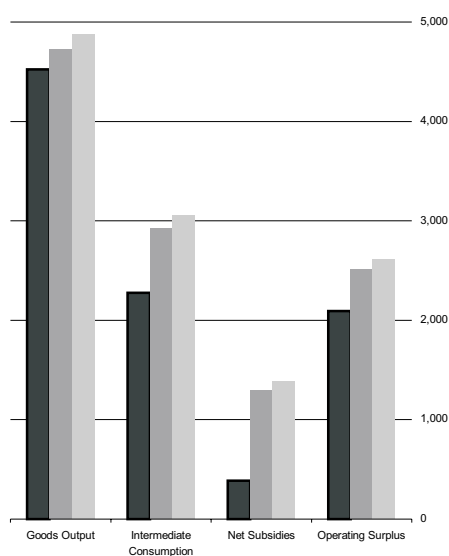


Output, Input and Income in Agriculture 2001

Selected Income Indicators

■ 1990 ■ 2000 ■ 2001

Value €m



	Goods Output	Intermediate Consumption	Net Subsidies	Operating Surplus
2000	€4,718m	€2,925m	€1,295m	€2,509m
2001	€4,876m	€3,056m	€1,380m	€2,614m
%change	3.3%	4.5%	6.6%	4.2%

Agricultural income up 4.2%

Agricultural income for 2001 rose by 4.2% over the previous year, before deductions for interest payments and land rental. *See Table 1.*

Over the same period the output value of cattle decreased by 8.8% (or €120m) while that of milk increased by 8.2% (€118m). The value of sheep output increased by 39.7% (€81m) and that of pigs by 18.6% (€55m).

A comparison of the 2000 and the 2001 figures also show that (*see Table 1*):

- ◆ The value of cereals output decreased by 8.3% (€15m) while that of root crops increased by 16.6% (€23m).
- ◆ The cost of feedingstuffs increased by 5.6% (€47m). The cost of fertilisers increased by 4.0% (€14m), but the volume of fertilisers consumed in farming fell by 10.6%.

Estimates for Operating Surplus for 2000 and 2001 for all EU countries are given on page 11.

The estimates, like the advance and preliminary estimates previously published for 2001, are based on a new methodology (including an updating of the base year to 1995=100). A full description of the changes in methodology is given on pages 2 to 5 inclusive. Tables 1 to 5 present the recalculated series from 1990 to 2001 and data sources are described in Appendix 1.

Between 1990 and 2001 (*see Table 1*):

- ◆ Agricultural income (operating surplus) increased by 24.9%.
- ◆ The output value of cattle decreased by 21.0% while that of milk increased by 19.0%.
- ◆ The output value of pigs increased by 47.4% while that of sheep increased by 50.6%.
- ◆ Total intermediate consumption increased by 34.3% (€780m).
- ◆ Net subsidies increased by 256.0% (€992m). In 1990 net subsidies represented 18.5% of operating surplus. By 2001 they represented 52.8% of operating surplus.

Published by the Central Statistics Office, Ireland.

Ardee Road
Dublin 6
Ireland

Skehard Road
Cork
Ireland

LoCall: 1890 313 414

Tel: +353-1 498 4000
Fax: +353-1 498 4229

Tel: +353-21 453 5000
Fax: +353-21 453 5555

Both offices may be contacted through any of these telephone numbers.

CSO on the Web: <http://www.cso.ie>

Director General: Donal Garvey

Enquiries:

Statistics

Agriculture Section, ext 5333
Email agri@cso.ie

Queries and Sales

Information Section, ext 5032
information@cso.ie

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For more information contact Keith McSweeney at 021-4535311 or Martina O'Callaghan at 021-4535333.

Estimated Output, Input and Income in Agriculture 1990-2001 New Series

Introduction

Updated series of agricultural output, input and income in agriculture with the base year 1995 as 100 have been compiled. This follows both the rebasing of agriculture prices to base year 1995 as 100, and a revision of the methodology for compiling agricultural accounts.

The first set of Economic Accounts for Agriculture (EAA) were published by the Statistical Office of the European Communities (Eurostat) in 1964. The methodology was standardised and used by the six original Member States of the Union in 1969. The first principles of the EAA were added to over the years and in 1989 a comprehensive manual detailing the common EAA methodology to be applied by all Member States was agreed and published. Following the revision of the System of National Accounts in 1995, and also to take account of economic and structural developments in the agricultural industry, significant changes to the basic methodology of the EAA have occurred. These are described in the December 1997 "Manual on Economic Accounts for Agriculture and Forestry (Rev.1)."

As part of the implementation of the new EAA, a major review of the account items has also occurred with the updating of sources to reflect both developments in agriculture and the availability of new sources of information. The treatment of existing items has been improved. In addition, estimates have been prepared for a number of new items: fodder crops, agricultural services (for example contract work), land rent (short-term leasing), and the calculation of subsidies and taxes on products and production.

Amendments to the figures may be made from time to time as more up to date information becomes available. Therefore more reliance should be placed on the changes between years rather than on the absolute value of the figures for any one year.

This publication gives the historical background on the development of agricultural accounts in Ireland. Following this the basic concepts underlying the new series are outlined, together with a table detailing the essential differences between the new and old EAA methodologies. After presentation of the new data for 1990-2001 (data for 1995-2000 using the new methodology were published in October 2001), the data sources are outlined at the end of this publication.

Historical Background

Calendar year estimates for agricultural output have been compiled since the reference year 1945. Prior to this, estimates were generally on an agricultural year basis, which differed for each product. In 1912 the first official estimates, with a reference year of 1908, were published for the whole of the island of Ireland. The first estimate for Ireland (Free State) was published in 1930 in respect of the 1926/27 agricultural year.

The 1926/27 and later estimates included details of the estimated quantity and value of Gross Output, Farm materials (feeding stuffs, fertilisers, and seeds) and Net Output. The first series of Laspeyres volume index numbers for Gross Output was introduced with the 1936/37 output estimates and used constant 1929/30 prices. Over the years the base year was updated periodically. With the exception of the 1968-based series, when the Fisher Ideal formula was used, the Laspeyres formula has been used in the compilation of all the index numbers.

Estimates for other farm expenses of "Income Arising in Agriculture" were published for the first time in 1962 with annual figures from 1953 onwards being presented.

Annual estimates have been published each year in the Statistical Bulletin (previously the Irish Trade Journal and Statistical Bulletin).

Concepts Underlying the New Series

The essential new concepts deriving from the new EAA methodology are outlined below.

The Basic Unit

Under the old methodology the concept of the “national farm” was applied. This meant that the whole agriculture of a country was regarded as one big farm. This meant that flows on the same farm and between different farms were not accounted for in the agricultural accounts, as these flows would cancel each other out in the overall “national farm”. With the new methodology, however, the concept of the “national farm” has been replaced by the use of the individual farm as a unit.

This change in the definition of the production unit results in the need to account for inter-farm (flows between farms) and intra-farm (flows on the same farm) flows in the agricultural industry. The main changes resulting from this change in definition are detailed below.

Agricultural Output

Agricultural output measures all products produced during the year by the agricultural units. In the new EAA it also includes certain items produced and consumed by the agricultural units themselves. An example of this is the production of cereals by a farmer for use on his own farm as animal feed. Intermediate consumption items produced and consumed within the same farm (intra-unit) during the same year are included as output provided the product involves two different basic activities (for example cereals for feedstuffs), and the product is of significant economic value. In practice, only marketable animal feedstuffs (for example cereals, potatoes, etc.) and certain unmarketable animal feedstuffs (for example hay, silage, dried / preserved feed, etc.) are recorded. Similarly these forage crops sold between farms (inter-unit) are recorded as output and intermediate consumption.

Agricultural services (contract work) at the agricultural production stage are recorded both as output (i.e. sales of services) and intermediate consumption (i.e. purchases of services by the agricultural holding). The following categories of agricultural services are included:

- Contract Work by a third party (machinery & labour) at the agricultural production stage. Landscaping, hedge trimming, etc. are not included, as they are not part of the agricultural production process.
- Milk quota rents received - this is the income received by the farmer for renting out his quota rights to produce milk. As the amount of quota rights held outside the agricultural sector is considered insignificant, the same figure is used both for output and intermediate consumption.

Valuation of Agricultural Output

Under the old series output was valued at producer prices. The producer price is the price received by the farmer, and is sometimes referred to as the farm-gate or ex-farm price (it excludes VAT). Under the new EAA methodology output is now valued at the basic price. The basic price corresponds to the producer price plus any subsidies directly linked to a product (for example the Special Beef Premium for cattle) less any taxes on products (for example the Bovine Disease Levy for cattle).

Subsidies and taxes themselves have been split into those which are paid or levied on products, and those which are classed as “subsidies less taxes on production”. Subsidies and taxes on products are paid or levied per unit on a good or service produced or imported. The subsidy or tax is typically a specific amount of money per unit of quantity of a good or service. Examples are compensatory aid for arable crops and premiums for ewes. These subsidies and taxes are included in the calculation of output. Subsidies in “other subsidies less taxes on production” consist of all other subsidies. Examples are the rural environmental protection scheme and the area based compensatory allowance scheme. Taxes in “other subsidies less taxes on production” are VAT over-or-under compensation from farmers who have opted for the flat rate VAT system, and motor taxation paid by farmers. Most Irish farmers opt for the flat rate VAT system. “Other subsidies less taxes on production” are not included in the calculation of output but do contribute to the calculation of operating surplus and entrepreneurial income. Operating surplus is calculated before deduction for interest payments on borrowed capital and before deductions for land annuities and for rent paid by farmers to landowners for the use of their land. Entrepreneurial income is operating surplus less these interest and rental payments.

Intermediate Consumption

Intermediate Consumption represents the value of all goods and services used as inputs in the production process. It excludes fixed assets whose consumption is recorded as fixed capital consumption (depreciation). Goods and services produced and consumed within the same agricultural unit are not recorded as intermediate consumption unless they also appear in the output of the sector.

The main changes to intermediate consumption following the introduction of the new EAA are the following:

- Imports of store animals (including poultry and hatching eggs) are no longer part of intermediate consumption. They are now treated as negative sales in the output of the respective livestock categories.
- Marketing levies (taxes) on products are no longer part of intermediate consumption as they are deducted from the items concerned to obtain output at basic prices.
- Forage crops, which form part of intra-unit (& inter-unit) output, are now also included in intermediate consumption.
- Agricultural services (contract work) are included as part of intermediate consumption provided they are also part of output.
- Valuation of intermediate consumption items is at the price the purchaser pays for the product. Therefore it includes taxes (other than VAT) and excludes any subsidies on products.

Distributive Transactions

The account item compensation of employees now uses the concept of the Annual Work Unit (AWU) as opposed to the number of persons employed. AWUs are compiled by the CSO according to Eurostat's new agricultural labour methodology; one annual work unit (AWU) is defined as 1,800 hours or more worked per annum. The figure for compensation of employees includes remuneration in cash and in kind. It does not include the remuneration of work undertaken by the farmer or by non-salaried family farm members.

Rent paid by farmers for short-term leasing of land (for example Conacre) is now included. Rent received by farmers for letting land is not regarded as an agricultural activity. There is no change in the treatment of this item following the introduction of the new EAA methodology.

Use of Indices

The volume indices shown in Table 4 of this release show the volume changes over the period 1990-2001 for the account items listed. They are calculated from the yearly constant values, which are calculated for each item. The constant value measure values the current year quantities at the base year price, in this case 1995, so that one can more easily analyse an item over a period when the effects of price changes have been removed. An implied price index for each account item can be calculated by dividing the value index for the item concerned (i.e. representing the current year's value relative to the base year) by the volume index for that same item. It is useful to bear in mind that such a calculated measure (i.e. the implied price index) is more robust the more homogenous the product concerned is. For example, the calculation of a price index for milk from value and volume indices, where the calculation of the milk value figure largely derives from one source (i.e. milk delivered off the farms), is more robust than the calculation of a price index for a more heterogeneous product like seeds (the value for seeds is made up of values for a wide variety of seeds (grass, barley, potato, etc); both imported and produced domestically).

The following table highlights the major differences between the old and new methodologies.

		Old Methodology	New Methodology
Production Unit		National farm.	Individual agricultural holdings.
Agriculture Output	Intra & Inter-farm flows.	Not recorded.	Recorded.
	Contract services.	Not recorded.	Recorded.
	Milk Quota rents received.	Not recorded.	Recorded.
Valuation of Output	Price.	Producer price.	Basic price.
	Subsidies & Taxes.	Not included with items and no split between subsidies and taxes on products and those on production. All subsidies and taxes included in output valuation.	Subsidies and taxes split into those on products and those on production. Only those on products included in output valuation.
Intermediate Consumption (I.C.)	Intra & Inter-farm flows	Not recorded	Recorded
	Contract services	Not recorded	Recorded
	Milk Quota rents paid.	Not recorded	Recorded
	Imports of store animals	Recorded	Not recorded under I.C. – now shown as a deduction from output.
	Marketing levies	Recorded	Not recorded under I.C. – now shown as a deduction from output.
	Forage Crops	Not recorded	Recorded
Distributive Transactions	Wages & Salaries	Calculated using number of persons employed.	Calculated using annual work units.
	Short-term rent paid	Not included.	Included.

Table 1 Output, Input and Income in Agriculture, 1990 - 2001

€m

Commodity	Estimated Value (at current prices)											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Livestock (incl. stock changes)	2,208.0	2,128.2	2,286.3	2,470.2	2,347.8	2,357.3	2,338.4	2,227.3	2,185.3	2,088.5	2,173.2	2,177.5
Cattle	1,576.4	1,484.4	1,616.0	1,772.9	1,632.9	1,656.7	1,491.5	1,389.9	1,401.7	1,335.5	1,366.4	1,245.9
Pigs	237.2	242.1	280.4	257.9	264.5	296.6	358.1	338.4	284.4	253.3	294.8	349.7
Sheep	188.8	201.4	195.3	234.7	232.7	192.0	243.1	231.1	214.4	198.5	203.4	284.2
Horses	83.2	70.2	61.4	84.5	75.9	70.1	96.8	106.9	128.7	150.0	164.3	146.5
Poultry	122.4	130.2	133.2	120.2	141.7	141.8	148.9	161.1	156.0	151.2	144.4	151.2
Livestock Products	1,359.3	1,303.7	1,411.9	1,478.5	1,489.3	1,582.8	1,576.1	1,452.7	1,466.7	1,439.0	1,485.0	1,601.7
Milk	1,314.3	1,258.9	1,373.1	1,439.0	1,446.2	1,538.5	1,536.0	1,414.5	1,431.2	1,408.4	1,446.0	1,564.0
Other products	45.0	44.8	38.8	39.4	43.1	44.3	40.0	38.2	35.5	30.5	39.0	37.7
Crops (incl. stock changes)	956.1	1,009.3	1,036.8	958.7	975.8	1,086.6	1,072.0	953.8	992.7	1,050.2	1,060.3	1,097.3
Barley	127.5	123.4	132.4	94.0	73.7	110.1	123.5	92.7	84.3	106.8	114.2	105.3
Wheat	79.3	85.3	91.8	61.5	46.0	56.9	68.4	59.4	51.5	48.5	63.0	57.8
Oats	9.8	10.0	11.2	10.3	7.6	6.5	9.1	7.9	7.3	8.8	7.9	6.7
Potatoes	73.2	90.2	98.7	85.0	129.4	132.5	96.0	53.6	105.1	120.2	64.4	87.3
Sugar beet	70.5	69.1	72.5	64.2	76.4	77.1	74.5	70.7	74.4	72.9	74.9	75.1
Mushrooms	57.1	63.5	64.8	68.1	76.3	78.0	92.3	101.9	106.7	111.4	114.8	115.6
Other fresh vegetables	54.0	58.8	52.7	57.5	61.4	57.4	68.1	59.3	61.4	60.4	75.7	84.6
Fresh fruit	12.9	14.0	11.7	9.8	14.3	18.5	20.5	9.6	15.8	8.4	7.1	16.0
Turf	44.8	47.7	45.8	39.8	30.6	30.8	30.2	28.0	22.0	24.1	22.5	26.5
Other crops	23.2	22.8	20.6	19.8	16.5	28.9	37.0	36.9	39.4	50.4	52.6	48.6
Forage plants	403.6	424.6	434.6	448.8	443.6	490.0	452.5	433.8	425.0	438.5	463.2	473.8
Goods output at producer prices	4,523.4	4,441.2	4,735.0	4,907.4	4,812.8	5,026.7	4,986.5	4,633.9	4,644.7	4,577.7	4,718.5	4,876.4
Contract Work	197.6	192.4	200.4	221.6	227.7	234.8	245.4	250.4	250.6	272.9	288.4	316.6
Subsidies on products	408.9	357.3	446.0	466.4	666.0	735.5	806.0	808.7	899.6	743.7	876.7	710.8
Taxes on products	75.0	78.2	79.5	68.0	53.7	59.6	52.9	39.8	39.4	27.9	32.9	25.0
Agricultural output at basic prices	5,054.9	4,912.7	5,302.0	5,527.4	5,652.8	5,937.4	5,985.0	5,653.2	5,755.4	5,566.3	5,850.7	5,878.8

Table 1 Output, Input and Income in Agriculture, 1990 - 2001 -continued

€m

Commodity	Estimated Value (at current prices)											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agricultural output at basic prices	5,054.9	4,912.7	5,302.0	5,527.4	5,652.8	5,937.4	5,985.0	5,653.2	5,755.4	5,566.3	5,850.7	5,878.8
Intermediate consumption	2,275.8	2,306.5	2,366.9	2,466.9	2,592.8	2,745.6	2,787.5	2,672.0	2,768.1	2,844.3	2,924.6	3,055.7
Feedingstuffs	642.2	646.5	668.5	733.4	818.6	809.5	808.8	749.7	831.2	860.9	831.2	878.0
Fertilisers	326.0	319.3	305.4	301.1	316.3	368.7	383.9	327.3	328.7	338.3	336.7	350.4
Seeds	42.7	44.5	47.0	47.3	50.6	61.7	66.1	63.6	63.3	52.6	57.4	68.0
Energy and lubricants	198.0	203.8	200.8	202.8	197.2	204.4	227.3	230.7	227.2	243.5	298.8	298.4
Maintenance and repairs	132.7	135.2	147.2	150.9	161.5	183.2	186.6	186.2	202.0	206.7	215.0	227.8
Services	123.0	116.2	122.3	121.0	123.9	128.2	135.4	136.7	136.6	130.8	132.8	137.2
Crop protection products	47.4	50.4	55.2	57.0	57.5	60.2	67.0	69.5	72.3	69.9	67.4	60.5
Veterinary pharmaceutical products	71.1	75.3	77.0	79.7	92.5	94.3	93.5	101.5	104.7	99.5	100.2	105.8
Other goods (detergents, small tools, etc.)	97.8	105.0	114.1	112.3	112.5	117.8	126.0	125.8	130.2	134.9	137.9	143.3
Forage plants	397.4	417.9	429.0	439.7	434.4	482.9	447.4	430.5	421.3	434.4	458.9	469.6
Contract work	197.6	192.4	200.4	221.6	227.7	234.8	245.4	250.4	250.6	272.9	288.4	316.6
Gross value added at basic prices	2,779.1	2,606.2	2,935.2	3,060.6	3,060.1	3,191.9	3,197.5	2,981.2	2,987.3	2,721.9	2,926.1	2,823.1
Fixed capital consumption	431.6	444.4	449.6	457.1	471.0	495.6	516.2	530.1	545.0	563.0	583.1	611.5
Machinery, equipment, etc.	325.5	331.7	332.4	335.5	346.5	366.2	382.5	389.0	397.8	409.7	419.2	429.2
Farm buildings	106.1	112.7	117.2	121.6	124.4	129.4	133.7	141.1	147.2	153.3	163.9	182.3
Net value added at basic prices	2,347.5	2,161.8	2,485.5	2,603.5	2,589.1	2,696.3	2,681.2	2,451.1	2,442.3	2,158.9	2,343.0	2,211.6
Other subsidies less taxes on production	53.8	58.3	70.3	72.4	164.4	180.9	330.5	371.6	408.7	429.8	450.8	694.4
Factor income	2,401.2	2,220.1	2,555.8	2,675.9	2,753.5	2,877.2	3,011.8	2,822.7	2,851.0	2,588.7	2,793.9	2,906.1
Compensation of employees	307.7	294.8	268.3	265.4	265.0	280.4	253.9	256.5	269.0	277.4	284.4	292.0
Operating surplus¹	2,093.5	1,925.3	2,287.5	2,410.5	2,488.5	2,596.8	2,757.9	2,566.2	2,582.0	2,311.3	2,509.5	2,614.0

¹ This is calculated before deduction of interest payments on borrowed capital and land rental paid by farmers to landowners. The estimates for these items are:

Interest:- 1990, €301.4m; 1991, €276.2m; 1992, €280.6m; 1993, €211.5m; 1994, €175.3m; 1995, €209.4m; 1996, €213.4m; 1997, €238.9m; 1998, €263.0; 1999, €236.8m; 2000, €272.2m; 2001, €254.6m.

Land rental:- 1990, €98.8m; 1991, €96.5m; 1992, €99.2m; 1993, €99.7m; 1994, €107.5m; 1995, €110.4m; 1996, €133.4m; 1997, €153.2m; 1998, €151.6; 1999, €161.3m; 2000, €184.3m; 2001, €193.6m.

Table 2 Agricultural Output, 1990 - 2001

Commodity	Unit	Estimated Quantity											
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Livestock¹ (incl. stock changes)													
Cattle	000	1,888	1,904	1,995	2,013	1,930	1,994	2,066	2,072	2,188	2,141	2,041	2,052
Pigs	000	2,533	2,645	2,822	2,975	2,994	3,020	3,255	3,478	3,645	3,510	3,243	3,334
Sheep	000	4,096	4,349	4,611	4,786	4,405	3,913	3,977	3,794	4,050	4,028	3,614	3,454
Poultry	000	50,917	50,210	52,991	49,861	56,692	50,982	49,387	57,641	61,078	62,314	61,518	60,288
Livestock Products													
Milk	million litres	5,179	5,123	5,167	5,109	5,176	5,187	5,194	5,151	4,990	5,018	5,056	5,228
Eggs	million	573	651	612	614	559	576	480	479	487	455	565	550
Crops (incl. stock changes)													
Barley	000 tonnes	863	853	967	727	648	777	990	940	817	976	1,077	982
Wheat	000 tonnes	536	574	663	443	394	393	553	601	488	442	608	493
Oats	000 tonnes	69	73	81	74	72	51	75	83	74	79	81	69
Potatoes	000 tonnes	477	443	501	438	499	473	593	363	375	451	385	331
Sugar beet	000 tonnes	1,484	1,409	1,397	1,117	1,390	1,547	1,476	1,407	1,399	1,405	1,418	1,372
Mushrooms	000 tonnes	37	39	41	45	49	49	54	57	62	65	60	60
Turf	000 tonnes	972	985	937	814	625	631	619	573	450	492	460	501

¹ The output of cattle, sheep and pigs includes estimates for cross-border trade in live animals.

Table 3 Livestock and Crop Stock Changes, 1990 - 2001

Commodity	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Value													
	€m	101.9	35.3	113.8	-1.0	76.9	91.0	134.0	126.8	60.7	-173.2	-162.0	-26.0
Cattle	€m	83.5	26.9	100.9	13.6	77.7	79.2	130.4	120.2	67.5	-168.0	-142.5	-16.7
Pigs	€m	7.6	5.2	4.5	2.5	0.4	4.3	8.1	2.0	4.5	-1.9	-1.6	1.7
Sheep	€m	10.4	4.8	6.8	-6.7	-9.0	-9.0	-8.0	9.0	-0.8	-9.7	-12.0	-15.4
Poultry	€m	3.3	3.3	-0.3	-1.0	7.8	1.7	1.6	0.0	-0.5	3.2	-4.0	2.1
Crops	€m	-2.9	-4.9	2.0	-9.3	0.1	14.9	1.9	-4.4	-10.0	3.1	-1.9	2.3
Number													
Cattle	000	131.5	57.1	107.0	43.8	101.6	121.6	225.0	235.1	100.9	-385.1	-248.3	58.6
Pigs	000	139.0	96.4	77.1	64.6	11.1	44.0	122.2	52.5	83.9	-38.0	-31.5	31.5
Sheep	000	149.8	123.9	137.5	-134.2	-218.5	-189.2	-192.6	243.7	-10.3	-230.6	-262.9	-250.0
Poultry	000	1,502.4	482.3	131.9	707.4	1,307.5	-524.4	418.5	-294.2	-226.0	757.7	-51.0	-375.7

Table 4 Selected Volume Indices, 1990 - 2001

Base year: 1995=100

Commodity	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Goods output at producer prices	97.2	97.9	102.7	99.7	97.3	100.0	104.3	102.1	102.2	102.7	100.3	101.6
Livestock¹	96.6	98.0	105.1	103.4	97.3	100.0	106.8	107.1	110.7	108.8	101.5	101.6
Cattle	100.2	100.3	107.9	104.4	94.9	100.0	107.2	106.4	109.9	107.0	99.3	98.3
Pigs	77.0	81.6	88.7	94.6	96.7	100.0	108.1	115.7	121.0	118.3	110.0	114.8
Sheep	108.0	111.9	119.0	123.5	114.1	100.0	103.6	96.4	105.5	106.0	95.6	91.8
Horses	98.0	100.6	106.9	103.2	110.2	100.0	107.2	114.7	107.3	116.4	129.0	143.0
Poultry	80.3	85.3	86.9	83.3	97.4	100.0	103.3	107.9	107.2	109.9	104.3	105.4
Livestock products	99.7	99.0	99.8	98.7	99.7	100.0	99.8	98.9	96.0	96.4	97.4	100.5
Milk	99.9	98.8	99.6	98.5	99.8	100.0	100.1	99.3	96.2	96.7	97.5	100.8
Crops¹	94.7	96.2	101.7	92.9	93.6	100.0	105.4	95.8	92.8	98.8	101.9	103.4
Barley	109.9	107.9	120.7	91.4	79.1	100.0	125.9	114.3	101.3	121.0	133.2	121.1
Wheat	133.1	144.6	164.2	109.7	94.0	100.0	138.7	146.9	119.6	109.1	150.6	123.3
Potatoes	97.9	87.6	101.3	86.2	102.8	100.0	115.7	73.3	72.4	90.4	68.9	67.1
Sugar beet	100.9	95.4	103.9	77.8	95.4	100.0	101.6	90.7	96.7	95.3	98.2	95.0
Fresh vegetables	89.3	93.8	94.1	98.7	104.6	100.0	105.8	104.4	110.0	113.9	114.4	114.4
Intermediate Consumption	86.4	87.2	88.9	92.2	96.1	100.0	97.9	94.8	100.0	102.3	100.6	99.9
Feedingstuffs	75.7	79.2	81.4	89.2	99.4	100.0	95.0	91.4	106.9	113.9	107.9	109.3
Fertilisers	92.4	87.3	84.3	89.8	92.7	100.0	98.1	87.7	92.5	94.6	89.1	79.7
Seeds	103.3	108.4	112.9	94.4	96.6	100.0	108.2	107.4	106.3	83.0	84.1	101.6
Energy and lubricants	93.2	94.8	99.2	97.8	97.2	100.0	104.3	103.7	105.0	107.0	107.6	110.4
Maintenance and repairs	84.9	82.4	86.0	86.0	90.9	100.0	99.4	97.3	103.0	101.3	100.8	100.4
Services	104.7	100.9	102.3	101.3	99.7	100.0	101.1	98.3	97.1	92.2	90.9	88.4
Crop protection products	88.9	91.8	99.6	100.5	97.9	100.0	107.6	112.1	116.1	112.5	109.0	96.9
Veterinary pharmaceutical products	85.9	85.9	85.2	86.0	100.1	100.0	98.1	103.7	103.5	97.3	93.5	95.8
Gross value added at basic prices	107.3	104.6	114.7	104.5	103.1	100.0	109.0	106.9	107.2	101.7	103.2	99.5

¹ Including changes in stocks.

Table 5 Subsidies on Products, 1990 - 2001

€m

Subsidy type	Estimated Value (at current prices)											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Subsidies on products	408.9	357.3	446.0	466.4	666.0	735.5	806.0	808.7	899.6	743.7	876.7	710.8
Cattle	209.4	179.5	273.1	219.8	414.2	481.6	530.2	570.8	623.5	460.2	632.7	512.6
Sheep	199.1	176.9	170.6	186.4	175.4	163.0	172.4	123.9	148.3	155.3	133.6	82.0
Cereals	0.0	0.0	0.0	48.5	71.2	85.9	97.9	106.7	100.4	94.6	99.7	108.4
Other subsidies on products	0.4	0.9	2.3	11.6	5.2	5.1	5.4	7.4	27.4	33.6	10.6	7.8

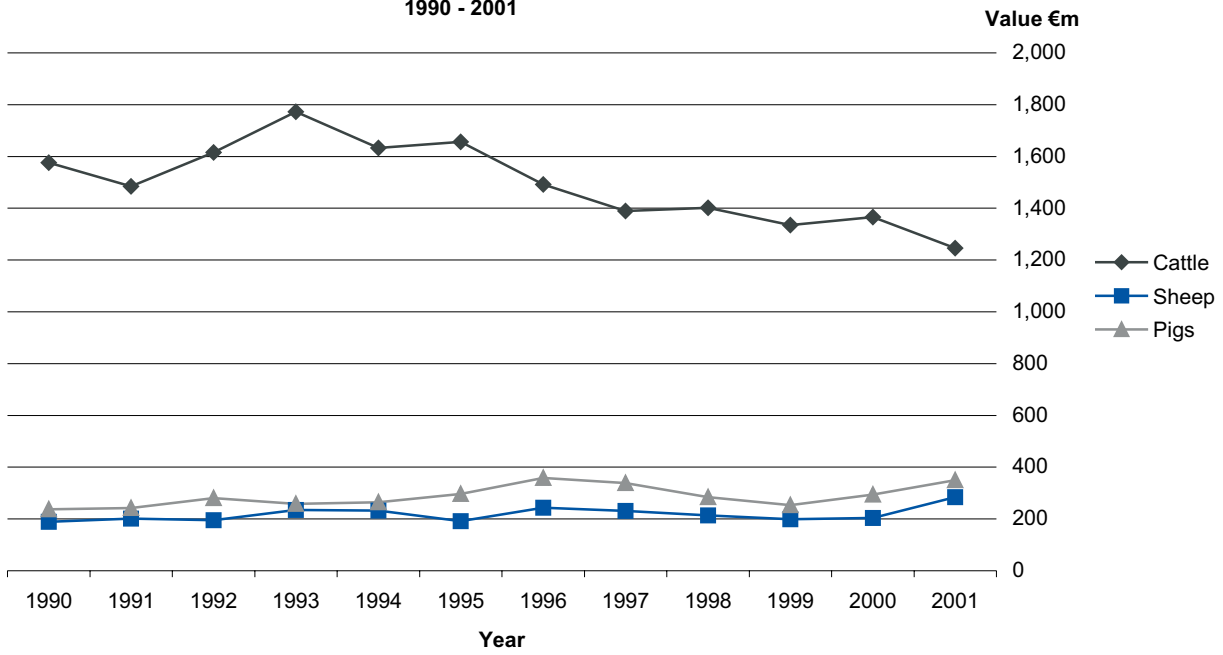
Operating Surplus, 2000 - 2001

€ m

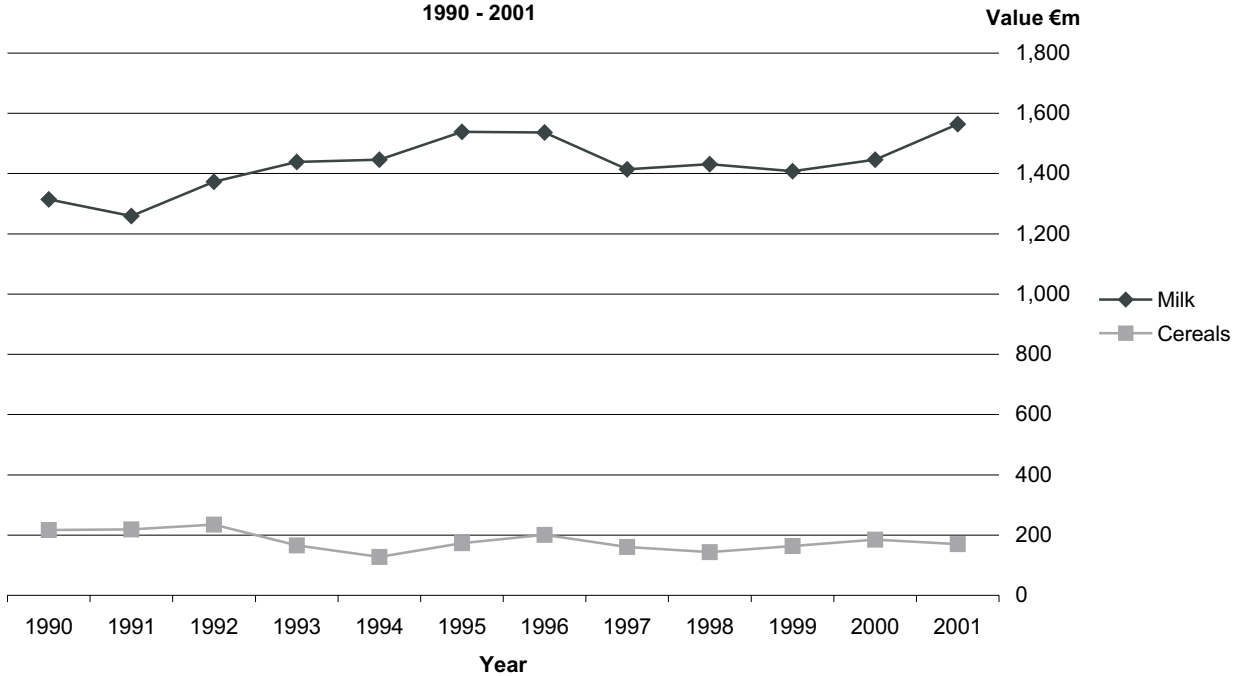
Country	2000	2001	% change
European Union	88,967	92,577	4.1%
Austria	1,833	2,064	12.6%
Belgium	1,857	1,950	5.0%
Denmark	2,098	2,438	16.2%
Finland	1,520	1,593	4.8%
France	18,827	18,757	-0.4%
Germany	7,994	8,733	9.2%
Greece	7,235	7,364	1.8%
Ireland	2,509	2,614	4.2%
Italy	15,417	15,978	3.6%
Luxembourg	93	93	0.0%
Netherlands	4,134	4,249	2.8%
Portugal	1,765	2,067	17.1%
Spain	17,997	18,684	3.8%
Sweden	1,149	1,189	3.5%
United Kingdom	4,539	4,804	5.8%

Source: Eurostat

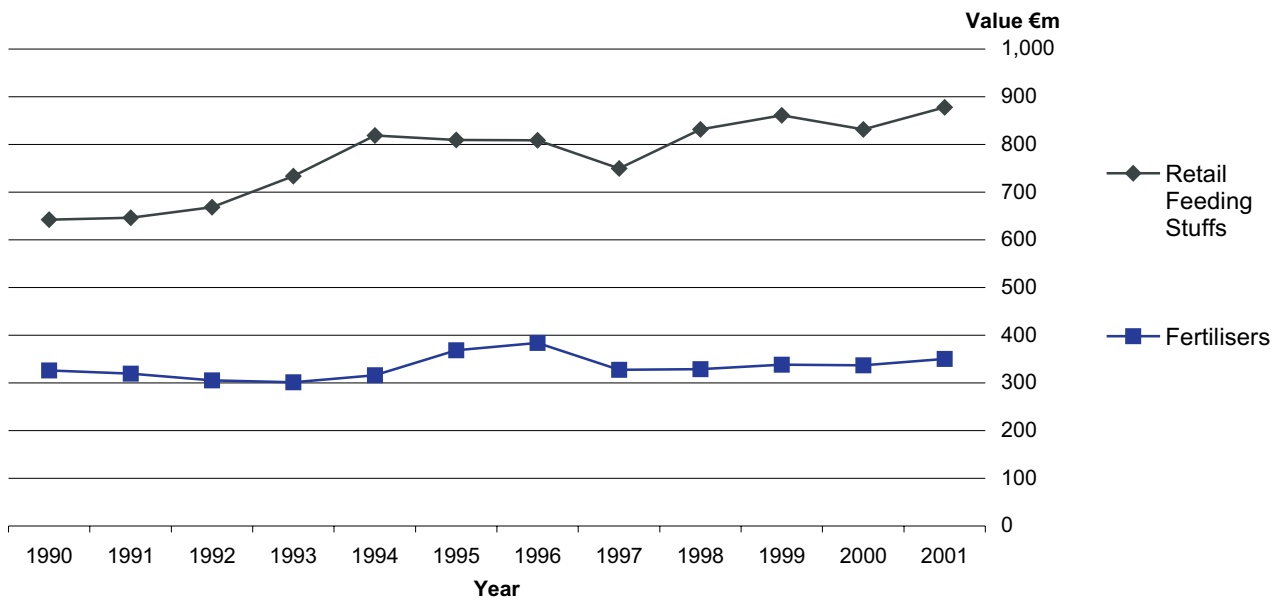
**Cattle, Sheep and Pig Output at current producer prices
1990 - 2001**



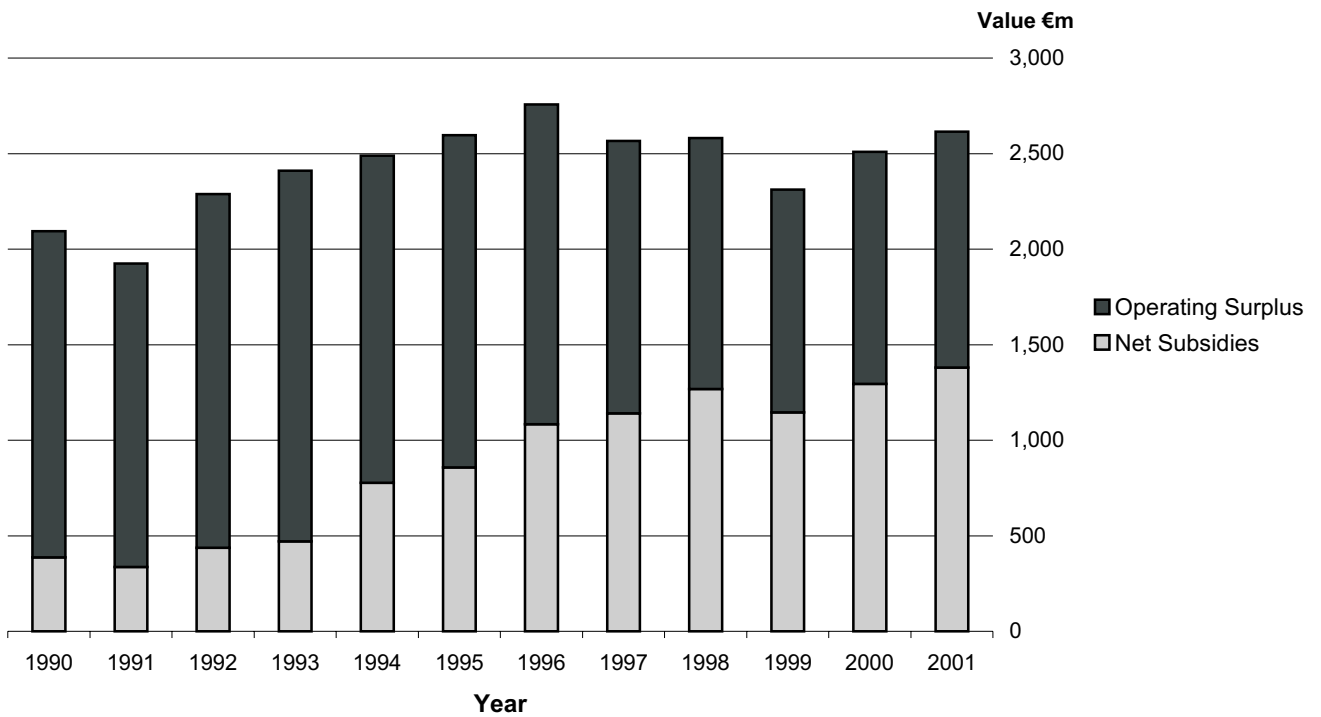
**Milk and Cereals Output at current producer prices
1990 - 2001**



**Intermediate Consumption of Retail Feeding Stuffs and Fertilisers
1990 - 2001**



**Total Net Subsidies and Operating Surplus
1990 - 2001**



Appendix 1

Agriculture Output, Input and Income in Agriculture: Data Sources and Methodology

Description of the data sources and methodology used in compiling 1990-2001 Agricultural Accounts data at base 1995=100.

Item	Data source for quantity	Data source for price / value
Cattle		
1. Export factory slaughterings	Department of Agriculture and Food (DAF) – monthly reporting of numbers and weight of cattle slaughtered (by category of cattle).	DAF beef price-reporting scheme.
2. Local authority slaughterings	CSO monthly survey of categories of cattle slaughtered in local authority licensed abattoirs.	DAF beef price-reporting scheme for bull slaughterings and CSO survey of prices at livestock marts for other categories of cattle.
3. Live Cattle exports	DAF portal survey and CSO Trade statistics.	CSO Trade statistics & DAF for data on export refunds.
4. Live Cattle imports	CSO Trade statistics.	CSO Trade statistics.
5. Change in stock numbers	CSO December enumeration of livestock numbers.	CSO price statistics.
6. Subsidies on product	DAF.	DAF.
7. Levies on product	DAF.	DAF and Bord Bia.
8. Total Cattle output at basic prices = 1+2+3-4+5+6-7		
Sheep		
1. Export factory slaughterings	DAF monthly reporting of numbers and weight of sheep slaughtered (by category of sheep).	CSO survey of prices.
2. Local authority slaughterings	CSO monthly survey of categories of sheep slaughtered in local authority licensed abattoirs.	CSO survey of prices.
3. Live Sheep exports	DAF and CSO Trade statistics.	Average kill or stock valuation by category of sheep.

Item	Data source for quantity	Data source for price / value
4. Live Sheep imports	DAF and CSO Trade statistics.	Average kill or stock valuation by category of sheep.
5. Change in stock numbers	CSO December enumeration of livestock numbers.	CSO price statistics.
6. Subsidies on product	DAF.	DAF.
7. Levies on product	DAF.	Bord Bia.
8. Total Sheep output at basic prices = 1+2+3-4+5+6-7		
Pigs		
1. Export factory slaughterings	CSO monthly survey of categories of pigs slaughtered in licensed export factories.	CSO survey of prices.
2. Local authority slaughterings	CSO monthly survey of categories of pigs slaughtered in local authority licensed abattoirs.	CSO survey of prices.
3. Live pig exports	DAF and CSO Trade statistics.	Average kill or stock valuation by category of pig.
4. Live pig imports	DAF and CSO Trade statistics.	Average kill or stock valuation by category of pig.
5. Change in stock numbers	CSO December enumeration of livestock numbers.	CSO price statistics.
6. Subsidies on product	n/a.	n/a.
7. Levies on product	DAF.	Bord Bia.
8. Total Pigs output at basic prices = 1+2+3-4+5+6-7		
Horses		
1. Thoroughbred Horses	Numbers of yearling sales supplied by public selling points (for example Goffs). CSO survey of stud farms used for earnings from nomination and boarding fees. Non-public sales are estimated by CSO.	Public selling points and CSO survey of stud farms.

Item	Data source for quantity	Data source for price / value
2. Replacement and Salvage Costs	CSO estimate.	CSO estimate.
3. Non-thoroughbred Horses	Irish Horse Board (IHB) for sales of registered non-thoroughbred horses. Non-IHB sales are estimated by CSO.	IHB and CSO estimate.
4. Subsidies on product	DAF.	DAF.
5. Total Horse output at basic prices = 1+2+3+4		
Poultry		
1. Ordinary fowl by category of bird	Quantity of sales, slaughterings, imports and exports provided by DAF. Stock change data provided by CSO December enumeration. Estimates for own consumption determined in conjunction with DAF.	CSO price statistics.
2. Turkeys	Quantity of sales, slaughterings, imports and exports provided by DAF. Stock change data provided by CSO December enumeration. Estimates for own consumption determined in conjunction with DAF.	CSO price statistics.
3. Other fowl	DAF and CSO December enumeration.	CSO price statistics.
4. Total Poultry at producer prices = 1+2+3		
Milk		
1. Liquid Milk	CSO monthly survey of processors.	CSO price statistics.
2. Manufacturing Milk	CSO monthly survey of processors.	CSO price statistics.
3. Own Consumption	Estimate based on number of dairy farms and average consumption per farm.	CSO price statistics.
4. Levies (including superlevy)	DAF.	DAF.
5. Total Milk Output at basic prices = 1+2+3-4		

Item	Data source for quantity	Data source for price / value
Eggs 1. Egg layers 2. Own Consumption 3. Exports 4. Imports 5. Total Egg Output at producer prices = 1+2+3-4	Census of Agriculture (COA) data for number of relevant birds (adjusted for non-census years). Laying rate determined in conjunction with DAF. CSO estimate. Estimate determined in conjunction with DAF. Estimate determined in conjunction with DAF.	CSO price statistics. CSO price statistics. CSO price statistics. CSO price statistics.
Wool 1. Total Wool output at producer prices	Numbers of sheep determined from CSO December enumeration of livestock. Breed type of sheep determined from COA. Average fleece weight by breed provided by Teagasc.	CSO wool price index applied to Teagasc base year price.
Honey 1. Home Sales 2. Own Consumption 3. Total Honey output at producer prices = 1+2	DAF. CSO estimate of total honey output.	DAF. CSO estimate of total honey output.
Cereals 1. Barley Sales 2. Wheat Sales 3. Oats Sales 4. Stockchanges 5. Inter Farm feed 6. Subsidies on product 7. Total Cereal output at basic prices = 1+2+3+4+5+6	DAF. DAF. DAF. DAF. CSO Fodder Balance. DAF.	DAF. DAF. DAF. DAF. CSO Fodder Balance. DAF.

Item	Data source for quantity	Data source for price / value
Potatoes 1. Net Production 2. Seed sales 3. Own Consumption 4. Total Potato Output at producer prices = 1+2+3	CSO Area and Yield data. Estimate for losses determined in conjunction with DAF and Teagasc. DAF. Teagasc National Farm Survey (NFS) estimate.	CSO price statistics. CSO price statistics. CSO price statistics.
Sugar Beet 1. Home Sales 2. Levies 3. Total Sugar Beet output at basic prices = 1-2	Irish Sugar Limited. Irish Sugar Limited.	Irish Sugar Limited. Irish Sugar Limited.
Vegetables 1. Sales 2. Own Consumption 3. Total Vegetable output at producer prices = 1+2	DAF. CSO estimate.	DAF. DAF.
Fruit 1. Sales 2. Own Consumption 3. Total Fruit output at producer prices = 1+2	DAF. CSO estimate.	DAF. DAF.
Other Crops (nursery plants etc.) 1. Sales 2. Own Consumption 3. Total Other Crops output at producer prices = 1+2	DAF. CSO estimate.	DAF. DAF.

Item	Data source for quantity	Data source for price / value
Turf 1. Sales Commercial 2. Own Consumption 3. Total Turf output at producer prices = 1+2	CSO December enumeration. CSO estimate.	Bord na Mona. Bord na Mona.
Fodder Crops 1. Cereals 2. Potatoes 3. Other crops (silage, hay etc) 4. Total Fodder Crop output at producer prices = 1+2+3	CSO Cereals Supply Balance. CSO Potato Supply Balance. CSO Fodder Balance.	Estimate determined as a percentage of market price (determined in conjunction with Teagasc). Estimate determined as a percentage of market price (determined in conjunction with Teagasc). Estimate determined as a percentage of market price (determined in conjunction with Teagasc).
Agricultural Services 1. Income from milk quota 2. Hire of machinery with labour 3. Total Agricultural Services output at producer prices = 1+2	Teagasc NFS provides an estimate of the quantity of milk quota leased out. Teagasc NFS estimate.	CSO estimate (determined in conjunction with Teagasc) of milk quota price as a percentage of manufacturing milk price. Combination of Teagasc estimate and use of CSO indices of labour costs when Teagasc estimate is unavailable.
Subsidies on products and production	DAF.	DAF.
Taxes on products	DAF and Bord Bia.	DAF and Bord Bia.

Item	Data source for quantity	Data source for price / value
Feedingstuffs 1. Straight feedingstuffs 2. Compound feedingstuffs 3. Other feedingstuffs 4. Forage plants 5. Total Feedingstuffs = 1+2+3+4	DAF, miscellaneous CSO surveys (for example, of brewers). DAF. DAF. See Fodder Crops above.	CSO price statistics and miscellaneous CSO surveys. CSO price statistics. CSO price statistics. See Fodder Crops above.
Fertilisers 1. Straight fertilisers 2. Compound fertilisers 3. Lime fertilisers 4. Total Fertilisers = 1+2+3	DAF. DAF. DAF.	CSO price statistics. CSO price statistics. CSO price statistics.
Seeds 1. Cereal seeds (domestic and imported) 2. Sugar Beet seeds 3. Potato seed (domestic and imported) 4. Seeds for horticulture 5. Grass seed 6. Mushroom spawn 7. Total Seeds = 1+2+3+4+5+6	DAF and CSO trade statistics. Irish Sugar Ltd. DAF and CSO trade statistics. CSO trade statistics. DAF. Bord Glas.	CSO price and trade statistics. Irish Sugar Ltd. CSO price and trade statistics. CSO trade statistics. CSO price statistics. Bord Glas.

Item	Data source for quantity	Data source for price / value
Energy & Lubricants 1. Petrol, Diesel, Oil and Lubricants 2. Electricity 3. Total Energy & Lubricants = 1+2	Revenue Commissioners and CSO estimate based on the index of Goods Output at Producer Prices. CSO National Accounts division.	CSO price statistics. CSO price statistics.
Maintenance & Repairs 1. Machinery 2. Cars 3. Buildings 4. Land upkeep 5. Total Maintenance & Repairs = 1+2+3+4	CSO National Accounts division. CSO National Accounts division. CSO estimate based on volume change in livestock and livestock products. CSO estimate based on volume change in Goods Output at Producer Prices.	CSO price statistics. CSO price statistics. CSO price statistics. CSO price statistics.
Other Goods & Services 1. Veterinary fees 2. Transport 3. Producer protection 4. Research 5. A.I. 6. Insurance 7. Telephone	CSO estimate of volume change based on change in cattle numbers from the December enumeration. CSO estimate based on volume change in Goods Output at Producer Prices. Farm organisations. Teagasc. DAF. CSO estimate based on volume change in Goods Output at Producer Prices. CSO National Accounts division.	CSO price statistics. CSO price statistics. Farm organisations. Teagasc. CSO price statistics. CSO Consumer Price Index (CPI). CSO National Accounts division.

Item	Data source for quantity	Data source for price / value
8. Teagasc services	Teagasc.	Teagasc.
9. Total Other Goods & Services = 1+2+3+4+5+6+7+8		
Crop Protection	Trade Association (APHA).	Trade Association (APHA).
Pharmaceuticals	Trade Association (APHA).	Trade Association (APHA).
Fixed Capital Consumption		
1. Buildings	CSO National Accounts division.	A derived CSO price index.
2. Agricultural machinery	CSO National Accounts division.	Weighted average of CSO price indices for agricultural machinery for cultivation, for harvesting and tractors.
3. Commercial vehicles	CSO National Accounts division.	CSO Wholesale Price Index (WPI) for commercial vehicles.
4. Private cars	CSO National Accounts division.	CSO WPI for private cars.
5. Total Fixed Capital Consumption = 1+2+3+4		
Other taxes on production		
1. Motor tax	CSO base year estimate grossed up by volume change in machinery repairs and maintenance.	Derived CSO price index based on value and volume changes in machinery repairs and maintenance.
2. VAT over/under compensation	Volume of sales and purchases of the various account items (CSO).	VAT rates (Revenue Commissioners) and CSO data on value of sales and purchases made by farmers.
3. Total Other taxes on production = 1+2		
Compensation of employees	Numbers employed in agriculture supplied by a combination of CSO surveys (Agriculture Labour Input survey and Quarterly National Household Survey (QNHS)).	Average earnings figure supplied by CSO survey of the Earnings of Agricultural workers.

Item	Data source for quantity	Data source for price / value
Land Rent	Teagasc NFS.	Teagasc NFS.
Interest	Central Bank of Ireland and ACC Bank.	Central Bank of Ireland and ACC Bank.