Service bulletin

Canadian Potato Production



2012

Highlights

This publication contains the preliminary estimate of 2012 potato production for Canada, the United States and Mexico as well as the amount and value of potatoes sold, consumed, seeded or fed to livestock for the 2011 crop. Revisions were made to both 2010 and 2011 data.

- The preliminary production estimate for the 2012 potato crop is 100,474,000 hundredweight (4,557,501 tonnes), up 8.6% from 2011. The highest percentage increase was recorded for Manitoba (18.6%) followed by Ontario (17.5%) and New Brunswick (17.1%).
- Both harvested area and average yield increased in 2012. The 2012 potato yield was 275.5 hundredweight per acre (30.88 tonnes per hectare), up 3.9% from 2011. The area planted increased 3.1% to 371,700 acres (150,427 hectares), and 364,700 acres (147,594 hectares) were harvested, up 4.5% from 2011.
- The value of the 2011 Canadian potato crop increased 0.8% to \$1.09 billion from \$1.08 billion in 2010. The average value of all potatoes sold, consumed, seeded or fed to livestock was \$12.20 per hundredweight (\$268.91 per tonne), compared to \$11.57 per hundredweight (\$255.08 per tonne) in 2010.
- The percentage of the 2012 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	hundredw	veight	Canadian dollars per hundredweight	thousands of dollars
2009 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta	369,900 600 85,000 2,300 55,000 43,000 37,000 79,000 8,500 52,500	359,700 600 82,000 2,200 54,500 41,800 36,400 77,500 8,000 49,700	280.4 140.0 300.0 265.0 270.0 263.1 215.0 280.0 290.0 322.0	100,859,000 84,000 24,600,000 583,000 14,715,000 10,998,000 7,826,000 21,700,000 2,320,000 16,003,000	96,812,000 78,000 24,224,000 564,000 14,014,000 6,889,000 21,315,000 2,123,000 15,634,000	11.27 28.82 9.40 11.84 9.21 11.50 14.48 11.79 20.98	1,090,916 2,248 227,673 6,675 129,054 116,681 99,719 251,318 44,551 170,177
British Columbia	7,000	7,000	290.0	2,030,000	1,829,000	23.41	42,820
2010 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	357,000 500 86,000 2,000 51,500 44,000 38,500 70,000 7,500 50,500 6,500	344,000 500 86,000 2,000 51,300 42,700 38,000 68,000 7,000 45,000 3,500	282.4 175.0 300.0 235.0 295.0 269.0 215.0 280.0 255.0 314.0 300.0	97,153,000 88,000 25,800,000 470,000 15,134,000 11,486,000 8,170,000 19,040,000 1,785,000 14,130,000 1,050,000	93,355,000 82,000 25,532,000 452,000 14,428,000 10,839,000 7,189,000 18,479,000 1,651,000 13,772,000 931,000	11.57 24.34 10.86 12.66 10.15 14.36 15.25 9.54 22.73 10.70 23.93	1,080,153 1,996 277,361 5,721 146,455 155,622 109,604 176,288 37,531 147,293 22,282
2011 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	360,500 500 86,600 2,000 51,800 42,500 37,400 72,000 7,200 53,400 7,100	349,000 500 86,000 2,000 48,500 41,500 36,500 70,000 7,000 50,100 6,900	265.1 180.0 285.0 230.0 245.0 274.4 175.0 250.0 280.0 328.0 275.0	92,510,000 90,000 24,510,000 460,000 11,883,000 11,388,000 6,388,000 17,500,000 1,960,000 16,433,000 1,898,000	89,286,000 83,000 24,319,000 434,000 11,201,000 10,717,000 5,748,000 17,153,000 1,825,000 16,071,000 1,735,000	12.20 23.87 11.72 13.47 10.48 14.04 15.95 9.99 22.65 11.25 24.94	1,089,091 1,981 284,983 5,848 117,384 150,450 91,704 171,390 41,334 180,745 43,272
2012 Canada Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	371,700 500 89,500 1,900 53,500 41,300 39,800 76,000 7,000 55,700 6,500	364,700 500 87,500 1,900 52,500 40,800 39,500 75,500 6,500 54,000 6,000	275.5 175.0 285.0 220.0 265.0 268.1 190.0 275.0 250.0 344.0 285.0	100,474,000 88,000 24,938,000 418,000 13,913,000 10,938,000 7,505,000 20,763,000 1,625,000 18,576,000 1,710,000			

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	s	tonnes per hectare	tonnes	3	Canadian dollars per tonne	thousands of dollars
2009							
Canada	149,699	145,571	31.43	4,574,964	4,391,392		1,090,916
Newfoundland and Labrador	243	243	15.69	3,810	3,538	635.37	2,248
Prince Edward Island	34,400	33,185	33.62	1,115,856	1,098,801	207.20	227,673
Nova Scotia	931	890	29.70	26,445	25,583	260.92	6,675
New Brunswick	22,258	22,056	30.26	667,472	635,675	203.02	129,054
Quebec	17,402	16,916	29.49	498,869	460,041	253.63	116,681
Ontario	14,974	14,731	24.10	354,987	312,485	319.12	99,719
Manitoba	31,971	31,364	31.38	984,312	966,848	259.94	251,318
Saskatchewan	3,440	3,238	32.50	105,235	96,299	462.63	44,551
Alberta	21,247	20,114	36.09	725,896	709,158	239.97	170,177
British Columbia	2,833	2,833	32.50	92,081	82,963	516.13	42,820
2010	444 470	400.047	04.05	4 400 000	4 00 4 500	055.00	4 000 455
Canada	144,478	139,217	31.65	4,406,860	4,234,583	255.08	1,080,153
Newfoundland and Labrador	202	202	19.61	3,992	3,720	536.63	1,996
Prince Edward Island	34,804	34,804	33.62	1,170,288	1,158,132	239.49	277,361
Nova Scotia	809	809	26.34	21,319	20,503	279.04	5,721
New Brunswick	20,842	20,761	33.06	686,478	654,454	223.78	146,455
Quebec	17,807	17,281	30.15	521,005	491,657	316.53	155,622
Ontario	15,581	15,379	24.10	370,591	326,093	336.11	109,604
Manitoba	28,329	27,520	31.38	863,654	838,207	210.32	176,288
Saskatchewan	3,035	2,833	28.58	80,968	74,889	501.15	37,531
Alberta	20,437	18,212	35.19	640,937	624,698	235.78	147,293
British Columbia	2,631	1,416	33.62	47,628	42,230	527.63	22,282
2011	445.004	444.040	00.74	4 400 054	4 050 040	202.24	4 000 004
Canada	145,894	141,240	29.71	4,196,254	4,050,013	268.91	1,089,091
Newfoundland and Labrador	202	202	20.17	4,082	3,765	526.18	1,981
Prince Edward Island	35,047 809	34,804 809	31.94 25.78	1,111,774	1,103,110	258.35	284,983
Nova Scotia				20,866	19,686	297.06	5,848
New Brunswick	20,963	19,628	27.46	539,013	508,077	231.04	117,384
Quebec Ontario	17,200 15,136	16,795 14,772	30.76 19.61	516,560 289,760	486,123 260,729	309.49 351.72	150,450 91,704
Manitoba	29,138	28,329	28.02	793,800	778,060	220.28	171,390
Saskatchewan	29,136	2,833	31.38	88,906	82,782		41,334
Alberta	2,914	2,033 20,275	36.76	745.401	728.981	247.94	180.745
British Columbia	2,873	2,792	30.82	86,093	78,700	549.84	43,272
2012							
Canada	150,427	147,594	30.88	4,557,501			
Newfoundland and Labrador	202	202	19.61	3,992			••
Prince Edward Island	36,221	35.411	31.94	1,131,188			••
Nova Scotia	769	769	24.66	18,960		••	••
New Brunswick	21,651	21,247	29.70	631,094			
Quebec	16.714	16,512	30.05	496.148			
Ontario	16,107	15,986	21.30	340,427			
Manitoba	30,757	30,555	30.82	941,810			
Saskatchewan	2,833	2,631	28.02	73,710			
Alberta	22,542	21,854	38.56	842,607			
British Columbia		2,428	31.94	77,566			
Alberta		21,854	38.56	842,607	••		

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

Table 3
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	hundredweig	ht	Canadian dollars per hundredweight	thousands of dollars
2003	1,107,000	1,091,900	376	410,973,000	377,364,000	6.98	2,598,610
2004	1,040,700	1,023,300	401	410,683,000	374,730,000	6.32	2,339,864
2005	969,700	951,000	403	383,563,000	356,378,000	7.57	2,662,973
2006	995,700	984,000	406	399,176,000	370,797,000	7.56	2,769,306
2007	1,007,800	993,200	410	406,800,000	378,518,000	7.07	2,650,069
2008	931,100	922,000	411	378,588,000	353,635,000	9.98	3,490,216
2009	936.700	917,200	429	393.544.000	365.559.000	8.00	2,889,128
2010	894.300	881.800	416	366.505.000	343.116.000	8.77	2.972.583
2011	957,700	939,500	416	391.180.000	364,489,000	8.87	3,197,096
2012	1.004.400	991,500	426	422.016.000			., . ,

^{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 4
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	nt	hundredweigh	nundredweight per acre	ŀ	acres	
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
1,196,934	11.98	99,950,000	103,560,000	277.3	373,400	379,900	2008
1,090,916	11.27	96,812,000	100,859,000	280.4	359,700	369,900	2009
1,080,153	11.57	93,355,000	97,153,000	282.4	344,000	357,000	2010
1,089,091	12.20	89,286,000	92,510,000	265.1	349,000	360,500	2011
		, , ,	100.474.000	275.5	364,700	371,700	2012

Table 5
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	s	tonnes per hectare	tonnes		Canadian dollars per tonne	thousands of dollars
2003	448,003	441,892	42.2	18,641,735	17,117,231	151.81	2,598,610
2004	421,171	414,130	45.0	18,628,581	16,997,753	137.66	2,339,864
2005	392,438	384,870	45.2	17,398,418	16,165,306	164.73	2,662,973
2006	402,960	398,225	45.5	18,106,623	16,819,352	164.65	2,769,306
2007	407,857	401,948	45.9	18,452,448	17,169,576	154.35	2,650,069
2008	376,816	373,133	46.0	17,172,752	16,040,884	217.58	3,490,216
2009	379.082	371,191	48.1	17.851.156	16.581.756	174.24	2,889,128
2010	361.923	356.864	46.6	16.624.667	15,563,742	190.99	2,972,583
2011	387,581	380,216	46.7	17,743,925	16,533,221	193.37	3,197,096
2012	406,481	401,260	47.7	19,142,646			., . ,

^{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 6
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	s	tonnes per hectare	tonnes		Canadian dollars per tonne	thousands of dollars
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	4,533,732	264.01	1,196,934
2009	149,699	145,571	31.4	4,574,964	4,391,392	248.42	1,090,916
2010	144,478	139,217	31.7	4,406,860	4,234,583	255.08	1,080,153
2011	145,894	141,240	29.7	4,196,254	4,050,013	268.91	1,089,091
2012	150,427	147,594	30.9	4,557,501			

Table 7
Area, production and value of all potatoes, Mexico (imperial measures)

	Seeded area	Harvested area	Average yield	Production	Average price	Total value of sales
_	acres		hundredweight per acre	hundredweight	Canadian dollars per hundredweight	thousands of dollars
2002	157,557	154,261	211.9	32,693,403	32.55	1,064,187
2003	165,440	161,464	226.9	36,635,331	25.83	946,332
2004	167,652	153,572	216.3	33,212,281	22.70	753,953
2005	163,125	155,564	231.7	36,038,410	23.30	839,684
2006	152,954	151,335	221.8	33,567,269	22.56	757,436
2007	162,140	159,896	241.4	38,597,824	19.77	763,173
2008	150.903	148.857	247.4	36.819.847	20.43	752.072
2009	133.783	133,673	247.5	33.079.745	28.95	957.514
2010	137.500	136.791	247.6	33.876.044	27.99	948.030
2011	170,633	134,796	234.4	31,596,982	22.89	723,138

Source(s): Servicio de Información Agroalimentaria y Pesquera (SIAP), Mexico.

Table 8
Area, production and value of all potatoes, Mexico (metric measures)

Total value of sales	Average price	Production	Average yield	Harvested area	Seeded area	
	Canadian dollars					
thousands of dollars	per tonne	tonnes	tonnes per hectare		hectares	_
1,064,187	717.60	1,482,973	23.8	62,429	63,763	2002
946,332	569.47	1,661,779	25.4	65,344	66,954	2003
753,953	500.46	1,506,509	24.2	62,151	67,849	2004
839,684	513.66	1,634,702	26.0	62,957	66,017	2005
757,436	497.46	1,522,611	24.9	61,245	61,900	2006
763,173	435.90	1,750,797	27.1	64,710	65,618	2007
752,072	450.30	1,670,148	27.7	60,242	61,070	2008
957,514	638.13	1,500,497	27.7	54,097	54,142	2009
948,030	616.96	1,536,617	27.8	55,359	55,646	2010
723,138	504.55	1,433,239	26.3	54,552	69,055	2011

Source(s): Servicio de Información Agroalimentaria y Pesquera (SIAP), Mexico.

Table 9 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	hundredwei	ght	Canadian dollars per hundredweight	thousands of dollars
2010							
Spring harvest	89,300	85,800	289.0	24,797,000	23,512,000	13.97	326,647
Summer harvest Fall harvest	42,100 894.300	40,400 881.800	321.0 416.0	12,971,000 366.505.000	12,655,000 343.116.000	12.39 8.77	156,490
Total yearly harvest	1,025,700	1,008,000	401.0	404,273,000	379,283,000	9.21	2,972,583 3,455,720
iotal yearly harvest	1,023,700	1,000,000	401.0	404,273,000	379,203,000	3.21	3,433,720
2011							
Spring harvest	93,300	91,500	279.0	25,573,000	24,876,000	15.89	391,321
Summer harvest	48,200	46,000	280.0	12,894,000	12,527,000	12.37	154,594
Fall harvest	957,700	939,500	416.0	391,180,000	364,489,000	8.87	3,197,096
Total yearly harvest	1,099,200	1,077,000	399.0	429,647,000	401,892,000	9.41	3,743,011
2012							
Spring harvest	97,700	96,100	289.0	27,740,000			
Summer harvest	50.300	49.000	356.0	17.447.000			
Fall harvest	1.004.400	991,500	426.0	422.016.000			
Total yearly harvest	1,152,400	1,136,600	411.0	467,203,000			

^{1.} Spring harvest refers to potatoes harvested in April through June, summer harvest to potatoes harvested in July through mid-September and fall harvest to

Spring harvest releas to potatoes harvested in April through Suite, suffine harvest to potatoes harvested from September to November.
 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.

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.

For 2012 a sample of 537 farms (40 Newfoundland and Labrador, 25 Nova Scotia, 200 in Prince Edward Island, 151 in New Brunswick, 67 in Manitoba, 27 in Saskatchewan, and 27 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 11 to June 25, 2012.

By the end of the collection period, about 84% of the questionnaires had been completed. Initial sample weights are adjusted (a process called raising factor adjustment) to account for non-response.

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 information provided by 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 such as 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 a 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 2012 area estimates, the cv's from the Potato Area and Yield Survey ranged from 1.58% to 15.86%.

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 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 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.

Concepts for Mexico

Mexico has two seasons for potatoes. The fall and winter season has plantings occurring from October to March, while the spring and summer season has plantings occurring from April to September. Data for each crop year would represent potatoes planted from October of the previous calendar year to September of that year. Likewise, the Mexican potato harvest would occur from December of the previous year till March of calendar year following the reported year.

For the area and production reported for 2010, planting would have been carried out between October of 2009, up to and including September of 2010, while the harvest of those potatoes would occur from December 2009 up to and including March of 2011.

The area planted reflects the seeded area. Harvested area can include area that has partial damages, but a harvest still occurred.

Production is the volume obtained from the harvested area. Production that is not suitable for use is not collected in the estimates. The yield is calculated by dividing the production by the harvested area.

The farm price is defined as the average price paid to producers at the time of the first transaction. It does not include the economic benefits of Support Programs from the government to producers, nor expenses of movement and classification when the producer takes it to the sale centre.

The farm value includes the value of all first transactions. It does include a value for potatoes consumed or used on the farm where it was harvested.

Mexican potato estimates come from administrative sources or crop specialists.

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 data indicate that the preliminary estimates of seeded area at the Canadian level have been revised by an average 1.7 % over the past 10 years. In 5 of the past 10 years, the revision has been upwards.

The data indicate that the preliminary estimates of harvested production at the Canadian level have been revised by an average 1.9 % over the past 10 years. In 7 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, and 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 hundredweight per acre may not be directly convertible to the yield in tones per hectare.

The average farm price at the Canadian level in dollars per tonne is the farm value divided by the marketed production in tonnes. The price in dollars per hundredweight may not convert directly to the price in dollars per 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
- revised
- suppressed to meet the confidentiality requirements of the Statistics Act
- X E use with caution
- F too unreliable to be published
- significantly different from reference category (p < 0.05)

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