2.5505	F	F	2 200 E	F	F	F	
Atlantic provinces Quebec	20.893.270	F	2,860 E 85.450 E	2,550 E 256,179	559.265	518.130	3,200 ^E 78.085	1.099.660	F	9,115,850 E	X F
Ontario		F	85,450 - 188.660	256,179 976.900		3.050.340	78,085 242,110	1,099,660 F	23,230	9,115,850 F	F
	280,230 30,240	13,880	188,660	976,900 F	877,630 F	3,050,340 1,170,410 E	242,110	648,220	23,230 29,910	F	
Prairie provinces British Columbia	30,240 F	13,880 F	750.000	3.485.520	1,599,730	2.424.585	22,390 211.160 E	648,220 F	173,240 E	F	x 298.070 E
Canada	28,658,740	205,061	1,138,420	5,465,520 5,114,239	3,051,395	7,198,210	556,945	13,711,140	342,230	205,304,400 E	882,840
Callaua	20,038,740	203,061	1,138,420	5,114,239	3,001,395	1,198,210	550,945	13,711,140	342,230	200,304,400	002,840

Table 20 Nursery stock sales and resales 1

		2008			2009				
	Nursery stock sales	Nursery ² resales	Total sales	Nursery stock sales	Nursery ² resales	Total sales			
	dollars								
Newfoundland and Labrador	F	х	F	F	F	F			
Prince Edward Island	0	0	0	X	F	F			
Nova Scotia	3,749,830 €	F	F	F	F	6,890,680 E			
New Brunswick	5,620,650	F	6,455,150 E	F	F	F			
Quebec	61,200,000	F	76,971,080	63,036,340	14,511,770	77,548,110			
Ontario	219,000,000	65,000,000	284,000,000	226,788,570	81,021,710	307,810,280			
Manitoba	F	1,719,400	12,404,800 E	10,129,740	2,362,650 E	12,492,390			
Saskatchewan	4,840,370 r	1,014,000	5,854,370 r	6,266,400 E	, F	8,696,060			
Alberta	34,836,300	16,484,000	51,320,300	27,873,340	15,131,020	43,004,360			
British Columbia	153,211,430	38,791,400	192,002,830	155,352,820	41,583,450	196,936,270			
Canada	493,489,080 r	141.869.420	635,358,500 r	498,382,020	159.523.590	657,905,610			

Before sales tax.
 The process of buying trees, shrubs, plants, seedlings, cuttings, etc. and selling it within a short time period with minimal care or maintenance.

Table 21 Nursery sales distribution ¹

-	Direct ²	Fruit	Landscape	Garden	Mass
	sales to the public	growers	contractors	centres	market chain stores
			dollars		
2008 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	F F 20,490,000 15,091,500 12,230,800 67,149,190	F F 10,944,930 308,850 5,805,200 21,405,870	F 15,366,975 80,955,070 34,307,600 38,571,800 171,341,785	832,350 E 17,583,800 72,200,000 8,359,100 E 40,343,400 E 139,318,650	7,875,400 53,000,000 F 28,049,320 89,648,110
2009 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	5,266,270 E 12,141,130 20,919,310 16,997,280 9,542,110 64,866,100	F 1,929,100 9,257,950 909,420 E 6,596,500 E 19,701,610	F 16,182,860 78,446,520 27,614,570 37,584,825 160,997,711	F 22,070,820 78,138,690 7,339,380 39,470,380 147,665,534	7,866,380 61,865,050 458,780 E 24,700,160 94,890,370
	Other growers	Exported	Government and public agencies	Other channels	Total sales
			dollars		
2008 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	3,783,500 22,900,000 x 24,372,600 53,669,100	430,160 F 8,400,000 F 10,793,700 23,983,385	762,700 10,998,300 6,300,000 5,716,670 r 14,040,510 37,818,180 r	3,220,730 F 8,810,000 697,800 17,795,500 E 31,024,230 E	12,805,120 76,971,080 284,000,000 69,579,470 r 192,002,830 635,358,500 r
2009 Atlantic provinces Quebec Ontario Prairie provinces British Columbia Canada	F 4,404,240 22,519,530 2,309,530 15,200,220 44,439,730	0 F 15,272,670 1,506,670 8,040,165 ^E 27,187,975	9,734,190 8,960,740 2,976,010 F 49,922,840	F 850,920 ^E 12,429,820 F F 48,233,740	11,418,140 77,548,110 307,810,280 64,192,810 196,936,270 657,905,610

Before sales tax.
 Includes roadside stands and owner-operated retail outlets.

Table 22 Sod area, sales and resales

	Total sod	Total soc	l area	Sod area grov	vn for sale	Gross sales	3
	operations					Revenue from sod grown	Revenue from sod resale
	number	acres	hectares	acres	hectares	dollars	
2008							
Newfoundland and Labrador	15	460	186	230	93	2,200,800	0
Prince Edward Island	5	X	X	X	X	X	0
Nova Scotia	10	2,420	979	785	318	5,049,200	0
New Brunswick	5	720	291	250	101	1,123,125	X
Quebec	50	12,650	5,119	6,860	2,776	31,981,800	916,400
Ontario	60	25,000	10,117	8,900	3,602	47,072,500	1,007,600
Manitoba	10	1,000	405	200 E	81 ^E	F	0
Saskatchewan	5	X	X	X	X	x	0
Alberta	20	11,500	4,654	4,050	1,639	31,103,000	Х
British Columbia	15	1,400	567	970	393	8,270,000	0
Canada	195	55,770	22,569	22,515	9,111	130,301,975	2,190,000
2009							
Newfoundland and Labrador	20	740	299	480 E	194 ^E	x	F
Prince Edward Island	5	X	X	X	X	X	0
Nova Scotia	15	F	F	F	F	F	Х
New Brunswick	10	F	F	F	F	F	F
Quebec	50	11,230	4,545	6,000	2,428	28,627,010	837,440
Ontario	65	24,530	9,927	9,180	3,715	46,128,380	811,900
Manitoba	10	740	299	190	77	976,470	0
Saskatchewan	5	F	F	F	F	F	0
Alberta	20	16,290 E	6,592 E	5,980 E	2,420 €	43,452,510 E	F
British Columbia	15	1,220	494	840	340	8,710,000	X
Canada	215	59,140	23,933	24,300	9,834	141,604,860	9,306,340

Table 23 Nursery and sod producers' operating expenses

			Nursery						
	Plant material ¹	Plant material 1	Gross ²	Other	Total				
	purchases for	purchases for	yearly	operating	operating				
	growing on	resale	payroll	expenses	expenses				
			dollars						
2008			_		_				
Newfoundland and Labrador Prince Edward Island	12,500 0	6,750 0	F 0	F 0	F 0				
Nova Scotia	F	F	1,855,600 E	U F	U F				
New Brunswick	201.140	X	1,396,000	×	2.378.040				
Quebec	8,403,260	7,126,500	22,182,900	18,131,520	55,844,180				
Ontario	29,205,300	41,752,100	92,036,500	81,335,800	244,329,700				
Manitoba	1,225,100 €	1,213,200	3,797,750 E	F	11,038,900 E				
Saskatchewan	231,000 4,018,000	528,000 E	3,000,000 13,405,400	2,216,000 11,069,000	5,975,000				
Alberta British Columbia	22,770,400	7,824,500 11,195,700	60,867,300	57,004,000	36,316,900 151,837,400				
Canada	66,155,300	70,005,650	198,841,450	176,244,320	511,246,720				
2009	00,100,000	70,000,000	130,041,430	110,244,020	311,240,720				
Newfoundland and Labrador	х	x	F	29,970 E	F				
Prince Edward Island	x	x	F	0	F				
Nova Scotia	F	F	2,100,130 €	F F	4,781,500 E				
New Brunswick Quebec	F 13,274,400	F 7,035,670	F 26,093,130	20,712,945	67,116,145				
Ontario	28,044,730	46,037,980	102,078,940	95,398,080	271,559,730				
Manitoba	1,269,520	1,356,130	4,974,510	5,455,630	13,055,790				
Saskatchewan	F	F	4,500,000	F	10,732,800 E				
Alberta	4,228,120	7,927,460	14,531,630	9,225,840	35,913,050				
British Columbia	20,943,920	18,766,420	60,837,050	69,773,225	170,320,615				
Canada	69,330,640	83,156,320	217,683,420	209,116,040	579,286,420				
			Sod						
	Purchases	(Gross ²	Other	Total				
	for		vearly	operating	operating				
	resale		ayroll	expenses	expenses				
	dollars								
2008									
Newfoundland and Labrador	х	91:	3,300	x	2,676,900				
Prince Edward Island	0		X	X	х				
Nova Scotia	х		8,000	X	5,415,800				
New Brunswick	X		5,600	X	998,300				
Quebec Ontario	496,500 682,400	7,969 15,310	5,800 0.780	12,351,850 30,246,830	20,814,150 46,240,010				
Manitoba	002,400		0.000 E	50,240,030 F	40,240,010 X				
Saskatchewan	0		X	x	X				
Alberta	x		9,700	X	22,425,500				
British Columbia	0		0,700	2,782,000	4,462,700				
Canada	2,026,300	36,92	3,380	66,927,680	105,877,360				
2009 Newfoundland and Labrador	x	1 00	6,350	X	2,409,660				
Prince Edward Island	X 0	1,000	0,350 X	X X	2,409,000 X				
Nova Scotia	X		Ê	Ê	Ê				
New Brunswick	F		F	F	F.				
Quebec	608,450		7,930	14,008,680	23,035,060				
Ontario	597,460	16,60		23,684,640	40,887,160				
Manitoba Saskatahawan	0	10	7,060 E	409,410 E	516,470				
Saskatchewan Alberta	0 F	10.74	F 8,350 [⊑]	F F	F 33,521,970 ⊑				
British Columbia	r X		5,350 = 6,600	r X	33,521,970 ⁻ 4,973,480				
Canada	Ê	43,26		65,984,410	114,375,190				
	·	. 3,20	•	·= · ·	,,				

^{1.} Includes value of trees, nursery stock, bedding plants, seedlings, cuttings or bulbs purchased (before sales tax).

^{2.} Includes seasonal and permanent labour.

Table 24 Nursery and sod labour

		Nursery			Sod	
	Seasonal ¹	Permanent ²	Total	Seasonal ¹	Permanent ²	Total
			number			
2008						
Newfoundland and Labrador	25 E	F	30 E	70	10 E	80
Prince Edward Island	0	0	0	10	0	10
Nova Scotia	205 €	15 E	220 E	70	35	105
New Brunswick	60	65	125	30	5	35
Quebec	1,910	300	2,210	340	90	430
Ontario	3,500	1,670	5,170	524	141	665
Manitoba	160	60	220	X	F	30
Saskatchewan	275	70	345	X	X	30
Alberta	750	200	950	200	100	300
British Columbia	2,205	1,510	3,715	60	30	90
Canada	9,090	3,895	12,985	1,349	426	1,775
2009						
Newfoundland and Labrador	10	0	10 E	80	10	90
Prince Edward Island	F	X	F	X	0	X
Nova Scotia	235 E	F	265 E	F	F	130
New Brunswick	F	F	F	F	x	F
Quebec	2,120	440	2,560	370	80	450
Ontario	3,700	1,690	5,390	480	170	650
Manitoba	290	70	360	X	X	30
Saskatchewan	370	125	495	F	F	F
Alberta	720	280	1,000	210 E	70	280
British Columbia	2,615	1,350	3,965	40	60	100
Canada	10,200	4,060	14,260	1,360	475	1,835

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

Methodology

Introduction

Statistics Canada has conducted an annual survey of the greenhouse industry since 1955, of the nursery industry since 1956 and of the sod industry since 1982. The survey is designed to provide an indication of the economic situation of the primary greenhouse, sod and nursery stock production industries. The survey is designed to provide insight into the general economic situation of the industry. To this end, data are provided on market structure and production inputs.

The survey is designed to collect information on area planted, labour, payroll, cost for growing-on and for resale, gross revenues, as well as the distribution of gross sales by channel of distribution.

The greenhouse target population includes all of the commercial greenhouse growers as identified by the 2006 Census of Agriculture and reconciled with the previous known population. For the sod and nursery operations, the survey focuses on operations that grow some or all the commodities they sell. As a result, firms that only distribute sod or nursery stock, or just landscape and lay sod are excluded from the survey. The survey is also designed to estimate the total value added of the agricultural side of nursery/sod but also picks up value added from the non-growing (i.e. marketing) portion of each operation. Note too that value added from landscaping and laying sod is excluded from the revenue estimates even when the responding firm grows nursery stock or sod. The survey estimates for greenhouses, sod farms and nurseries are calculated using probability sampling methods.

Concepts and definitions

Greenhouse industry

Prior to 1986, the target population included all commercial greenhouse growers. In 1986, the target population was redefined to include only commercial greenhouse growers with a growing area of 7,500 square feet or more.

In 1992, it was decided to include all of the commercial greenhouse growers as identified by the 1991 Census of Agriculture and reconciled with the previous known population. Due to the changed methodology, the estimates since 1992 are not comparable with the corresponding 1991 estimates.

A greenhouse can be defined as an operation where plants are grown under glass, plastic or similar type of protection. Since 2008, we also ask respondents to report area under poly-film or polyethylene.

A breakdown of sales, indicating channels of distribution and flower varieties sold, assists in the determination of the market structure. All sales figures published represent prices paid to the grower. Data collected on important inputs of production include the number of employees, gross yearly payroll, total investment and area operated under glass and plastic.

Greenhouse operating expenses include payroll, plant material purchases, heating, lighting, ventilation costs, other crop expenses (fertilizer, pesticides, and growing mediums) and other operating expenses (interest, land taxes, insurance, packaging, repairs to farm buildings, machinery, equipment and vehicles, and contract work). Since 2008, electricity expenses for lighting, airflow fans and heating are reported inside a specific expense item.

The concept for full-time employment was revised for Greenhouse, Sod and Nursery (GSN) 2003 data in accordance with the definition used at Statistics Canada and endorsed by the International Labour Organization. Full-time employment consists of persons who usually work 30 hours or more per week at their main or only job. Prior to 2003, full-time employment was defined as persons working 8 months or longer and part-time employment consisted of

persons working less than 8 months of the year. Since 2008, respondents to the survey must report the number of seasonal workers (less than 8 months contract) and permanent (more than 8 months contract).

The tables for cut flowers, potted plants, cuttings and propagating material have been updated to reflect changes in the industry.

Nursery and sod industry

Before 1992, estimates essentially pertained to commercial operations that allocated a portion of their surface area to sod or seedlings and had annual gross sales of \$75,000 or more. Since 1992, estimates have pertained to nurseries with 5 acres or more, and sod operations of 40 acres or more in regions other than the Atlantic (10 acres or more in the Atlantic region).

The survey estimates in previous years were simply a tabulation of all responding operations fitting the above two criteria. Due to the changed methodology, the 1992 and subsequent estimates are not directly comparable with the corresponding 1991 estimates.

The survey collects dollar data on two commodities: sod and nursery stock. Sod is a standard commodity whereas nursery stock requires precise definition. The term "nursery stock" covers a diverse range of non-edible, living plant material grown in field or in containers and sold with its root system intact. Nursery stock includes annual and perennial plants ranging from woody plants (e.g. trees, shrubs and rose bushes) to bedding plants and potted outdoor flowers.

The end purpose of the plants may be ornamental or functional (e.g. fruit trees, grape vines and forestry seedlings). Plant sizes range from seedlings to fully grown trees. "Nursery stock" excludes Christmas trees and various inputs such as growing medium (e.g. peat moss and top soil), fertilizer and pesticides. Since 2008, nursery and sod operating expenses are separated.

Methodology and data quality

Survey frame

The survey frame has been designed to include all operations cultivating greenhouse, sod and nursery products based on the latest Census of Agriculture. Institutional farms, farms on Indian reservations, Hutterite colonies as well as operations from Yukon, the Northwest Territories and Nunavut were excluded from the survey. After these exclusions, the remaining farms represent the initial survey frame.

Observations from the 2009 survey frame were extracted from the 2008 Annual Greenhouse, Sod and Nursery Survey and the 2006 Census of Agriculture, to which were added some operations coming from external sources. The new operations are either new farms since the 2006 census or farms missed by the 2006 census.

Excluded from the survey frame were areas of glass or plastic greenhouses maintained for non-commercial plants. Also excluded were greenhouse-only operations in Quebec, Ontario and British Columbia with less than 5,000 square feet and greenhouse sales of less than \$10,000. Greenhouse-only operations in the remaining provinces with less than 1,000 square feet were excluded from the survey frame. Furthermore, sod-only operations with less than 40 acres (10 acres in the Atlantic) and nursery-only operations with less than 5 acres were excluded from the survey frame.

Sample selection

For each province, four strata were defined. The first stratum includes operations with a greenhouse area of less than 1 acre, greenhouse sales of less than \$110,000, no nursery or sod area, and that reported flower production in the 2006 Census of Agriculture. The second stratum includes all operations with a greenhouse area of less than 1 acre, greenhouse sales of less than \$110,000, no nursery or sod area, and that did not report flower production in the 2006 Census of Agriculture. The third stratum includes all operations with a greenhouse area of

less than 1 acre, greenhouse sales of less than \$110,000, nursery area greater than zero and less than 5 acres, and no sod area. All remaining operations were placed in the fourth stratum. Within each province, operations were sampled in the first three strata and a census was taken of all units in the fourth stratum. For each stratum where sampling was done, the minimum sample size was 15 and the maximum design weight was 5.

Overall, the sample size was determined in order to achieve a target CV of 0.01 (1%) for greenhouse sales, greenhouse area and nursery area at the provincial level. The final sample size for this survey was 5,216.

For this survey, we used two questionnaire versions: one full version requesting all the required information and one abridged version that essentially only requests totals. Following the sample selection, we allocated one of the two versions of the questionnaire to each operation sampled. We assigned one of the two versions to operations based on their province of operation and sales volume. We attributed the full version to 3,695 operations and the abridged version to 1,521 operations.

Data collection

The reference period for this survey is calendar year 2009. Respondents received a copy of the questionnaire through the mail in early December 2009 and most of them were interviewed by telephone between January 11 and January 31, 2010.

Data collection for the 2009 Annual Greenhouse, Sod and Nursery Survey was undertaken using a "Computer Assisted Telephone Interview" (CATI) system. Some respondents, who have previously mentioned that they did not want to be interviewed over the phone, mailed back the questionnaire to the Ottawa Head Office.

During the data collection period, some respondents asked to not be interviewed over the phone. They were asked to complete the questionnaire and send it back to the Ottawa Head Office.

Response rates

Information was received from nearly 88% of the sample. Non-responding units (i.e. no-contacts and refusals) are dealt with by adjusting the initial sample weights (raising factor adjustment).

Edit and imputation

With the introduction of the CATI methodology, it is now possible to implement edit procedures at the time of the interview. Computer programmed edit checks in the CATI system inform interviewers during the interview of possible data errors, which can then be corrected immediately by the interviewer and respondent. The CATI system significantly reduces the need for subsequent telephone follow-up, thereby reducing respondent burden and survey processing time. Erroneous data and partially completed questionnaires are imputed using historical data.

Sampling and non-sampling errors

The statistics contained in this publication are based on a random sample of agricultural operations and, as such, are subject to sampling and non-sampling errors. The overall quality of the estimates depends on the combined effect of these two types of errors. Sampling errors arise because estimates are derived from sample data and not from the entire population. Sampling error is quantified using the coefficient of variation (CV). The lower the CV, the smaller the sampling error.

Non-sampling errors are errors which are not related to sampling and may occur throughout the survey operation for many reasons. For example, non-response is an important source of non-sampling error. Coverage, differences in the interpretation of questions, incorrect information from respondents, mistakes in recording, coding and processing of data are other examples of non-sampling errors.

Estimation

We weighted the information collected from the respondents to produce estimates representative of all of the operations in the greenhouse, sod and nursery industry in our survey frame. We produced estimates at the national and provincial level for different totals and sub-totals of industry variables. During the weighting, we took into consideration both versions of the questionnaires and ensured that all of the estimates produced for all variable types remained representative of all of the operations in the survey frame.

Data quality

The estimates in this publication are based on a probability sample of farming operations. The potential error introduced by sampling can be estimated from the sample itself by using a statistical measure called the coefficient of variation (CV). Over repeated surveys, 95 times out of 100, the relative difference between a sample estimate and what should have been obtained from an enumeration of all farming operations with respect to the sample estimates would be less than twice the coefficient of variation. The sample estimate plus or minus twice the CV is referred to as the confidence interval.

For the 2009 Annual Greenhouse, Sod and Nursery Survey, CVs at the Canada level range generally from 2% to 10% for the variables that are more frequently reported (area, investment, expenditures, sales, etc.), which makes them very reliable. We obtained CVs around 10% for the different sales sectors. Some variables on plant, flower and tree varieties have CVs greater than 25%. The coefficients of variation are available upon request.

To improve data qualification, the symbols E and F have been introduced into the publication. An E means that the data are widely dispersed and that the estimate should be used with caution. An F replaces the estimate where the data are too unreliable for publication.