

Catalogue no. 21-004-X

## Canadian Agriculture in 2008: An Overview of Key Events

by Bishnu Saha and Verna Mitura, Statistics Canada

Agriculture Division 12<sup>th</sup> floor, Jean Talon Building 170 Tunney's Pasture Driveway Ottawa, Ontario K1A 0T6

#### November 2009

Vista on the Agri-Food Industry and the Farm Community is an occasional publication of the Agriculture Division of Statistics Canada and contains articles highlighting statistical insights on themes relating to agriculture, food and environmental issues.

Any policy views, whether explicitly stated, inferred or interpreted from the content of this article, do not reflect the views of Statistics Canada or Agriculture and Agri-Food Canada. The responsibility of the analysis and interpretation of the results is that of the author(s).









# Vista on the Agri-Food Industry and the Farm Community

ISSN 1481-899X

Editors: Verna Mitura and Bishnu Saha

#### How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to:

Email: <u>agriculture@statcan.gc.ca</u> Telephone (toll free): 1-800-465-1991

Fax: 613-951-3868

This product, catalogue no. 21-004-X, is available free in electronic format. To obtain a single issue, visit our website at www.statcan.gc.ca and select "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, Statistics Canada has developed standards of service which 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 on www.statcan.gc.ca under "About us" > "Providing services to Canadians".

#### 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.

#### **Acknowledgements**

The review comments of Wayne Smith, Marcelle Dion, Namatié Traoré, Jeffrey Smith, Yvan Gervais, Paul Murray, Marco Morin, Gabriella Martello, Marc Prud'homme, Anne Couillard, Stephen Boyd and Danny Leung of Statistics Canada are appreciated. Special thanks to Geneviève Madore and Josée Bourdeau for their contribution in the publication process.

Published by authority of the Minister responsible for Statistics Canada.

© Minister of Industry, 2009.

All rights reserved. The content of this electronic publication may be reproduced, in whole or in part, and by any means, without further permission from Statistics Canada, subject to the following conditions: that it be done solely for the purposes of private study, research, criticism, review or newspaper summary, and/or for non-commercial purposes; and that Statistics Canada be acknowledged as follows: Source (or "Adapted from", if appropriate): Statistics Canada, year of publication, name of product, catalogue number, volume and issue numbers, reference period and page(s). Otherwise, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, by any means - electronic, mechanical or photocopy - or for any purposes without prior written permission of Licensing Services, Client Services Division, Statistics Canada, Ottawa, Ontario, Canada K1A 0T6.

#### **Symbols**

The following standard symbols are used in this publication:

- 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
- revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- use with caution
- F too unreliable to be published

## Agriculture in 2008: An Overview of Key Events

#### Introduction

Uncertainty in commodity markets led to wide fluctuations of grain and oilseed prices in 2008. However, annual average prices of grains and oilseeds remained considerably higher than their 2007 levels. In terms of quantities produced and yields, 2008 was a good year for Canada's grain and oilseed producers. A good harvest of grains and oilseeds and higher average prices contributed to an increase in farm cash receipts.

Prices of fertilizer and fuel continued to increase in 2008 with rising crude oil prices and consequently, shares of feed, fertilizer and fuel costs in total farm operating expenses increased further. Livestock farmers continued to face declining revenues in 2008, while dealing with rising input costs. In addition, the Country of Origin Labelling regulations in the United States created uncertainties in livestock exports. However, the trade surplus in agricultural and fish products grew significantly due to the strength of wheat, canola, barley and meat exports.

In the food sector, food-safety issues came to the forefront with the outbreak of listeriosis through contaminated meat, *Salmonella* and *E. coli* contaminations of food products and melamine in some imported milk products. Following the rising trend of grain prices, Canadian retail prices of rice and wheat-based food products such as flour, bread and pasta increased significantly in 2008.

## 1 Crops and fuel price fluctuations

Low levels of global grain and oilseed inventories and an increased demand for corn, canola and soybeans in the biofuel industry were among the major factors leading to a rapid increase in their prices, especially during the second half of 2007 (Figure 1). Prices of grains and oilseeds in the world market maintained their upward trends during the first quarter of 2008 and then fluctuated between April and August based on factors related to production and market expectations.

Rapid rising crude oil prices in 2007 increased further during the first half of 2008 to reach a record high of US\$145/barrel in the second week of July. Prices of fertilizer, diesel and heating fuel increased significantly with the rising crude oil prices.

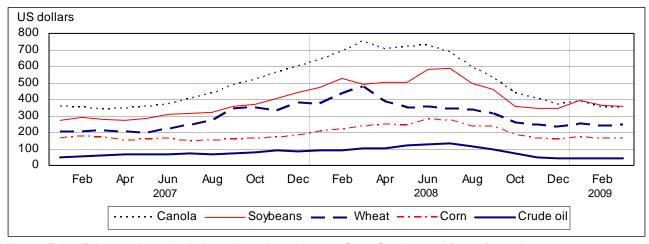


Figure 1 Commodity prices in the world market, January 2007 to March 2009

Notes: Feb = February; Apr = April; Jun = June; Aug = August; Oct = October; and Dec = December.

Grain and oilseed prices are monthly averages of weekly prices in US dollars per metric tonne, and crude oil prices are monthly averages of weekly prices in US dollars per barrel.

**Sources:** Food and Agriculture Organization of the United Nations (FAO) international commodity prices database 2008 and US Energy Information Administration data, July 2008.

Crude oil prices began to fall rapidly in August 2008 ending the year at US\$36/barrel, about a quarter of the peak level attained in July 2008. Grain and oilseed prices in the world market also started falling in the third quarter of 2008 before reaching close to the mid-2007 level by the end of the year.

In the Canadian domestic markets, however, the rising trend of grain and oilseed prices continued until the middle of 2008 before falling in the third quarter of the year (Figure 2). The prices continued to decrease, but at a much slower rate during the fourth quarter. The year 2008 ended with grain prices 29.6% lower and oilseed prices 6.2% higher than their respective levels at the end of 2007.

Index (1997=100) 200 180 160 140 120 100 80 60 40 Feb Dec Feb Apr Jun Aug Oct Dec Feb Apr Jun Aug Oct 2009 2007 2008 Grains Oilseeds -··- Cattle **Poultry** Hogs

Figure 2 Farm product price indexes, Canada, January 2007 to March 2009

Notes: Feb = February; Apr = April; Jun = June; Aug = August; Oct = October; and Dec = December. Cattle include calves.

Source: Statistics Canada, Farm product price index (FPPI), monthly (index, 1997=100), CANSIM table 002-0021.

## 2 Rising crop yield: A good harvest year for grain and oilseed producers

In terms of quantities produced and yields, the year 2008 was very good for Canada's grain and oilseed producers. Production of canola in the Prairie provinces rose to 12.6 million tonnes, an increase of 31.7% over the previous record production of 9.6 million tonnes in 2007 (Figure 3). Soybean production in Ontario and Quebec, the provinces where over 90% of Canada's soybeans are grown, rose 23.7% to 3.3 million tonnes, just short of the record production of 3.5 million tonnes in 2006. The production of dry field peas in the Prairies reached a record of 3.6 million tonnes in 2008.

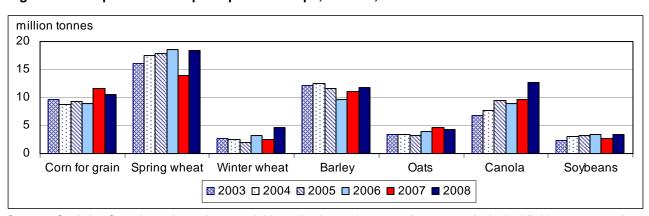


Figure 3 Total production of principal field crops, Canada, 2003 to 2008

Source: Statistics Canada, estimated areas, yield, production and average farm price of principal field crops, annual, CANSIM table 001-0010.

The year 2008 was also marked by record average yields of spring wheat, barley, canola and oats in the Prairie provinces, and corn for grain in Ontario. Yields of winter wheat and soybeans both were 21.7% above their respective 2007 levels (Figure 4). The Canadian grain and oilseed producers benefited in 2008 from these higher yields and production, good quality crops and higher market prices.

tonnes per hectare

10
8
6
4
2
0
Corn for grain Spring wheat Winter wheat Barley Oats Soybeans Canola

2003 2004 2005 2006 2007 2008

Figure 4 Average yields of principal field crops, Canada, 2003 to 2008

**Source:** Statistics Canada, estimated areas, yield, production and average farm price of principal field crops, annual, CANSIM table 001-0010.

## 3 Total farm cash receipts and operating expenses increased

A good harvest of grains and oilseeds and higher prices in 2008 contributed to an increase in farm cash receipts. Total farm cash receipts <sup>1</sup> for Canada increased 10.9% from 2007 to reach \$41.1 billion (in constant 2002 dollars) in 2008 (Table 1). Nearly all (96.2%) of the increase was attributable to crops receipts. All provinces except Prince Edward Island gained in 2008. The percentage gain was the highest for Saskatchewan followed by Alberta. In 2008, Saskatchewan's farm cash receipts were 20.0% above 2007. The percentage gain for Alberta was 13.5%.

Table 1 Total farm cash receipts<sup>1</sup>, Canada and provinces, 2003 to 2008

Geography	Total farm cash receipts (constant 2002 dollars in millions)						
	2003	2004	2005	2006	2007	2008	2007 to 2008
Newfoundland and Labrador	80	84	85	90	97	103	6.4
Prince Edward Island	348	337	354	354	351	349	-0.6
Nova Scotia	413	440	443	440	417	425	1.8
New Brunswick	403	406	415	427	409	430	5.2
Quebec	5,802	6,072	5,898	5,836	6,289	6,713	6.7
Ontario	8,227	8,283	8,447	8,236	8,460	9,158	8.2
Manitoba	3,456	3,716	3,606	3,429	3,941	4,211	6.9
Saskatchewan	5,631	5,676	5,886	6,164	7,040	8,445	20.0
Alberta	6,949	7,720	7,446	7,266	7,895	8,960	13.5
British Columbia	2,200	2,273	2,249	2,129	2,201	2,339	6.3
Canada	33,508	35,008	34,828	34,372	37,101	41,134	10.9

<sup>1.</sup> In constant 2002 dollars.

**Note:** Provincial figures may not add up to the total for Canada due to rounding. Core consumer price index (CPI) (2002=100) has been used to deflate receipts in current dollars to constant dollars.

Source: Statistics Canada, Farm cash receipts, annual, CANSIM table 002-0001.

<sup>1.</sup> Total farm cash receipts include market revenues and program payments.

A good harvest and higher prices pushed the share of crops receipts in total farm cash receipts further up in 2008 (Figure 5). The share of total crop receipts in 2008 was 5.0 percentage points higher than 2007, while the share of receipts from livestock and program payments fell by 3.9 and 1.1 percentage points, respectively, from 2007.

percent 100 Program payments 90 80 70 Livestock receipts 60 50 40 30 20 Crops receipts 10 0 2000 1998 1999 2001 2002 2003 2004 2005 2006 2007 2008

Figure 5 Distribution of total farm cash receipts by source, Canada, 1998 to 2008

**Note:** The white dotted lines in the graph illustrate the distributions based on ten-year averages (1998 to 2007). **Source:** Statistics Canada, Farm cash receipts, annual, CANSIM table 002-0001.

At the provincial level, Saskatchewan had the highest share of crops receipts (74.9%) as a proportion of total cash receipts in 2008 followed by Prince Edward Island (Figure 6). The share of livestock receipts was the highest in Newfoundland and Labrador followed by Nova Scotia, while the share of program payments was the highest in Quebec followed by Alberta.

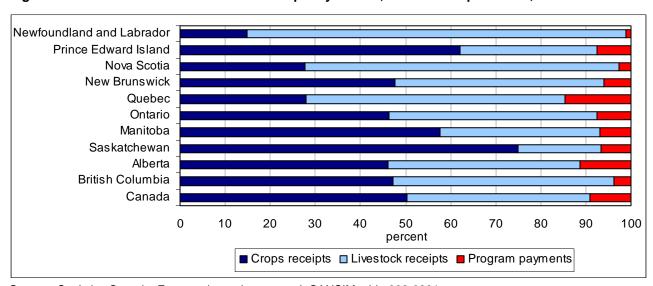


Figure 6 Distribution of total farm cash receipts by source, Canada and provinces, 2008

Source: Statistics Canada. Farm cash receipts, annual, CANSIM table 002-0001.

Total farm operating expenses<sup>2</sup> in constant 2002 dollars increased 9.2% from \$30.9 billion in 2007 to \$33.7 billion in 2008 (Table 2). While farm operating expenses increased in all provinces in 2008, the rate of increase was the highest for Saskatchewan followed by Alberta and Manitoba. In 2008, farm operating

<sup>2.</sup> Total farm operating expenses do not include depreciation and rebates.

expenses in Saskatchewan were 14.5% higher than 2007. In Alberta and Manitoba, expenses increased 10.9% and 10.7%, respectively, from 2007. Increases in farm operating expenses were mainly due to rising feed, fertilizer and fuel prices.

Table 2 Total gross farm operating expenses<sup>1</sup>, Canada and provinces, 2003 to 2008

Geography	Total gross operating expenses (constant 2002 dollars in millions)						
	2003	2004	2005	2006	2007	2008	2007 to 2008
Newfoundland and Labrador	74	75	75	80	87	95	9.4
Prince Edward Island	291	294	294	301	308	331	7.4
Nova Scotia	359	352	349	356	365	375	2.8
New Brunswick	342	338	341	348	353	371	5.0
Quebec	4,755	4,829	4,713	4,819	5,149	5,450	5.9
Ontario	7,020	6,965	7,002	7,068	7,346	7,863	7.0
Manitoba	2,974	2,987	2,873	3,012	3,242	3,589	10.7
Saskatchewan	4,824	4,709	4,872	4,906	5,336	6,108	14.5
Alberta	6,200	6,025	6,245	6,328	6,677	7,402	10.9
British Columbia	1,876	1,866	1,927	1,935	2,010	2,129	5.9
Canada	28,713	28,440	28,692	29,153	30,873	33,712	9.2

<sup>1.</sup> In constant 2002 dollars.

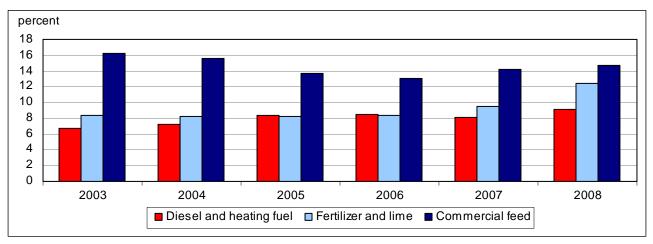
**Note:** Provincial figures may not add up to the total for Canada due to rounding. Core CPI (2002=100) has been used to deflate expenses in current dollars to constant dollars.

Source: Statistics Canada, Farm operating expenses and depreciation charges, CANSIM table 002-0005.

## 4 Increase in feed, fertilizer, and fuel expenses

Feed, fertilizer and fuel (diesel and heating) are essential inputs for farm production and together they account for about one-third of total farm operating expenses in Canada. In 2008, prices of fertilizer and fuel increased with the rising crude oil prices and consequently, the 2008 share of feed, fertilizer and fuel expenses in total operating expenses was 4.4 percentage points higher than 2007 (Figure 7). In general, a good harvest and higher grain and oilseed prices helped crop farmers to manage rising input costs. However, livestock producers faced low prices and reduced sales while dealing with rising feed and fuel expenses.

Figure 7 Feed, fertilizer and fuel expenses as shares of total farm operating expenses, Canada, 2003 to 2008



Source: Statistics Canada, Farm operating expenses and depreciation charges, CANSIM table 002-0005.

## 5 Livestock sector continued to face declining revenues

Livestock farmers continued to face declining revenues in 2008, while dealing with rising input costs. Feed prices, which were up 28.7% in 2007, increased further in 2008 due mainly to higher grain prices, but average annual cattle and hog prices in 2008 remained virtually unchanged compared to 2007. While production and inventory of both hogs and cattle fell significantly in 2008,<sup>3</sup> total feed costs in constant 2002 dollars increased 13.2% from 2007 (Figure 8). Heating fuel expenses also increased 10.5% from 2007. This was the case for all livestock farmers, especially those in the hog sector, who had to deal with rising input costs along with substantive declines in revenues for the third consecutive year.

billion dollars 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 2008 2004 2007 2003 2005 2006 Feed Fertilizer Fuel

Figure 8 Farm feed, fertilizer and fuel expenses<sup>1</sup>, Canada, 2003 to 2008

1. In constant 2002 dollars.

**Note:** Fuel includes diesel and heating fuel. Core CPI (2002=100) has been used to deflate expenses in current dollars to constant dollars.

Source: Statistics Canada, Farm operating expenses and depreciation charges, CANSIM table 002-0005.

The cost-price squeeze faced by hog farm operators led to a restructuring of the industry and farm closures in Canada and hog inventories continued to decline in 2008. Provinces that relied on exports to the United States or that lost slaughter capacity were most affected (Statistics Canada, Hog Statistics, vol. 8, no. 2). In 2008, many producers also took advantage of the federal government's Cull Breeding Swine Program<sup>4</sup> to reduce their breeding herd. At the end of 2008, Canada had an estimated 8,510 hog farms, about 1,350 fewer farms than a year earlier, and 11.8% lower inventories.

During the first nine months of 2008, revenues for cattle and calf producers declined 3.8% compared to the same period in 2007 because of falling receipts from both domestic and export markets. Cattle exports (number of heads) grew 14.4% in 2008, but lower prices and close to parity value of the Canadian dollar to its US counterpart up to the end of July dampened export receipts. Rising input costs also had an impact on producers, which exerted downward pressure on profits. The 2008 year-end cattle inventories for Canada fell 5.1% from that of the previous year.

The Canadian dollar began to depreciate against the US dollar in early August 2008 reaching 77 cents US in early December, the lowest value in two years, before closing the year at 82 cents US. The possibility of an increase in receipts from live animal exports, which could have been realized at the end of the year due to a

<sup>3.</sup> The 2008 year-end hog and cattle inventories in 2008 fell 11.8% and 5.1%, respectively, from 2007. The number of calves and pigs born in 2008 went down by 4.3% and 2.4%, respectively, from the previous year (Statistics Canada, hogs statistics, CANSIM table 003-0088, and cattle statistics, CANSIM table 003-0083).

<sup>4.</sup> On February 25, 2008 the Government of Canada announced new federal measures to assist livestock producers. The Cull Breeding Swine Program was introduced to help reduce the national hog breeding herd by 10% over and above normal annual reductions. According to the Canadian Pork Council, the agency in charge of delivering the program, the program has helped to reduce the Canadian breeding herd by 12%.

weaker Canadian dollar, faded away as the United States began preparatory moves towards the introduction of the Country of Origin Labelling (COOL) regulations.

## 6 The COOL may not be "cool" for the Canadian livestock industry

During the second half of 2008, the United States moved to enforce the Country of Origin Labelling (COOL) regulations for meat and fish products. The regulations came into full force in March 2009. According to these new regulations, only meat from animals born, raised and slaughtered in the US qualifies as "Product of US". A mixed country of origin labelling is mandatory in all other cases. For example, meat from animals that were born and raised in Canada and imported by US packers for slaughter should be labelled as "Product of Canada and US". Meat from animals born in Canada, raised and slaughtered in the United States should also be labelled as "Product of Canada and US". In both cases, packers and retailers are required to keep records of the origin of animals.

The COOL is essentially a technical barrier to trade (Fréchette, 2009) and a way to differentiate imported products from home-grown ones. In addition, the regulations will add to the efforts related to traceability and to the costs at each stage of the production process from feedlots to processing/packing and retailing. For example, processors/packers in the United States will need to segregate animals and run separate production lines at their facilities, which will involve additional costs. It would be difficult to pass on these additional costs to the consumers. Therefore, this may be a disincentive for the US packers to purchase Canadian animals (DFAIT, 2009). In effect, the COOL may limit the market for Canadian live animals in the United States, as evidenced in the hog export data.

During the first half of 2009, Canadian hog exports<sup>5</sup> (number of heads) fell by 34.6% compared to the same period in 2008. In 2008, exports of hogs were down 6.7% from 2007.

The COOL regulation has also created uncertainties in the cattle markets. According to the regulation, the deadline to import feeder cattle to be classified as US beef was July 15, 2008. Cattle exports (number of heads) in the last six months of 2008 fell by 9.7% compared to the same period a year earlier. During the first half of 2009, cattle exports declined by 31.7% from the same period in 2008.

## 7 Food and consumer demand

#### 7.1 Food safety issues received widespread attention

Food-safety issues received widespread attention as a number of listeriosis cases were reported in the summer of 2008. These were linked to the consumption of contaminated ready-to-eat meat products of a meat packaging plant in Ontario. These incidents led to a widespread recall of meat products and some temporary plant closures to trace the source of contamination. There had been 57 confirmed cases of listeriosis, causing or contributing to 22 deaths (Standing Committee on Agriculture and Agri-Food, 2009). Later, the Canadian Food Inspection Agency (CFIA) introduced enhanced food safety measures for ready-to-eat meat plants.

In August and September 2008, several types of cheese products were recalled in Quebec and Ontario because of possible *Salmonella* and *Listeria* contamination. Added to the list were *Salmonella* contamination in a chocolate factory and *E. coli* contamination of burgers sold at a fast-food outlet, both in Ontario.

Following the detection of melamine contamination of imported Chinese wheat gluten in 2007, child illnesses and deaths from melamine-contaminated milk and milk products in China received worldwide attention in 2008. In September and October 2008, the Canadian Food Inspection Agency issued recall notices for a number of imported Chinese food products made with melamine-contaminated milk.

<sup>5.</sup> More than 98% of Canadian hog exports are destined for the United States.

#### 7.2 Retail prices of grain-based food products increased significantly

Fluctuating commodity prices in world markets and the depreciation of the Canadian dollar against the US dollar in the second half of the year had a mixed impact on retail prices of food products in 2008. Canadian retail prices<sup>6</sup> of rice and wheat-based food products such as flour, bread and pasta followed the rising trend of world grain prices. Flour prices increased sharply from January to July 2008 and then fell at a slower rate between August and December to end the year with an average annual increase of 34.5% (Figure 9A). In 2008, bread prices rose steadily between January and April (about 8.0%), fluctuated between May and September, increased 3.2% in October and remained close to that level for the rest of the year. Overall, the average price of a loaf of bread was 15.1% higher in 2008 compared to that in 2007. On average, pasta and rice were 31.9% and 17.4% more expensive, respectively, in the retail markets in 2008 than a year earlier.

percent change 35 30 25 20 15 10 5 0 -5 2003 to 2004 2004 to 2005 2006 to 2007 2007 to 2008 2005 to 2006 ■ Flour □ Bread ■ Rice □ Pasta

Figure 9A Annual changes in the consumer price index (CPI) for wheat-based food products and rice, Canada, 2003 to 2008

Source: Statistics Canada, Consumer price index (CPI), 2005 basket, annual (2002=100), CANSIM table 326-0021.

Retail prices of beef and pork remained relatively stable in 2008, with annual increases averaging only 2.0% and 1.4%, respectively (Figure 9B). In contrast, the retail prices of chicken and milk went up 4.1% and 5.2%, respectively. On an annual average basis, retail prices of fruits and vegetables registered increases of 1.6% and 1.4%, respectively in 2008. However, retail prices of fresh vegetables rose at the end of the year with the depreciation of the Canadian dollar against the US dollar. The highest monthly increase was recorded between October and November 2008, when prices of fresh vegetables went up 20.0%.

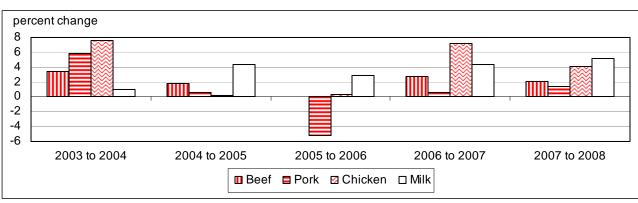


Figure 9B Annual changes in the consumer price index (CPI) for livestock-based food products, Canada, 2003 to 2008

Source: Statistics Canada, Consumer price index (CPI), 2005 basket, annual (2002=100), CANSIM table 326-0021.

Statistics Canada 10

\_

<sup>6.</sup> Changes in retail prices are based on changes in the relevant consumer price index (CPI).

Food manufacturing is Canada's second largest manufacturing industry after transportation equipment manufacturing. Data from the Monthly Survey of Manufacturing show that food manufacturing sales continued to grow in 2008 (grew 1.0% on an annualized basis) to \$71.8 billion, and its share in total manufacturing also rose to 13.1% which was a percentage point higher than in 2007 (Figure 10). Despite the economic downturn, total retail food and beverages sales<sup>7</sup> in Canada grew 5.5% on an annualized basis in 2008 while total retail sales of all commodities grew 3.4%. This lends some support to the fact that food manufacturing and retail food businesses are often viewed as recession-proof as retail food demand remains largely unaffected by an economic downturn. In a developed economy, where food expenditures constitute a relatively small share of the total household spending, consumers are less likely to cut back on grocery expenditures during an economic downturn.

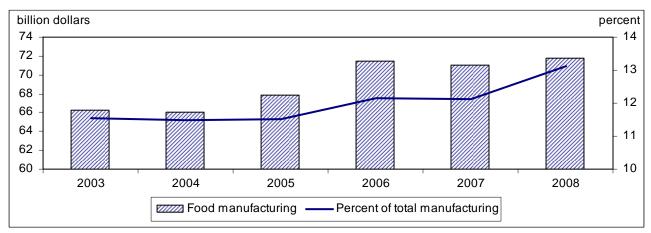


Figure 10 Food manufacturing sales<sup>1</sup> and its share in total manufacturing, Canada 2003 to 2008

1. In constant 2002 dollars.

Source: Computed from monthly survey of manufacturing data, Manufacturing and Energy Division, Statistics Canada.

## 8 Agri-food sector's contribution to the overall economy

According to the Canadian Labour Force Survey, there were about 327,000 people employed in Canadian agriculture in 2008, which was 1.8% of the Canadian labour force. This included farmers and all hired labour 15 years of age and over. The Canadian food manufacturing industry directly employed 226,252 people in 2008. The beverage and tobacco product manufacturing industry employed another 26,695 for a total of 252,947 workers, 15.1% of total manufacturing employment.

In that sense, Canada is a mature economy with respect to the overall contribution of agriculture to the Gross Domestic Product (GDP). The goods and services produced by agriculture and food industries<sup>8</sup> together represented about 8% of Canadian GDP in recent years.

#### 8.1 Agriculture's contribution to the national economy increased

Net value added<sup>9</sup> is one of the measures of agriculture's contribution to the national economy's production of goods and services. In 2008, agricultural production added a net value of \$14.9 billion (in current dollars) to Canada's economy, an increase of \$5.4 billion over 2007 (Figure 11). Higher prices for grains and oilseeds combined with a good crop production largely contributed to the increase.

<sup>7.</sup> Calculated from Statistics Canada's retail commodity sales data (quarterly) by retail trade sector based on the North American Industry Classification System (NAICS), CANSIM table 080-0019.

<sup>8.</sup> Including farm input supply, primary production, food processing, food wholesale/retail and food service.

<sup>9.</sup> Net value added is derived by subtracting depreciation from gross value added. Gross value added is computed by adding the total value of agricultural sector production including program payments and subtracting the related costs of production (expenses on inputs and business taxes).

The net value added by agriculture depends on climatic factors such as temperature, rainfall, humidity and frost that affect domestic production and market factors such as global demand and supply of major farm products, as manifested in their price changes in the world markets. The Prairie drought in 2002 and the commodity price depression in 2005 that continued up to the third quarter of 2006 were factors in the decline of net value added for those years. Price increases in the grain and oilseed markets and good production caused the net value added to recover in 2007 and rise in 2008.

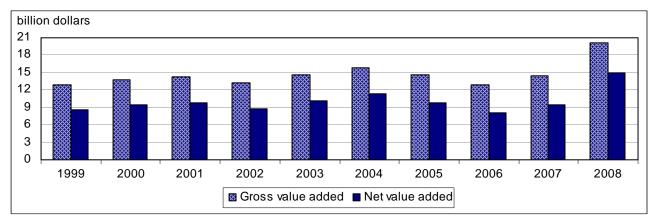


Figure 11 Gross and net value added by agriculture<sup>1</sup>, Canada, 1999 to 2008

1. In current dollars.

Source: Statistics Canada, Agriculture value added account, annual, CANSIM table 002-0004.

## 8.2 Labour productivity

In the Agriculture, Forestry, Fishing and Hunting sector, labour productivity<sup>10</sup> increased 4.6% in 2008 (Figure 12). Over the past five years, this sector registered an increase in labour productivity at an annual average rate of 3.8%. This is the fastest rate of all major goods producing business sectors and is well above the average for the total economy. In addition to continued mechanization of agriculture with farmers' adoption of labour-saving and output-enhancing technologies and better farm management practices, the 2008 productivity growth was largely attributed to increases in yield and production of grains and oilseeds.

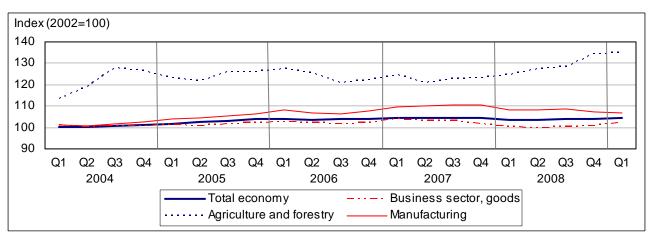


Figure 12 Growth of labour productivity in agriculture and forestry, 2004 to 2008

**Source:** Statistics Canada, Indexes of labour productivity and related variables, by North American Industry Classification System (NAICS), seasonally adjusted, quarterly (index, 2002=100), CANSIM table 383-0012.

Statistics Canada 12

-

<sup>10.</sup> Labour productivity is measured as the ratio of real GDP to hours worked. In terms of GDP, agricultural production accounts for about two-thirds of the sector. From 2002 to 2005, the latest year for which disaggregated data are available, labour productivity in agriculture grew 19.5% compared to 8.4% in forestry.

## 9 Agricultural trade

## 9.1 Canada's agricultural export earnings increased 18.7% in 2008

As one of the world's leading agri-food trading nations, Canada continued to export more agri-food products than it imported in 2008. As a result, the nation's trade surplus in agricultural and fish products rose from \$8.9 billion in 2007 to \$12.3 billion (Table 3).

Table 3 Agricultural and fish products trade<sup>1</sup>, Canada, 2007 to 2008

Products traded	2007	2008	2008	2007 to 2008
Products traded	millions	of dollars	percent of total	percent change
Exports				
Live animals	2,428	2,326	5.7	-4.2
Meat and meat preparations	4,143	4,637	11.3	11.9
Fish, fresh, frozen, preserved and canned	4,293	4,249	10.4	-1.0
Wheat	4,638	6,868	16.8	48.1
Wheat flour	76	100	0.2	32.3
Barley	483	692	1.7	43.4
Other cereals unmilled	607	889	2.2	46.5
Other cereal preparations	2,537	2,906	7.1	14.5
Canola (Rapeseed)	2,264	3,876	9.5	71.3
Other crude vegetable products	1,957	2,379	5.8	21.5
Alcoholic beverages	871	860	2.1	-1.3
Other food, feed, beverages and tobacco	10,126	11,076	27.1	9.4
Total exports	34,421	40,858	100	18.7
Imports				
Live animals	181	191	0.7	5.4
Meat and meat preparations	1,935	2,050	7.2	5.9
Fish and marine animals	1,896	1,909	6.7	0.7
Dairy produce, eggs and honey	626	636	2.2	1.6
Corn (maize) shelled	548	705	2.5	28.7
Other cereals and cereal preparations	1,725	2,105	7.4	22.0
Fresh fruits and berries	2,501	2,764	9.7	10.5
Dried fruits, fruits and fruit preparations	1,351	1,490	5.2	10.2
Fresh vegetables	1,922	1,993	7.0	3.7
Other vegetables and vegetable preparations	1,470	1,632	5.7	11.0
Crude vegetable products	1,198	1,495	5.2	24.8
Cocoa, coffee, tea and other preparations	4,060	4,653	16.3	14.6
Beverages	3,198	3,503	12.3	9.5
Sugar and sugar preparations	1,351	1,535	5.4	13.6
Fodder and feed, except unmilled cereals	1,130	1,460	5.1	29.2
Tobacco	395	377	1.3	-4.4
Cotton	39	14	0.0	-63.9
Total imports	25,526	28,511	100.0	11.7
Net trade balance	8,895	12,347		38.8

<sup>1.</sup> In current dollars.

**Source:** Statistics Canada, Merchandise imports and exports, by major groups and principal trading areas, balance of payment basis, for all countries, annual, CANSIM table 228-0003.

Canadian exports of agricultural and fish products increased 18.7% over 2007 to \$40.9 billion in 2008. This was due to the strength of wheat, canola, barley and meat exports. The world demand for canola continued to increase with its growing use in biofuel production and rising consumer preferences for cooking oils containing relatively lower proportions of saturated fatty acids. These combined forces exerted upward pressure on canola prices in the international markets, especially during the first half of 2008. As a result, the value of canola exports increased to \$3.9 billion in 2008, up 71.2% from 2007. Similarly, the value of wheat exports increased 48.1% to \$6.9 billion. This increase was due to the combined effect of rising prices resulting from low world wheat stocks and robust demand from countries such as India and China.

Following the Bovine Spongiform Encephalopathy (BSE) shock in 2003/2004, live animal exports began to recover in 2005 which continued up to 2007. Compared with 2007, the value of live animal exports fell 4.2% to \$2.3 billion in 2008 because of low livestock prices, a close to par Canadian dollar with the US dollar during the first half of the year and some requirements of the US Country of Origin Labelling (COOL) regulations during the latter part of the year

The value of agricultural and fish products imports increased 11.7% to reach \$28.5 billion in 2008, with all major categories registering increases. Only two minor items, tobacco and cotton, registered import declines. Fodder and feed imports grew 29.2% to about \$1.5 billion mainly due to increases in feed prices. Imports of corn, a primary input to biofuel, grew 28.7% as the Canadian biofuel industry continued to expand in 2008. Corn imports reached \$705 million, up from \$548 million in 2007.

The agricultural trade surplus as a share of the total trade surplus grew significantly in 2008 (Figure 13). The share of agricultural trade surplus in total trade surplus fluctuated between 1999 and 2004 and reached 12.9% in 2005, the lowest level in ten years (from 1999 to 2008). The share began to increase from 2006 and reached 26.3% in 2008 which was its highest level in ten years.

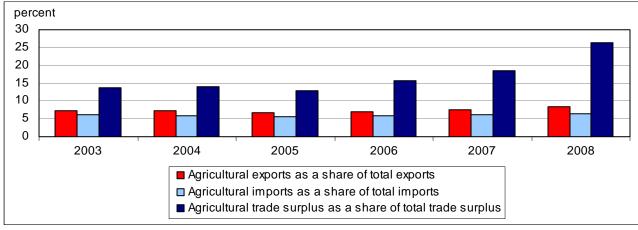


Figure 13 Share of agricultural and fish products trade in total trade, Canada, 2003 to 2008

**Source:** Statistics Canada. Merchandise imports and exports by sector and sub-sector, customs and balance of payments basis, for all countries, annual, CANSIM table 228-0043.

#### Final notes

In 2008, net farm income<sup>11</sup> increased sharply to \$6.1 billion from \$1.0 billion in 2007 on the strength of increased crop inventories in Saskatchewan, Alberta, Manitoba and Ontario. While crop producers benefited from higher prices and a good harvest, many livestock producers were adversely affected by higher feed costs and reduced prices resulting from the strong Canadian dollar as well as uncertainty over the COOL regulations in the United States.

Statistics Canada 14

-

<sup>11.</sup> Net farm income adjusts realized net income for changes in farmer-owned inventories of crops and livestock. Realized net farm income is the difference between a farmer's cash receipts and operating expenses minus depreciation, plus income in kind.

The impact of the COOL regulations on Canadian cattle and hog exports is evident in the livestock statistics released in August 2009. During the first half of 2009, exports of cattle and hogs (number of heads) declined by about a third from the same period in 2008.

Canadian crop farmers expect reductions in yields and harvest areas of principal field crops in 2009. According to the July farm survey estimates, production of all major field crops except soybeans and flaxseed is expected to decline in 2009, mainly due to lower than average temperatures in the growing season and very dry conditions in major crop-producing areas of the Prairie provinces.

#### References

DEFAIT, 2009. Canada Requests Further Round of WTO Consultations on U.S. Country-of-Origin Labelling. Department of Foreign Affairs and International Trade, Media Room, News Release No. 123, May 7, 2009.

Fréchette, J-D, 2009. COOL: *Mandatory Country of Origin Labelling in the United States*. Parliamentary Information and Research Service, Library of Parliament, Canada, January 2009.

Standing Committee on Agriculture and Agri-Food, 2009. *Beyond the Listeriosis Crisis: Strengthening the Food Safety System.* Report of the Subcommittee on Food Safety, Standing Committee on Agriculture and Agri-Food, House of Commons, Parliament of Canada, June 2009.