Catalogue no. 22-008-X Vol. 6, no 3

# Service bulletin

# **Canadian Potato Production**



# January 2009

# **Highlights**

This publication contains updated estimates of 2008 potato production for Canada and revised estimates of area planted, area harvested and production for the United States back to 2003.

- The 2008 Canadian potato production is set at 104,157,000 cwts (4 724 562 tonnes). The 6% decrease in production from 2007 is due to a decrease in area harvested of 6%. There was no change in yield between 2007 and 2008.
- The only province to update its numbers was Quebec. Additional survey information would indicate an average yield of 262.5 cwt per acre (29,42 tonnes per hectare) for Quebec.
- The United States has released their revisions resulting from their 2007 Census of Agriculture. Changes were made to their area planted, area harvested and production back to 2003. Changes may be made to the utilized production, price and value of sales with their January 30, 2009 release.
- The current estimate of United States fall production is down 8%, from 407 million cwts. (18.5 million tonnes) in 2007 to 376 million cwts. (17.1 million tonnes) in 2008.



# Statistical tables

Table 1 Area, production and farm value of potatoes (imperial measures), Canada and provinces

	Seeded area	Harvested area	Average yield	Production	Amount sold, consumed, seeded or fed to livestock	Average farm value	Total farm value
	acres		hundredweight per acre	hundredv	veight	Canadian dollars per hundredweight	thousands of dollars
2005 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta	405,300 700 96,500 3,500 58,000 48,700 36,300 86,000 11,000 56,000	386,200 600 96,000 3,300 56,500 47,400 35,500 76,000 10,900 51,500	253.1 166.0 275.0 215.0 260.0 227.3 174.0 210.0 265.0 344.0	97,754,000 100,000 26,400,000 710,000 14,690,000 10,774,000 6,177,000 15,960,000 2,889,000 17,716,000	95,192,000 94,000 26,197,000 654,000 14,234,000 10,337,000 5,750,000 15,761,000 2,531,000 17,414,000	9.89 19.60 8.97 9.55 8.96 11.67 12.87 8.67 14.53 8.80	941,753 1,842 234,915 6,247 127,547 120,592 74,003 136,629 36,787 153,213
British Columbia  2006 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	8,600  401,900  800  97,600  2,600  59,900  47,900  38,100  80,600  11,100  54,800  8,500	8,500  391,000 700 95,800 2,600 59,000 45,000 36,000 79,600 10,300 53,500 8,500	275.0  287.1 230.0 310.0 210.0 300.0 259.2 209.0 270.0 270.0 342.0 280.0	2,338,000  112,241,000	2,220,000  107,926,000 149,000 29,090,000 509,000 17,137,000 10,249,000 21,273,000 2,539,000 17,944,000 2,264,000	22.51  8.58 22.15 6.94 10.23 5.87 10.10 12.73 8.79 13.58 8.78 20.45	49,979  925,999 3,301 201,812 5,209 100,538 103,468 86,221 187,057 34,476 157,609 46,310
2007 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	400,200 700 96,000 2,500 58,500 46,700 37,000 85,000 9,500 55,800 8,500	396,200 700 96,000 2,500 58,500 45,700 36,000 84,500 9,500 54,800 8,000	278.2 175.0 285.0 225.0 290.0 284.1 143.0 280.0 245.0 341.0 300.0	110,219,000 123,000 27,360,000 563,000 16,965,000 12,985,000 5,148,000 23,660,000 2,328,000 18,687,000 2,400,000	106,734,000 114,000 27,116,000 526,000 16,036,000 12,339,000 4,843,000 23,392,000 2,166,000 17,910,000 2,292,000	9.05 21.91 8.19 10.37 6.87 8.81 13.75 8.78 16.50 8.77 22.97	966,406 2,498 221,978 5,457 110,197 108,682 66,573 205,484 35,736 157,157 52,645
2008 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	380,700 700 92,500 2,200 55,500 42,300 36,000 82,000 9,500 52,500 7,500	374,100 700 89,000 2,200 54,500 41,500 35,200 82,000 9,500 52,000 7,500	278.4 160.0 275.0 260.0 260.0 262.5 220.0 290.0 275.0 336.0 310.0	104,157,000 112,000 24,475,000 572,000 14,170,000 10,894,000 7,744,000 23,780,000 2,613,000 17,472,000 2,325,000	   	       	

Note(s): Figures may not add due to rounding.

Table 2
Area, production and farm value of potatoes (metric measures), Canada and provinces

	Seeded area	Harvested area	Average yield	Production	Amount sold, consumed, seeded or fed to livestock	Average farm value	Total farm value
	hectare	es	tonnes per hectare	tonn	es	Canadian dollars per tonne	thousands of dollars
2005					_		
Canada	164,025	156,295	28.37	4,434,121	4,317,909	218.03	941,753
Newfoundland and Labrador	283	243	18.61 30.82	4,536	4,264	432.10	1,842
Prince Edward Island Nova Scotia	39,054 1,416	38,851 1,336	30.82 24.10	1,197,504 32,206	1,188,296 29,665	197.75 210.54	234,915 6,247
New Brunswick	23,473	22,866	29.14	666,338	645,654	197.53	127,547
Quebec	19,709	19,183	25.48	488,709	468,886	257.28	120,592
Ontario	14,691	14,367	19.50	280,189	260,820	283.73	74,003
Manitoba	34,804	30,757	23.54	723,946	714,919	191.14	136,629
Saskatchewan	4,452	4,411	29.70	131,045	114,806	320.33	36,787
Alberta	22,663	20,842	38.56	803,598	789,899	194.00	153,213
British Columbia	3,480	3,440	30.82	106,052	100,699	496.25	49,979
2006 Canada	162,649	158,238	32.18	5,091,252	4,895,523	189.15	925,999
Newfoundland and Labrador	324	283	25.78	7,303	6,759	488.32	3,301
Prince Edward Island	39,499	38,770	34.75	1,347,101	1,319,522	153.00	201,812
Nova Scotia	1,052	1,052	23.54	24,767	23,088	225.53	5,209
New Brunswick	24,242	23,877	33.62	802,872	777,334	129.41	100,538
Quebec	19,385	18,212	29.05	528,988	464,895	222.66	103,468
Ontario	15,419	14,569	23.43	341,289	307,178	280.64	86,221
Manitoba	32,619	32,214	30.26	974,877	964,943	193.78	187,057
Saskatchewan	4,492	4,168	30.26	126,146	115,169	299.38	34,476
Alberta British Columbia	22,178 3,440	21,651 3,440	38.33 31.38	829,952 107,957	813,940 102,695	193.56 450.84	157,609 46,310
2007							
Canada	161,961	160,342	31.18	4,999,534	4,841,454	199.51	966,406
Newfoundland and Labrador	283	283	19.61	5,579	5,171	483.02	2,498
Prince Edward Island	38,851	38,851	31.94	1,241,050	1,229,982	180.56	221,978
Nova Scotia	1,012	1,012	25.22	25,538	23,859	228.62	5,457
New Brunswick	23,675	23,675	32.50	769,532	727,393	151.46	110,197
Quebec Ontario	18,899 14.974	18,495 14,569	31.84 16.03	589,000 233,513	559,697 219,678	194.22 303.13	108,682 66,573
Manitoba	34,400	34,197	31.38	1,073,218	1,061,061	193.56	205,484
Saskatchewan	3,845	3,845	27.46	105,598	98,250	363.76	35,736
Alberta	22,582	22,178	38.22	847,642	812,398	193.34	157,157
British Columbia	3,440	3,238	33.62	108,864	103,965	506.39	52,645
2008							
Canada	154,069	151,398	31.20	4,724,562			
Newfoundland and Labrador	283	283	17.93	5,080			
Prince Edward Island	37,435 890	36,018	30.82	1,110,186			
Nova Scotia New Brunswick	890 22.461	890 22,056	29.14 29.14	25,946 642,751		••	
Quebec	17,119	16,795	29.42	494,152			
Ontario	14,569	14,245	24.66	351,268			
Manitoba	33,185	33,185	32.50	1,078,661			
Saskatchewan	3,845	3,845	30.82	118,526			
Alberta	21,247	21,044	37.66	792,530			
British Columbia	3,035	3,035	34.75	105,462			

Note(s): Figures may not add due to rounding.

Table 3 Area, production and value of fall harvest potatoes (imperial measures), United States and Canada

	Seeded area	Harvested area	Average yield	Production	Amount sold, consumed, seeded or fed to livestock	Average farm value <sup>1</sup>	Total farm value <sup>1</sup>
	acres		hundredweight per acre	hundredw	veight	Canadian dollars per hundredweight	thousands of dollars
1999 2000 2001	1,598,700 1,632,500 1.510.000	1,553,100 1,585,800 1,484,300	337.4 358.3 327.9	523,941,000 568,222,000 486,676,000	485,634,000 516,933,000 454,895,000	7.79 7.02 10.23	3,782,643 3,630,063 4,654,056
2002 2003 2004	1,571,700 1,571,700 1,564,500 1,473,900	1,527,500 1,538,900 1,447,700	338.7 342.7 363.4	517,312,000 527,431,000 526,114,000	485,500,000 487,450,000 483,198,000	8.96 7.15 6.56	4,349,297 3,483,818 3,167,628
2004 2005 2006 2007	1,375,000 1,375,000 1,397,600 1.408.000	1,337,200 1,375,000 1,389,400	359.9 371.9 372.1	481,317,000 511,417,000 517,019,000	450,820,000 478,271,000 486,456,000	7.98 7.71 7.46	3,596,848 3,688,437 3,629,360
2008	1,311,200	1,295,200	371.0	480,543,000			

<sup>1.</sup> American data includes the price and value only for potatoes sold. It does not include a value for potatoes used on farm where grown for seed, livestock feed and home consumption.

Source(s): National Agricultural Statistics Service of the United States Department of Agriculture and Statistics Canada, Agricultural Division.

Table 4 Area, production and value of fall harvest potatoes, United States (imperial measures)

	Seeded area	Harvested area	Average yield	Production	Amount utilized	Average price <sup>1</sup>	Total value of sales <sup>1</sup>
	acres		hundredweight per acre	hundredwe	eight	Canadian dollars per hundredweight	thousands of dollars
1999	1,203,000	1,166,100	369	429,847,000	395,595,000	7.79	3,041,103
2000	1,223,100	1,192,300	392	467,529,000	425,269,000	6.92	2,908,469
2001	1,091,300	1,072,500	367	393,631,000	363,851,000	10.29	3,693,413
2002	1,134,100	1,105,200	374	413,581,000	384,195,000	8.90	3,371,267
2003	1,107,000	1,091,900	376	410,973,000	377,009,000	7.00	2,601,053
2004	1,040,700	1,023,300	401	410,683,000	374,330,000	6.32	2,336,123
2005	969,700	951,000	403	383,563,000	355,628,000	7.56	2,655,095
2006	995,700	984,000	406	399,176,000	370,345,000	7.55	2,762,438
2007	1,007,800	993,200	410	406,800,000	379,722,000	7.09	2,662,954
2008	930,500	921,100	409	376,386,000	, , ,		, , ,

<sup>1.</sup> American data includes the price and value only for potatoes sold. It does not include a value for potatoes used on farm where grown for seed, livestock feed and home consumption.

Note(s): This release includes revisions to United State's potato area planted, harvested and production resulting from their 2007 Census of Agriculture. Revisions to utilized production, price and value of sales may be made with their January 30th. release.

Source(s): National Agricultural Statistics Service of the United States Department of Agriculture.

Note(s): This release includes revisions to United State's potato area planted, harvested and production resulting from their 2007 Census of Agriculture. Revisions to utilized production, price and value of sales may be made with their January 30th. release.

Table 5
Area, production and value of potatoes, Canada (imperial measures)

Total farm value	Average farm value	Amount sold, consumed, seeded or fed to livestock	Production	Average yield	Harvested area	Seeded area	
thousands of dollars	Canadian dollars per hundredweight	eight	hundredw	hundredweight per acre		acres	
741,540	8.24	90,039,000	94,094,000	243.1	387,000	395,700	1999
721,594	7.87	91,664,000	100,693,000	255.9	393,500	409,400	2000
960,643	10.55	91,044,000	93,045,000	225.9	411,800	418,700	2001
978,030	9.65	101,305,000	103,731,000	245.6	422,300	437,600	2002
882,765	7.99	110,441,000	116,458,000	260.5	447,000	457,500	2003
831,505	7.64	108,868,000	115,431,000	272.0	424,400	433,200	2004
941,753	9.89	95,192,000	97,754,000	253.1	386,200	405,300	2005
925,999	8.58	107,926,000	112,241,000	287.1	391,000	401,900	2006
966,406	9.05	106,734,000	110,219,000	278.2	396,200	400,200	2007
,		, , ,	104,157,000	278.4	374,100	380,700	2008

Table 6
Area, production and value of potatoes, by harvest season 1, United States (imperial measures)

	Seeded area	Harvested area	Average yield	Production	Amount utilized	Average <sup>2</sup> price	Total <sup>2</sup> value of sales
	acres		hundredweight per acre	hundredw	<i>v</i> eight	Canadian dollars per hundredweight	thousands of dollars
2007 Winter harvest Spring harvest Summer harvest Fall harvest Total yearly harvest	10,500 72,800 50,800 1,007,800 1,141,900	10,500 70,200 48,300 993,200 1,122,200	215.0 282.0 332.0 410.0 396.0	2,258,000 19,820,000 15,997,000 406,800,000 444,875,000	2,375,000 19,104,000 16,511,000 379,722,000 417,712,000	22.36 15.65 9.62 7.09 7.67	52,538 297,292 158,037 2,662,954 3,170,821
2008 Winter harvest Spring harvest Summer harvest Fall harvest Total yearly harvest	11,000 70,300 46,000 930,500 1,057,800	11,000 68,800 43,800 921,100 1,044,700	230.0 289.0 324.0 409.0 394.0	2,530,000 20,132,000 13,532,000 376,386,000 412,580,000	  	  	

<sup>1.</sup> Winter harvest refers to potatoes harvested in January through March, spring harvest to potatoes harvested in April through June, summer harvest to potatoes harvested in July through mid-September and fall harvest to potatoes harvested from September to November.

Note(s): This release includes revisions to United State's potato area planted, harvested and production resulting from their 2007 Census of Agriculture. Revisions to utilized production, price and value of sales may be made with their January 30th. release.

Source(s): National Agricultural Statistics Service of the United States Department of Agriculture.

<sup>2.</sup> American data includes the price and value only for potatoes sold. It does not include a value for potatoes used on farm where grown for seed, livestock feed and home consumption.

Table 7 Area, production and value of fall harvest potatoes (metric measures), United States and Canada

	Seeded area	Harvested area	Average yield	Production	Amount sold, consumed, seeded or fed to livestock	Average farm value <sup>1</sup>	Total farm value <sup>1</sup>
	hectares		tonnes per hectare	tonne	s	Canadian dollars per tonne	thousands of dollars
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	646,994 660,673 611,097 636,067 633,153 596,487 556,462 565,609 569,818 530,643	628,540 641,773 600,696 618,179 622,793 585,884 541,165 556,462 562,290 524,167	37.8 40.2 36.8 38.0 38.4 40.7 40.3 41.7 41.6	23,765,964 25,774,550 22,075,623 23,465,272 23,924,270 23,864,531 21,832,539 23,197,875 23,451,982 21,797,430	22,028,358 23,448,081 20,634,037 22,022,280 22,110,732 21,917,861 20,449,195 21,694,373 22,065,644	171.75 154.84 225.59 197.53 157.59 144.55 175.92 170.05 164.51	3,782,643 3,630,063 4,654,056 4,349,297 3,483,818 3,167,628 3,596,848 3,688,437 3,629,360

<sup>1.</sup> American data includes the price and value only for potatoes sold. It does not include a value for potatoes used on farm where grown for seed, livestock feed and home consumption.

Note(s): This release includes revisions to United State's potato area planted, harvested and production resulting from their 2007 Census of Agriculture. Revisions to utilized production, price and value of sales may be made with their January 30th. release.

Source(s): National Agricultural Statistics Service of the United States Department of Agriculture and Statistics Canada, Agricultural Division.

Table 8 Area, production and value of fall harvest potatoes, United States (metric measures)

	Seeded area	Harvested area	Average yield	Production	Amount utilized	Average price <sup>1</sup>	Total value of sales <sup>1</sup>
	hectares		tonnes per hectare	tonnes		Canadian dollars per tonne	thousands of dollars
1999	486,854	471,921	41.3	19,497,860	17,944,189	169.48	3,041,103
2000	494,989	482,524	44.0	21,207,115	19,290,202	150.77	2,908,469
2001	441,649	434,041	41.1	17,855,102	16,504,281	223.79	3,693,413
2002	458,970	447,274	41.9	18,760,034	17,427,085	193.45	3,371,267
2003	448,003	441,892	42.2	18,641,735	17,101,128	152.10	2,601,053
2004	421,171	414,130	45.0	18.628.581	16,979,609	137.58	2,336,123
2005	392.438	384.870	45.2	17,398,418	16,131,286	164.59	2,655,095
2006	402.960	398,225	45.5	18,106,623	16,798,849	164.44	2,762,438
2007	407.857	401.948	45.9	18.452.448	17.224.190	154.61	2.662.954
2008	376,573	372,769	45.8	17,072,869	,,		

<sup>1.</sup> American data includes the price and value only for potatoes sold. It does not include a value for potatoes used on farm where grown for seed, livestock feed and home consumption.

Note(s): This release includes revisions to United State's potato area planted, harvested and production resulting from their 2007 Census of Agriculture. Revisions to utilized production, price and value of sales may be made with their January 30th. release.

Source(s): National Agricultural Statistics Service of the United States Department of Agriculture.

Table 9
Area, production and value of all potatoes, Canada (metric measures)

	Seeded area	Harvested area	Average yield	Production	Amount sold, consumed, seeded or fed to livestock	Average farm value	Total farm value
	hectares		tonnes per hectare	tonne	s	Canadian dollars per tonne	thousands of dollars
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008	160,140 165,684 169,448 177,097 185,150 175,316 164,025 162,649 161,961 154,069	156,619 159,249 166,655 170,905 180,901 171,755 156,295 158,238 160,342 151,398	27.3 28.7 25.3 27.5 29.2 30.5 28.4 32.2 31.2	4,268,104 4,567,434 4,220,521 4,705,238 5,282,535 5,235,950 4,434,121 5,091,252 4,999,534 4,724,562	4,084,169 4,157,879 4,129,756 4,595,195 5,009,604 4,938,252 4,317,909 4,895,523 4,841,454	181.56 173.55 232.61 212.84 176.21 168.38 218.10 189.15	741,540 721,594 960,643 978,030 882,765 831,505 941,753 925,999 966,406

# **Concepts and definitions**

## Area planted

Planted area refers to potato area planted in the spring of the reference year.

The preliminary potato area estimate for the current year is released in mid-July. It is based upon data from sample surveys or consultation with provincial vegetable or potato specialists.

Quebec, Ontario and Alberta—The preliminary area estimate is provided by consultation with provincial potato specialists and departments of agriculture.

Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, British Columbia—Estimates are produced using the Potato Area and Yield Survey (Survey 3446). This survey is a two phase telephone probability survey. Calls are made in June for area and again in October for area harvested and production.

Revisions may be made to July's area estimate the following November. The sources for these revised estimates are as follows:

Prince Edward Island, and New Brunswick—The previous year's area may be revised as a result of disposition data indicating a significantly different production. Area planted estimates for the current year may be revised in relation to the previous year's adjusted area. The Potato Area and Yield Survey also confirms planted area when calls are made for the yield in the fall.

Quebec, Ontario and Alberta—Area planted is collected through each province's own survey program.

Newfoundland and Labrador, Nova Scotia, Manitoba, Saskatchewan and British Columbia—The Potato Area and Yield Survey supplies information on the area planted. Seed inspection data supplements these area estimates as well.

#### Area harvested

This series was incorporated in 1985 for all provinces except Quebec and Ontario, where the series became available beginning in 1993. It is calculated by subtracting unharvested area from area planted. Revisions to area planted will automatically result in revisions to area harvested if area lost remains constant. It indicates the area not harvested

because of poor harvest conditions, crop failure or disease. For years prior to 1985 and for Quebec and Ontario prior to 1993, unharvested area was accounted for in the total production with production for that area placed at zero.

Area harvested is released in November of the current year. Revisions can be made to the previous year's area harvested at the same time.

Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan and British Columbia—Crop Insurance data in combination with the Potato Area and Yield Survey determines the area lost.

Quebec, Ontario and Alberta—Area lost is collected through each province's own survey program.

#### Yield

Yield is a measure of production from the harvested area based on the volume produced, including cull potatoes, but excluding product left in the field.

Both current and revised yields are released in the November issue of the Canadian Potato Production Bulletin.

Sources of data for each province are:

Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan and British Columbia—Estimates are based on responses to the Potato Area and Yield Survey. Calls are made in late October and early November of the current year.

Quebec, Ontario and Alberta—Yield is collected through each province's own survey program.

Yields may be revised the following January. Later survey results from the provincial ministries or administrative data might indicate a revision is necessary. Only unusual circumstances would indicate another revision to this production the following July.

## **Total production**

Total production, the product of area harvested by the average yield, is the volume of potatoes harvested out of the field, including culls, but excluding gleanings.

The production estimate is released in November of the current year. Any revisions to production resulting from new information or supply disposition data can be made the following January or one year later in the following November. (See concepts for yield).

## Amount sold, consumed, seeded or fed to livestock

This series was established in 1982. From 1986, the series includes the amount fed to livestock. It measures the volume of potatoes sold, consumed on farm, seed for own use, plus potatoes fed to livestock. If potatoes were destroyed and producers received funds as part of a diversion program, these potatoes would be considered sold and included in the amount utilized. Starting with the 1999 crop, all potatoes that are being shipped to French fry processors are being included in the volume sold, consumed, seeded or fed to livestock. No cullage is being deducted from these marketings. These numbers are released each November for the previous crop year.

Newfoundland and Labrador—The amount is set at 90% of the harvested production.

Prince Edward Island and New Brunswick—The Canadian Food Inspection Agencies inspection staff provides a monthly estimate of cullage and marketings.

Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia—The amount is based on consultation with provincial specialists and marketing agencies.

Quebec—The amount is collected through their province's survey program

## Average price

The average price for potatoes is based on the transaction price received by the producer. If a portion of the crop is being utilized but the producer is receiving no compensation for that portion of the crop, the price is averaged into the average price at a zero value. The price is net of all deductions made before the producer is paid. The average price is released each November for the previous year's crop.

Newfoundland and Labrador and Nova Scotia—Annual prices are established in consultation with provincial specialists and as a result of the Fall Survey of Fruit and Vegetables.

Prince Edward Island, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia—Statistics Canada conducts a monthly survey of potato prices received by producers (Survey 3436). These prices are then multiplied by the monthly disposition of each of the grades of these potatoes to create an annual weighted price.

Quebec—The average price is collected through the provincial survey program and the Farm Product Prices Survey (Survey 3436).

#### Farm value

Farm value is the product of the amount sold, consumed, seeded or fed to livestock by the average farm price. (See concepts section on amount sold, consumed, seed or fed to livestock and prices). The farm value is released each November for the previous year's crop.

# Methodology and data quality

## Potato area and yield survey(Survey 3446)

# Survey frame and sample selection

The target population includes all potato farms in Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, and British Columbia except those on Indian Reserves and institutional farms.

The Census of Agriculture provides a list of farms and their potato area. This list is updated annually from various available sources. The list frame is stratified on the basis of Census potato area and provincial geographic boundaries.

A sample of 410 farms (20 Newfoundland and Labrador, 28 Nova Scotia, 120 in Prince Edward Island, 135 in New Brunswick, 55 in Manitoba, 35 in Saskatchewan, and 17 in British Columbia) was drawn from the list frame for the Potato Area and Yield Survey.

The yield portion of the survey is conducted in October to confirm area planted and to ask for area harvested and production. Operations that had reported no potatoes in June are not contacted a second time.

# **Data collection**

Data collection for the seeded potato area was done by telephone interview, from June 23 to July 2, 2008 and for the yield portion between October 14 and November 3, 2008.

By the end of the collection period, about 65% of the questionnaires had been completed. The refusal rate to the survey was about 5%. Non-contact and non-response can explain the difference between the completion rate

and the refusal rate. Initial sample weights are adjusted (a process called raising factor adjustment) in cases of non-response. No imputation is performed.

#### **Estimation**

The survey data collected from the Potato Area and Yield Survey are weighted in order to produce level indicators which are representative of the population. These level indicators then undergo a validation process, based on subject matter analysis and consultation with provincial specialists, before an estimate is determined.

## 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 the entire population. These errors depend on factors such as sample size, sampling design and the method of estimation.

Non-sampling errors are not related to sampling and may occur throughout the survey operation for various reasons like coverage, differences in interpretation of questions, incorrect information from respondents, mistakes in recording, coding or processing of data.

## **Data quality**

Sampling error 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 difference between a sample estimate and what should have been obtained from an enumeration of all potato farming operations would be less than twice the coefficient of variation. This range of values is referred to as confidence interval. While published estimates may not exactly equal the level indicators (due to the validation and consultation process), these estimates do remain within the confidence interval of the survey level indicators.

For the 2008 area estimates, the cv's from the Potato Area and Yield Survey ranged from 3.49% to 17.44%.

For the 2008 yield estimates, the cv's ranged from .76% to 8.04%.

### Farm product prices survey (Survey 3436)

## Survey frame and sample selection

The target population for Prince Edward Island, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia consists of all agricultural operations in these provinces which grow potatoes. The Census of Agriculture provides a list of such farms and is updated from various available sources. The list frame is stratified on the basis of the area of potatoes reported on the 2006 Census. A sample of approximately 600 farms is drawn from the list frame and is rotated as required.

#### **Data collection**

Data collection is carried out by telephone interview five business days following the 15th of every month with a reference date of the 15th. The refusal rate is usually less than 5%. No imputations are performed. Editing is done following data capture and outliers are verified and removed if necessary from the sample. A simple average is calculated on the remaining data.

## Survey of fruits & vegetables (Survey 3407)

## Survey frame and sample selection

Newfoundland & Nova Scotia—This new national annual survey contacts about 1000 fruit or vegetable growers in Newfoundland and in Nova Scotia.

The target population is all agricultural operations in Newfoundland and Nova Scotia. The Census of Agriculture provides a list of farms which is updated from various available sources.

#### **Data collection**

Data collection is carried out using a CATI application in December. No imputations are performed. Editing is done and outliers are removed. Weighting factors are adjusted to account for non-response.

### **United States data**

American estimates are based on information furnished by crop reporters, processors, and cooperating State or Federal Agencies. The various sources include: Market News Service rail and truck shipments, Federal-State inspections, and miscellaneous data available through marketing programs.

Price estimates represent average returns to growers for all uses and for all methods of sale, including the value paid for a government diversion program. These prices are applied to the quantity sold to compute value of sales. The volume sold, and the value of sales, exclude potatoes used on own farm for seed, feed, home use, and loss.

The United States season average price is obtained by weighting State prices by quantities sold. Potato production, utilization, and value of sales in each State have been classified by seasonal group according to the period (quarter) when the largest supplies are harvested. The four seasonal groups are as follows:

SeasonUsual time of harvestWinterJanuary through MarchSpringApril through JuneSummerJuly to Mid-September

Fall September through November

A crop year is associated with the calendar year in which harvest is accomplished. Seasons are not fixed dates but are approximations because of overlapping of harvest before or after the specified season.

Generally, the marketing season closely follows harvest except for fall potatoes when marketing from storage may extend through August of the following year. Thus, the marketing year for fall potatoes is from the start of harvest through August of the following year.

## **Revision procedures**

Area, yield, production, price or values are all subject to revision when more information becomes available. The policy is to revise the estimates when:

- supply/disposition analysis at the end of the crop year indicates under or over-estimation of production; or
- · a new benchmark for area becomes available from the Census of Agriculture; or
- new sources of administrative data would suggest alternatives to survey results.

The tables below contain some statistics which indicate the magnitude and direction of past revision from the preliminary to the final (following census revisions) seeded potato area and total production. The magnitude is

measured by the average percent change between the preliminary and final estimates. The direction of revisions is indicated by counting the number of years that the preliminary estimate is above or below the final revised estimate.

The data indicates that the preliminary estimates of seeded area have been revised upward 8 years out of the past 10 by an average of 1.49% at the Canadian level.

Table 10
Magnitude and direction of past revisions to Canadian seeded potato area, 1998 to 2007

	Number of yea	Number of years seeded area was revis		
	Upwards	Downwards	Average percentage change	
	number		percent	
Magnitude and direction of past revisions	8	2	1.49	

The data indicates that the preliminary estimates of harvested production at the Canadian level have been revised upward by an average 1.83% over the past years. In 9 of the past 10 years, the revision has been upwards.

Table 11
Magnitude and direction of past revisions to Canadian harvested production, 1998 to 2007

	Number of years	s harvested area was revi	sed
	Upwards	Downwards	Average percentage change
	number		percent
Magnitude and direction of past revisions	9	1	1.83

#### **Conversion factors**

The following metric conversion factors are used in this publication:

Area: 1 acre = 0.4047 hectare

Production: 1 hundredweight = 0.04536 tonne

To convert area from imperial to metric, provincial acreages are first converted, then the individual provinces are added for the Canadian total area in hectares. The Canadian acreage may not directly convert to the Canadian area in hectares.

The same method is used for production. Provincial hundredweights are converted to provincial tonnes, which are then added for the Canadian production in tonnes.

The Canadian yield in tonnes is the result of the total production in tonnes divided by the Canadian hectares. The yield in hundredweights/acre may not be directly convertible to the yield in tonnes/hectare.

The average farm price at the Canadian level in \$/tonne is the farm value divided by the marketed production in tonnes. The price in \$/cwt may not convert directly to the price in \$/tonne.

# **Data confidentiality**

Data confidentiality is ensured under the Statistics Act, which prohibits the divulging of individual or

Release date: January 2009

#### **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
- x suppressed to m
  E use with caution
- F too unreliable to be published

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Canada owes the success of its statistical system to a long standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.