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Service bulletin

Canadian Potato Production



November 2009

Highlights

This publication contains the preliminary estimate of 2009 potato production for both Canada and the United States, as well as the estimates of the amount sold, consumed, seeded or fed to livestock and value for the 2008 crop. It also contains minor revisions to 2007 data for Quebec.

- The 2008 Canadian potato crop was the most valuable on record, breaking the billion dollar mark to come in at \$1.2 billion. This is up 23% from the value of the 2007 crop. The average value on all potatoes sold, consumed, seeded or fed to livestock was \$11.95/cwt., compared to \$9.05 the previous year.
- The preliminary production estimate for the 2009 potato crop is 102,390,000 cwt. (4 644 410 tonnes). This is down 1% from last year's revised production.
- Area planted was set at 375,100 acres (151 803 hectares), down 1%, while area harvested is estimated down 2% at 364,600 (147 554 hectares).
- Newfoundland and British Columbia experienced the largest decreases in production, down 25% and 13% respectively, while New Brunswick is showing the greatest increase, up 7% from last year and Quebec is showing up 4%.
- The 2009 fall production estimate for the United States is up 3% to 391,529,000 cwt. (17 759 755 tonnes). The combined production for the two countries is up 2%, due to an overall yield increase of 3%. Area harvested is down 1% from the previous year.
- The percentage of the crop expected to make grade is now available upon request for all provinces except Ontario.



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
2006 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	401,900 800 97,600 2,600 59,900 47,900 38,100 80,600 11,100 54,800 8,500	391,000 700 95,800 2,600 59,000 45,000 36,000 79,600 10,300 53,500 8,500	287.1 230.0 310.0 210.0 300.0 259.2 209.0 270.0 270.0 342.0 280.0	112,241,000 161,000 29,698,000 546,000 17,700,000 11,662,000 7,524,000 21,492,000 2,781,000 18,297,000 2,380,000	107,926,000 149,000 29,090,000 509,000 17,137,000 10,249,000 6,772,000 21,273,000 2,539,000 17,944,000 2,264,000	8.58 22.15 6.94 10.23 5.87 10.10 12.73 8.79 13.58 8.78 20.45	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	399,200 700 96,000 2,500 58,500 45,700 37,000 85,000 9,500 55,800 8,500	395,200 700 96,000 2,500 58,500 44,700 36,000 84,500 9,500 54,800 8,000	278.3 175.0 285.0 225.0 290.0 285.2 143.0 280.0 245.0 341.0 300.0	109,982,000 123,000 27,360,000 563,000 16,965,000 12,748,000 23,660,000 2,328,000 18,687,000 2,400,000	106,510,000 114,000 27,116,000 526,000 16,036,000 12,116,000 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	964,421 2,498 221,978 5,457 110,197 106,697 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	379,900 700 92,500 2,200 55,500 42,500 36,000 81,000 9,500 52,500 7,500	373,400 700 89,000 2,200 54,500 41,800 35,200 81,000 9,500 52,000 7,500	277.3 160.0 280.0 260.0 260.0 262.0 220.0 280.0 275.0 336.0 310.0	103,560,000 112,000 24,920,000 572,000 14,170,000 10,952,000 7,744,000 22,680,000 2,613,000 2,325,000	99,520,000 103,000 24,469,000 527,000 13,772,000 10,374,000 6,970,000 22,020,000 2,419,000 17,152,000 1,712,000	11.95 28.88 10.18 12.56 10.52 14.72 16.80 10.76 20.22 11.14 22.50	1,189,118 2,975 249,212 6,618 144,940 152,737 117,112 236,927 48,919 191,154 38,524
2009 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	375,100 600 85,000 2,300 57,000 43,700 37,000 81,000 9,000 52,500 7,000	364,600 600 82,000 2,200 56,000 42,700 36,400 79,500 8,500 49,700 7,000	280.8 140.0 290.0 265.0 270.0 268.0 215.0 290.0 290.0 322.0 290.0	102,390,000 84,000 23,780,000 583,000 15,120,000 7,826,000 23,055,000 2,465,000 16,003,000 2,030,000	 	 	

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
2006							
Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta	162,649 324 39,499 1,052 24,242 19,385 15,419 32,619 4,492 22,178	158,238 283 38,770 1,052 23,877 18,212 14,569 32,214 4,168 21,651	32.18 25.78 34.75 23.54 33.62 29.05 23.43 30.26 30.26 38.33	5,091,252 7,303 1,347,101 24,767 802,872 528,988 341,289 974,877 126,146 829,952	4,895,523 6,759 1,319,522 23,088 777,334 464,895 307,178 964,943 115,169 813,940	189.15 488.32 153.00 225.53 129.41 222.66 280.64 193.78 299.38 193.56	925,999 3,301 201,812 5,209 100,538 103,468 86,221 187,057 34,476 157,609
British Columbia	3,440	3,440	31.38	107,957	102,695	450.84	46,310
2007 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	161,556 283 38,851 1,012 23,675 18,495 14,974 34,400 3,845 22,582 3,440	159,937 283 38,851 1,012 23,675 18,090 14,569 34,197 3,845 22,178 3,238	31.19 19.61 31.94 25.22 32.50 31.97 16.03 31.38 27.46 38.22 33.62	4,988,784 5,579 1,241,050 25,538 769,532 578,249 233,513 1,073,218 105,598 847,642 108,864	4,831,294 5,171 1,229,982 23,859 727,393 549,582 219,678 1,061,061 98,250 812,398 103,965	199.51 483.02 180.56 228.62 151.46 194.22 303.13 193.56 363.76 193.34 506.39	964,421 2,498 221,978 5,457 110,197 106,697 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	153,746 283 37,435 890 22,461 17,200 14,569 32,781 3,845 21,247 3,035	151,115 283 36,018 890 22,056 16,916 14,245 32,781 3,845 21,044 3,035	31.08 17.93 31.38 29.14 29.14 29.37 24.66 31.38 30.82 37.66 34.75	4,697,482 5,080 1,130,371 25,946 642,751 496,783 351,268 1,028,765 118,526 792,530 105,462	4,514,227 4,672 1,109,914 23,905 624,698 470,565 316,159 998,827 109,726 778,015 77,656	263.45 636.68 224.43 276.90 231.92 324.51 370.37 237.21 445.77 245.59 496.03	1,189,118 2,975 249,212 6,618 144,940 152,737 117,112 236,927 48,919 191,154 38,524
2009 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	151,803 243 34,400 931 23,068 17,685 14,974 32,781 3,642 21,247 2,833	147,554 243 33,185 890 22,663 17,281 14,731 32,174 3,440 20,114 2,833	31.47 15.69 32.50 29.70 30.26 30.04 24.10 32.50 36.09 32.50	4,644,410 3,810 1,078,661 26,445 685,843 519,100 354,987 1,045,775 111,812 725,896 92,081			

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 ¹	Total farm value ¹
	acres	acres		hundredw	reight	Canadian dollars per hundredweight	thousands of dollars
2000	1,632,500	1,585,800	358.3	568,222,000	516,933,000	7.02	3,630,063
2001	1,510,000	1,484,300	327.9	486,676,000	454,895,000	10.23	4,654,056
2002	1,571,700	1,527,500	338.7	517,312,000	485,500,000	8.96	4,349,297
2003	1,564,500	1,538,900	342.7	527,431,000	482,548,000	7.21	3,481,375
2004	1,473,900	1,447,700	363.4	526,114,000	479,037,000	6.62	3,171,369
2005	1,375,000	1,337,200	359.9	481,317,000	447,014,000	8.06	3,604,726
2006	1.397.600	1.375.000	371.9	511,417,000	474,218,000	7.79	3,695,305
2007	1.407.000	1,388,400	372.2	516,782,000	481,127,000	7.51	3,614,490
2008	1.311.000	1,295,400	372.2	482,148,000	449,100,000	10.42	4,679,334
2009	1.312.000	1.284.500	384.5	493.919.000			.,

^{1.} 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 ¹	Total value of sales ¹
	acres		hundredweight per acre	hundredw	eight	Canadian dollars per hundredweight	thousands of dollars
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	372,107,000	6.98	2,598,610
2004	1.040.700	1.023.300	401	410.683.000	370,169,000	6.32	2.339.864
2005	969.700	951,000	403	383,563,000	351.822.000	7.57	2.662.973
2006	995.700	984,000	406	399,176,000	366,292,000	7.56	2,769,306
2007	1.007.800	993,200	410	406.800.000	374,617,000	7.07	2,650,069
2008	931.100	922,000	411	378.588.000	349.580.000	9.98	3,490,216
2009	936.900	919,900	426	391,529,000			.,,

^{1.} 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.

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	hundredwe	hundredweight per acre	acres		
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
964,421	9.05	106,510,000	109,982,000	278.3	395,200	399,200	2007
1,189,118	11.95	99,520,000	103,560,000	277.3	373,400	379,900	2008
,			102,390,000	280.8	364,600	375,100	2009

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 price 2	Total value of sales 2
	acres		hundredweight per acre	hundredw	veight	Canadian dollars per hundredweight	thousands of dollars
2008 Winter harvest Spring harvest Summer harvest Fall harvest Total yearly harvest	11,000 70,300 47,000 931,100 1,059,400	11,000 68,800 44,800 922,000 1,046,600	230.0 293.0 306.0 411.0 395.0	2,530,000 20,132,000 13,694,000 378,588,000 414,944,000	2,475,000 19,132,000 13,291,000 349,580,000 384,478,000	20.05 15.07 15.21 9.98 10.48	49,631 288,376 202,193 3,490,216 4,030,416
2009 Winter harvest Spring harvest Summer harvest Fall harvest Total yearly harvest	9,000 75,600 43,900 936,900 1,065,400	8,700 73,400 42,500 919,900 1,044,500	245.0 291.0 346.0 426.0 411.0	2,132,000 21,325,000 14,705,000 391,529,000 429,691,000	 	 	

^{1.} 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.

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

^{2.} 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 ¹	Total farm value ¹
	hectares		tonnes per hectare	tonne	s	Canadian dollars per tonne	thousands of dollars
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009	660,673 611,097 636,067 633,153 596,487 556,462 565,609 569,413 530,562 530,966	641,773 600,696 618,179 622,793 585,884 541,165 556,462 561,885 524,248 519,837	40.2 36.8 38.0 38.4 40.7 40.3 41.7 41.7 43.1	25,774,550 22,075,623 23,465,272 23,924,270 23,864,531 21,832,539 23,197,875 23,441,232 21,870,233 22,404,166	23,448,081 20,634,037 22,022,280 21,888,377 21,729,118 20,276,555 21,510,528 21,823,921 20,371,176	farm value 1	3,630,063 4,654,056 4,349,297 3,481,375 3,171,369 3,604,726 3,695,305 3,614,490 4,679,334

^{1.} 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 8
Area, production and value of fall harvest potatoes, United States (metric measures)

	Seeded area	Harvested area	Average yield	Production	Amount utilized	Average price ¹	Total value of sales ¹
	hectares		tonnes per hectare	tonnes		Canadian dollars per tonne	thousands of dollars
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	16,878,774	153.96	2,598,610
2004	421.171	414,130	45.0	18.628.581	16,790,866	139.35	2,339,864
2005	392.438	384,870	45.2	17.398.418	15,958,646	166.87	2,662,973
2006	402.960	398,225	45.5	18,106,623	16,615,005	166.68	2,769,306
2007	407.857	401,948	45.9	18,452,448	16,992,627	155.95	2.650.069
2008	376.816	373,133	46.0	17,172,752	15,856,949	220.11	3,490,216
2009	379.163	372.284	47.7	17.759.755			.,,

^{1.} 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.

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
2000	165,684	159,249	28.7	4,567,434	4,157,879	173.55	721,594
2001	169,448	166,655	25.3	4,220,521	4,129,756	232.61	960,643
2002	177,097	170,905	27.5	4,705,238	4,595,195	212.84	978,030
2003	185,150	180,901	29.2	5,282,535	5,009,604	176.21	882,765
2004	175,316	171,755	30.5	5,235,950	4,938,252	168.38	831,505
2005	164.025	156,295	28.4	4,434,121	4,317,909	218.10	941,753
2006	162.649	158,238	32.2	5.091.252	4.895.523	189.15	925,999
2007	161.556	159,937	31.2	4.988.784	4.831.294	199.62	964,421
2008	153.746	151,115	31.1	4,697,482	4.514.227	263.42	1,189,118
2009	151,803	147,554	31.5	4,644,410			.,100,110

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 444 farms (29 Newfoundland and Labrador, 28 Nova Scotia, 160 in Prince Edward Island, 130 in New Brunswick, 50 in Manitoba, 23 in Saskatchewan, and 24 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 16 to June 25, 2009 and for the yield portion between October 15 and November 14, 2009.

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 2009 area estimates, the cv's from the Potato Area and Yield Survey ranged from 4.46% to 10.57%.

For the 2009 yield estimates, the cv's ranged from .44% to 5.56%.

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 on the first five business days of the month following the reference month. 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-SeptemberFallSeptember 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 7 years out of the past 10 by an average of 2.00% at the Canadian level.

The data indicates that the preliminary estimates of harvested production at the Canadian level have been revised by an average 1.90% over the past years. In 8 of the past 10 years, the revision has been upwards.

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 aggregated data where individuals or businesses might be identified.

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

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