

# VISTA

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



Catalogue no. 21-004-XIE

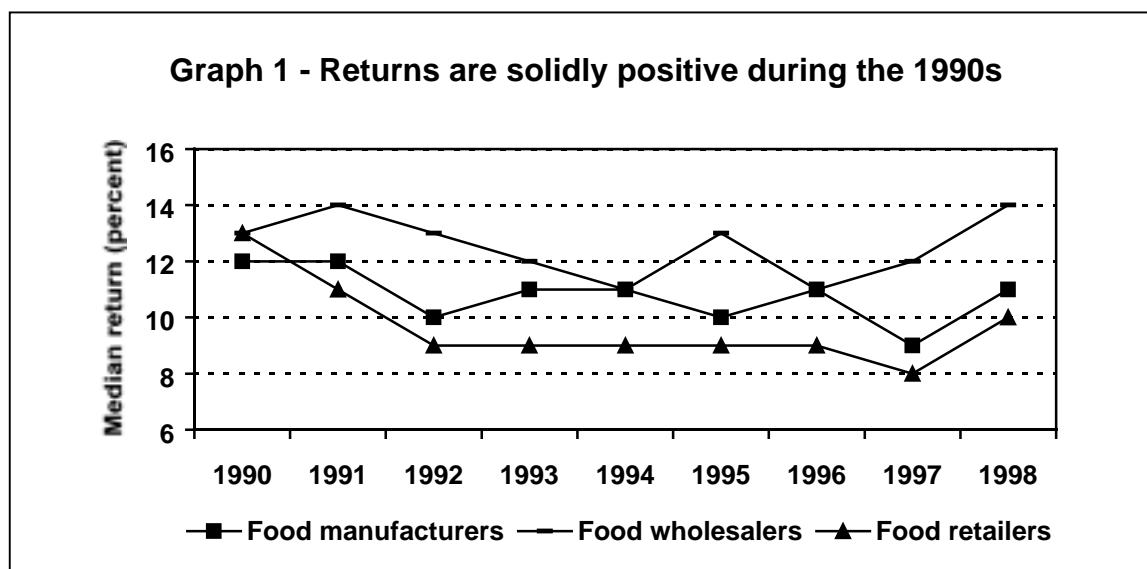
September 2001

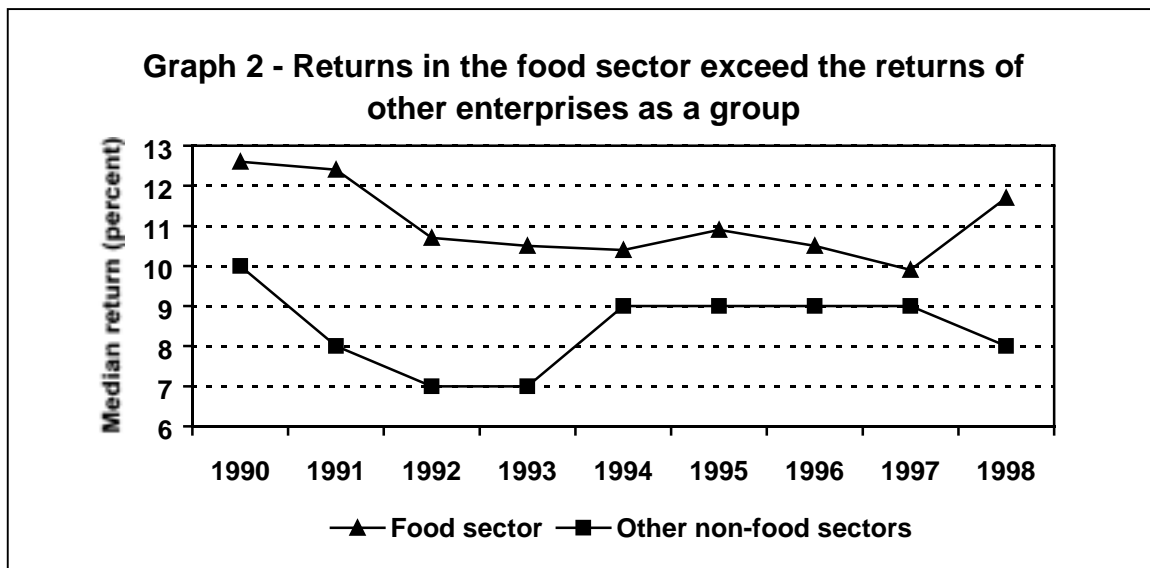
### Businesses in the food chain survive the turmoil of the 1990s

By Rick Burroughs, Deborah Harper, David Smith and Mike Trant

Food manufacturers, wholesalers and retailers have managed to sustain reasonable returns during the 1990s despite the challenges posed by the advent of free trade agreements and the changing eating habits of the population. This article looks at the returns on investment for businesses operating in the domestic food sector during the 1990s.

Graph 1 shows the median rates of return during the 1990s for the food manufacturers, wholesalers and retailers. The median rate of return is the level that splits the number of enterprises into two halves, i.e. above and below the median. The food sector medians all exceed 8% returns throughout the study period and generally exceed the median level of returns in the other sectors of the economy (see Graph 2).





**Rates of return vary considerably**

Graphs 3, 4 and 5 illustrate the variability in the rates of return. The percentiles on the graphs are similar to the median except they show different proportions. The median is the equivalent of the 50<sup>th</sup> percentile. For example, the 75<sup>th</sup> percentile marks the level of returns that only 25% of the firms exceed.

The distribution of returns to the food manufacturers (see Graph 3) displays a relatively narrow range over the study period. About 75% of them have positive returns in a given year. The returns to wholesalers and retailers (see Graphs 4 and 5) are somewhat more spread out, although again, about 75% of them have positive returns.

**The food sector has faced a decade of change**

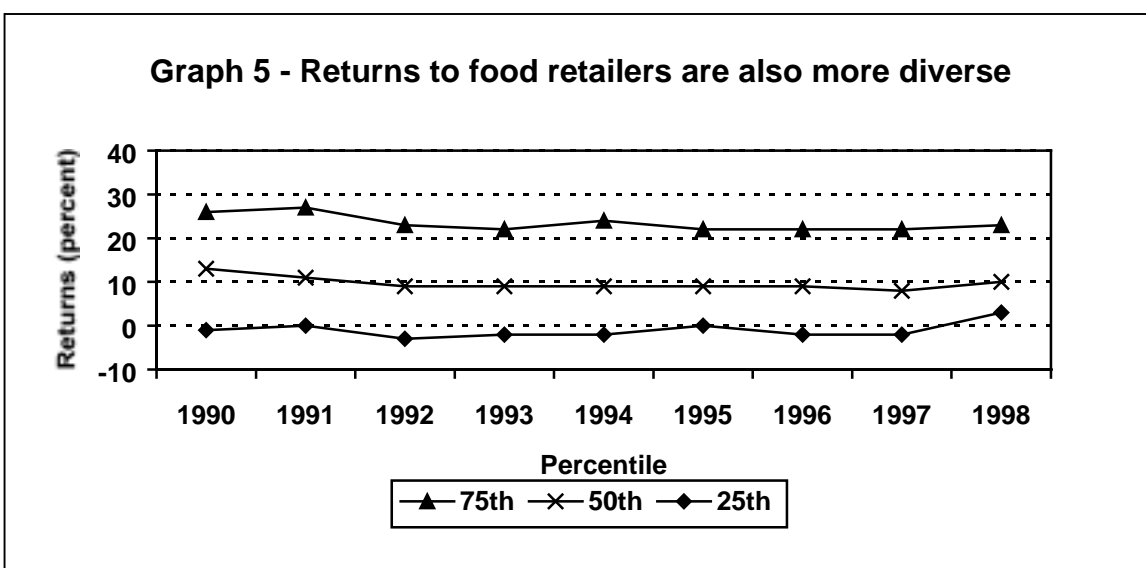
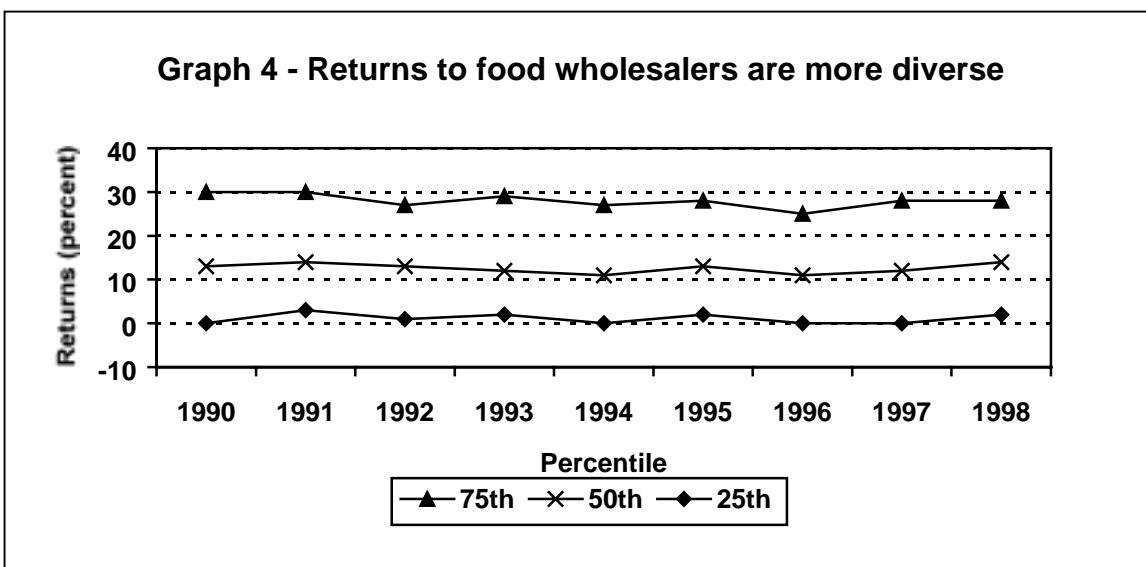
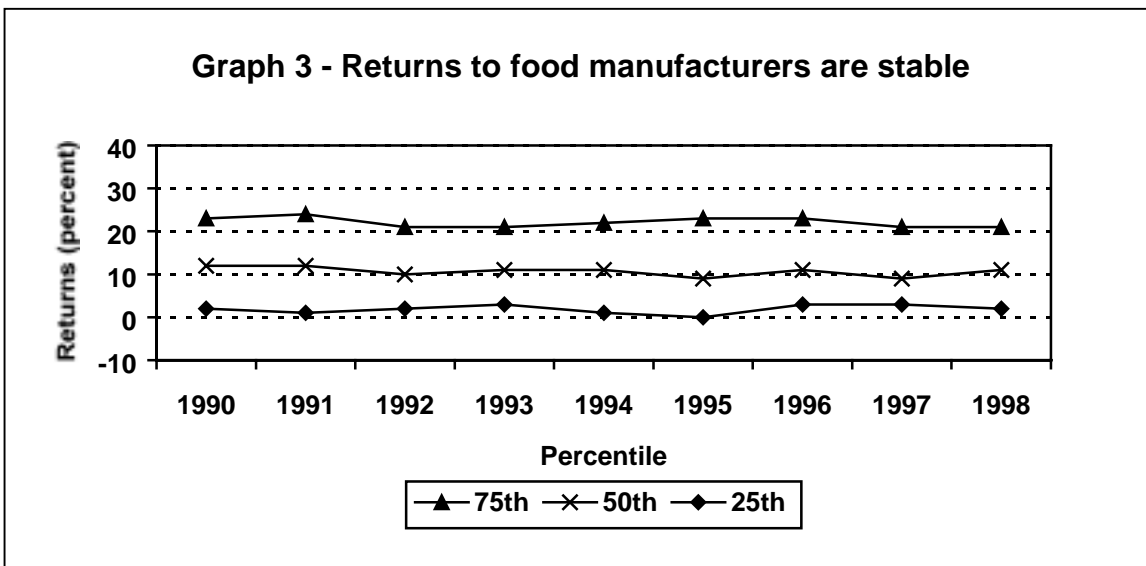
In the last decade, many factors have affected the market structure of the food sector in Canada. The signing of CUSTA in 1988, NAFTA in 1993 and the WTO multilateral agreement in 1994 has improved export opportunities but also opened domestic markets to increased competition from imports. Increasing the size of Canadian plants to capture scale

**Rates of Return**

After assessing a number of measures of return on investment, the use of the ratio of net operating income to long term capital was selected. The numerator represents income from operations before deduction of interest and taxes and excludes extraordinary items and income from investments. The denominator is derived as the sum of long term liabilities plus shareholders' equity.

$$\text{Return on investment} = \frac{\text{net operating income}}{(\text{long term liabilities} + \text{shareholders' equity})}$$

This approach permits the comparison of profitability of enterprises based on the same criteria. Some of the larger enterprises may have many non-operating sources of income and extraordinary gains or losses that may affect their after-tax income whereas smaller enterprises may have to rely solely on the sale of their products. The decision to use long-term liabilities plus shareholders' equity as the base for calculating the rate of return was based on the probability that these sources of funding would be used primarily to finance purchase of capital assets.



economies has allowed them to compete successfully with US counterparts. These new export opportunities require a focus on innovation and technological change, along with substantial new capital spending.

Foreign direct investment has made a major contribution to the development and modernization of the Canadian industry in the last two decades. The food sector has been no exception. As a result, foreign ownership and investment in food processing enterprises has increased. Strategic plant location provides foreign firms with better access and more efficient distribution capabilities. Expanded market opportunities have also encouraged vertical coordination as firms have searched to secure stable and reliable sources of primary products to feed through their high capacity processing operations.

The Canadian food sector, considered mature and developed, registered slow but steady growth over the last few decades. Domestic population growth, demographic shifts and household composition have some impact on food consumption and demand. Canada's population has been growing at about 1.3% per year since 1980, marginally higher than in the United States, where the population has been growing at an annual rate of about 1%.

Demographic shifts are also having an impact on the food sector. The Canadian population is aging, with demographic projections for the next 5 years indicating the greatest expansion

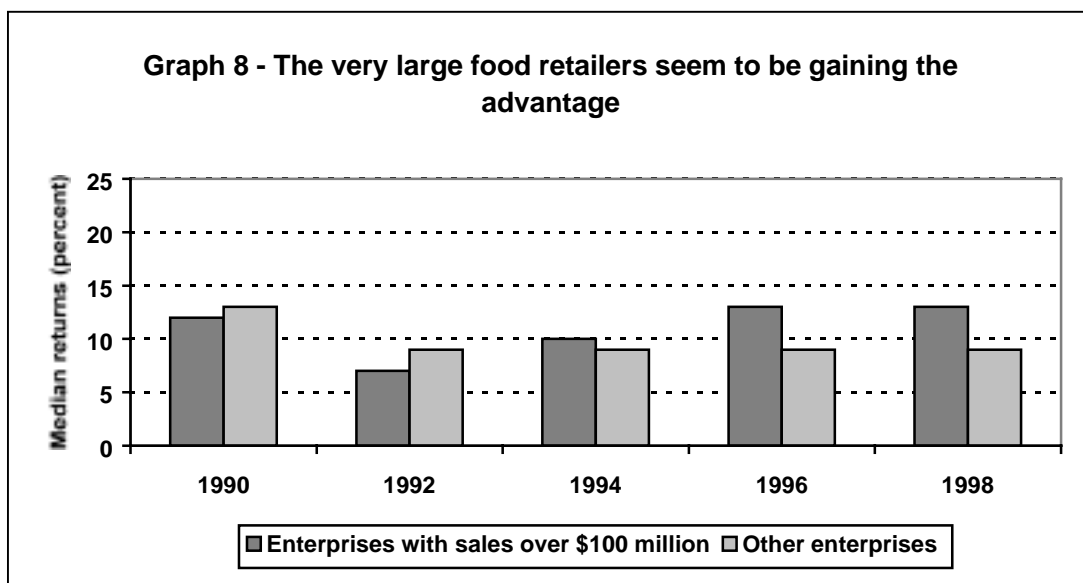
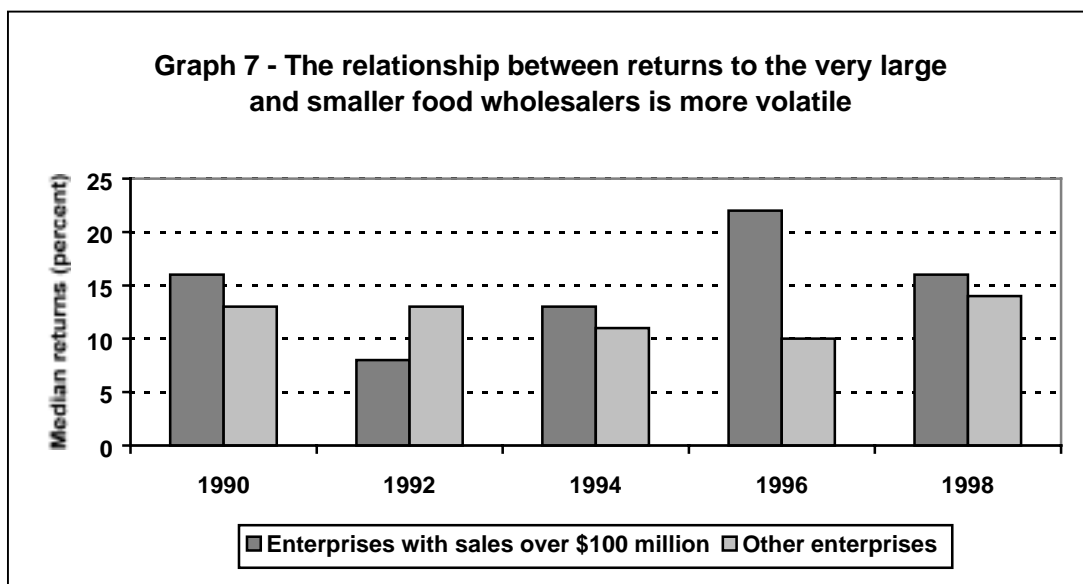
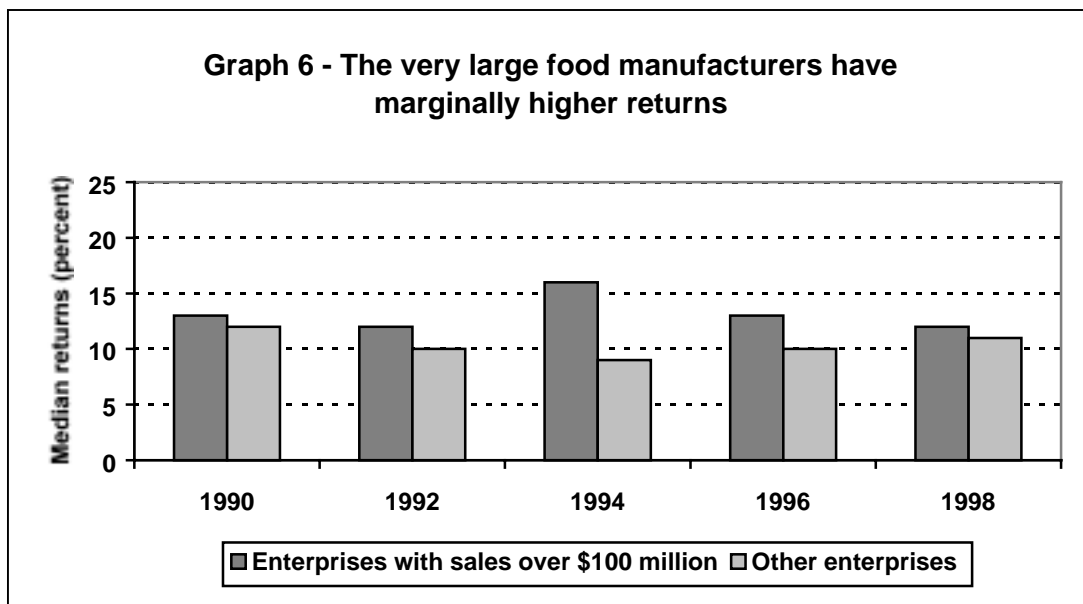
### Data source

The data used in this study are from the Annual Survey of Financial Statements, a sample survey of corporate tax records (T2) produced by the Industrial Organization and Finance Division (IOFD) of Statistics Canada and refer to the years 1990 through 1998. This data set is derived from financial and taxation data submitted under the *Income Tax Act*. Under the Act, each corporation resident or carrying on business in Canada must file an income tax return and a set of financial statements.

The majority of businesses operating in Canada are single company enterprises; i.e. one corporation equals one enterprise. However some enterprises are composed of more than one corporation in a group. Statistics Canada collects information under the *Corporations and Labour Unions Returns Act*, which allows the agency to identify the members of the group and the centre of control. Statistics for this type of enterprise are recorded for the consolidated entity. The simple definition of the enterprise is a family of businesses under common ownership and control for which a set of consolidated financial statements is produced on an annual basis.

The various types of food manufacturing, wholesaling and retailing enterprises are identified using the Standard Industrial Classification for Companies and Enterprises 1980 (SIC-C). This is different from the more commonly used Standard Industrial Classification 1980 (SIC-E), an establishment level classification. Companies that operate more than one establishment (plant) do not necessarily keep full financial books for each plant. The SIC-C, being at the level of the legal entity, is associated with the existence of full financial records. In the SIC-C classification, enterprises are classified according to their major industry of activity. Consequently, the financial statements of enterprises in the food sector may include information for activities which are not necessarily related to food. By the same token, the statements of enterprises classified to other industries in SIC-C may include some activities normally associated with food.

Not all enterprises are included in the data. The file is generated from a stratified random sample. Units are stratified by size according to assets and revenue by industry for each of the 153 groups in the SIC-C. Stratum boundaries vary by industry: large units in each industry are selected with certainty and a sample is selected for smaller strata at a sampling rate that decreases as enterprise size decreases.



- nearly 28% - in the 45 to 54 age group. By the year 2006 the 40 to 54 year-old age group is expected to number almost 8 million people, or 23 % of the total population. Seniors, those 65 years and over, are expected to increase by 20% to 4.4 million people by 2006, representing over 13% of the total population. Immigration is averaging close to 250,000 per year. With the expanding immigrant population, the food industry must now serve a wider variety of tastes and preferences.

The changing composition of households is also having an impact, with the trend toward increasing numbers of single-person and single-parent households expected to continue. The average Canadian household is becoming smaller. The average household in 1996 had 2.74 persons, almost 8% smaller than a decade earlier. The combination of an aging and more culturally diverse population characterized by decreasing household size and greater numbers of single-person and one-parent households suggests a continued adjustment in the food sector. More women in the workforce and more single-person and one-parent households also imply increased demand for prepared foods and restaurant meals.

The food sector is catering to changes in the domestic market driven by older, smaller and more culturally diverse households. However, the changes in the domestic market are in addition to the relatively recent and substantive changes on the international front due to CUSTA, NAFTA and the WTO. An opportunity for more rapid growth has arisen through the implementation of these agreements, as they give Canadian enterprises increased access to the global market.

### **The returns to large enterprises are, to some extent, close to their smaller competitors**

Like many industries in the economy, the food sector is characterized by numerous small and medium sized firms (SMEs), and a few very large ones. Graphs 6, 7 and 8 examine the differences in returns between these two groups. Larger firms were identified if their revenues exceeded \$100 million annually.

The larger food manufacturers posted returns marginally but consistently above their SME competitors. In the case of the larger wholesalers, smaller firms had slightly higher median returns in 1992 and substantially lower returns in 1996 compared to the larger firms. Among food retailers, the returns of SMEs exceeded those of the larger operators in the early years of the decade, however their returns have slipped consistently below those of the larger firms since 1994. SMEs vary greatly in size, so that it should be expected that subsets of this group may have very different returns from the group as a whole.

The research behind this article is a joint undertaking of both Agriculture and Agri-Food Canada and Statistics Canada. Two joint working papers, which look at this data in greater depth, will be released in the coming weeks.

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## CURRENT CANADIAN AGRICULTURAL INDICATORS

	2000	2001	Percent Change
Crop Production July 31 Estimate (million tonnes)			
Spring Wheat (excluding durum)	19.4	16.8	-13
Durum Wheat	5.6	3.1	-45
Oats	3.4	3.0	-12
Barley	13.5	11.6	-14
Canola	7.1	5.1	-28
Flaxseed	0.7	0.7	0
Dry Peas	2.9	2.4	-17
Cattle on Farms (million head)			
Total Cattle - July 1	14.4	14.6	1
Calves Born - January-June	4.3	4.4	2
Pigs on Farms (million head)			
Total Pigs - July 1	12.3	12.3	0
Sows Farrowed January-June	1.3	1.4	8
Sows to Farrow July-December	1.4	1.5	7
Milk Sold Off Farms (million kilolitres)			
January - June	3.8	3.8	0
Chicken Meat Production (thousand tonnes)			
January-June	440	458	4
Egg Production (million dozen)			
January-June	273	280	3
Planted Area of Fruit (thousand hectares)			
Apples	27.7	26.6	-4
Strawberries	4.9	4.8	-2
Blueberries	35.8	35.5	-1
Grapes	8.3	8.4	1
Planted Area of Vegetables (thousand hectares)			
Field Vegetables	110	109	-1
Potatoes	164	166	1

	2000	2001	Percent Change
<b>International Trade in Agricultural Commodities and Food (billion dollars)</b>			
Exports January-June	12.9	14.5	12
Imports January-June	8.6	9.5	10
<b>Price Indexes</b>			
CPI Food Component (1992=100) - July	113	119	5
Farm Product Price Index (1997=100) - June	96	102	6
<b>Farm Cash Receipts (billion dollars)</b>			
January-June	16.3	17.7	9
<b>Bankruptcies - Agriculture and related service industries (number)</b>			
January-June	142	138	-3
<b>Manufacturing Shipments of Food (billion dollars)</b>			
Total Value January-June	28.0	29.9	7
<b>Retail Trade in Food Stores (billion dollars)</b>			
Total Value January-June	29.4	30.8	5
<b>Population (million persons)</b>			
April 1	30.7	30.9	1
<b>Employment (million persons)</b>			
July	15.3	15.5	1
<b>Raw Unemployment Rate (percent)</b>			
July	7.0	7.2	3



## Scheduled Releases of Agricultural Information

### September 1, 2001 through February 28, 2002

#### Field Crops

- September 13 - Stocks of Canadian grain at July 31, 2001 (Cat. No. 22-002-XPB/XIB)  
October 5 - September estimates of production of principal field crops by province for 2001 (Cat. No. 22-002-XPB/XIB).  
December 5 - November estimates of production of principal field crops by province for 2001 (Cat. No. 22-002-XPB/XIB).  
January 31 - Stocks of Canadian grain at December 31, 2001 (Cat. No. 22-002-XPB/XIB).

#### Grain Markets

- September 27 - Cereals and oilseeds market statistics, monthly (Cat. No. 22-007-XPB/XIB).  
October 29  
November 28  
December 21  
January 28  
March 1

#### Horticulture Crops

- November 23 - Area, yield and production of potatoes by province for 2001 (Cat. No. 22-008-UPB/UIB).  
January 17  
February 15 - Area, production and value of fruit and vegetable crops by province for 2001 (Cat. No. 22-003-XIB).  
November 19 - Production and value of honey and maple products by province for 2000 (Cat. No. 23-221-XIB).

#### Food Consumption

- October 18 - Supply, disposition and per capita disappearance of oils, fats, fruits, vegetables, potatoes and fish for 2000 (Cat. No. 32-230-XPB/XIB).

#### Livestock and Animal Products

- November 13 - Farm sales of milk for fluid and manufacturing purposes, production and stocks of  
February 12 creamery butter, cheddar cheese and other dairy products by province, monthly (Cat. No. 23-001-XPB/XIB).  
October 22 - Inventories of pigs on October 1 by province (Cat. No. 23-603-UPE).  
February 21 - Inventories of pigs, cattle and sheep on January 1 by province (Cat. No. 23-603-UPE).  
October 22 - Wool sales and value for 2001 (Cat. No. 23-603-UPE)

## Scheduled Releases of Agricultural Information

### September 1, 2001 through February 28, 2002

#### Livestock and Animal Products

September 27 - Stocks of frozen meat products in Canada by type of meat product and  
October 30 by province, monthly (Cat No. 23-009-XIE).  
November 29  
December 21  
January 30  
February 27

#### Poultry

September 20 - Stocks of frozen poultry meat by province, monthly (Cat. No. 23-603-UPE).  
October 18  
November 20  
December 19  
January 21  
February 19

September 7 - Egg production and number of laying hens by province, monthly (Cat. No. 23-003-XPB).  
October 5  
November 9  
December 7  
January 8  
February 5

#### Farm Income and Prices

November 26 - Farm cash receipts by province, quarterly (Cat. No. 21-001-XIB).  
February 25

November 26 - Estimates of ten agricultural economic indicators for 2000: farm income, farm cash receipts, farm operating expenses and depreciation charges, the index of farm production, current values of farm capital, farm debt outstanding, the farm product price index, direct program payments, the agriculture production account and balance sheets (Cat. No. 21-603-UPE).

September 24 - Farm Product Price Index, monthly, (Cat. No. 21-007-XIB).  
October 22  
November 22  
December 21  
January 21  
February 21

Notice of each release will be published on the day of release in "The Daily " on the Statistics Canada website at [www.statcan.ca](http://www.statcan.ca). Much of the data is available in machine- readable form in CANSIM at the same time. The publications will be available at a later date.

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

ISSN 1481-899X

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**VISTA** is a semi-annual newsletter published by the Agriculture Division of Statistics Canada and distributed to users of food and rural statistics. Subscriptions are available by mail or FAX from:

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Agriculture Division  
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12th floor, Jean Talon Bldg.,  
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FAX: (613) 951-3868

**VISTA** is also available on the Internet without charge at [www.statcan.ca](http://www.statcan.ca).

Published by authority of the Minister responsible for Statistics Canada.

Minister of Industry, 2001

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