

# Farm Input Price Index (2002=100)

## 1. Brief history and methodology of the Farm Input Price Index

The Farm Input Price Index (FIPI) is a quarterly indicator of changes in Canadian farmers' input costs. It tracks the movement of prices used by marketing offices and stabilization programs. The government also uses FIPI data to develop regional and national economic policies for the agricultural sector.

The FIPI was introduced in 1961. Over the decades that followed, many changes were made to the FIPI structure, as new components were added to reflect the development and evolution of agricultural practices. Following budget cuts in the late 1990s, the FIPI surveys were phased out, which led to a reduction in geographic coverage and the number of components included. The FIPI was last released in 2008 (covering 2007). This document introduces the new, redesigned FIPI.

The characteristics of the new index (2002=100) are described below.

- The information used to weigh the major aggregate components of the FIPI is taken from CANSIM publication 002-0005, Farm Operating Expenses and Depreciation Charges, produced by the Agriculture Division of Statistics Canada. For weights at more detailed levels, estimates are based on additional statistical sources (internal and external).
- Farm Operating Expenses and Depreciation Charges does not cover farm-to-farm transactions. To compensate for this gap, an adjustment is made in three major FIPI components in which farm-to-farm transactions are common: commercial seed and plants, livestock purchases, and commercial feed. The purpose of this adjustment is to amplify the weights to make them comparable to Census of Agriculture values.
- The reference period for weighting is a four-year average in 2002 constant dollars. A four-year period was used to moderate the influence of an exceptional year (unusual shock) on farm input purchases. The data were converted to constant dollars using old FIPI data.
- Price fluctuations are calculated using data from existing Statistics Canada programs and other administrative sources of farm data. Since the prices used to compute the redesigned FIPI are not collected for the specific purpose of creating a sample of farm input prices, they will be only an approximation of the actual prices paid by farm operators.
- The FIPI is a quarterly price index for Canada and the 10 provinces, but not the territories. In some cases, however, national price fluctuations are used to estimate provincial indexes.
- The data used in the FIPI's last eight quarters may be revised. Some FIPI inputs have their own revision periods, and the FIPI was structured so that data revisions can be incorporated. The FIPI is not seasonally adjusted.

## 2. Composition of the FIPI basket

The selection of published inputs is essentially based on two criteria: confidentiality of data and sources (disclosure control) and data reliability and precision (approximation of prices). The criteria are satisfied through aggregation of the data.

The inputs and indexes are compiled at various levels of disaggregation: total (1), principal groups (5), groups (28), subgroups (33) and elements (38). Due to space considerations, only subgroups and higher levels of aggregation are presented in the table below. Published inputs are shown in bold. The weight associated with each basket component is expressed as a percentage.

1	<b>TOTAL FIPI</b>	100.00
1.1	<b>BUILDINGS</b>	9.36
1.1.1	Depreciation on buildings	2.79
1.1.2	Repairs to buildings & fences and farm-specific supplies	3.35
1.1.3	Electricity	1.80
1.1.4	Heating fuel	1.43
1.1.4.1	Natural gas	0.83
1.1.4.2	Fuel oil and propane	0.60
1.2	<b>MACHINERY AND MOTOR VEHICLES</b>	19.27
1.2.1	<b>Depreciation on machinery and motor vehicles</b>	9.28
1.2.1.1	<b>Depreciation on machinery</b>	7.16
1.2.1.2	<b>Depreciation on motor vehicles</b>	2.11
1.2.2	<b>Machinery fuel</b>	4.74
1.2.2.1	Gasoline	2.07
1.2.2.2	Diesel fuel	2.67
1.2.3	<b>Machine repairs</b>	5.25
1.2.3.1	Machinery parts	4.18
1.2.3.2	Servicing (labour)	1.07
1.3	<b>GENERAL BUSINESS COSTS</b>	15.33
1.3.1	Telephone	0.66
1.3.2	Trucking	0.72
1.3.3	Rental of machinery, vehicles and equipment	0.33
1.3.4	Legal & accounting fees	1.95
1.3.5	Business insurance	1.60
1.3.6	Property taxes	1.39
1.3.7	Interest	5.50
1.3.7.1	Non-Mortgage	2.89
1.3.7.2	Mortgage	2.61
1.3.8	Rent	3.18
1.3.8.1	Monetary rent	2.41
1.3.8.2	Share rent	0.77
1.4	<b>CROP PRODUCTION</b>	23.17
1.4.1	<b>Commercial seed and plant</b>	3.88
1.4.1.1	Grains and oils	1.82

1.4.1.2	Potatoes	0.20
1.4.1.3	Greenhouse, floriculture, fruits and vegetables	1.86
1.4.2	<b>Fertilizer</b>	6.38
1.4.2.1	<b>Nitrogen fertilizers</b>	3.90
1.4.2.2	<b>Other fertilizers <sup>(S)</sup></b>	2.48
1.4.3	<b>Pesticides <sup>(S)</sup></b>	4.34
1.4.3.1	Herbicides	3.58
1.4.3.2	Fongicides	0.61
1.4.3.3	Insecticides	0.14
1.4.4	<b>Twine, wire &amp; containers <sup>(S)</sup></b>	1.10
1.4.5	<b>Production insurance <sup>(S)</sup></b>	1.22
1.4.5.1	Crop 1	0.48
1.4.5.2	Crop 2	0.39
1.4.5.3	Crop 3	0.34
1.4.6	<b>Stabilization premiums <sup>(S)</sup></b>	0.34
1.4.6.1	Crop 1	0.20
1.4.6.2	Crop 2	0.11
1.4.6.3	Crop 3	0.03
1.4.7	<b>Cash wages in crop production <sup>(S)</sup></b>	5.43
1.4.8	<b>Crop-related custom work <sup>(S)</sup></b>	0.49
1.5	<b>ANIMAL PRODUCTION</b>	32.88
1.5.1	<b>Livestock purchases</b>	13.32
1.5.1.1	<b>Cattle</b>	9.50
1.5.1.2	<b>Hogs <sup>(S)</sup></b>	2.13
1.5.1.3	<b>Poultry <sup>(S)</sup></b>	1.68
1.5.2	<b>Commercial feed</b>	13.25
1.5.2.1	<b>Prepared feed</b>	10.32
1.5.2.2	<b>Grain feed</b>	2.93
1.5.3	<b>Veterinary fees and drugs <sup>(S)</sup></b>	1.70
1.5.3.1	Veterinary fees	0.75
1.5.3.2	Drugs	0.94
1.5.4	<b>Cash wages in animal production <sup>(S)</sup></b>	4.11
1.5.5	<b>Animal-related custom work <sup>(S)</sup></b>	0.50

Footnotes :

(S) Value suppressed

### 3. Origin of price sources

As mentioned above, there is no specific survey for the FIPI program. Prices and price changes are collected from sources within Statistics Canada and from external organizations in the agricultural sector. The table below presents the sources for all components and subcomponents and the sources' weights in the index total.

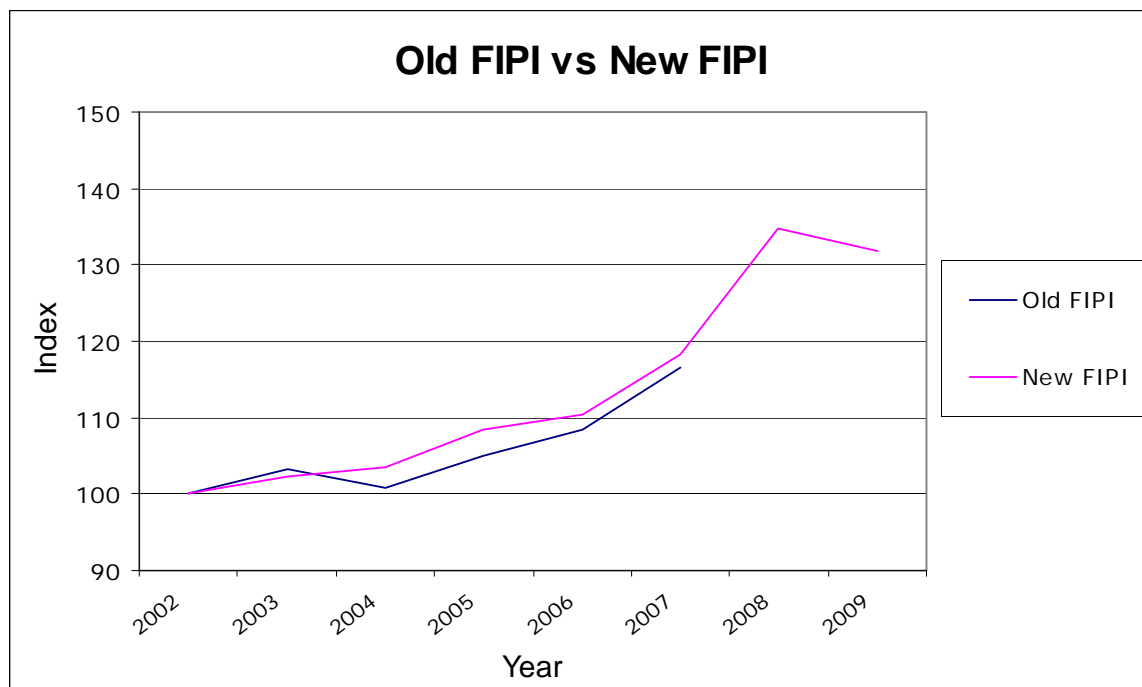
Disclosure of internal sources may be a way for users to trace the information on price fluctuations for a few aggregate farm inputs in the FIPI. However, since the prices used to compute the redesigned FIPI are not collected for the specific purpose of creating a sample of farm input prices, they will represent only an approximation of the actual prices paid by farm operators.

Source	Weight	Components and sub-components
	(%)	
Outside sources	25.4	Fertilizer (excluding ammonium sulphate)
		Livestock purchases : cattle
		Livestock purchases : poultry
		Pesticides
		Seed : grains and oils
		Trucking
		Twine, wire & containers
Statistic Canada (Industrial Product Price Index)	19.0	Diesel fuel
		Drugs
		Fertilizer (ammonium sulphate)
		Fuel oil and propane
		Gasoline
		Machinery parts
		Non-powered machinery
		Powered machinery
		Trucks for farm investment
Statistic Canada (Labour Force Survey)	13.2	Cash wages in agriculture
		Custom work
		Legal & accounting fees
		Veterinary fees
Agriculture and Agrifood Canada	11.9	Commercial feed : prepared feed
		Production insurance
		Stabilization premiums
Statistic Canada (Consumer Price Index)	11.6	Business insurance
		Cars for farm investment
		Natural gas
		Property taxes
		Repairs to buildings & fences and farm-specific supplies
		Seed : greenhouse, floriculture, fruits and vegetables
		Servicing (labour)

		Telephone
Statistic Canada (Producer Prices Division, other sources)	10.4	Depreciation on buildings
		Electricity
		Interest
		Rental of machinery, vehicles and equipment
Statistic Canada (Agriculture Division)	8.4	Commercial feed : grain feed
		Livestock purchases : hogs
		Monetary rent
		Seed : potatoes
		Share rent

#### 4. Comparison between the “Old FIPI” and the “New FIPI”

To facilitate analysis of the redeveloped FIPI (New FIPI) with the previous version of the FIPI (Old FIPI), the New FIPI has been expressed as an annual index (using the average annual index numbers). The index numbers from the Old FIPI (1992=100) have been rescaled (re-expressed) so that 2002=100.



As can be seen in the above chart, the old FIPI and the new FIPI (in its annualised form) track very closely together. However, at lower levels because of the different data sources used, the different weights and the modified classification system used, the old and new FIPI series will not match quite so closely.