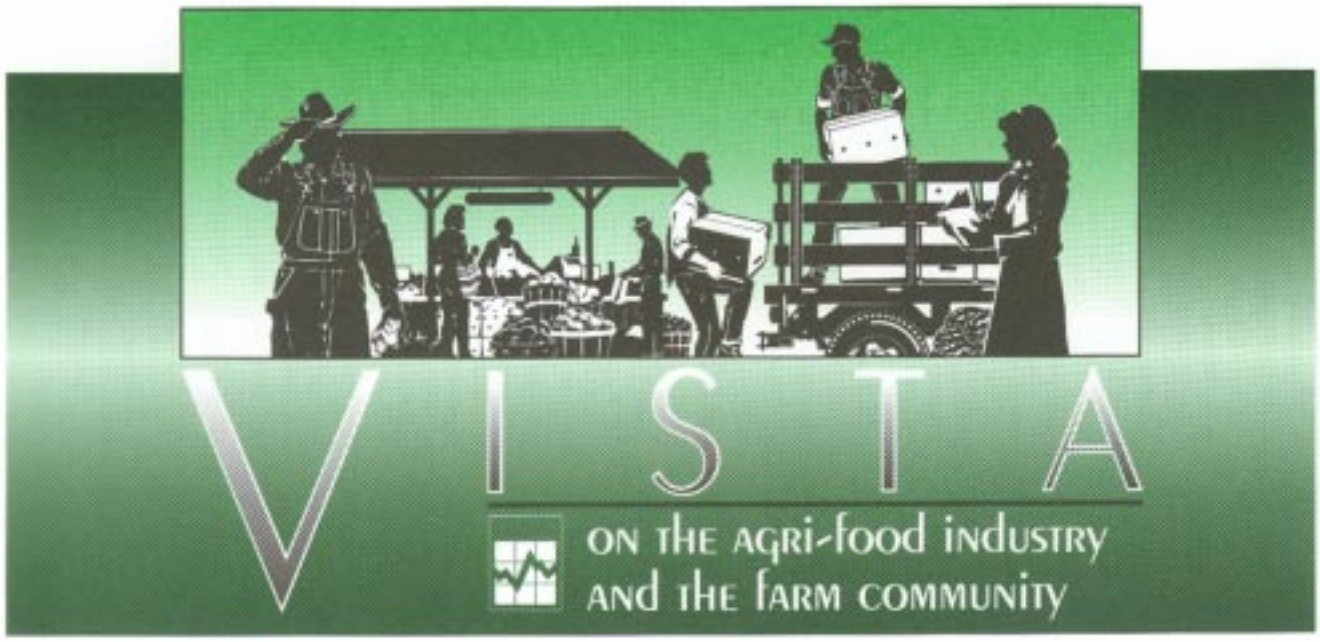


Catalogue No. 21-004-XIE

March 1999

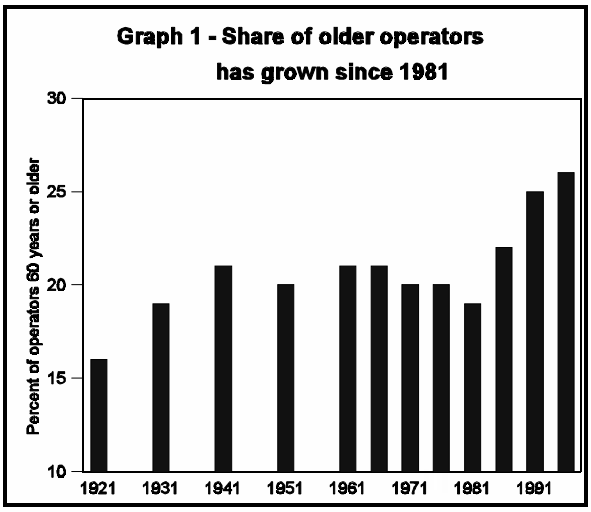
The Age Old Phenomenon of the Aging Farmer

by Ray D. Bollman

The 1996 Census of Agriculture reported the highest share of census-farm operators over 60 years of age in Canadian history. The share has been increasing since 1981. Are farmers a dying phenomenon? Are there any young farmers? The purpose of this article is to review the census-farm operator age structure to understand some reasons for an apparent aging of the census-farm operator population.

An increasing share of older operators

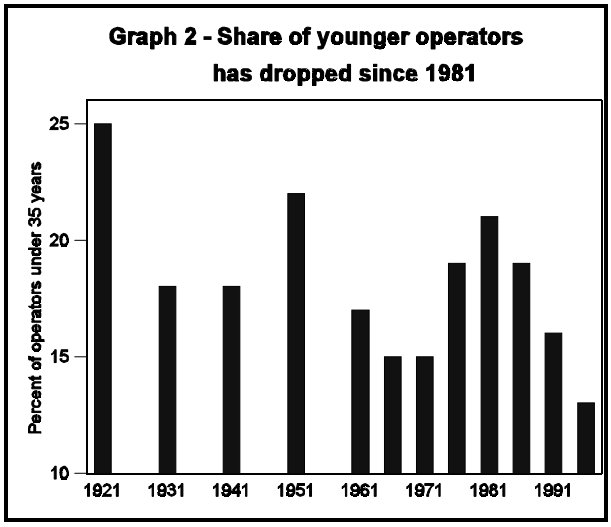
The share of census-farm operators who are 60 years of age and older is now the highest in Canadian history (Graph 1). This share has been increasing since 1981. This conclusion applies to Ontario and to each Prairie Province. For each Atlantic Province, they have always had a relatively high share of operators aged 60 years and over and the period since 1981 has shown a relatively lower and stable share aged 60 years and over.



Quebec appears unique. Since 1921, the share of operators 60 years and over has been stable and has been relatively low. In Quebec in 1996, only 16 percent of census-farm operators were 60 years or over which was exactly the same share in 1921. This share has varied only marginally in the intervening 65 years.

A decreasing share of younger operators

In each province, the share of younger operators (under 35 years) has been falling since 1981 (see Graph 2 for the Canada-level data). During the 1921 to 1996 period, the share of younger operators has been consistently low (less than 20 percent) in the four Atlantic Provinces, Ontario and British Columbia. At the Canada level, the share of younger operators surpassed 20 percent in only 1921, 1951 and 1981. Each Prairie Province and Quebec shows the same pattern. In 1996, we find the lowest share of younger operators at the Canada level and in each province (except New Brunswick and Newfoundland). However, in all provinces, there was also a low share of young operators at the end of the 1960s.



An alternative way to consider the patterns

To try to understand some of the patterns reported above, we have classified the operators in each census into the age cohort or year of birth of the operator. For example, operators born between 1961 and 1971 would have been 20 to 29 years of age at the time of the 1991 census and they would have been 25 to 34 years of age at the time of the 1996 census. What can we learn?

VISTA on the Agri-Food Industry and Farm Community

ISSN 1481-899X

Editor: Rick Burroughs, (613) 951-2890
Internet: burrric@statcan.ca

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

Editor - Vista
Agriculture Division
Statistics Canada
12th floor, Jean Talon Bldg.,
Ottawa, Ontario
K1A 0T6

FAX: (613) 951-3868

VISTA is also available on the internet without charge at www.statcan.ca.

Published by authority of the Minister responsible for Statistics Canada.

Note of appreciation

Canada owes the success of its statistical system to a long-standing cooperation between Statistics Canada, the citizens of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

If we look at each of the age cohorts of birth 1901 to 1911, 1911 to 1921 and 1921 to 1931, we see that when each cohort was 20 to 29 years of age, there were the same absolute number of census-farm operators (about 67,000 operators) (Graph 3). Individuals in these three cohorts were 20 to 29 years of age in 1931, 1941 and 1951, respectively. These individuals started farming with pre-World War II technology. The number of individuals in the two earlier cohorts who were census-farm operators increased dramatically until they were about 40 years of age and then the numbers in each cohort declined dramatically. Graph 3 shows only the average of the three cohorts. The rate of increase and the rate of decline for the latter cohort (i.e. those born from 1921 to 1931) was not as steep.

The next three cohorts started farming with post-World War II technology. These are the individuals born from 1931 to 1941, from 1941 to 1951 and from 1951 to 1961. These cohorts were 20 to 29 years of age in 1961, 1971 and 1981. Note again that for these three cohorts, there was the same absolute number of census-farm operators (about 26,000) in the 20 to 29 year age group. Most importantly, note that this number is less than half the number of farmers who had started farming with pre-World War II technology. Again, the number of census-farm operators in these cohorts increased up to about 40 years of age but the rate of decline has been much less than the pre-World War II operators. These operators are not leaving farming at the same rate as the pre-World War II operators, possibly because the post-World War II technology has made farming somewhat less physically demanding.

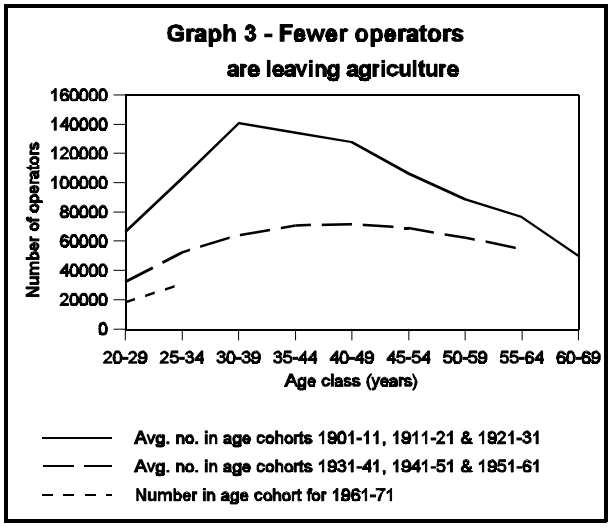
The final cohort represents individuals born between 1961 and 1971. Individuals in this cohort were 20 to 29 years of age in 1991. These operators started farming after the financial "wars" of the early 1980s, when interest rates skyrocketed. Note that this cohort is starting at a significantly lower level (18,000 operators) which is about two-thirds of the level of the previous three cohorts. The rate of growth of this cohort is essentially the same as the three earlier cohorts.

The consistency of the patterns is striking. It would appear that merely extending the line for each age cohort might generate a very close approximation of the age structure of census-farm operators in the next census.

What is a census-farm operator?

For the purpose of this article, we used data on operators of census-farms to analyse the farmer age structure. A census-farm is a holding that produces agricultural products for sale. The operator is the person responsible for day-to-day decisions. In the 1991 and 1996 Censuses of Agriculture, more than one operator could be listed. We considered only the first-listed operator and, as you will see below, the age patterns of the first-listed operator in 1991 and 1996 are consistent with earlier censuses.

Note that many census-farms are small, with over one-quarter being too small to make a positive contribution to family income. Historically, one-third of census-farm operators report an off-farm job and do not consider farming to be their primary occupation. However, to obtain a long time-series of data, we use data on the total number of operators by age class. Future research may wish to prepare special tabulations for the 1966 to 1996 period to remove retired or hobby or part-time operators.



The rate of decline is somewhat smaller for the number of census-farm operators in the 1921 to 1931 cohort, compared to the two older cohorts, as they aged from 55-64 to 60-69 years of age (i.e. from the 1986 to the 1991 Census of Agriculture). This lower rate of decline continued up to the 1996 Census of Agriculture. This physical ability to keep farming is one reason for the observed increase in share of older operators. Of course, in addition to the physical ability to farm, the limited financial ability of younger individuals to buy farms may be causing some of the older farmers to stay farming because they cannot find a buyer.

The number of operators appears relatively flat for the 1931 to 1941 cohorts and for the 1941 to 1951 cohorts. These cohorts are included in the average for the middle line in Graph 3. In fact, the number of operators in the latter cohort is still increasing past the age of 45. This factor will contribute in the future to an older age distribution of census-farm operators.

Finally, the post-financial war number of younger operators (in the 1961 to 1971 cohort) is significantly less. Although their numbers may follow a pattern similar to the previous cohorts, we would expect that the absolute number would remain at about two-thirds of the level of the three earlier cohorts. This factor will significantly impact the age distribution of census-farm operators in forthcoming censuses.

To conclude

Canada now has a historically high share of older farm operators. The share of younger farm operators has been declining since 1981. This did not generate concern because we had seen the equivalent pattern during the early 1970s. A review of the number of census-farm operators by age cohort helps to understand the patterns and to anticipate future scenarios. A cohort analysis shows that, as operators age, fewer operators are leaving agriculture compared to earlier cohorts. At the other end of the scale, we have seen the same absolute number of younger operators, except in the most recent census periods. The cohort born between 1961 and 1971 has delivered a smaller absolute number of census-farm operators. As this pattern evolves over time, we can anticipate future changes in the distribution of census-farm operators by age class.

Questions or comments on this article may be addressed to Ray Bollman at (613) 951-3747 or via the Internet at bollman@statcan.ca.

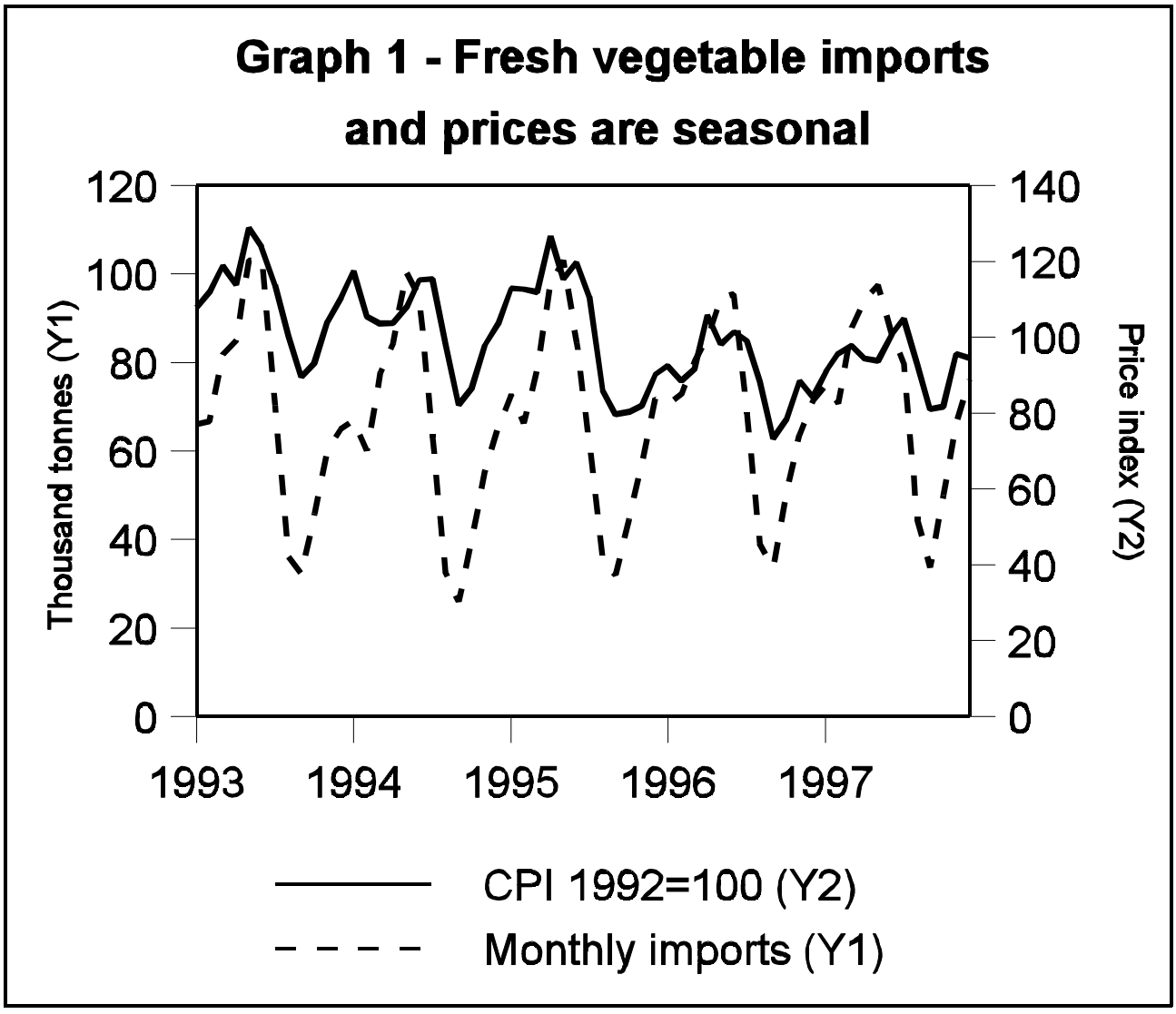
Fresh fruit and vegetable supplies are seasonal and so are the prices

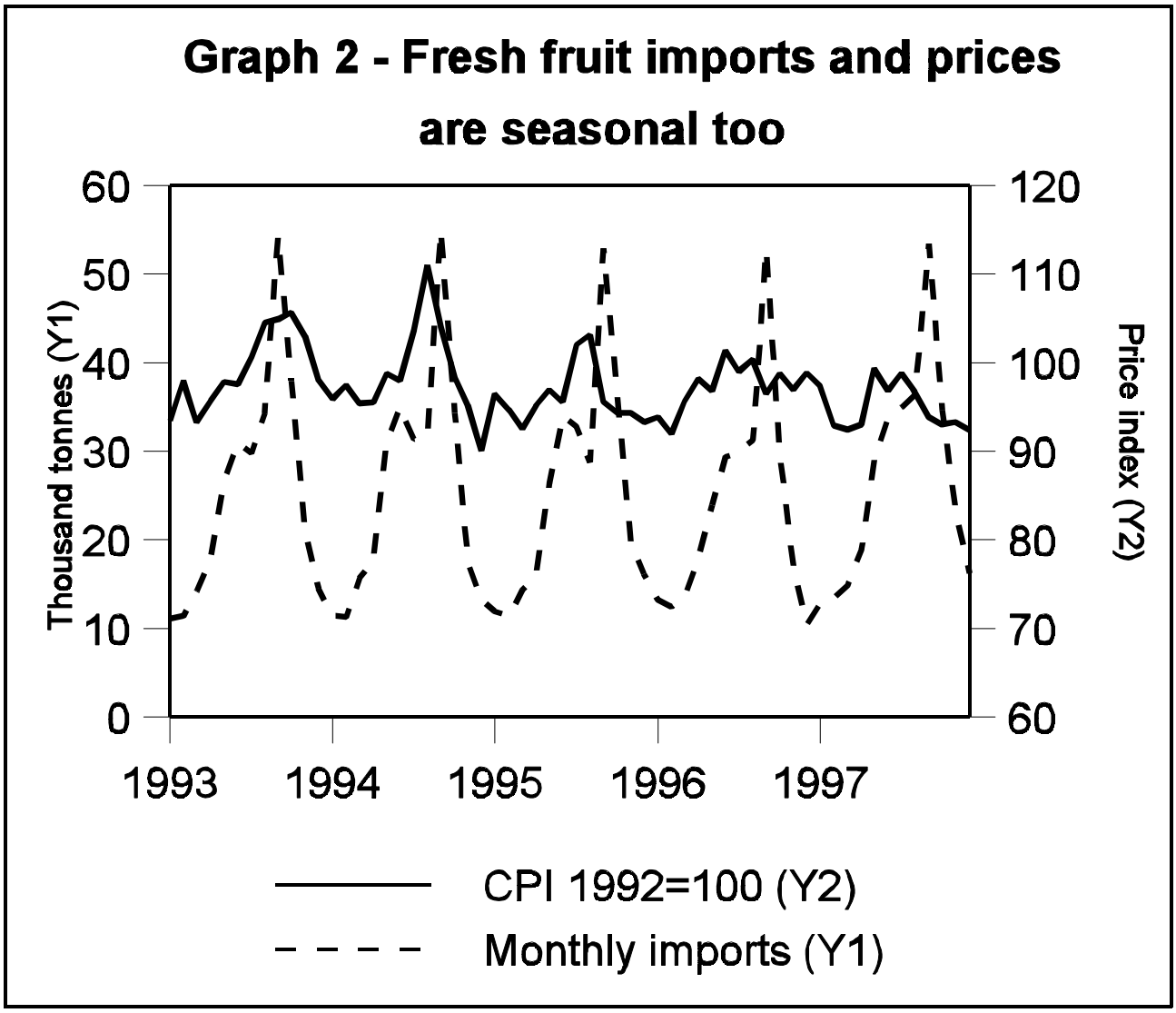
by Sheba Mirza

Canadian farmers are successfully meeting the demand for fresh fruit and vegetables during the local growing season. Due to the short duration of the growing season however, imports are required to fill the shelves for a significant part of the year. Although overall prices for fresh produce are trending downwards, these imports cost more in the grocery stores and fresh markets than domestic produce.

Most produce is imported seasonally. However, peppers, peas, onions, lettuce, beans, apples and pears are a few that enter all year-round. Month to month comparisons of import levels for fresh vegetables and fresh fruit show a cyclical pattern, evident from year to year (Graphs 1 and 2).

For fresh vegetables, this cycle mirrors the domestic growing season. Import levels begin to increase in September, towards the end of the growing season, and peak in May, at the same time as the first California crops are harvested. Conversely, import levels quickly decline at the onset of the local production season towards the end of May, reaching their lowest levels in September when the local produce is harvested.





An average of almost 100 thousand tonnes of fresh vegetables are imported in May, dropping to just over 30 thousand tonnes in September.

The fresh fruit imports increase from January to September and decrease from October to December. September is the peak season for fresh fruit imports, averaging over 50 thousand tonnes, while January is the low point with an average of 12 thousand tonnes.

Rising imports are accompanied by rising prices. The Consumer Price Index (CPI) for fresh vegetables is consistently highest around the months that imports appear at peak levels during the summer. Prices for fresh vegetables are lowest in September, which is the same time when imports are at their lowest and local produce is available. For fresh fruit, prices are highest in the late summer or July-August season when imports are increasing. They drop in the fall when local fresh fruit are available.

Prices for fresh vegetables and fruit have been trending downward since 1993. The Consumer Price Index fell over the five years, from 109.7 in 1993 to 93.6 in 1997 for vegetables, and from 99.4 to 95.0 for fruit during the same period. This downswing in prices occurred despite increases in the cost of transportation, utilities and other production inputs. The drop in produce prices is more likely indicative of the effects of the North American Free Trade Agreement.

Producers in the United States are now facing direct competition in the Canadian market from growers in Mexico.

What is being imported?

The vegetables being imported in largest quantity are the ones that are in high demand — tomatoes, lettuce and onions, followed by carrots, broccoli and peppers. Imports of fresh vegetables have been growing in recent years, up almost 6% since 1993. The increase in fresh vegetable imports is predominantly due to carrots and peppers.

Grapes top the list of fresh fruit imports, followed by apples, pears and strawberries.

Where are the imports coming from?

Almost all of the imports originate in the United States or Mexico. California is the primary origin of imported fresh vegetables and fruit, consistently accounting for over half the tonnage. Over 75% of the broccoli, Brussels sprouts, carrots and celery, and most of the cabbage, peas, spinach and turnips arrive from California. Florida is the next largest source, providing almost half of the tomatoes, some peppers, corn and beans. Texas supplies over half of the beets, some cabbage and some turnips. Beets and turnips are shipped from New Jersey, beans from Georgia and onions and turnips from Oregon. To a much lesser extent fresh produce is trucked in from Arizona, Washington, Idaho, New Mexico, Colorado, Illinois, Indiana, New York, New Jersey and Michigan.

Imports from Mexico have increased from 35 thousand tonnes in 1993 to 61thousand tonnes in 1997. Mexican imports remain less than 10% of the total. The shipments include mainly asparagus, beets, Brussels sprouts, peppers, radishes, spinach and tomatoes.

California supplies more than half of the imported grapes, strawberries, pears and peaches. Washington provides apples and some pears.

New York, Oregon and Florida are other sources of imported fruit. Grapes are the only fresh fruit imported from Mexico in any quantity.

Where are the imports going?

Most of the imports arrive initially in the major population centres where they are consumed or redistributed to the other provinces. Ontario is the primary destination, receiving over half the fresh fruits and vegetables being imported. British Columbia follows, along with Alberta and Quebec. Quebec has seen decreasing imports of both fresh fruits and vegetables in recent years.

*The data used in this article are taken from the **International trade database** and the **Consumer Price Index**.*

Questions or comments on this article may be addressed to Sheba Mirza at (613) 951-9784 or via the Internet at mirzshe@statcan.ca.

CURRENT CANADIAN AGRICULTURAL INDICATORS

	1997	1998	Percent Change
Crop Production November 30 Estimate (thousand tonnes)			
Wheat	24 280	24 393	0.5
Oats	3 485	3 958	13.6
Barley	13 527	12 699	-6.1
Canola	6 393	7 588	18.7
Flaxseed	1 029	1 106	7.5
Corn for Grain	7 180	8 912	24.1
Soybeans	2 756	2 762	0.2
Dry Peas	1 762	2 337	32.6
Cattle on Farms (thousand head)			
Total Cattle - Year End	13,072	12,810	-2.0
Calves Born	5,292	5,204	-1.6
Pigs on Farms (thousand head)			
Total Pigs - Year End	12,003	12,473	3.9
Sows Farrowed July-December	1,136	1,291	13.6
Sows to Farrow January-June 98, 99	1,194	1,323	10.8
Milk Sold Off Farms (thousand kilolitres)			
January - December	7 423	7 456	0.4
Chicken Meat Production (thousand tonnes)			
Total	750	799	6.5
Egg Production (million dozen)			
Total	494	499	1.0
Planted Area of Fruit (thousand hectares)			
Apples	30.8	29.9	- 2.9
Strawberries	6.5	6.0	-7.7
Blueberries	34.3	36.7	7.0
Grapes	7.6	7.7	1.3
Planted Area of Vegetables (thousand hectares)			
Field Vegetables	117.0	114.9	-1.8
Potatoes	152.9	156.8	2.6

CURRENT CANADIAN AGRICULTURAL INDICATORS - concluded

	1997	1998	Percent Change
International Trade in Agricultural Commodities (million dollars)			
Exports	24,691	23,261	-5.8
Imports	15,661	17,328	10.6
Price Indexes (1986=100)			
Farm Input Price Index - 4th quarter	130.0	128.2	-1.4
CPI Food Component - December	107.9	109.7	1.7
Farm Cash Receipts (million dollars)			
Total	29,586	28,964	-2.1
Bankruptcies - Agriculture and related service industries (number)			
Total January - November	249	254	2.0
Manufacturing Shipments of Food (million dollars)			
Total Value	50,279	51,638	2.7
Retail Trade in Food Stores (million dollars)			
Total Value	55,949	57,920	3.5
Population (thousand persons)			
October 1	30,106	30,381	0.9
Employment (thousand persons)			
December	13,979	14,430	3.2
Raw Unemployment Rate (percent)			
December	8.1	7.7	-4.9

Scheduled Releases of Agricultural Information

March 1, 1999 through September 1, 1999

Field Crops

April 23 - March seeding intentions of principal field crops by province for 1999 (Catalogue No. 22-002-XPB).

May 6 - Stocks of Canadian grain at March 31, 1999 (Catalogue No. 22-002-XPB).

June 29 - Preliminary estimates of principal field crop area for 1999(Catalogue No. 22-002-XPB).

August 26 - July 31, 1999 estimate of production of principal field crops (Catalogue No. 22-002-XPB).

Grain Markets

March 26
April 28
May 27
June 25
July 28
August 26 - Cereals and oilseeds market statistics, monthly (Catalogue No. 22-007-XPB).

May 28 - Grain Trade of Canada 1997-98 (Catalogue No. 22-201-XPB)

Horticulture Crops

July 23 - Preliminary estimates of potato area by province for 1999 (Catalogue No. 23-008-UIB).

June 15 - Area of fruit and vegetable crops by province for 1999 (Catalogue No. 22-003-XIB).

April 23 - Greenhouse, sod and nursery industries (Catalogue No. 22-202-XIB).

Food Consumption

June 16 - Supply, disposition and per capita disappearance of cereals, sugars, syrups, pulses, nuts, beverages, dairy products, poultry, eggs and meats for 1998 (Catalogue No. 32-229-XPB/XIB).

Livestock and Animal Products

May 13
August 12 - Farm sales of milk for fluid and manufacturing purposes, production and stocks of creamery butter, cheddar cheese and other dairy products by province, quarterly (Catalogue No. 23-001QXPB/XIB).

April 23 - Inventories of pigs by province at April 1 (Catalogue No. 23-603-UPE).

August 25 - Inventories of pigs, cattle and sheep by province at July 1 (Catalogue No. 23-603-UPE).

April 23 - Wildlife fur production for 1998 (Catalogue No. 23-603-UPE).

August 25 - Report on fur farms by province for 1998 (Catalogue No. 23-603-UPE).

May 14 - Production of poultry and eggs by province, 1998 (Catalogue No. 23-202-XIB).

Scheduled Releases of Agricultural Information

March 1, 1999 through September 1, 1999

Livestock and Animal Products (concl'd)

August 25 - Aquaculture (Catalogue No. 23-603-UPE).

March 29 - Stocks of frozen meat products by province, monthly (Catalogue No. 23-009-XIE).
April 28
May 28
June 29
July 28
August 27

March 18 - Stocks of frozen poultry meat by province, monthly (Catalogue No. 23-603-UPE).
April 21
May 20
June 17
July 20
August 20

March 5 - Egg production and number of laying hens by province, monthly (Catalogue No. 23-003-XPB).
April 8
May 7
June 7
July 9
August 9

Farm Income and Prices

May 27 - Farm cash receipts by province, quarterly (Catalogue No. 21-001-XIB).
August 26

May 27 - Estimates of agricultural economic indicators for 1998: farm income, farm cash receipts, farm operating expenses and depreciation charges, current values of farm capital, farm debt outstanding and direct program payments (Catalogue No. 21-603-UPE).

May 6 - Indexes of prices of commodities and services used in farm operations
August 5 by province, quarterly (Catalogue No. 62-004-XPB).

Users may obtain these releases on the date of release through the contacts listed on the next page. 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.

AGRICULTURE DIVISION: WHO TO CONTACT

Address: Agriculture Division
Statistics Canada
Ottawa, Ontario
K1A 0T6

Toll free telephone number: 1-800-465-1991

Fax: **(613) 951-3868**

Free catalogue of products and services available on request

Topic	Contact		Tel No.
Dairy	Pat Chandler	(613)	951-2506
Cattle, Hogs, and Sheep	Robert Plourde	(613)	951-8716
Poultry and Cold Storage	Robert Plourde	(613)	951-8716
Aquaculture	Bernadette Alain	(902)	893-7251
Field Crop Reporting	Oliver Code	(613)	951-8719
Grain Marketing Statistics	Karen Gray	(204)	983-2856
Horticultural Crops	Bill Parsons	(613)	951-8727
Potatoes and Furs	Barbara McLaughlin	(902)	893-7251
Farm Taxfiler Data	Bruce Orok	(613)	951-8722
Farm Cash Receipts	Martin Beaulieu	(613)	951-2449
Farm Expenses	Bernie Rosien	(613)	951-2441
Farm Input Prices	Vaclav Krabicka	(613)	951-3342
Census User Services	Rosemary Villani	(613)	951-2889
Food Consumption	Pat Chandler	(613)	951-2506
Rural Data Advisory Line	Ray Bollman	(613)	951-3747