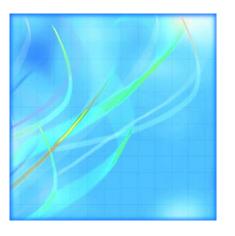
Catalogue no. 21-010-X

Net Farm Income

Agriculture Economic Statistics

February 2014





Statistics Canada Statistique Canada



How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

e-mail at infostats@statcan.gc.ca

telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following toll-free numbers:

•	Statistical Information Service	1-800-263-1136
•	National telecommunications device for the hearing impaired	1-800-363-7629
•	Fax line	1-877-287-4369

Depository Services Program

•	Inquiries line	1-800-635-7943
•	Fax line	1-800-565-7757

To access this product

This product, Catalogue no. 21-010-X, is available free in electronic format. To obtain a single issue, visit our website, www.statcan.gc.ca and browse by "Key resource" > "Publications."

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, this agency has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published at *www.statcan.gc.ca* under "About us" > "The agency" > "Providing services to Canadians."

Net Farm Income

Agriculture Economic Statistics

February 2014

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2014

All rights reserved. Use of this publication is governed by the Statistics Canada Open License Agreement.

http://www.statcan.gc.ca/reference/licence-eng.html

February 2014

Catalogue no. 21-010-X, vol. 12, no. 1

ISSN 1705-0944 Frequency: Annual

Ottawa

Cette publication est également disponible en français.

Note of appreciation

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.

User information

Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the Statistics Act
- E use with caution
- F too unreliable to be published
- * significantly different from reference category (p < 0.05)

Acknowledgements

This publication was prepared by the following staff from the Farm Expenses Unit, Agriculture Division, Statistics Canada: Brian Biggs, Gail-Ann Breese, Jean-Mathieu Lachapelle and Steve Partridge.

Special thanks are extended to Bev Hammond, Véronique Julien, Cindy St-Germain, Sandrine Prasil, Jeffrey Smith, Rachelle St-Amour, the staff from the Farm Cash Receipts and Farm Prices units, and the CANSIM and Smart Publishing teams, for their support and contribution to this publication.

Finally, the support of Agriculture and Agri-Food Canada and the provincial focal points for their review of the data are also gratefully acknowledged.

Table of contents

Highlights		4
Analysis		5
Related products		7
Statistical tables		
1 Net farm income — Agr	iculture economic statistics	10
1-1 1981 to 1985		10
1-2 1986 to 1990		11
1-3 1991 to 1996		12
1-4 1997 to 2004		13
1-5 2005 to 2009		15
1-6 2010 to 2012		16
Data quality, concepts and	methodology	
General information		17
Net farm income		20
Farm cash receipts		22
Income in kind		26
Value of inventory change		28
Farm operating expenses		30
Depreciation charges		34
Rebates		36
Intercensal Revisions		37
Net cash income compariso	n	45
Impact of using the North Ar	nerican Industry Classification System (NAICS)	50

Highlights

Realized net income for Canadian farmers increased in 2012

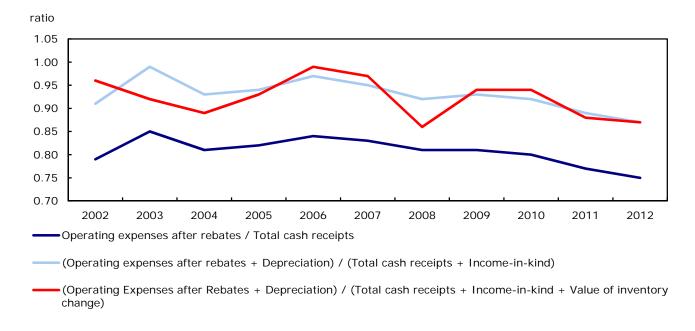
The realized net income of Canadian farmers totalled \$7.3 billion in 2012, up 31.7% from 2011, as farm cash receipts rose more than operating costs. This follows gains of 56.3% in 2011 and 16.9% in 2010.

Realized net income is the difference between a farmer's cash receipts and operating expenses, minus depreciation, plus income in kind.

Nationally, farmers last year paid roughly 75 cents in operating expenses for every \$1 in receipts they earned. This ratio is down from 77 cents in 2011. During the past decade, this expenses-to-receipts ratio has fluctuated between about 85 cents in 2003 and 75 cents in 2012. (The ratio is calculated by dividing operating expenses by total farm cash receipts.)

When depreciation charges are taken into account, the 2012 ratio fell to 87 cents for every \$1 of receipts.

Chart 1
Expenses-to-receipts ratios, 2002 to 2012, Canada



Analysis

The realized net income of Canadian farmers totalled \$7.3 billion in 2012, up 31.7% from 2011, as farm cash receipts rose more than operating costs. This follows gains of 56.3% in 2011 and 16.9% in 2010.

Realized net income is the difference between a farmer's cash receipts and operating expenses, minus depreciation, plus income in kind.

Realized net income increased in Newfoundland and Labrador, Nova Scotia, Quebec, Ontario, Saskatchewan, Alberta and British Columbia.

Farm cash receipts, which include market receipts from crop and livestock sales as well as program payments, rose 9.2% to \$54.2 billion in 2012, following an 11.9% gain in 2011.

Market receipts increased 10.0% to \$50.7 billion in 2012. Crop receipts, which rose 15.6% to \$29.9 billion, were the largest contributor to the gain. Receipts from livestock products increased 2.8% to \$20.9 billion. Livestock receipts accounted for 41.1% of market receipts in 2012, compared with 55.7% 10 years earlier.

Stronger prices for grains and oilseeds played a major role in boosting crop receipts. For example, wheat receipts, excluding durum, rose 18.4% in 2012, mostly because of a 19.4% gain in prices. Canola receipts were up 7.3% to \$8.2 billion, on the strength of a 6.3% price increase. The 56.2% rise in soybean receipts and the 28.0% gain in corn receipts were both the result of increased marketings and prices.

World grain prices began rising during the second half of 2012, as drought in the United States and other countries reduced world grain stocks.

Crop receipts rose in every province except Prince Edward Island (-0.2%) and New Brunswick (-6.5%). A drop in potato marketings contributed to the lack of growth in crop receipts in the two provinces.

Crop receipts rose 24.9% in Alberta in 2012. Increased prices and marketings for both canola and wheat helped push crop receipts higher.

Overall livestock receipts increased in all provinces. Cattle receipts rose 4.2%, as a reduced supply of market animals boosted cattle prices. Conversely, hog receipts decreased 2.3% to \$3.8 billion, as prices fell 3.4%.

Receipts for producers in the three supply-managed sectors (dairy, poultry and eggs) increased 3.4%. A 9.2% rise in egg receipts exceeded gains for chickens (+5.2%) and dairy products (+1.7%).

Program payments fell 1.0% to \$3.4 billion in 2012. Better growing conditions led to a 22.1% decline in Saskatchewan that more than offset payment increases of 17.4% in Quebec and 12.9% in Alberta.

Farm operating expenses (after rebates) were up 6.7% to \$40.8 billion in 2012, following an 8.3% increase in 2011 and a 2.1% decline in 2010.

Sharp increases in seeded acres on the eastern prairies, together with moderate price gains, pushed fertilizer expenses up 20.2%. Producers in Saskatchewan and Manitoba had seeded notably fewer acres in 2011 as a result of flooding. Feed expenses were up 9.9% as feed prices rose throughout 2012.

Depreciation charges rose 4.3% in 2012, resulting in total farm expenses of \$47.0 billion, up 6.4% from 2011.

Total farm expenses grew in every province in 2012. The largest percentage increases occurred in Saskatchewan (+9.0%), Manitoba (+8.5%), and Alberta (+8.0%).

Total net income reached \$7.1 billion in 2012, a \$1.1 billion gain over the previous year. The largest increases were in Manitoba (+\$1.0 billion), Ontario (+\$232 million) and Quebec (+\$172 million), while Saskatchewan and Alberta saw declines.

Total net income adjusts realized net income for changes in farmer-owned inventories of crops and livestock. It represents the return to owner's equity, unpaid labour, and management and risk.

Related products

Selected publications from Statistics Canada

21-007-X	Farm Product Price Index
21-011-X	Farm Cash Receipts - Agriculture Economic Statistics
21-012-X	Farm Operating Expenses and Depreciation Charges - Agriculture Economic Statistics
21-013-X	Value of Farm Capital - Agriculture Economic Statistics
21-014-X	Farm Debt Outstanding - Agriculture Economic Statistics
21-015-X	Direct Payments to Agriculture Producers - Agriculture Economic Statistics
21-016-X	Balance Sheet of the Agricultural Sector - Agriculture Economic Statistics
21-525-X	Understanding Measurements of Farm Income

Selected CANSIM tables from Statistics Canada

002-0001	Farm cash receipts, annual
002-0002	Farm cash receipts, quarterly
002-0003	Value per acre of farm land and buildings, at July 1
002-0005	Farm operating expenses and depreciation charges, annual
002-0007	Value of farm capital, at July 1
002-0008	Farm debt outstanding, classified by lender
002-0009	Net farm income, annual
002-0012	Farm income in kind, by item, annual
002-0020	Balance sheet of the agricultural sector, at December 31, and ratios

002-0021	Farm product price index (FPPI), monthly
002-0022	Farm product price index (FPPI), annual
002-0043	Farm product prices, crops and livestock
003-0025	Value per head of livestock at July 1

Selected surveys from Statistics Canada

|--|

Selected summary tables from Statistics Canada

- Farm cash receipts
- Farm cash receipts (quarterly)
- Net farm income
- Net farm income, by province

Statistical tables

Table 1-1 Net farm income — Agriculture economic statistics — 1981 to 1985

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thousa	ands of dolla	rs				
1981											
+Total cash receipts	32,239	189,582	227,003	194,913	2,681,494	4,836,578	1,651,428	3,993,891	3,849,946		18,534,208
Operating expenses after rebates =Net cash income	28,702 3,537	115,022 74,560	172,748 54,255	150,796 44,117	1,973,827 707,667	3,683,217 1,153,361	1,251,288 400,140	2,345,457 1,648,434	2,685,203 1,164,743	95,006	13,188,388 5,345,820
+Income in kind	408	2,903	3,793	4,008	63,237	66,426	14,887	27,286	23,404	10,434	216,786
Depreciation charges	1,918	18,109	22,612	17,920	240,928	610,519	251,006	674,596	671,675	103,400	2,612,683
=Realized net income	2,027	59,354	35,436	30,205	529,976	609,268	164,021	1,001,124	516,472	2,040	2,949,923
+Value of inventory change	627	20,996	-1,398	9,596	-12,236	-40,389	227,125	478,252	113,451	-13,375	782,649
=Total net income	2,654	80,350	34,038	39,801	517,740	568,879	391,146	1,479,376	629,923	-11,335	3,732,572
1982											
+Total cash receipts	33,403	161,900	232,242	190,327	2,840,677	4,861,515	1,724,981	4,063,725	3,812,093		18,882,646
Operating expenses after rebates	30,528	125,103	189,191	163,002	2,086,314	3,815,051	1,287,879	2,495,479	2,754,889		13,801,855
=Net cash income	2,875	36,797	43,051	27,325	754,363	1,046,464	437,102	1,568,246	1,057,204	107,364	5,080,791
+Income in kind	390	2,333	4,462	3,883	60,671	62,868	13,918	26,034	21,124	10,074	205,757
-Depreciation charges	1,913	18,560	23,942	18,117	259,335	628,073	274,349	740,205	721,112	103,925	2,789,531
=Realized net income +Value of inventory change	1,352 -802	20,570 794	23,571 294	13,091 1,438	555,699 -33,101	481,259 -134,420	176,671 78,243	854,075 127,062	357,216 -54,749	13,513 -10,391	2,497,017 -25,632
, ,									,	•	
=Total net income	550	21,364	23,865	14,529	522,598	346,839	254,914	981,137	302,467	3,122	2,471,385
1983											
+Total cash receipts	34,949	172,431	236,496	199,979	2,707,935	5,010,213	1,803,369	4,026,199	3,751,296	916,641	18,859,508
Operating expenses after rebates	31,263	132,718	197,886	160,759	2,102,357	3,766,328	1,351,396	2,673,406	2,734,203	811,247	13,961,563
=Net cash income	3,686	39,713	38,610	39,220	605,578	1,243,885	451,973	1,352,793	1,017,093	105,394	4,897,945
+Income in kind	394	2,444	4,372	4,046	61,694	63,653	13,704	23,681	20,090	10,495	204,573
Depreciation charges	1,907	17,991	25,061	18,258	260,448	617,502	283,751	769,726	725,800	106,534	2,826,978
=Realized net income	2,173	24,166	17,921	25,008	406,824	690,036	181,926	606,748	311,383	9,355	2,275,540
+Value of inventory change	1,171	-4,962	-47	-8,460	-36,759	-104,635	-164,230	-178,509	-190,906	8,714	-678,623
=Total net income	3,344	19,204	17,874	16,548	370,065	585,401	17,696	428,239	120,477	18,069	1,596,917
1984											
+Total cash receipts	41,497	191,773	258,997	217,348	3,053,799	5,301,832	1,989,523	4,433,930	3,987,826		20,481,125
Operating expenses after rebates	35,239	139,481	209,932	168,620	2,145,806	3,908,877	1,456,147	2,772,107	2,999,462	866,504	14,702,175
=Net cash income	6,258 447	52,292 2,395	49,065	48,728	907,993	1,392,955	533,376 14.114	1,661,823	988,364	138,096	5,778,950 203.628
+Income in kind		18,322	4,124	4,120 19,752	60,697 262,896	63,329	283.147	23,730 792,075	19,823 709,456	10,849	2,818,633
-Depreciation charges =Realized net income	1,933 4,772	36,365	26,115 27,074	33.096	705,794	599,829 856,455	264,343	893,478	298,731	105,108 43,837	3.163.945
+Value of inventory change	323	17,511	-615	5,117	25,369	72,792	4,817	-757,454	-329,240	-11,472	-972,852
=Total net income	5,095	53,876	26,459	38,213	731,163	929,247	269,160	136,024	-30,509	32,365	2,191,093
1985	•			•	•	•		•	•		
+Total cash receipts	43,153	172,025	258,987	216,998	3,088,627	5,045,405	2,010,535	4,057,512	3,837,576	1 061 382	19,792,200
Operating expenses after rebates	38,138	143,249	205,526	177,981	2,232,969	4,004,468	1,510,739	2,886,599	3,028,284		15,115,231
=Net cash income	5,015	28,776	53,461	39,017	855,658	1,040,937	499,796	1,170,913	809.292	174,104	4,676,969
+Income in kind	491	2,338	4,076	4,060	60,125	61,771	13,445	23,179	18,896	10,313	198,694
-Depreciation charges	1,924	18,543	26,582	20,171	257,416	576,572	266,706	767,251	705,522	103,693	2,744,380
=Realized net income	3,582	12,571	30,955	22,906	658,367	526,136	246,535	426,841	122,666	80,724	2,131,283
+Value of inventory change	-148	647	-2,704	14,329	7,640	148,590	293,033	254,108	-20,292	-34,444	660,759
=Total net income	3,434	13,218	28,251	37,235	666,007	674,726	539,568	680,949	102,374	46,280	2,792,042

Note(s): The data in this table were last revised in June 1997.

Table 1-2 Net farm income — Agriculture economic statistics — 1986 to 1990

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thousa	ands of dolla	rs				
1986											
-Total cash receipts	44,306	186,195	274,993	225,401	3,259,523	5,500,850	2,101,958	4,147,534	3,783,639		20,630,879
Operating expenses after rebates =Net cash income	40,881 3,425	146,129 40,066	207,089 67,904	179,581 45,820	2,301,480 958,043	4,000,043 1,500,807	1,463,542 638,416	2,895,318 1,252,216	2,981,260 802,379	881,750 224,731	15,097,073 5,533,806
Income in kind	3,425	2,058	2,717	2,612	45,713	43,030	9,656	13,541	15,901	6,122	141,710
Depreciation charges	1.931	18,664	27,228	20,396	271,442	564,242	274,745	761.309	706.409	103,216	2,749,582
=Realized net income	1,855	23,460	43,393	28,036	732,314	979,595	373,327	504,448	111,871	127,637	2,925,934
-Value of inventory change	-305	-5,259	-3,904	-16,418	-93,035	-340,624	-47,339	680,550	471,085	-2,715	642,036
=Total net income	1,550	18,201	39,489	11,618	639,279	638,971	325,988	1,184,998	582,956	124,922	3,567,970
1987											
Total cash receipts	47,543	215,869	301,272	241,683	3,328,365	5,550,850	2,115,945	4,383,640	4,038,789		21,345,559
Operating expenses after rebates	43,601	151,094	219,838	189,150	2,430,371	4,115,654	1,462,256	2,888,009	3,000,157		15,387,188
=Net cash income	3,942	64,775	81,434	52,533	897,994	1,435,196	653,689	1,495,631	1,038,632	234,545	5,958,371
Income in kind	320	1,641	2,263	2,226	39,835	35,179	8,282	11,312	13,685	5,317	120,058
Depreciation charges	1,995	18,518	27,686	20,940	285,909	564,008	265,711	737,814	686,455	102,618	2,711,654
=Realized net income	2,267	47,898	56,011	33,819	651,920	906,367	396,260	769,129	365,862	137,244	3,366,775
-Value of inventory change	901	-7,683	-2,483	13,813	-28,901	-53,008	-71,462	-167,891	23,555	4,864	-288,295
=Total net income	3,168	40,215	53,528	47,632	623,019	853,359	324,798	601,238	389,417	142,108	3,078,480
1988											
Total cash receipts	55,073	209,253	321,902	252,971	3,585,434	5,779,591	2,089,475	4,467,877	4,467,340		22,435,232
Operating expenses after rebates	48,442	160,165	233,275	191,962	2,555,046	4,326,903	1,494,793	2,869,202	3,107,958		15,942,094
=Net cash income	6,631	49,088	88,627	61,009	1,030,388	1,452,688	594,682	1,598,675	1,359,382	251,968	6,493,138
Income in kind	326	1,590	2,253	2,244	41,028	34,937	8,168	10,606	13,229	5,160	119,540
Depreciation charges	2,263	19,285	29,866	22,245	304,046	603,708	271,640	723,785	686,497	106,911	2,770,246
=Realized net income	4,694	31,393	61,014	41,008	767,370	883,917	331,210	885,496	686,114	150,217	3,842,432
-Value of inventory change	152	9,330	660	-10,091	9,702	-93,578	-224,637	-907,072	85,899	21,307	-1,108,328
=Total net income	4,846	40,723	61,674	30,917	777,072	790,339	106,573	-21,576	772,013	171,524	2,734,104
1989											
-Total cash receipts	58,568	258,163	325,899	274,056	3,755,263	5,786,193	2,108,196	4,498,721	4,599,469		22,919,269
Operating expenses after rebates	50,355	170,685	243,780	203,610	2,673,228	4,463,158	1,592,498	3,120,268	3,421,258		16,965,917
=Net cash income	8,213	87,478	82,119	70,446	1,082,035	1,323,035	515,698	1,378,453	1,178,211	227,664	5,953,352
Income in kind	329	1,680	2,289	2,283	41,384	35,336	8,276	10,511	13,130	5,172	120,389
Depreciation charges	2,639	21,468	31,956	22,899	320,925	668,551	277,180	715,094	716,248	116,525	2,893,485
=Realized net income -Value of inventory change	5,903 612	67,690 -266	52,452 -1,116	49,830 2,916	802,494 -15,858	689,820 176,161	246,794 144,298	673,870 452,295	475,093 99,799	116,311 5,840	3,180,256 864,681
=Total net income	6,515	67.424	51.336	52,746	786.636	865,981	391.092	1,126,165	574,892	122.151	4,044,937
	0,313	01,724	31,330	32,140	700,030	000,001	331,032	1,120,103	317,032	122,131	7,077,337
1990 -Total cash receipts	60,139	253,381	331,697	280,204	3,783,772	5,690,618	1,985,442	4,030,819	4,283,091	1 208 776	21,997,939
Operating expenses after rebates	54,682	173,992	244,922	210,085	2,777,558	4,460,209	1,605,665	3,082,937	3,407,190		17,055,916
=Net cash income	5,457	79,389	86,775	70,119	1,006,214	1,230,409	379,777	947,882	875,901	260.100	4,942,023
Income in kind	312	1,629	2,280	2,295	40,646	35,058	8,403	10,399	13,139	5,015	119,175
Depreciation charges	3,051	22,715	33,395	25,005	340,765	711,392	281,822	699,658	745,388	125,962	2,989,153
=Realized net income	2,718	58,303	55,660	47,409	706,095	554,075	106,358	258,623	143,652	139,153	2,072,045
-Value of inventory change	-306	-7,888	-1,918	-5,060	10,967	4,603	314,037	818,329	202,391	-1,919	1,333,236
=Total net income	2,412	50,415	53,742	42,349	717,062	558,678	420,395	1,076,952	346,043	137,234	3,405,281

Note(s): The data in this table were last revised in June 1999.

Table 1-3 Net farm income — Agriculture economic statistics — 1991 to 1996

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thousa	ands of dolla	rs				
1991											
+Total cash receipts	62,752	243,754	317,832	257,059	3,850,473	5,559,268	2,004,405	4,127,480	4,234,918	1.341.604	21,999,545
-Operating expenses after rebates	55,017	181,689	248,095	203,530	2,862,756	4,500,454	1,637,104	3,129,589	3,541,296		17,433,929
=Net cash income	7,735	62,065	69,737	53,529	987,717	1,058,814	367,301	997,891	693,622	267,206	4,565,616
+Income in kind	368	1,498	2,222	2,204	39,770	34,393	7,967	9,678	12,326	4,821	115,248
-Depreciation charges	3,441	23,312	34,242	26,222	343,969	738,800	272,126	693,776	726,570	132,539	2,994,997
=Realized net income	4,662	40,251	37,717	29,511	683,518	354,407	103,142	313,793	-20,622	139,488	1,685,867
+Value of inventory change	-60	-9,546	-1,959	-5,866	-9,662	2,039	-1,075	147,464	164,210	10,422	295,967
=Total net income	4,602	30,705	35,758	23,645	673,856	356,446	102,067	461,257	143,588	149,910	1,981,834
1992											
+Total cash receipts	65,000	228,204	321,587	270,400	3,871,869	6,053,177	2,168,764	4,390,865	4,956,259		23,730,202
-Operating expenses after rebates	54,959	191,199	253,441	208,022	2,996,338	4,688,577	1,712,185	3,202,583	3,645,587	1,122,687	18,075,577
=Net cash income	10,041	37,005	68,146	62,378	875,531	1,364,600	456,579	1,188,282	1,310,672	281,390	5,654,625
+Income in kind	421	1,552	2,341	2,323	42,370	36,603	8,296	9,780	12,830	5,429	121,573
-Depreciation charges	3,796	24,285	34,609	26,673	342,647	734,970	275,555	701,757	717,642	134,980	2,996,914
=Realized net income	6,666	14,272	35,878	38,028	575,254	666,233	189,320	496,305	605,860	151,839	2,779,284
+Value of inventory change	-411	34,409	-1,017	17,625	-37,251	-270,574	70,376	-89,011	-160,060	-25,286	-461,200
=Total net income	6,255	48,681	34,861	55,653	538,003	395,659	259,696	407,294	445,800	126,553	2,318,084
1993	62,323	240,737	312,715	283.095	2.004.205	5.879.690	2,380,354	4.538.639	5,064,027	4 445 545	24.188.520
+Total cash receipts -Operating expenses after rebates	54,003	195,165	256,390	211,502	3,981,395 3,018,291	4,845,678	1,806,920	3,348,769	4,013,191		18,926,327
=Net cash income	8,320	45,572	56,325	71,593	963,104	1,034,012	573,434	1,189,870	1,050,836	269,129	5,262,193
+Income in kind	486	1.847	2.844	2,799	49.950	43,781	9.691	11,322	14.955	6.344	144.022
-Depreciation charges	3.768	23.503	35.349	26,301	352,386	733,795	277,615	725,690	735.415	145.928	3.059.750
=Realized net income	5,038	23,916	23,820	48,091	660,668	343,998	305,510	475,502	330,376	129,545	2,346,465
+Value of inventory change	-769	-12,784	481	-15,063	13,238	128,284	-101,509	448,189	601,179	5,955	1,067,201
=Total net income	4,269	11,132	24,301	33,028	673,906	472,282	204,001	923,691	931,555	135,500	3,413,666
1994											
+Total cash receipts	63,406	308,685	327,612	293,249	4,214,854	6,052,852	2,451,015	5,050,540	5,581,321		25,881,396
-Operating expenses after rebates	56,974	217,599	267,064	232,804	3,195,309	5,133,872	1,987,697	3,563,630	4,344,105	1,322,271	20,321,324
=Net cash income	6,432	91,086	60,548	60,445	1,019,545	918,980	463,318	1,486,910	1,237,216	215,591	5,560,072
+Income in kind	516	2,176	3,296	3,177	55,711	48,070	10,174	11,835	15,549	7,120	157,623
-Depreciation charges	3,894	26,080	36,093	27,758	373,275	764,626	298,096	764,064	785,827	159,206	3,238,919 2,478,776
=Realized net income +Value of inventory change	3,054 348	67,182 -10,734	27,751 -458	35,864 -7,110	701,981 83,693	202,424 131,039	175,396 167,066	734,681 13,065	466,938 103,018	63,505 44,962	524,889
=Total net income	3,402	56,448	27,293	28,754	785,674	333,463	342,462	747,746	569,956	108,467	3,003,665
1995	•	,	,	,	,	,	,	•	,	,	, ,
+Total cash receipts	66,372	313,219	341,156	290,224	4,353,371	6,315,372	2,503,288	5,385,694	5,969,065	1,585,560	27,123,321
-Operating expenses after rebates	60.071	240,615	284,246	246,524	3,382,331	5,303,628	2,095,941	3,885,531	4,648,930		21,535,309
=Net cash income	6,301	72,604	56,910	43,700	971,040	1,011,744	407,347	1,500,163	1,320,135	198,068	5,588,012
+Income in kind	498	1,921	3,145	2,997	53,435	46,014	9,672	11,208	15,153	6,776	150,822
-Depreciation charges	3,925	28,505	36,252	29,177	398,816	807,965	321,820	809,615	850,290	175,759	3,462,124
=Realized net income	2,874	46,020	23,803	17,520	625,659	249,793	95,199	701,756	484,998	29,085	2,276,710
+Value of inventory change	131	39,207	3,472	5,781	13,556	26,502	30,713	160,203	396,563	33,914	710,042
=Total net income	3,005	85,227	27,275	23,301	639,215	276,295	125,912	861,959	881,561	62,999	2,986,752
1996											
+Total cash receipts	77,172	293,241	379,981	314,674	4,691,816	6,685,533	2,788,380	5,610,537	6,528,207		29,075,327
-Operating expenses after rebates	63,744	247,674	297,835	262,022	3,639,690	5,554,619	2,263,225	4,376,862	4,875,544		23,020,983
=Net cash income	13,428	45,567	82,146	52,652	1,052,126	1,130,914	525,155	1,233,675	1,652,663	266,017	6,054,344
+Income in kind	522	1,996	3,504	3,317	58,916	52,025	10,806	12,780	16,518	7,711	168,101
-Depreciation charges =Realized net income	4,063 9,887	31,085 16,478	38,519 47,131	31,640 24,329	431,909 679,133	868,711 314,228	343,781 192,180	862,769 383,686	923,756 745,425	194,932 78,796	3,731,165 2,491,280
+Value of inventory change	-363	7,725	675	8,549	124,366	136,067	296,672	761,920	13,800	-21,661	1,327,750

^{1.} The data in this table were last revised in November 2003.

Table 1-4 Net farm income — Agriculture economic statistics — 1997 to 2004

-	No. of consultant	Deleter	Maria	Marri	0	0-1	Manathalia	011	A.U1 -	Dates	0
	Newfoundland and	Prince Edward	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
	Labrador	Island	Cootia	Branowiok				onowan		Columbia	
					thousa	ands of dolla	rs				
1997											
+Total cash receipts	76,176	281,765	374,620	320,628	4,764,398	6,848,486	3,044,005	5,922,461	6,464,646		29,835,513
-Operating expenses after rebates	61,467	249,358	307,863	277,277	3,648,915	5,711,964	2,342,985	4,319,799	5,126,932		23,511,379
=Net cash income +Income in kind	14,709 346	32,407 706	66,757 1,539	43,351 1,200	1,115,483 13,992	1,136,522 12,286	701,020 3,560	1,602,662 7,097	1,337,714 9,305	273,522 3,800	6,324,134 53,834
-Depreciation charges	4,357	33,514	38,766	33,564	452,494	919,221	360,286	904,954	988,478	209,379	3,945,013
=Realized net income	10,698	-401	29,530	10,987	676,981	229,587	344,294	704,805	358,541	67,943	2,432,955
+Value of inventory change	-371	12,895	-5,890	6,718	-17,605	7,101	-119,646	-663,862	-61,562	-25,926	-868,148
=Total net income	10,327	12,494	23,640	17,705	659,376	236,688	224,648	40,943	296,979	42,017	1,564,807
1998											
+Total cash receipts	72,180	324,247	369,706	326,568	4,797,348	6,935,145	2,937,007	5,545,296	6,418,118	1,779,647	29,505,263
-Operating expenses after rebates	63,770	255,017	303,917	284,307	3,707,271	5,850,702	2,371,558	4,292,611	5,276,290	1,527,104	23,932,547
=Net cash income	8,410	69,230	65,789	42,261	1,090,077	1,084,443	565,449	1,252,685	1,141,828	252,543	5,572,716
+Income in kind	205	582	1,294	1,033	12,776	11,630	3,256	6,416	8,631	3,524	49,352
-Depreciation charges	4,697	35,906	40,082	34,012 9,282	466,146	943,714	382,660	957,173	1,036,389	213,961	4,114,740
=Realized net income +Value of inventory change	3,918 368	33,906 -12,823	27,001 1,518	-2,012	636,707 -1,642	152,359 17,978	186,045 51,650	301,928 30,775	114,070 190,282	42,106 36,654	1,507,328 312,748
, ,	4,286	21,083	28,519	7,270	635,065	170,337	237,695	332,703	304,352	78,760	1,820,076
=Total net income	4,200	21,003	20,319	7,270	033,003	170,337	237,093	332,703	304,332	70,700	1,020,076
1999 +Total cash receipts	72,473	349.165	389,350	375,268	5,080,960	7,131,578	2,906,809	5,535,319	6,530,826	1.885.035	30,256,780
-Operating expenses after rebates	64,061	266,333	310,829	292,245	3,864,727	6,000,196	2,363,667	4,284,186	5,717,676	1,572,949	24.736.871
=Net cash income	8,412	82,832	78,521	83,023	1,216,233	1,131,382	543,142	1,251,133	813,150	312,086	5,519,909
+Income in kind	191	552	1,234	1,072	12,564	10,965	3,128	6,159	8,402	3,131	47,401
-Depreciation charges	5,006	36,142	42,574	38,207	493,579	965,150	398,472	966,568	1,072,801	216,608	4,235,107
=Realized net income	3,597	47,242	37,181	45,888	735,218	177,197	147,798	290,724	-251,249	98,609	1,332,203
+Value of inventory change	1,886	-3,249	-4,045	-10,330	17,560	-12,241	-15,835	330,980	491,929	3,068	799,723
=Total net income	5,483	43,993	33,136	35,558	752,778	164,956	131,963	621,704	240,680	101,677	2,131,926
2000											
+Total cash receipts	73,712	322,717	413,050	368,570	5,411,030	7,793,260	3,156,056	5,733,513	7,583,288	2,024,221	
-Operating expenses after rebates	64,975	272,058	325,708	309,983	4,159,827	6,406,220	2,538,030	4,551,032	6,148,381	1,689,100	26,465,312
=Net cash income	8,737 286	50,659 480	87,342	58,587	1,251,203 12,809	1,387,040	618,026	1,182,481	1,434,907	335,121	6,414,087
+Income in kind -Depreciation charges	5,494	39,325	1,139 46,328	1,024 42,341	531,077	11,386 1,001,854	3,369 399,837	6,442 949,791	9,048 1,084,973	3,428 221,823	49,411 4,322,843
=Realized net income	3,529	11,814	42,153	17,270	732,935	396,572	221,558	239,132	358,982	116,726	2,140,655
+Value of inventory change	351	17,362	-1,779	10,062	-67,972	-181,091	168,128	318,413	29,821	1,644	294,939
=Total net income	3,880	29,176	40,374	27,332	664,963	215,481	389,686	557,545	388,803	118,370	2,435,594
2001											
+Total cash receipts	77,870	336,349	420,917	416,641	5,736,960	8,475,645	3,698,409	6,511,315	8,368,417	2,200,804	36,243,327
-Operating expenses after rebates	69,935	275,678	343,345	328,760	4,398,923	6,942,145	2,770,661	4,763,946	6,458,552	1,772,369	28,124,312
=Net cash income	7,935	60,671	77,572	87,881	1,338,037	1,533,500	927,748	1,747,369	1,909,865	428,435	8,119,015
+Income in kind	414	483	1,002	973	12,885	11,314	3,523	6,701	8,977	3,292	49,564
-Depreciation charges =Realized net income	5,950 2,399	40,448 20,706	48,316 30,258	45,374 43,480	556,349 794,573	1,016,880 527,934	415,209 516,062	979,850 774,220	1,122,187 796,655	221,337 210,390	4,451,900 3,716,679
+Value of inventory change	431	-66,348	-1,454	-4,390	88,551	-119,902	-69,651	-630,844	-258,676	19,384	-1,042,899
=Total net income	2,830	-45,642	28,804	39,090	883,124	408.032	446.411	143,376	537,979	229,774	2,673,780
2002	2,030	70,072	23,004	55,050	000,124	400,002	770,711	1-3,370	001,313		2,010,100
+Total cash receipts	79,583	369,104	407,050	428,906	5.488.561	8,435,211	3,819,776	6,452,698	8,315,809	2,173,971	35,970,624
-Operating expenses after rebates	71,819	290,161	353,258	336,686	4,475,265	7,099,342	2,894,640	4,747,417	6,321,126	1,872,941	28,462,655
=Net cash income	7,764	78,943	53,792	92,220	1,013,296	1,335,869	925,136	1,705,281	1,994,683	301,030	7,507,969
+Income in kind	522	389	923	891	11,839	10,529	3,202	5,700	8,386	2,916	45,295
-Depreciation charges	6,210	38,578	48,846	46,043	560,841	1,067,295	414,042	944,265	1,111,527	245,073	4,482,720
=Realized net income	2,076	40,754	5,869	47,068	464,294	279,103	514,296	766,716	891,542	58,873	3,070,544
+Value of inventory change	521	78,774	822	17,811	19,345	160,735	-10,422	-777,697	-1,066,029	17,238	-1,558,902
=Total net income	2,597	119,528	6,691	64,879	483,639	439,838	503,874	-10,981	-174,487	76,111	1,511,642
2003	04 444	255 222	424.040	444 500	E 020 400	0 407 004	2 520 040	E 7EE 0E0	7 104 000	2 240 000	24 244 007
+Total cash receipts	81,444	355,333	421,919	411,593 349,026	5,929,482	8,407,821 7,168,704	3,532,318	5,755,256 4,928,849	7,101,628		34,244,827
-Operating expenses after rebates =Net cash income	75,332 6,112	297,586 57,747	365,933 55,986	62,567	4,776,647 1,152,835	1,239,117	3,039,894 492,424	826,407	6,323,867 777,761	331,309	29,242,628 5,002,199
+Income in kind	382	466	838	761	10,709	8,992	2,842	5,078	8,302	2,648	41,017
-Depreciation charges	6,365	38,498	49,335	46,461	601,453	1,058,725	442,924	955,828	1,144,436	252,924	4,596,949
=Realized net income	129	19,715	7,489	16,867	562,091	189,384	52,342	-124,343	-358,373	81,033	446,267
+Value of inventory change	1,207	-3,934	-1,450	-4,579	114,247	22,605	399,660	815,448	941,157	44,408	2,328,769
=Total net income	1,336	15,781	6,039	12,288	676,338	211,989	452,002	691,105	582,784	125,441	2,775,036
	,	, -	.,	,	-,	,	,	,	,	-,	,

Table 1-4 – continued

Net farm income — Agriculture economic statistics — 1997 to 2004

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thousa	ands of dolla	rs				
2004											
+Total cash receipts	87,527	349,577	456,739	421,574	6,302,425	8,597,499	3,857,541	5,892,158	8,013,369	2,359,838	36,338,224
-Operating expenses after rebates	78,138	304,704	364,983	351,107	4,924,613	7,224,221	3,099,074	4,888,446	6,235,036	1,937,134	29,407,456
=Net cash income	9,389	44,873	91,756	70,467	1,377,812	1,373,278	758,467	1,003,712	1,778,333	422,704	6,930,768
+Income in kind	337	438	804	755	11,298	9,067	3,659	7,015	10,880	3,238	47,493
-Depreciation charges	6,713	39,481	50,862	48,659	594,332	1,054,392	444,908	969,779	1,140,581	262,889	4,612,596
=Realized net income	3,013	5,830	41,698	22,563	794,778	327,953	317,218	40,948	648,632	163,053	2,365,665
+Value of inventory change	1,322	5,177	-3,183	-8,989	118,475	315,313	-68,973	821,895	507,193	-27,489	1,660,741
=Total net income	4,335	11,007	38,515	13,574	913,253	643,266	248,245	862,843	1,155,825	135,564	4,026,406

Note(s): The data in this table were last revised in November 2008.

Table 1-5 Net farm income — Agriculture economic statistics — 2005 to 2009

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thous	ands of dolla	rs				
2005											
+Total cash receipts	89,005	371,848	466,351	437,506	6,251,480	8,901,262	3,830,764	6,275,432	7,905,783	2,389,362	36,918,791
-Operating expenses after rebates	79,041	306,815	366,829	360,415	4,874,892	7,359,187	3,011,261	5,132,054	6,569,034	2,036,602	30,096,130
=Net cash income	9,963	65,033 426	99,522 926	77,090 901	1,376,588 13,581	1,542,075	819,503 3,997	1,143,378	1,336,750 14,449	352,760	6,822,662
+Income in kind -Depreciation charges	427 7,219	40,855	53,122	51,444	654,928	11,049 1,106,751	3,997 454,785	7,628 971,676	1,182,611	3,391 277,177	56,776 4,800,568
=Realized net income	3,171	24,604	47,326	26,547	735,242	446,373	368,716	179,330	168,588	78,974	2,078,869
+Value of inventory change	477	-20,554	-655	10,145	-52,916	-11,309	-243,052	575,492	287,055	-44,935	499,747
=Total net income	3,647	4,050	46,671	36,692	682,325	435,064	125,664	754,822	455,642	34,039	2,578,616
2006											
+Total cash receipts	95,990	376,586	467,826	460,088	6,307,882	8,806,348	3,717,302	6,681,616	7,779,064		37,038,684
-Operating expenses after rebates	85,412	317,044	381,602	376,577	5,087,554	7,572,536	3,222,564	5,301,157	6,756,426	2,070,171	31,171,042
=Net cash income +Income in kind	10,578 415	59,542 514	86,224 951	83,511 923	1,220,329 11,314	1,233,811 9,712	494,738 3,247	1,380,458 5,663	1,022,638 10,876	275,811 3,326	5,867,641 46,941
-Depreciation charges	7.432	41,492	53,327	51,830	662,880	1,123,904	461,113	965,990	1,194,559	304,588	4,867,115
=Realized net income	3,560	18,565	33.849	32,605	568,762	119,619	36,872	420,131	-161.045	-25,452	1.047.467
+Value of inventory change	638	28,642	-1,713	24,358	-98,350	-130,297	286,122	-580,654	-286,598	-38,224	-796,075
=Total net income	4,199	47,207	32,136	56,962	470,412	-10,677	322,994	-160,523	-447,642	-63,676	251,391
2007											
+Total cash receipts	106,103	384,753	458,952	457,102	6,920,080	9,272,840	4,389,123	7,803,887	8,691,514	2,381,213	40,865,566
-Operating expenses after rebates	95,226	329,144	399,768	391,092	5,590,136	8,050,336	3,551,446	5,927,004	7,226,787	2,195,469	33,756,407
=Net cash income	10,876	55,609	59,184	66,010	1,329,944	1,222,504	837,677	1,876,884	1,464,727	185,744	7,109,159
+Income in kind	425 7,779	647 40.166	1,017 54,462	977 53.506	11,494 692,178	9,082 1.145.495	3,347 465.934	4,412 1.010.173	8,154 1,238,716	3,271 325.092	42,826 5.033.501
-Depreciation charges =Realized net income	3,523	16.090	5,739	13,480	649,260	86.091	375.090	871.123	234,164	-136,076	2.118.484
+Value of inventory change	-74	-25,227	11	-12,803	81,697	-228,753	-103,535	-392,491	-289,055	-18,396	-988,628
=Total net income	3,449	-9,137	5,749	678	730,957	-142,662	271,555	478,632	-54,891	-154,472	1,129,856
2008											
+Total cash receipts	109,323	394,369	488,520	476,515	7,573,278	10,046,738	4,843,809	9,427,015	10,178,520	2,521,749	46,059,835
-Operating expenses after rebates	101,655	348,408	431,161	411,493	5,940,242	8,553,133	3,999,012	6,879,810	8,071,086	2,392,162	37,128,162
=Net cash income	7,668	45,961	57,359	65,022	1,633,035	1,493,605	844,796	2,547,205	2,107,434	129,587	8,931,673
+Income in kind	468 7,981	570 40,918	1,008 56,631	889 52,169	11,938 721,264	8,802	3,336 490,202	4,338 1,043,178	8,051 1,282,428	3,455 349,410	42,854 5,220,724
-Depreciation charges =Realized net income	154	5,613	1,736	13,742	923,709	1,176,544 325,864	357,930	1,508,365	833,057	-216,368	3,753,804
+Value of inventory change	-1,056	-26,243	-925	-19,358	-169,364	44,205	521,457	2,208,744	738,440	-35,764	3,260,137
=Total net income	-901	-20,629	811	-5,616	754,345	370,068	879,388	3,717,109	1,571,498	-252,132	7,013,941
2009											
+Total cash receipts	107,805	410,721	462,744	501,530	7,442,757	9,684,732	4,853,362	9,244,398	9,326,081	2,525,388	44,559,519
-Operating expenses after rebates	104,326	361,283	419,696	417,853	5,816,597	8,465,811	3,868,616	6,660,982	7,702,104	2,261,660	36,078,927
=Net cash income	3,480	49,438	43,047	83,677	1,626,160	1,218,921	984,746	2,583,417	1,623,977	263,729	8,480,592
+Income in kind	368	480	955	852	11,095	8,407	2,762	4,236	7,011	3,763	39,929
-Depreciation charges =Realized net income	8,320 -4.472	41,650 8,267	59,698 -15,696	54,133 30,397	769,383 867,873	1,217,194 10.135	520,003 467,504	1,132,381 1,455,271	1,335,727 295,261	359,270 -91,778	5,497,759 3,022,761
+Value of inventory change	-4,472	-3,169	-10,590	2,690	-77,101	-317	33,721	527,934	-623,961	-25,130	-175,920
=Total net income	-4,469	5,098	-26,287	33,086	790,772	9,818	501,225	1,983,205	-328,700	-116,908	2,846,841

Note(s): The data in this table were last revised in November 2013.

Table 1-6
Net farm income — Agriculture economic statistics — 2010 to 2012

	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
					thous	ands of dolla	rs				
2010											
+Total cash receipts	117,294	410,321	496,162	477,287	7,213,365	10,206,796	4,780,519	9,117,239	9,000,917	2,505,164	44,325,063
-Operating expenses after rebates	103,242	347,709	422,016	408,186	5,498,631	8,392,146	3,776,214	6,379,707	7,734,658	2,261,489	35,323,999
=Net cash income	14,052	62,612	74,145	69,101	1,714,734	1,814,651	1,004,305	2,737,531	1,266,258	243,675	9,001,064
+Income in kind	339	419	937	805	10,830	8,595	2,965	4,156	7,497	4,099	40,640
-Depreciation charges	8,338	40,759	59,135	52,604	763,251	1,212,000	529,544	1,163,217	1,323,298	357,359	5,509,504
=Realized net income	6,053	22,271	15,948	17,302	962,313	611,246	477,726	1,578,469	-49,543	-109,585	3,532,200
+Value of inventory change	-431	17,093	470	9,328	21,234	-84,155	-562,643	-832,579	321,963	-9,469	-1,119,188
=Total net income	5,622	39,365	16,417	26,631	983,547	527,090	-84,916	745,890	272,420	-119,054	2,413,012
2011											
+Total cash receipts	118,823	484,544	527,865	540,425	7,966,779	11,033,567	4,969,622	11,044,491	10,321,065	2,604,593	49,611,776
-Operating expenses after rebates	108,781	367,091	441,900	425,712	6,024,252	8,868,875	3,950,091	7,220,632	8,492,047	2,366,033	38,265,415
=Net cash income	10,042	117,453	85,966	114,713	1,942,527	2,164,693	1,019,531	3,823,858	1,829,018	238,561	11,346,361
+Income in kind	330	339	969	759	11,646	9,606	3,391	4,646	8,728	4,774	45,186
-Depreciation charges	8,719	42,999	61,499	53,946	804,446	1,285,354	565,267	1,283,325	1,392,998	372,043	5,870,596
=Realized net income	1,652	74,793	25,436	61,525	1,149,726	888,944	457,655	2,545,179	444,748	-128,709	5,520,951
+Value of inventory change	-217	-12,699	387	-50,957	-9,235	351,176	-492,569	169,694	509,445	53,241	518,265
=Total net income	1,435	62,094	25,823	10,568	1,140,491	1,240,120	-34,914	2,714,873	954,193	-75,468	6,039,216
2012											
+Total cash receipts	130,310	480,974	582,245	537,426	8,348,901	12,310,889	5,177,726	11,838,272	11,950,619	2,831,948	54,189,310
-Operating expenses after rebates	115,150	382,218	469,099	439,203	6,220,422	9,319,529	4,312,179	7,929,140	9,220,945	2,433,434	40,841,320
=Net cash income	15,160	98,756	113,146	98,223	2,128,479	2,991,359	865,547	3,909,132	2,729,674	398,515	13,347,990
+Income in kind	235	332	887	905	12,027	9,408	3,531	4,921	8,652	4,356	45,254
-Depreciation charges	8,737	44,470	62,309	54,467	833,096	1,348,809	585,788	1,344,147	1,458,862	379,852	6,120,538
=Realized net income	6,658	54,618	51,724	44,661	1,307,410	1,651,958	283,289	2,569,905	1,279,464	23,019	7,272,706
+Value of inventory change	-1,425	15,357	691	28,739	5,316	-180,312	691,932	-243,183	-454,893	-12,351	-150,129
=Total net income	5,233	69,975	52,415	73,399	1,312,726	1,471,647	975.222	2.326.722	824,571	10.668	7,122,577

Note(s): The data in this table were last revised in November 2013.

General information

This publication presents annual estimates of net farm income and its components starting from 1981. Data highlights are provided for the most current year.

This publication is accompanied by the bulletin: *Direct payments to agriculture producers - Agriculture economic statistics*, catalogue no. 21-015-X.

All series can be obtained free on the internet at the Statistics Canada web site (www.statcan.gc.ca). Notes on concepts and methods are also included for each data series.

Data from 1926 to 1980 inclusive are available in the November 2004 publication of Net farm income – Agriculture economic statistics, catalogue no. 21-010-X, vol. 3, no. 2.

The electronic publication is available in November. Revisions generally apply to two years. The date provided at the bottom of each table is the last time that a revision was made to that table.

Most data appearing in this publication and related data series are available through the Canadian Socioeconomic Information Management System (CANSIM), Statistics Canada's corporate computerized data base network and information retrieval service.

Statistics Canada is committed to ensuring that there is no disclosure of confidential material and therefore all data are subjected to restrictions prior to release.

Concepts and methods

In addition to administrative data, there are three main sources (Census of Agriculture, Taxation Data Program and Farm Financial Survey) whose data contribute to several of the series found in this publication. Following is a brief overview of these surveys, and a summary of the methods used to reduce errors in each. Copies of any of the survey questionnaires may be obtained by contacting Canadian Agricultural Financial Statistics Section (CAFS).

Prior to 1991, the National Farm Survey (NFS) was a major source of data, providing the results of an annual probability survey, with a sample size of 50,000. Detail on concepts, survey methodology and data quality of the NFS are available by contacting Canadian Agricultural Financial Statistics Section (CAFS).

The Census of Agriculture is a quinquennial survey of all Canadian agricultural holdings, including institutional farms, research stations, community pastures and First Nations reserves.

Procedures for collecting complete and accurate information are developed and improved for each Census of Agriculture. To ensure that the data are of consistently high quality, control procedures are incorporated into each census collection and processing stage.

Some farming operations are missed, however, primarily due to the difficulty in identifying an agricultural holding when no operators live on or near the holding. Certain questionnaires are only partially completed, or not completed at all. Missing responses are obtained through follow up with respondents, or are estimated by employing an automated imputation procedure which assigns values selected from similar agricultural operations. Respondents occasionally provide inaccurate responses. Where such responses have a large impact on the estimate they are corrected or confirmed by contacting the respondents. Computerized checks identify processing errors related to keying entries, or omissions which occurred during manual processes. After processing, the data are validated by comparing them thoroughly with other survey results and administrative data. Technical information on concepts, survey methodology and data quality for the 2011 Census of Agriculture, is available on the website at www.statcan.gc.ca/ca-ra2011/index-eng.htm.

The Census of Agriculture is often used as a "coherence adjustment" and a source from which to draw samples. The coherence adjusting process involves using Census estimates each fifth year, and aligning the interim year's receipt and expense data with the results of the Census of Agriculture. The difference between the previously published estimate and the Census coherence adjustment is calculated and distributed over the four preceding years. This intercensal revision procedure is undertaken for many of the series in this publication, including farm cash receipts and operating expenses whose data then feeds into other accounts published here, such as the net farm income. Intercensal revisions incorporating the 2011 Census data were released in November 2013.

The Taxation Data Program (TDP) involves a sample of approximately 200,000 Canada Revenue Agency (CRA) income tax records. The sampling frame covers all provinces and includes all individuals who claim either positive gross farm income, or non-zero net farm income. Research stations, institutional farms, and First Nations reserves are excluded. The sampling frame includes all corporations which report minimum sales of \$25,000, for which 50% or more of their sales come from agricultural activities.

Records for approximately 95% of the sample are received and raising factors are adjusted where the sample is incomplete. Basic edit checks are performed at the data capture stage and subsequent editing identifies errors, inconsistencies, extreme values, etc. As a final check, the top 25 tax filers (records which contribute the most for each income and expense item), at the provincial level, are analysed further. A process of donor imputation, using similar tax filer records, is applied in cases where tax filers fail to itemize all (or part) of their revenues or expenses. Total revenue and expense items for farms are estimated by inflating each sampled item by an estimation weight.

The processing procedures described above help minimize the occurrence of non-sampling errors (such as errors introduced during editing, and response errors) but some errors are outside Statistics Canada's control, including the fact that Canada Revenue Agency (CRA) tax forms are designed for tax purposes and not survey purposes. Since TDP estimates are based on a sample rather than the total population, they are subject to sampling errors. The potential error introduced by sampling can be estimated from the sample itself by using a statistical measure called the standard error. Over repeated surveys, 95 times out of 100, the relative difference between a sample estimate and what would have been obtained from an enumeration of all operations would be less than twice the coefficient of variation. This range of values is referred to as the 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. The 2011 TDP survey had a coefficient of variation range of 0.7% to 3.7% for total operating revenues and expenses. Tables of standard error or coefficients of variation are available by contacting the Statistical Information Service 1-800-263-1136 or by e-mail at *infostats* @statcan.gc.ca.

The quality of the TDP estimates is affected by certain limitations. Firstly the information is not collected from a standard questionnaire, but from different types of statements of income and expenses. Secondly, under the Income Tax Act, tax filers can report either on cash or an accrual basis.

The imputation of missing values may affect the accuracy of tabulations. Further documentation concerning concepts, data reliability, limitations or the methodology of this survey is available by consulting Economic Overview of Farm Incomes, catalogue no. 21-005-X.

Prior to the Farm Financial Survey (FFS), Farm Credit Canada had conducted surveys (reference years 1981, 1984, 1987, 1989, and 1991) dealing with the financial structure of Canadian agriculture. This was a joint project of Farm Credit Canada (management, collection and processing personnel), Agriculture and Agri-Food Canada (financial support, collection and processing personnel), and Statistics Canada (survey and questionnaire design, processing and analysis of data). The structure of the FCC Farm Survey evolved over time, with the 1991 version having a Census-based sample of 12,000 farms with sales of over \$2000. These excluded institutional farms, farms on First Nations reserves, community pastures, farms in marginal areas and farms that were part of large multi-holding companies. A smaller area frame, based on the National Farm Survey area frame, was also used, in order to include entrants into agriculture since the previous Census.

In 1992, the FCC Farm Survey was replaced by the Farm Financial Survey (FFS), conducted under contract with Agriculture and Agri-Food Canada. In 1993, the survey was conducted in Western Canada only, with financial data referring to 1992. A biennial, nation-wide FFS was initiated in 1994 (1993 reference year), and continued until 2002. The biennial FFS was conducted annually from 2002 to 2011 reference years.

As was the case for the FCC Survey, the FFS estimates are based on a sample rather than on the entire population, they were subject to sampling errors. The potential error introduced by sampling can be estimated from the sample itself by using a statistical measure called the standard error. The 2011 FFS had a coefficient of variation range of 1.9% to 9.7% for total assets and total liabilities. The usable responses (excludes total refusals, no contacts, and others) returned from this survey totalled 75% of the sample. Tables of standard error or coefficients of variation are available by contacting Canadian Agricultural Financial Statistics Section (CAFS). Further documentation concerning concepts, data quality and reliability, limitations or the methodology of this survey is available by contacting the Statistical Information Service 1-800-263-1136 or by e-mail at *infostats* @statcan.gc.ca.

For administrative data, in order to reduce error, assessments are made based on historical and current trends, subject matter expertise, and information obtained through discussion with industry authorities. Users should be aware that administrative data are generally compiled for an organization's own needs, and not for survey purposes. Any anomalies or inconsistencies detected are verified with the source, and where necessary, adjustments are made to reconcile data with the conceptual framework of our series. The administrative agencies used are considered to be the best sources available, and data received from them is judged to be of very good quality, even in those circumstances where adjustments have been made. In some instances component data may not add to the total. This is ordinarily due to rounding, and considered to be of minimal impact.

Net farm income

In this publication annual estimates of net farm income at the provincial and national levels are presented from 1981 to date. These estimates are on the CANSIM database.

Due to changes in the concepts and methods for the components of net income, estimates of net income before 1971 are not comparable with those from 1971 to date.

The notes on concepts and methods for each of the components of net farm income (farm cash receipts, farm operating expenses and depreciation charges, income in kind, and value of inventory change) should be read in conjunction with these notes.

The Agriculture Division of Statistics Canada also derives estimates of farm income from several other independent sources. The Farm Financial Survey (FFS), the Taxation Data Program and the Census of Agriculture each produce separate income estimates. The table below shows the differences between the data.

Example:

Text table 1
Net cash income, Canada

	2010
	millions of dollars
Census of Agriculture Taxation Data Project Agriculture Economic Statistics Farm Financial Survey	8,923 8,498 9,001 7,311

Concepts

The farm income accounts are designed to provide an annual measure of income returned to the owners of agricultural businesses from the production of agricultural commodities. Two points should be noted:

- 1. accounts only relate to the farm business. They do not include any income that farm operators or their families may receive from other sources (wages and salaries, investment income, etc.).
- 2. The accounts pertain only to the production and marketing of agricultural commodities. Revenue or expenses related to the sale or purchase of farm capital (real estate, machinery and equipment) are not included.

Currently, the accounts include the sale of any production from farm woodlots, but exclude any income earned from activities such as fish farming or the non-agricultural use of the farm.

Methods and data quality

Three measures of net farm income at the provincial and national levels have been estimated for the years 1971 to date:

- 1. Net cash income of farm businesses is derived by subtracting operating expenses from farm cash receipts. It represents the amount of cash generated by the farm business that is available for debt repayment, investment or withdrawal by the owner.
- 2. Realized net income of farm businesses starts with net cash income. It is derived by subtracting depreciation (economic concept) and adding income in kind to net cash income. It represents the financial flows, both cash and non-cash, attributable to the farm businesses, similar to an income statement. It represents the net income from transactions in a given year in that it includes the sale of commodities regardless of the year they were produced. Realized net income does not account for stock changes (value of inventory change).
- Total net income is net cash income adjusted for the value of inventory change, depreciation (economic concept) and income in kind. It represents the return to owner's equity, unpaid labour, management and risk. Total net income accounts for agriculture economic production during the year that the agricultural goods were produced.

As a result of the residual method used to derive net income, a minor change in either farm cash receipts or farm operating expenses will have a significant impact on the net income level and yearly change.

The following diagram illustrates this point:

Text table 2 Impact of revisions on total net income

	Original data	Revised data	Variation in percentage
Total farm cash receipts including payments	60,000	60,600	1
- Total operating expenses after rebates	45,000	44,550	-1
= Net cash income	15,000	16,050	7
+ Income in kind	500	500	
- Depreciation	2,000	2,000	
= Realized net income	13,500	14,550	8
+ Value of inventory change	500	500	
= Total net income	14,000	15,050	= 8

In this example, a 1% change in either cash receipts or operating expenses would have resulted in a 4 to 5% change in any of the net farm income estimates, and a 1% change in both results in an 8% change to the total net income.

Farm cash receipts

This publication presents farm cash receipts by commodity and by calendar year from 1981 to date for every province. Data are available on a quarterly and annual basis for the period 1971 to date in CANSIM tables 002-0002 and 002-0001.

Concepts

Farm cash receipts measure the gross revenue of farm businesses in current dollars. They include sales of crops and livestock products (except sales between farms in the same province) and program payments. Receipts are recorded when the money is paid to farmers before any expenses are paid.

The farm cash receipts series includes agricultural products such as field crops, vegetables, fruits, floriculture and nursery products, maple and forest products, livestock, dairy products, poultry, eggs, fur, and honey.

The direct program payments to producers included in farm cash receipts represent the amounts paid under various government and private programs to individuals involved in agricultural production. The payments related to current agricultural production include subsidies to encourage production or to compensate producers for low market returns, payments to stabilize incomes and payments to compensate producers for crop or livestock losses caused by extreme climatic conditions, disease or other reasons.

The primary reason for compiling farm cash receipts is to estimate, on a provincial basis, the agriculture sector's contribution to gross domestic product. Consequently, all inter-farm sales within a province are excluded from farm cash receipts estimates as their inclusion would result in double counting. It should be noted, however, that farm-to-farm sales between provinces are included as are all sales outside the sector. Excluding inter-farm sales within a province means that farm cash receipts cannot be used as a measure of the gross output of the agriculture sector.

Farm cash receipts are estimated on a cash basis and represent the value of sales when they occur, that is, when ownership first changes hands. Thus, sales are only recorded when cash disbursements have actually occurred. The prices used to value transactions include any bonuses and premiums which can be attributed to specific commodities, but exclude fees deducted before the producer is paid (e.g. storage, transportation, marketing or administrative costs).

In several cases, particularly where crops are concerned, producers receive a partial or an initial payment for their commodities at the time of sale. As the marketing of the crop progresses, an adjustment or final payment is made. These payments are only shown in cash receipts when producers receive the funds. Examples of such cases include Ontario Wheat Producers' Marketing Board (OWPMB) and the former Canadian Wheat Board (now called the CWB) adjustment, interim and/or final payments for wheat, oats and barley. Oats ceased to be marketed through the CWB on July 31, 1989. Similar payment patterns also occur for sugar beets and dry beans.

Receipts from the sale of some agricultural products can be deferred. For example, producers in Western Canada have the option of deferring grain receipts to the next year. In the past, Statistics Canada used the assumption that payments ("liquidations") of deferred grain and oilseed receipts ("deferments") from the crops sold in one calendar year were all received in January of the following year. After conducting an examination of records provided by elevators, it was established that it was true for 85 to 90% of the cases. The series were revised accordingly, starting with 1998 data, to record more accurately in which month the liquidations occurred.

All published commodity receipts represent receipts from the market. Thus, any subsidy or stabilization payment directed at a specific commodity is not included in the receipts for that commodity. In fact, all direct subsidies or payments to the agriculture sector are recorded separately.

Methods

Cash receipts are, for the most part, based on monthly marketings and prices of the various commodities. Direct program payments are based on data obtained from several sources on a monthly or quarterly basis.

Calculations of commodity cash receipts involve the use of many data sources which can vary by province and by commodity. Most of the prices for the monthly marketings are collected from administrative sources such as marketing boards, regulatory agencies and market information. Some prices are also provided by a monthly farm prices survey conducted by Statistics Canada. In all cases, the prices reflect those received by producers at the point when ownership first changes hands.

Monthly marketings are mostly obtained from administrative records of marketing boards, government agencies and private companies. Grain marketings, including durum wheat, wheat excluding durum, oats, barley, rye, flaxseed and canola for the Western provinces, are obtained from the Canadian Grain Commission. In Eastern Canada, the data are either obtained from marketing boards and producer associations, based on historical marketing patterns or agreed upon in consultation with provincial specialists.

Marketings for crops such as corn, soybeans, tobacco and dry beans are obtained from marketing boards and associations as well as private companies.

Cash receipts estimates for potatoes, fruits, vegetables, honey, maple and forest products, and greenhouse and nursery products are obtained through various surveys or censuses conducted by Statistics Canada, the provinces or other federal and provincial departments or agencies. These departments and agencies are also a major source of marketing data for mustard seed, sunflower seed, lentils, canary seed, dry peas, forage and grass seed, and hay and clover.

Livestock marketings, including cattle, calves, hogs, sheep, lambs, hens and chickens, and turkeys, are mainly based on market information from Agriculture and Agri-Food Canada and provincial departments and agencies. Marketings of eggs are also obtained from these sources. In the case of dairy products, producers' marketings of milk and cream are obtained from regulatory agencies and private companies (data on cream was discontinued in 2006).

Although the farm cash receipts series covers many commodities, it is not exhaustive. There is a miscellaneous category for crops and another for livestock. The cash receipts in these two categories are based primarily on the quinquennial Census of Agriculture in order to account for commodities that are not estimated individually.

Since cash receipts are estimated on a cash basis, any amounts received after the sale of a product, whether in the form of a final or an adjustment payment, will be shown when the cash is received rather than when it was earned. Several items fall into this category, including payments by the CWB and the OWPMB, as well as deferments and liquidations of grain receipts. The information for these payments is obtained directly from the administrative bodies involved. Beginning with the 2012/2013 crop year, the CWB payments to producers are included in the respective crop receipts.

Direct program payments are tabulated quarterly. The agencies responsible for the disbursement of payments under the various programs provide the data on a monthly, quarterly and, in some cases, an annual basis. Only payments directly provided to producers are included in the series.

Payments made under private programs such as private hail insurance and other private programs are included in the Farm Cash Receipts series under the categories "Private hail insurance payments" and "Other private programs", respectively. In the publication **Direct payments to agriculture producers – Agriculture economic statistics**, catalogue no. 21-015-X, "Crop insurance payments" and "Other payments" do not include private program payments.

Data comparability

Two new commodities were added to farm cash receipts effective January 1997 under the new North American Industry Classification System (NAICS): Christmas trees and poultry hatcheries. With poultry hatcheries becoming part of the agriculture sector:

- Inter-provincial sales and exports of chicks and poults are included in poultry hatchery receipts.
- Eggs sold to hatcheries in the same province are now considered as inter-farm sales and were removed from egg receipts.
- Inter-provincial sales and exports of eggs sold for hatching are still included in egg receipts along with receipts for table eggs.

As of the June 1999 intercensal revision, horse receipts are estimated using slaughter data from the Canadian Food Inspection Agency combined with international exports of slaughter horses. Beginning in 2001, these receipts are included under 'Miscellaneous livestock and livestock products' receipts.

Data quality

As indicated above, farm cash receipts are estimated using both administrative and survey sources of data. Where necessary, data are adjusted to ensure conceptual consistency with the receipts series. Much of the data obtained from administrative sources have been summarized from the financial transactions of individual producers. These summarized data are often subject to audit by independent professional accountants and/or are used to make payments to individual producers. As a result, the quality of these data is considered to be very good. The survey data used in the receipts series reflect typical Statistics Canada standards for quality assurance and, therefore, the quality of these data is considered to be good.

However, it is important to note that the receipts data are subject to error. Administrative data may contain non-sampling error such as keying mistakes, while survey data may suffer from both non-sampling and sampling error. Users should also note that the quality of individual estimates may not be consistent between commodities or between provinces because the data sources and their quality may vary. As well, the estimates of inter-farm sales between provinces are not strong as there are few sources for these data.

More detail on the quality of the crops and livestock data that are used to estimate farm cash receipts can be found in the following list of Statistics Canada "Definitions, data sources and methods".

3416	Annual Greenhouse, Sod and Nursery Survey
3401	Field Crop Reporting Series
3407	Fruits and Vegetables Survey
3419	Honey Production, Value and Colonies
3414	Maple Products
3443	Miller's Annual Report
3403	Miller's Monthly Repory
3411	Mushroom Growers' Survey
3446	Potato Area and Yield Survey

5153	Survey of Grain Used for Industrial Purposes
3428	Census of Wildlife Pelt Production
3426	Fur Farm Report - Mink and Foxes
3460	Livestock Survey
3432	Milk Sold Off Farms and Cash Receipts from the Sale of Milk
5039	Production of Poultry and Eggs
3435	Wool Price Survey
5040	Farm Product Price Index (FPPI)
3436	Farm Product Prices Survey (FPPS)

Data revisions

Annual farm cash receipts data are published twice each year, at the end of May and at the end of November. At each release, receipts for the previous two calendar years are subject to revision. Every five years a historical revision is done based on the results of the Census of Agriculture. The results of the latest intercensal revision, based on the 2011 Census of Agriculture, have been included with the November 2013 publication, catalogue no. 21-010-X, vol. 12, no. 1, and apply to the period 2005 to 2012.

Income in kind

Annual income in kind estimates, at an aggregate level, are available in this publication in the net income tables. They are presented by province for the period 1981 to date. Estimates by commodity are available for the period 1926 to date in CANSIM table 002-0012.

Concepts

The income in kind series measures the value of agricultural commodities produced on farms and consumed by individuals living on these farm operations. The home-consumed products are valued at prevailing market prices such that income in kind represents the receipts producers would have received had the product been sold rather than consumed. Agricultural products that are used as inputs in the production of other agricultural products, such as grain fed to livestock, are not considered as income in kind because they form part of the value of the final product.

Agricultural commodities included in the income in kind series are dairy products, cattle, calves, hogs, sheep, lambs, hens and chickens, turkeys, eggs, potatoes, vegetables, fruits, maple products, honey and forest products. Prior to 2001, wool was also included.

Methods

Income in kind estimates are derived using three different methods, depending on the commodity. For maple products, estimates of the quantities consumed by farm operators and their families are obtained through surveys and administrative data. Prior to its exclusion in 2001, the wool income in kind estimate was obtained through a survey.

Estimates of quantities consumed for the other commodities (dairy products, cattle, calves, hogs, sheep, lambs, hens and chickens, turkeys, eggs, potatoes, vegetables, fruits and honey) are based on the number of farm operations producing the item, their average farm family size and the average annual Canadian consumption of the commodity.

Beginning in 1986, a new method for calculating income in kind was used for meat products (beef, veal, pork, sheep and lambs). Income in kind for the above listed livestock is derived from the 'consumed on farms' estimates produced by the Agriculture Commodities Section, multiplied by the annual average slaughter prices. The 'consumed on farms' estimate for sheep and lambs is published in CANSIM table 003-0094. The estimate for beef and veal is included under 'Slaughter of cattle' in CANSIM table 003-0083, while the estimate for pork is included under 'Other disposition of hogs' in CANSIM table 003-0102.

As of 1986, income in kind for forest products is based on the number of farm households reporting woodland areas on the Census of Agriculture, annual consumption of wood cords per farm and the average annual price.

Once the quantities of the farm products consumed by producers and their families have been established, they are valued at weighted average market prices received for the product during the year from the farm cash receipts series.

Data comparability

The preceding documentation is relevant for the period 1986 to date for meat and forest products and 1981 to date for the other commodities.

Data quality

Estimates of the value of income in kind are prepared using a combination of surveys, Census and administrative data. These data reflect typical Statistics Canada standards for quality assurance and, therefore, their quality is considered to be good. However, since little information on the consumption patterns of farm families exists, it is not possible to objectively validate the income in kind estimates. As a result, these estimates cannot be considered to be of high quality. Furthermore, they are subject to the general sampling and non-sampling errors present in all types of survey and administrative data.

More detail on the quality of the data that are used to estimate income in kind can be found in the following list of Statistics Canada "Definitions, data sources and methods".

3416	Annual Greenhouse, Sod and Nursery Survey
3407	Fruits and Vegetables Survey
3419	Honey Production, Value and Colonies
3414	Maple Products
3411	Mushroom Growers' Survey
3446	Potato Area and Yield Survey
3460	Livestock Survey
3432	Milk Sold Off Farms and Cash Receipts from the Sale of Milk
5039	Production of Poultry and Eggs
5040	Farm Product Price Index (FPPI)
3436	Farm Product Prices Survey (FPPS)

Data revisions

Annual estimates of income in kind are published twice each year, at the end of May and at the end of November. At each release, data for the previous two calendar years are subject to revision. Every five years a historical revision is done based on the results of the Census of Agriculture. The results of the latest intercensal revision, based on the 2011 Census of Agriculture, have been included with the November 2013 publication, catalogue no. 21-010-X, vol.12, no. 1, and apply to the period 2005 to 2012.

Value of inventory change

This publication presents annual estimates of the aggregate value of inventory change from 1981 to date in the net income tables. The data series are available by province, for the period 1926 to date, in CANSIM table 002-0009.

Concepts

The value of inventory change measures the value of the change in producer-owned inventories between the beginning and the end of the calendar year. The annual value of inventory change (whether positive or negative), along with farm cash receipts and income in kind, represents the gross value of agricultural production.

Many agricultural commodities, particularly grains, are produced in a given year and stored or held until they are marketed as long as two years later. In years of above-average production, farm inventories tend to be built up, only to be drawn down and sold when production returns to average or below-average levels.

Receipts from the sale of grains can be deferred and then cashed or liquidated in the next year. As a result of the methods used to derive grain receipts, an adjustment is made to the value of inventory change. The adjustment is required in order to avoid double counting in the value of inventory change series.

The value of inventory change is estimated for durum wheat, wheat except durum, oats, barley, rye, corn, flaxseed, canola, soybeans, potatoes, tobacco, mustard seed, sunflower seed, lentils, canary seed, dry peas, chick peas, cattle, calves, sheep and lambs, hogs, hens and chickens, and turkeys. Deferred grain receipts and liquidations of deferred grain receipts, as mentioned above, are also included.

Methods

The value of inventory change series is an estimate of the value of the change in producer-held inventories of agricultural products during a calendar year. The physical change in inventories is valued at weighted average annual market prices in the case of crops and at simple average annual prices for livestock commodities. This simple average is based on the value per animal at January 1, July 1 and December 31 of each year.

In the case of crops, supply and disposition balance sheets are used to establish the beginning and ending inventories on a calendar year basis. Inventories at the end of each crop year and production levels for each crop are based on producer surveys. Monthly disposition items, including marketings, home consumption, feed, waste and dockage, and seed use, are obtained from various sources.

Physical inventory levels at calendar year-end are established for each crop by adding estimates of crop year beginning inventories to estimates of production and then deducting estimates of monthly disposition.

Physical inventory levels for livestock items are established from the quinquennial Census of Agriculture. Between Censuses, semi-annual producer surveys are used to derive inventory levels.

As explained above, the value of inventory change is adjusted to take into account the deferment and liquidation of grain receipts. This adjustment consists of adding to the value of inventory change an amount equal to that shown for deferred grain receipts. Similarly, an amount equal to the value of liquidations is deducted from the value of inventory change.

Data quality

Estimates of the value of inventory change are prepared using both administrative and survey data. These data reflect typical Statistics Canada standards for quality assurance and, therefore, their quality is considered to be good. However, it is important to note that these data are subject to the general sampling and non-sampling errors present in all types of survey and administrative data.

Estimates of the value of inventory change can also be very volatile. Inventory change can be either positive or negative, depending on whether inventories have increased or decreased. Revisions to any of the supply or disposition items will have a direct effect on inventory levels, and even small revisions could change the sign on inventory change. Furthermore, calendar year inventory levels are often derived residually. As a result, the value of inventory change series is very sensitive and often subject to substantial revision.

More detail on the quality of the data that are used to estimate the value of inventory change can be found in the following list of Statistics Canada "Definitions, data sources and methods".

Field Crop Reporting Series
Miller's Annual Report
Miller's Monthly Report
Potato Area and Yield Survey
Survey of Grain Used for Industrial Purposes
Livestock Survey
Production of Poultry and Eggs
Farm Product Price Index (FPPI)
Farm Product Prices Survey (FPPS)

Data revisions

Annual estimates of the value of inventory change are published once each year, at the end of November. At this time, data for the previous two calendar years are subject to revision. Every five years a historical revision is done based on the results of the Census of Agriculture. The results of the latest intercensal revision, based on the 2011 Census of Agriculture, have been included with the **November 2013** publication, catalogue no. 21-010-X, vol.12, no. 1, and apply to the period 2005 to 2012.

Farm operating expenses

National and provincial level estimates of farm operating expenses and depreciation charges from 1981 to date are included in this publication. The estimates present gross expenses and rebates (where applicable) are shown for each item. Gross expenses, net expenses and rebates are available on CANSIM.

Preliminary estimates of a calendar year are available on CANSIM table 002-0005 in May of the following year (i.e. five months after the end of the reference year). The November release revises these estimates to incorporate data received too late to be included in the first release, data revisions received from administrative source agencies, and to incorporate estimates from the Taxation Data Program (TDP), based on a partial sample. Updates based on the 100% TDP sample are incorporated into the issue released the following May (i.e., 17 months after the end of the reference year).

Concepts

Estimates of farm operating expenses represent business costs incurred by farm operators for goods and services used in the production of agricultural commodities. All expense information is on a calendar year basis. If direct rebates are paid to farmers to reduce the cost of particular inputs, then the net expense estimates are used in the preparation of net income, although both gross and net expenses may be displayed. As the objective is to produce provincial estimates of net income, within-province flows from one farm to another are excluded from the estimates. The province can be viewed as one large farm.

Property tax estimates include municipal and school taxes on agricultural land and buildings owned and operated by farmers. They exclude property tax on land rented to others as this is not the business of producing agricultural goods. Taxes on land rented from others are also excluded as these are accounted for in rent expenses. The personal share of property taxes on the farm house is excluded.

Cash rent expenses are estimated for rent paid for land and buildings rented from the government or private sector, including other farmers. Taxes paid on property rented from others and community pasture or grazing fees are included. Quota rental and machine rental costs are excluded. **Share rent** expenses are estimated for the value of rent which is paid on a share crop basis.

Cash wages and room and board estimates include farm wage and salary expenses for hired labour. Wages for the family, including the spouse and children, are also part of this estimate. Wages are split into family and non-family using data from the Census of Agriculture. An increase in family wages would decrease net farm income but leave family income unchanged. Employer contributions for Worker's Compensation, Employment Insurance and the Canada Pension Plan are included. A separate estimate was made for **room and board** expense prior to 1986.

Interest expense estimates are made for interest paid on all farm business loans such as mortgages or credit from suppliers and private individuals. Payments on the principal are excluded. Interest paid on land rented to others or on the personal portion of the farm house are explicitly excluded.

Repairs to buildings and fences expenses include all of the costs associated with the repair and maintenance of farm buildings and fencing, including the farm business share of the farm house. Expenses associated with capital improvements, such as renovations or alterations and new building or fence construction are excluded. A separate estimate was made for repairs to fences expense prior to 1986.

Electricity and telephone expenses are estimated for the farm business only. The personal use portion of these expenses and installation costs is excluded.

Heating fuel expenses include heating and grain drying with oil, propane, natural gas, wood and coal. The farm business share of home heating is included.

Fuel expenses include petroleum, diesel oil and lubricants used for all types of machinery and equipment from tractors and combines to generators and irrigation pumps. Only the farm business share of such expenses is included.

Machinery repair and other machinery expenses are estimated for repairs and maintenance, licence, registration and insurance costs for farm vehicles and machinery. These estimates include the cost of parts, labour and the farm business share of automobile and truck maintenance.

Fertilizer and lime expenses include all costs associated with the purchase of fertilizer and lime including spreading, if it is part of the cost. A separate estimate was made for lime expense prior to 1986.

The estimate for **pesticides** represents farm expenditures for all pesticides, herbicides, insecticides and fungicides. If the application of pesticides is part of the cost it is also included.

Commercial seed expenses include the value of seed and seedlings purchased by farmers through commercial channels, such as elevators, seed houses and seed dealers. The estimates exclude expenses for seed purchased from other farmers as this is an inter-farm transfer in the provincial accounting system. The value of home-grown seed and the value of seed bought for resale are excluded. Seed cleaning and treatment costs are included if they are part of the purchase cost. Prior to 1973, purchases also included nursery stock. From 1973 to 1982, farmers' purchases of nursery stock have been deducted from nursery stock receipts in the farm cash receipts account. Since 1983, only nursery stock purchases from within the same province have been deducted.

Irrigation expense estimates are for the purchase of water or water rights, and exclude the operation or purchase of irrigation equipment.

Twine, wire and containers expenses include farmers' costs for the purchase of baler twine, binder twine, baling wire, plastic wraps and containers. Containers include burlap and plastic bags, wood and cardboard boxes, plant pots and flats, egg cartons and trays, etc. Large containers, such as grain bins, are not included since these are considered capital expenditures.

Crop and hail insurance expenses include the premiums which farmers pay towards both private and government programs. Prior to 1971, crop insurance and business insurance expenses are combined in a total insurance expense. Crop insurance indemnities have been included in the cash receipts account since 1971.

Commercial feed expenses are estimated in the same manner as those for seed. Only the cost of feed and feed supplements purchased by farmers through commercial channels is included: the value of feed bought from other farmers and the value of home-grown feed are therefore excluded. Hay and straw costs are included.

Livestock purchase estimates represent only interprovincial and international trade of cattle, calves, weanling pigs and lambs moving directly to farms. Stock bought and sold between farmers in the same province are not included. From 1971 to 1996, livestock purchase estimates included poultry purchases. Poultry purchases represented the cost of purchasing chicks, pullets, turkeys, geese, ducks, and all other types of poultry from hatcheries. Prior to 1997, hatcheries were considered outside of the agricultural sector. With the inclusion of hatcheries in the agricultural sector, beginning in 1997, under the North American Industry Classification System (NAICS), expenses for poultry purchases have decreased. Movements of birds between farms - including purchases from hatcheries - within the same province are not included.

The artificial insemination fees and veterinary expenses estimates represent all costs which farmers incur when obtaining these services, such as medicine, semen, and technical or professional assistance.

Business insurance expenses for 1971 to date represent the gross amount of premiums paid to protect the capital employed in agricultural production. Estimates for earlier years are net of indemnities and are included with crop insurance expenses.

Custom work expenses are net and represent the difference between custom work expenses and custom work receipts. They include custom work, contract work, machine hire expenses, and the rental and leasing of farm machinery, equipment and vehicles. Expenses with benefits spread out over many years such as land clearing are excluded.

Stabilization premiums are expenses which farmers pay to belong to stabilization programs which support either farm income or prices for selected commodities.

Legal and accounting fees which are pertinent to the farming operation are included. Prior to 1990, legal and accounting fees were a part of **other expenses**.

Other expenses include items which are not covered elsewhere in the accounts such as office and promotion expenses. Legal and accounting fees were part of other expenses before 1990. They are now a separate item.

Methods and data quality

Preliminary estimates of each farm operating expense except interest, irrigation, livestock and poultry purchases, crop and hail insurance, and stabilization premiums are obtained by applying price and quantity indicators to the previous year's final estimates. These are available in CANSIM table 002-0005 in May – five months after the end of the reference year. Prior to 1991, most of the final estimates of farm operating expenses came from the National Farm Survey (NFS) and a sample of farmers' income tax records for unincorporated farms outside of the Prairies. From 1991 to date, the Taxation Data Program (TDP) is the main data source. The first sets of estimates that are based on a partial TDP sample are released on CANSIM in November of the following year. Estimates based on the complete TDP sample are released the following May, seventeen months after the end of the reference year.

Revisions are made in an effort to improve the quality of the estimates and may cover two years preceding the reference year for the November issue, and two years for the May release.

Revisions are also incorporated into this series after the results of each Census of Agriculture have been reviewed. Concepts, methods and format may also be changed at this time, to provide a historical time series which is methodologically and conceptually consistent. The most recent intercensal reviews have resulted in revisions to the estimate of total gross farm operating expenses, at the Canada level, of -0.1 %.

For information about intercensal revisions, please refer to the November 2013 publication Net farm income - Agriculture economic statistics, Catalogue no. 21-010-X, vol.12, no.1.

To obtain detailed technical information on the data quality of the Taxation Data Program, whose estimates form the base of this series, users can refer to the Definitions, data sources and methods section of the release of Farm operating revenues and expenses.

For the other expense items (interest, irrigation, livestock and poultry purchases, crop and hail insurance, and stabilization premiums), preliminary estimates of the previous calendar year are released in May and includes all data received from source agencies or Statistics Canada sources at the time of release. The November release revises these to incorporate changes made by the source agencies, and to accommodate data received too late to be included in the first release.

Interest expenses are estimated from administrative data prepared by banks, credit unions, the Farm Credit Canada, federal and provincial governments, and from Agriculture and Agri-Food Canada. The data are adjusted to conform to the required concepts. Examples of such adjustments would be converting fiscal year data to a calendar year basis, or the exclusion of the personal share portion of the interest on the house mortgage.

Irrigation expense estimates come from the Association of British Columbia Irrigation Districts, Alberta Agriculture and Rural Development, the Saskatchewan Water Corporation, and the Prairie Farm Rehabilitation Administration.

Livestock purchase expense estimates are based on international and interprovincial import data. The number of animals imported interprovincially and internationally is obtained from supply and disposition balance sheets published by the Agriculture Commodities Section. The values for animals imported interprovincially are based on prices received by farmers in the exporting province, as compiled by the Canadian Agricultural Financial Statistics Section (CAFS). Transportation costs between provinces, as provided by the transportation industry, are added to the livestock purchase expense. The value of animals imported internationally is calculated using International Trade Division data.

Prior to 1997, poultry purchase expense estimates included the cost of purchasing chicks from hatcheries. With hatcheries becoming part of the agricultural sector in 1997, only the value of chicks and hatching eggs imported interprovincially and internationally is measured. Quantities of pullet and broiler chicks, turkey poults and chicken and turkey hatching eggs are obtained from Agriculture and Agri-Food Canada. Prices are obtained from the Canadian marketing agencies for eggs, broiler hatching eggs and turkeys. International import prices are obtained through the International Trade Division, Statistics Canada.

Crop and hail insurance estimates come from the Canadian Crop Hail Underwriters Association and Agriculture and Agri-Food Canada's administrative data.

Stabilization premium estimates are provided by the provincial governments. Stabilization programs include the Farm Income Stabilization (ASRA) program in Quebec, the Dairy Subsidy (1981 to 2002), the private Dairy Livestock Insurance Program in Nova Scotia (1991 to present), private livestock insurance in Newfoundland and Labrador (1991 to present) and the Cattle Price Insurance Program (CPIP) in Alberta (2009 to present). In recent years, additional programs include the Ontario Risk Management Program (2007 to present), Nova Scotia poultry insurance (2008 to present), PEI livestock insurance (2009 to present), the Hog Price Insurance Program in Alberta (2011 to present) and the Overwinter Bee Mortality Insurance in Manitoba (2012 to present). The method for handling stabilization premiums was revised as part of the 1971 - 1987 intercensal revisions. For 1971 to date, premiums are reported in the farm operating expenses series.

Depreciation charges

Concepts

Depreciation charges against the farm business are intended to account for economic depreciation or the loss in fair market value of the capital assets. Generally, depreciation is considered to occur as a result of ageing, wear and tear, and obsolescence. It represents the value of capital which is no longer available for future use. Economic depreciation should not be confused with accounting depreciation, tax depreciation, or capacity depreciation.

Building depreciation estimates the depreciation of farm buildings on owner occupied farms, including the farm business share of houses. The charge for building depreciation on tenant occupied farms is assumed to be included in the cost of cash or share rent. Machinery depreciation estimates the depreciation of the farm business share of autos and trucks and the depreciation of other machinery, which are owned by the farm business. Autos, trucks and machinery, which the farmer leases, are not depreciated.

Methods and Data Quality

The depreciation on farm buildings is based on the value of farm land and buildings. Provincial owner-occupied proportions are derived from the Census of Agriculture estimates of land tenure. The building depreciation expenses are revised from 1997 to 2007 using the Farm Credit Corporation (FCC) farmland sales data to adjust the building/land value split. Unlike the FCC data, the Census of Agriculture does not separate the value of buildings from the value of land. The FCC sales data are used in combination with information from the Census of Agriculture on the value of land and buildings and land tenure to derive the building/land value splits by province. The proportions of houses and other buildings to land are derived from the special 1958 Farm Income and Expenditure Survey, with some adjustments prior to 1984 to account for changes in the proportions over time.

The business share of the house was based on tax allowances and expert opinion. These proportions are used to derive the owner-occupied farm business share of the value of farm houses and other buildings. Depreciation is calculated using the declining balance method where the appropriate capital value is multiplied by the depreciation rate. The depreciation rate is 2% for farm houses and 5% for other buildings. It would take 80 and 31 years, respectively, to depreciate 80% of the value from any particular year, using the declining balance method.

Depreciation of autos, trucks and other farm machinery are based on their respective capital value series, using the declining balance method. Depreciation rates vary by province, but range between 9% and 17%. It would take approximately 17 and 9 years, respectively, to depreciate 80% of the value from any particular year, using this method. Only the farm business portion of depreciation on autos or trucks is included. The business share of the autos and trucks was based on tax allowances and expert opinion.

An analysis of the quality of depreciation data was done in 1994. Weaknesses which were identified and remain unresolved include: the use of the change in value of farm land and buildings to estimate farm building depreciation; the use of a conceivably outdated 1958 survey as a coherence adjustment; the omission of fencing as depreciable capital; and the use of indirect sources of information on the proportion of owned assets to total assets. A report on the results of this analysis was prepared and is available on request.

Leasing of automobiles, trucks and farm machinery

Beginning in the early 1990's, the leasing of vehicles and farm machinery became increasingly common. That portion of the value of autos, trucks and farm machinery that was being leased by farmers was removed from the depreciation calculation.

Machinery and equipment is separated into five categories:

- · Automobiles,
- Trucks,
- Tractors,
- · Self-propelled combines,
- · All other machinery.

The practice of leasing is most common for the first four categories (above) while "all other machinery" is, for the most part, owned outright by farmers.

Decisions made on basis of information provided by manufacturers, dealers, surveys, administrative data, etc. are as follows:

- Automobiles, trucks, tractors, and self-propelled combines purchased prior to 1992 were not purchased under a lease agreement.
- The capital value owned by the farm operator used in calculating depreciation was reduced when the leasing calculations began in 1992.

Automobiles and trucks

It is assumed that at the end of the lease agreement for automobiles and trucks (i.e., after 3 years) either the leasee buys the vehicle outright at a "buy out" value or another farmer buys the used vehicle outright or the leasee returns the vehicle to the dealer who sells them to the non-agriculture sector.

Tractors and self-propelled combines

At the end of the lease agreement for tractors (i.e., after 4 years) and self-propelled combines (i.e., after 3 years) either the leasee buys the machinery outright at a "buy out" value or another farmer buys the used machinery outright. In either case, the value of used farm machinery purchased outright is included in the total value of owned farm machinery.

Rebates

Concepts

National and provincial estimates of rebates paid directly to farmers represent a reduction in business costs incurred in the production of agricultural commodities. Rebates, paid by various governments, are calculated on a calendar year basis. In this publication, the actual rebate estimate is displayed.

Methods and data quality

The rebate estimates include all payments made directly to producers under federal, provincial and municipal expense reducing programs. Administrative data are obtained directly from provincial departments of agriculture and of finance.

As the data are obtained directly from those agencies administering the rebate programs, and making payments to the producers, they are deemed to be of good quality.

For more information on historical programs, please see the footnotes following the tables in Direct payments to agriculture producers - Agriculture economic statistics, Catalogue no. 21-015-X.

Intercensal Revisions

Background

- On November 26, 2013, the Agriculture Division released historical revisions from 2005 to 2012 for the Agriculture financial accounts, including: farm cash receipts, operating expenses, net cash income, income in kind, depreciation, value of inventory change and farm capital value.
- The revisions were made to:
 - 1. align with the results from the 2011 Census of Agriculture
 - 2. to integrate improved estimation methods and new data sources

Impact of revisions on 2010 data

All comparisons are made for the calendar year 2010, which allowed the comparison of published data with the results of the 2011 Census of Agriculture and a complete Taxation Data Program sample. Differences were calculated by comparing the estimates published in November 2013 (after revisions) with those published in May 2012 (before revisions).

At the Canada level, the revisions to total farm cash receipts, farm operating expenses, net cash income, realized net income and total net income were small. The largest among these, in percentage terms, was the 4.5% downward revision in total net income. As is customary, given there are revisions in opposite directions which help cancel each other out, more substantial revisions are evident among the receipt and expense items that comprise these more aggregated measures. The following outlines some of the more important revisions; showing the change in value and percent.

Farm cash receipts

Total farm cash receipts:	-\$138.3 million (-0.3%)
Total crop receipts:	-\$105.3 million (-0.5%)
Total livestock receipts:	-\$34.6 million (-0.2%)
Direct program payments:	+\$1.6 million (+0.1%)

Farm operating expenses

Total farm operating expenses (after -\$21.8 million (-0.1%)

rebates):

Commercial seed: +\$123.0 million (+7.5%) Machinery and other repairs: -\$114.7 million (-4.7%) -\$80.7 million (-4.5%) Family wages: Fertilizer and lime: +\$73.6 million (+2.1%) Electricity: -\$62.5 million (-7.4%) Custom work: +59.8 million (+5.2%) +\$46.9 million (+2.1%) Interest: -\$39.3 million (-4.6%) Crop and hail insurance premiums: -\$33.3 million (-2.3%) Cash rent: Telephone: -\$25.8 million (-8.5%)

Net cash income -\$116.5 million (-1.3%)

Income in kind +\$0.6 million (+1.4%)

Depreciation +\$26.9 million (+0.5%)

Realized net income -\$142.8 million (-3.9%)

Value of inventory change +\$29.5 million (+2.6%)

Total net income -\$113.3 million (-4.5%)

Justification for the revisions

1. Farm cash receipts

1.1 Floriculture receipts - Source data improvements and coherence adjustments to the 2011 Census of Agriculture

Revisions were a result of improvements made to the source data in the collection of the resales component of floriculture receipts. Revisions were also due to the incorporation of data from the Agriculture Commodities Section which had been reconciled to the 2011 Census of Agriculture.

Impact on:

Floriculture receipts: -\$85.6 million (-7.4%)

Total farm cash receipts: -0.2%

1.2 Miscellaneous livestock receipts - Coherence adjustments to the 2011 Census of Agriculture

The miscellaneous livestock category accounts for commodities which are not estimated individually in the farm cash receipts series. The miscellaneous livestock ratios were updated based on the miscellaneous livestock categories reported on the 2011 Census of Agriculture. Most of the downward revision was due to decreases in the number of alternative livestock reported on the census (i.e. Bison, Llamas, Elk).

Impact on:

Miscellaneous livestock receipts: -\$52.1 million (-12.4%)

Total farm cash receipts: -0.1%

1.3 Miscellaneous crop receipts - Coherence adjustments to the 2011 Census of Agriculture

The miscellaneous crop category accounts for commodities which are not estimated individually in the farm cash receipts series. The miscellaneous crop ratios were updated based on the miscellaneous crop, fruit and vegetable categories reported on the 2011 Census of Agriculture. Most of the downward revision was due to reductions in the prices used to value these items and the removal of some double counting.

Impact on:

Miscellaneous crop receipts: -\$49.9 million (-28.0%)

Total farm cash receipts: -0.1%

1.4 Canola receipts - Revisions made to incorporate revised source data

Canola receipts were revised due to changes made to the deliveries as released by the Commodities Section.

Impact on:

Canola receipts: -\$48.5 million (-0.9%)

Total farm cash receipts: -0.1%

1.5 Forest product receipts - Coherence adjustments to the 2011 Census of Agriculture

Downward revisions were made as the estimate was aligned with that of the 2011 Census of Agriculture.

Impact on:

Forest product receipts: - \$41.6 million (-39.6%)

Total farm cash receipts: -0.1%

1.6 Nursery receipts - Coherence adjustments to the 2011 Census of Agriculture

Revisions were due to the incorporation of data from the Agriculture Commodities Section which had been reconciled to the 2011 Census of Agriculture. Improvements were also made to the nursery calculation which removes resales.

Impact on:

Nursery receipts: +\$63.2 million (+12.6%)

Total farm cash receipts: +0.1%

2. Farm operating expenses

2.1 Commercial seed - Coherence adjustments to the 2011 Census of Agriculture

The upward revisions made were based on coherence adjustments to the total seed expense estimates of the 2011 Census of Agriculture. These were most pronounced in the Prairie Provinces. As well, these revisions reflect the greater percentage of seed purchases made through commercial channels in grain and oilseed production over the intercensal period. The increased area seeded to canola – a crop for which its seed is typically purchased in such a fashion – was the principal contributor.

Impact on:

Commercial seed expenses: +\$123.0 million (+7.5%)

Total operating expenses: +0.3%

2.2 Machinery and other repairs - Coherence adjustments to the 2011 Census of Agriculture

Revisions are the result of coherence adjustments to the 2011 Census of Agriculture. Increases in machine repair expenses over the intercensal period were more muted than in other data sources.

Impact on:

Machinery and other repair expenses: -\$114.7 million (-4.7%)

Total operating expenses: -0.3%

2.3 Family and non-family wages - Coherence adjustments to the 2011 Census of Agriculture

Revisions were made to better align estimates to 2011 Census of Agriculture figures on wages and salaries paid to family members. Since the estimate of non-family wages is the difference between cash wages and family wages, the adjustments made to family wages also necessitated changes to the non-family estimate.

Impact on:

Family wages: -\$80.7 million (-4.5%)

Total operating expenses: -0.2%

Non-family wages: +\$86.9 million (+3.3%)

Total operating expenses: +0.2%

2.4 Fertilizer and lime - Coherence adjustments to the 2011 Census of Agriculture

Revisions are the result of coherence adjustments to the 2011 Census of Agriculture. It measured strong increases in fertilizer expenses over the intercensal period in the Prairie provinces. A combination of fertilizer price hikes and higher usage led to the increase in expenses.

Impact on:

Fertilizer and lime: +\$73.6 million (+2.1%)

Total operating expenses: +0.2%

2.5 Electricity - Coherence adjustments to the 2011 Census of Agriculture

The downward revisions made to the electricity estimates were primarily based on the 2011 Census of Agriculture estimates. The most pronounced adjustment was in Ontario where there was a 12.1% downward revision.

Impact on:

Electricity: -\$62.5 million (-7.4%)

Total operating expenses: -0.2%

2.6 Custom work - Coherence adjustments to the 2010 Taxation Data Program

The upward revisions made to the custom work estimates adjusted the levels closer to those of the primary data source – the Taxation Data Program.

Impact on:

Custom work: +\$59.8 million +5.2%

Total operating expenses: +0.2%

2.7 Interest - Improved method

Revisions were made using an improved estimation method for debt owed and interest paid to suppliers, private individuals and others.

Impact on:

Interest: +\$46.9 million (+2.1%)

Total operating expenses: +0.1%

2.8 Crop and hail insurance premiums - Revisions in source data

Revisions made by the administrative data sources necessitated adjustments to the estimates.

Impact on:

Crop and hail insurance premiums: -\$39.3 million (-4.6%)

Total operating expenses: -0.1%

2.9 Cash rent - Coherence adjustments to the 2011 Census of Agriculture

The downward revisions were based on coherence adjustments to the cash rent estimate of the 2011 Census of Agriculture where increases were weaker than in other data sources.

Impact on:

Cash rent: -\$33.3 million (-2.3%)

Total operating expenses: -0.1%

2.10 Telephone- Coherence adjustments to the 2011 Census of Agriculture

Revisions were made as the estimate was aligned with that of the 2011 Census of Agriculture. Its estimate for electricity, telephone and other telecommunication expenses increased at more moderate rate than that of other data sources.

Impact on:

Telephone: -\$25.8 million (-8.5%)

Total operating expenses: -0.1%

3. Net cash income

The impact of coherence adjustment to the 2011 Census of Agriculture and changes in coverage, estimation methods, concepts and sources resulted in a downward revision in net cash income of 1.3%. Most of the -\$116.5 million revision can be attributed to the farm cash receipts component of the ledger as it fell \$138.3 million, while farm operating expenses decreased \$21.8 million.

4. Income in kind

Total income in kind: +\$0.6 million (+1.4%)

4.1 Dairy products - Coherence adjustments to the 2011 Census of Agriculture

Revisions were made as the farm population was updated according to the 2011 Census of Agriculture – National Household Survey linkage. Revisions to the per capita dairy products consumption data, and to the prices used to value the dairy income in kind, were also incorporated.

Impact on:

Dairy income in kind: +\$0.5 million (+15.2%)

Total income in kind: +1.1%

4.2 Eggs - Revisions to source data

Revisions were made to the per capita egg consumption data as well as to the prices used to value the egg income in kind.

Impact on:

Egg income in kind: +\$0.2 million (+10.3%)

Total income in kind: +0.5%

4.3 Forest products - Coherence adjustments to the 2011 Census of Agriculture

Revisions were made as the farm population was updated according to the 2011 Census of Agriculture, that being the number of households reporting 'woodlots and wetlands' area.

Impact on:

Forest products income in kind: -\$0.1 million (-1.9%)

Total income in kind: -0.3%

5. Depreciation

Incorporated revised source data and a method update.

Total depreciation: +\$26.9 million (+0.5%)

The building depreciation expenses are revised from 2005 to 2012 using the Farm Credit Canada (FCC) farmland sales data to adjust the building/land value split. Unlike the FCC data, the Census of Agriculture does not separate the value of buildings from the value of land. The FCC sales data are used in combination with information from the Census of Agriculture on the value of land and buildings and land tenure to derive the building/land value splits by province. Adjustments made to the house/service building split based on price and investment data also had an impact.

6. Realized net income

Realized net income: -\$142.8 million (-3.9%)

The revisions to the components of realized net income produced a 3.9% decrease. The \$116.5 million decrease in net cash income was amplified by the \$26.9 million upward revision in depreciation expenses.

Text table 1 Realized net income

Components	millions of dollars	percent change
Net Cash Income Depreciation Income in Kind Realized Net Income	-116.5 26.9 0.6 -142.8	-1.3 0.5 1.4 -3.9

7. Value of inventory change (VIC)

Total value of inventory change: +\$29.5 million (+2.6%)

7.1 Canola value of inventory change - Incorporated revisions made to source data from the Commodities Section

Revisions were due to the incorporation of the Commodities Section's revisions to farms stocks, production and marketings data. Impact on:

Canola VIC: +\$72.6 million (+15.0%)

7.2 Cattle value of inventory change – Incorporated revisions made to source data from the Commodities Section

Revisions were due to the incorporation of the Commodities Section's cattle balance sheets which had been aligned to the 2011 Census of Agriculture.

Impact on:

Cattle VIC: -\$70.6 million (-31.6%)

7.3 Lentils value of inventory change - Incorporated revisions made to source data from the Commodities Section

Revisions were due to the incorporation of the Commodities Section's revisions to production, marketings and farms stocks data.

Impact on:

Lentil VIC: +\$35.6 million (+9.5%)

8. Total net income

-\$113.3 million (-4.5%) Total net income:

The revisions decreased the total net income by 4.5% as the downward revision in realized net income was partially mitigated by a 2.6% upward revision in the value of inventory change.

Text table 2 Impact of revisions 2010

Income Category	Before revisions	After revisions	Change
	thousands of dollars		percent
Canada Farm Cash Receipts Farm Operating Expenses Net Cash Income	44,463,363	44,325,063	-0.3
	35,345,823	35,323,999	-0.1
	9,117,540	9,001,064	-1.3
Newfoundland and Labrador Farm Cash Receipts Farm Operating Expenses Net Cash Income	118,123 105,803 12,320	117,294 103,242 14,052	-0.7 -2.4 14.1
Prince Edward Island Farm Cash Receipts Farm Operating Expenses Net Cash Income	403,391	410,321	1.7
	366,640	347,709	-5.2
	36,751	62,612	70.4
Nova Scotia Farm Cash Receipts Farm Operating Expenses Net Cash Income	499,678	496,162	-0.7
	422,208	422,016	0.0
	77,471	74,145	-4.3
New Brunswick Farm Cash Receipts Farm Operating Expenses Net Cash Income	478,803	477,287	-0.3
	405,552	408,186	0.6
	73,250	69,101	-5.7
Quebec Farm Cash Receipts Farm Operating Expenses Net Cash Income	7,171,344	7,213,365	0.6
	5,440,901	5,498,631	1.1
	1,730,443	1,714,734	-0.9
Ontario Farm Cash Receipts Farm Operating Expenses Net Cash Income	10,280,715	10,206,796	-0.7
	8,555,670	8,392,146	-1.9
	1,725,045	1,814,651	5.2
Manitoba Farm Cash Receipts Farm Operating Expenses Net Cash Income	4,851,971	4,780,519	-1.5
	3,702,854	3,776,214	2.0
	1,149,117	1,004,305	-12.6
Saskatchewan Farm Cash Receipts Farm Operating Expenses Net Cash Income	9,141,516	9,117,239	-0.3
	6,200,371	6,379,707	2.9
	2,941,145	2,737,531	-6.9
Alberta Farm Cash Receipts Farm Operating Expenses Net Cash Income	9,003,804	9,000,917	0.0
	7,878,208	7,734,658	-1.8
	1,125,596	1,266,258	12.5
British Columbia Farm Cash Receipts Farm Operating Expenses Net Cash Income	2,514,017	2,505,164	-0.4
	2,267,615	2,261,489	-0.3
	246,402	243,675	-1.1

Net cash income comparison

The net cash income estimates published in the Net Farm Income - Agriculture Economic Statistics (21-010-X) are the official Statistics Canada (STC) estimates. Other estimates of net cash income (farm cash receipts less operating expenses) can be derived from the STC Agriculture Division – namely those of the Taxation Data Program (TDP), the Farm Financial Survey (FFS, 21F0008X) and the Census of Agriculture. It is important to understand data sources, coverage and conceptual differences when comparing data collected for different purposes. Adjustments are required to make these estimates comparable.

1. Sources

a) Net Farm Income - Agriculture Economic Statistics (AES)

The official series of measures of net cash income are published in the AES electronic publication. The net cash income series measures the aggregate earnings of all agricultural businesses from the production of agricultural goods at the provincial and national level. Annual estimates are established from a wide variety of surveys and administrative data on crop and livestock production and inventories, quantity marketed, average farm prices, program payments, agricultural expenses and rebates. For some variables – especially those on the expense side of the ledger, Census of Agriculture, TDP and FFS estimates are used either as benchmarks or indicators of annual changes.

b) Taxation Data Program (TDP)

The TDP estimates a range of financial variables, including revenue and expenses from a total sample of over 200,000 tax filer records which includes records from both incorporated and unincorporated operations. The TDP publishes annual average estimates by farm type, sales classes and sub-provincial regions.

The TDP publishes information representing all individual tax filers who reported total farm operating revenues of \$10,000 or more on their income tax return and agricultural corporations reporting total farm operating revenues of \$25,000 and over, and for which 50% or more of their sales come from agricultural activities. Since 2012, unincorporated farms reporting total operating revenues below \$10,000 and corporations reporting less than \$25,000 in revenues are no longer part of the sample.

c) Farm Financial Survey (FFS)

The biennial FFS is another source of financial information collected from a sample of about 11,000 farms. (This survey was biennial prior to the 2003 FFS and then was conducted on an annual basis until 2011.) The sample includes both incorporated and unincorporated farms with annual sales from agricultural activities exceeding \$10,000 (\$2,000 prior to 1998).

This survey collects total gross receipts from program payments and the sales of agricultural products grouped by major categories (e.g., grains and oilseeds, horticulture) as well as total expenses (excluding depreciation) along with detail on crop, livestock and machinery expenses, interest expenses, wages and crop insurance premiums. The FFS program produces average estimates of primarily financial balance sheet items including details on income and expenses at the provincial level by sales class and farm type.

d) Census of Agriculture

Every five years, the Census of Agriculture collects a wide variety of data, including total gross farm receipts and operating expenses by category, on all farm operations in Canada producing agricultural products with the intention of selling them. The Census of Agriculture publishes estimates of total gross farm receipts and operating expenses by farm type, sales classes and sub-provincial regions.

2. Conceptual Differences

a) Net Farm Income - Agriculture Economic Statistics (AES)

AES estimates include all agricultural businesses. These data are not available by farm type, sales classes, sub-provincial regions or at the micro level.

Receipts and expenses are estimated by calendar year. They are recorded on a cash basis when the money is paid to or disbursed by the farmer.

AES receipts and expenses exclude: income earned from non-agricultural use of the farm (e.g., income from tourism activities on farm); income that farm operators or their families receive from other sources (e.g., wages and salaries from non-agricultural activities, and investment income); revenue or expenses from the sale or purchase of farm capital (real estate, machinery and equipment), although the interest paid on these purchases is included as an expense; capital payments where funds do not relate to current production and transfer payments (such as training allowances) directed to individuals; unlike the TDP, FFS and Census of Agriculture, AES estimates exclude farm-to-farm transactions, unless they occur across provincial or national borders. Within a province, sales from one farm are considered an expense to another, thus offsetting each other.

b) Taxation Data Program (TDP)

The TDP estimates represent all individual tax filers who reported total farm operating revenues of \$10,000 or more on their income tax return and agricultural corporations reporting total farm operating revenues of \$25,000 and over, and for which 50% or more of their sales come from agricultural activities.

Some non-farmers may be present on the TDP database (e.g., someone reporting farm income from a crop share agreement but not involved in a farming operation).

The estimates are published on a calendar year basis but no attempt is made to adjust data from agricultural corporations reporting data on a fiscal year that may not coincide with a calendar year.

The TDP "Total Operating Revenues" includes revenues from "Custom Work and Machine Rental" and "Rental Income" which are not included in the AES farm cash receipts.

c) Farm Financial Survey (FFS)

The sample includes both incorporated and unincorporated farms with annual sales from agricultural activities exceeding \$10,000 (\$2,000 prior to 1998). Like the TDP, no adjustment is made to agricultural corporations reporting data on a fiscal year that may not coincide with the calendar year period.

The FFS "Total Gross Farm Receipts" includes agricultural custom work receipts that are not directly accounted for in the AES farm cash receipts. The treatment of "custom work" is similar to the TDP.

d) Census of Agriculture (CEAG)

The CEAG collects data from any farm operation producing agricultural products with the intention of selling them. Data are generally provided on a calendar year basis, or for a complete fiscal year.

Unlike the AES, CEAG data on receipts include dividends received from co-operatives, Goods and Service Tax (GST) refunds, custom work receipts, and rebates received.

3. Comparison of estimates

Conceptual and methodological differences and data collection methods can result in misleading comparisons between AES receipts or expenses series and total income or expenses derived from TDP, FFS or Census of Agriculture data. The exclusion of farm-to-farm transactions within a province in the AES and their inclusion in the TDP, FFS and CEAG datasets is the main reason making the comparison difficult. However, net cash income estimates (farm cash receipts less operating expenses) are more directly comparable since, within a province, sales from one farm is an expense to another farm, thus offsetting each other.

As is the case with farm-to-farm sales, some receipt items not included in the AES receipt series would tend to cancel each other out when deriving net cash income estimates from the various sources. For example, the exclusion of custom work receipts in AES receipts is compensated to a large extent in the net income estimates by the use of a net custom work estimate (custom work expenses - custom work receipts) in the AES expense series. The subtraction of custom work receipts from custom work expenses is done in an attempt to minimize - in the aggregate - the presence in the AES of operating costs incurred by agricultural producers in providing custom work services. In a less precise manner, one could expect the TDP estimates for the components of "miscellaneous revenue" and "miscellaneous farm expenses" not included in the AES series to offset each other to some degree.

The TDP publishes average receipts and expenses only for farms reporting total farm operating revenues of \$10,000 or more on their income tax return and agricultural corporations reporting total farm operating revenues of \$25,000 and over, and for which 50% or more of their sales come from agricultural activities. For purposes of comparisons with the AES, estimations for the unincorporated farms reporting total operating revenues below \$10,000 were used internally in spite of the lower quality of these estimates. Since 2012, these low-revenue operations are no longer sampled.

4.Results

Text table 1 Net cash income comparison — Total

	2010				
	AES ¹	TDP ²	CEAG ¹	FFS ³	
	thousands of dollars				
Newfoundland and Labrador	14,052	22,535	18,805	18,630	
Prince Edward Island	62,612	61,879	66,152	54,062	
Nova Scotia	74,145	103,203	98,900	71,653	
New Brunswick	69,101	86,402	78,079	73,488	
Quebec	1,714,734	1,387,941	1,521,280	1,362,593	
Ontario	1,814,651	1,863,520	1,936,265	1,450,051	
Manitoba	1,004,305	918,892	903,614	756,687	
Saskatchewan	2,737,531	2,175,612	2,252,158	1,922,718	
Alberta	1,266,258	1,563,223	1,728,106	1,267,880	
British Columbia	243,675	314,879	319,704	333,101	
Canada	9,001,064	8,498,087	8,923,063	7,310,864	

^{1.} The Agriculture economic statistics (AES) and the Census of agriculture (CEAG) cover all agricultural holdings. For comparison purposes, the Canada total is the sum of the provincial totals.

Text table 2 Net cash income comparison — Absolute difference

	2010				
_	(TDP ¹	(CEAG ²	(FFS		
	AES)	AES)	AES)		
	thousands of dollars				
Newfoundland and Labrador	8,483	4,753	4,578		
Prince Edward Island	-733	3,540	-8,550		
Nova Scotia	29,058	24,755	-2,492		
New Brunswick	17,301	8,978	4,387		
Quebec	-326,793	-193,454	-352,141		
Ontario	48,869	121,614	-364,600		
Manitoba	-85,413	-100,691	-247,618		
Saskatchewan	-561,919	-485,373	-814,813		
Alberta	296,965	461,848	1,622		
British Columbia	71,204	76,029	89,426		
Canada	-502,977	-78,001	-1,690,200		

Adjusted to include unincorporated farms with total farm operating revenues lower than \$10,000. Does not include agricultural corporations with total operating revenues below \$25,000.

^{3.} Does not include farms with total operating revenues below \$10,000.

Taxation data program (TDP) minus the Agriculture economic statistics (AES) divided by the Agriculture economic statistics (AES). Census of agriculture (CEAG) minus the Agriculture economic statistics (AES) divided by the Agriculture economic statistics (AES).

^{3.} Farm Financial Survey (FFS) minus the Agriculture economic statistics (AES).

Text table 3
Net cash income comparison — Relative difference

	2010			
_	(TDP ¹	(CEAG ²	(FFS	
	- AES /	- AES /	- AES /	
	AES)	AES)	AES)	
	percent			
Newfoundland and Labrador	60.4	33.8	32.6	
Prince Edward Island	-1.2	5.7	-13.7	
Nova Scotia	39.2	33.4	-3.4	
New Brunswick	25.0	13.0	6.3	
Quebec	-19.1	-11.3	-20.5	
Ontario	2.7	6.7	-20.1	
Manitoba	-8.5	-10.0	-24.7	
Saskatchewan	-20.5	-17.7	-29.8	
Alberta	23.5	36.5	0.1	
British Columbia	29.2	31.2	36.7	
Canada	-5.6	-0.9	-18.8	

- 1. Taxation data program (TDP) minus the Agriculture economic statistics (AES) divided by the Agriculture economic statistics (AES).
- 2. Census of agriculture (CEAG) minus the Agriculture economic statistics (AES) divided by the Agriculture economic statistics (AES).
- 3. Farm Financial Survey (FFS) minus the Agriculture economic statistics (AES) divided by the Agriculture economic statistics (AES).

5. Conclusion:

Comparing data collected for different purposes is not an easy task. It is extremely difficult to identify precisely what causes the discrepancies at the aggregate level. There will be always discrepancies due to differences in coverage, accounting methods, fiscal years as well as the edit, imputation and estimation methods of the survey, census or administrative data. These differences are often compounded in an estimate, such as net cash income, that is measured residually.

Impact of using the North American Industry Classification System (NAICS)

Statistics Canada has been using the 1980 Standard Industrial Classification system (SIC) for collecting, compiling and disseminating economic statistics on Canada's businesses. Beginning with the 1997 reference year, the North American Industry Classification System (NAICS), which includes hatcheries and farms with only Christmas trees in the agricultural sector, was introduced. The impact of this added less than 1% to farm cash receipt and total operating expenses.

Changes to 1997 Farm Cash Receipts

Classification changes affected receipts for three commodities. Christmas trees were added as a new commodity using the National Forestry Database, Taxation Data Program, and the 1996 Census of Agriculture to derive estimates. Hatchery receipts were estimated using Agriculture and Agri-Food Canada data on interprovincial movements and exports of chicks and poults and prices from several sources. With hatcheries becoming part of the agricultural sector, receipts from the sales of eggs to hatcheries in the same province are now considered inter-farm sales and are removed from the estimate. Only sales to hatcheries outside of the province are counted.

Farm cash receipts were 0.2% lower as a result of the classification changes. The addition of Christmas tree and hatchery (chicks and poults) receipts was more that offset by the removal of inter-farm sales of hatching eggs.

Impact on Farm Cash Receipts:

Christmas tree receipts: +\$58.5 million

Hatchery receipts: +\$30.6 million

Eggs for hatching receipts: -\$141.0 million

Net impact: -\$51.9 million

Changes to 1997 Farm Operating Expenses

Operating expenses (wages, fuel, electricity, etc.) of hatcheries and farm operations with only Christmas trees were added to the expenses. The bases for these estimates were the 1996 Census of Agriculture and the Taxation Data Program. With hatcheries becoming part of the agriculture sector, poultry purchase expenses fell. Intraprovincial purchases of both eggs by hatcheries and chicks by poultry and egg farms became interfarm purchases and were removed from the estimate. Data on interprovincial movements and imports of chicks and poults provided by Agriculture and Agri-Food Canada were used to remove these interfarm purchases.

These changes resulted in a 0.2% drop in operating expenses after rebates.

Impact on Farm Operating Expenses:

additional operating expenses: +\$267.8 million

changes to poultry purchases: -\$326.3 million

Net impact: -\$58.5 million

Changes to 1997 Net Cash Income

The overall impact of the inclusion of hatcheries and farms specializing in Christmas tree production increased net cash income by 0.1 %. The magnitude of the impact should not be interpreted as the sum of net cash income from hatcheries and farms with only Christmas tree operations. Many expense estimates are based on farm-level data from the Census of Agriculture and the Taxation Data Program. Due to the difficulty in identifying and removing expenses related to hatchery and Christmas tree production on farms that produce other commodities, some expenses associated with this production were already in the estimates prior to the introduction of NAICS. As well, some receipts from hatchery and operations with only Christmas trees (e.g., program payments, poultry and egg receipts in the case of integrated hatchery operations) will have already been included in the pre-NAICS data series.

Accordingly, in those provinces where the impact of implementing NAICS is negative, the inference should not be made that hatchery and operations with only Christmas trees are receiving negative cash flows. The negative impact is more likely a factor of more receipts than expenses being included in the SIC-based estimates.

Other Changes

Based on capital value data from the 1996 Census of Agriculture, depreciation charges increased by less than 1% as a result of the introduction of NAICS.

Text table 1 Impact of including NAICS on receipts, expenses and net cash income

	1997						
	Farm cash receipts			Farm operating expenses			Net
	Receipts added	Interfarm sales (eggs for hatching)	Total change	Expenses added	Interfarm purchases (eggs and chicks)	Total change	cash income total change
	millions of dollars						
Altantic provinces Quebec Ontario Manitoba Saskatchewan Alberta British Columbia	22,371 32,114 24,159 5,958 701 1,795 1,975	-10,218 -40,118 -42,450 -7,616 -4,311 -16,163 -20,146	12,153 -8,004 -18,291 -1,658 -3,610 -14,368 -18,171	28,509 89,166 107,308 11,998 4,055 14,463 12,330	-13,313 -83,892 -115,600 -22,634 -6,925 -36,176 -47,794	15,196 5,274 -8,292 -10,637 -2,870 -21,713 -35,464	-3,043 -13,278 -9,999 8,979 -740 7,345 17,293
Canada	89,073	-141,022	-51,949	267,828	-326,333	-58,505	6,556