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Total Income from Farming 2012 – 2nd estimate, United Kingdom

This release presents the second estimate of Total Income from Farming and the aggregate balance sheet for the United Kingdom for 2012. Total Income from Farming is the income to those with an entrepreneurial interest in the agricultural industry, typically farmers and partners, while the balance sheet estimates the net worth of the industry. The second estimate incorporates further data that has become available since the first estimate and revisions may also have been made to previous years.

Key points:

- Total Income from Farming is estimated to have fallen between 2011 and 2012 by 13 per cent (£721 million) in real terms after adjustment for the effect of inflation, to £4,810 million.
- Two main contributors to the fall in Total Income from Farming were: the poor weather that affected both the volume and quality of the harvested crops as well as increasing the value of input used; and a fall in the value of direct payments to farmers due to changes in the Pound to Euro exchange rate.
- Total Income from Farming per annual work unit (AWU) of entrepreneurial labour (farmers and other unpaid labour) is estimated to have fallen by 14 per cent in real terms to £24,570 in 2012.

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Long term trends

Looking over the longer period, Total Income from Farming has remained at a level higher than in the late 1990s/early 2000s though below the peak seen in the mid-1990s.

Total Income from Farming per AWU of entrepreneurial labour has performed better than Total Income from Farming owing to a decline in the number of farmers and other unpaid workers.

Figure 1 and table 1 show the trends in Total Income from Farming and Total Income from Farming per AWU of entrepreneurial labour over the last 20 years.

Figure 1: Agricultural industry income trends in the UK (in real terms)

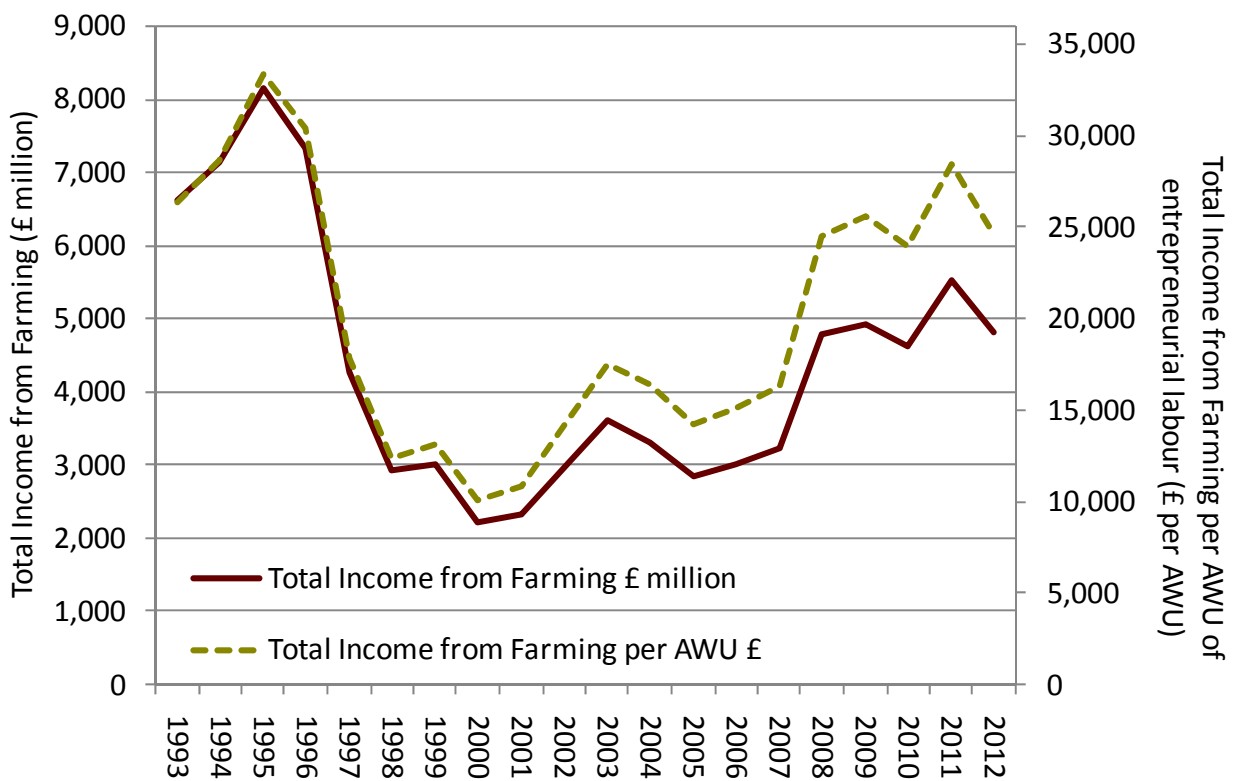


Table 1: Total Income from Farming and Total Income from Farming per annual work unit (AWU) of entrepreneurial labour in real terms: 1993 to 2012

United Kingdom

	Total Income from Farming	Year-on-year change	Total Income from Farming per AWU	Year-on-year change
1993	6,611		26,301	
1994	7,122	8%	28,693	9%
1995	8,141	14%	33,351	16%
1996	7,326	-10%	30,368	-9%
1997	4,275	-42%	17,872	-41%
1998	2,914	-32%	12,394	-31%
1999	3,005	3%	13,170	6%
2000	2,213	-26%	10,060	-24%
2001	2,323	5%	10,826	8%
2002	2,958	27%	14,066	30%
2003	3,600	22%	17,492	24%
2004	3,309	-8%	16,356	-6%
2005	2,849	-14%	14,224	-13%
2006	3,002	5%	15,104	6%
2007	3,217	7%	16,312	8%
2008	4,781	49%	24,502	50%
2009	4,918	3%	25,558	4%
2010	4,604	-6%	23,981	-6%
2011	5,531	20%	28,408	18%
2012	4,810	-13%	24,570	-14%

Aggregate Agricultural Accounts : production and income accounts : main findings

Table 4 presents detailed production and income accounts from the aggregate agricultural accounts. Values are expressed in current prices, i.e. based on prices in the year in question, except where otherwise stated.

Output

The value of gross output at basic prices rose by £491 million (2.1%) in 2012 to £24,089 million. The value of total crop output fell by £62 million (-0.7%) to £8,807 million, largely due falls in the value of output of wheat, oilseed rape and potatoes. This was offset by an increase in the value of total livestock output of £508 million (4.0%) to £13,139 million, which was due mainly to increases in the value of output of livestock (other than sheep) and eggs.

The value of output of wheat fell by £168 million (-7.5%) to £2,060 million. The wheat harvest fell by 13% compared to 2011 due primarily to a 14% fall in yield as a result of poor weather conditions. The fall in the value of output of wheat was offset by increases in the value of output of barley (£165 million; 20%) and of oats (£70 million; 119%) driven mainly by improved prices due to shortage of good quality grain. Production of barley increased slightly despite a small fall in yields and production of oats also increased.

The value of oilseed rape fell by £124 million (-11%) to £986 million. The oilseed rape harvest fell compared to 2011 principally due to a fall in yield following very poor weather during spring and summer, however this was partly offset by a 7.3% increase in area following favourable planting conditions in autumn 2011. The value of output of potatoes fell by £91 million (-13%) as poor weather interrupted planting in the spring and led to low yielding potato crops and increased wastage. The value of output of sugar beet fell by £24 million (-9.6%), affected by cold and wet weather, while the value of output of vegetables, plant and flowers rose by £39 million (1.7%). The value of output of fruit fell by £40 million (-6.7%), also affected by poor weather.

The value of output of cattle primarily produced for meat rose by £192 million (7.4%) to £2,776 million. Supplies of prime cattle were significantly down compared to 2011 but tight supply helped maintain strong prices for much of the year. The value of output of sheep fell by £129 million (-11%) to £1,020 million partly due to lower production but also to lower lamb prices compared to exceptionally strong prices seen in 2011. Poor weather in the second half of the year hampered the marketing of lambs resulting in a large carryover of the 2012 lamb crop into 2013. The value of output of pigs rose by £69 million (6.4%) and that of poultry by £165 million (8.7%), both due to increased production and higher prices.

The value of milk production rose by £31 million (0.8%) to £3,769 million with a fall in production offset by an increase in average annual price paid to farmers, which masked some volatility in farm gate prices during the year. The value of egg production increased by £102 million (18%) driven by stronger prices.

Intermediate consumption

The value of intermediate consumption, the goods and services consumed or used as inputs in the productive process, is estimated to have increased by £542 million (3.6%) to £15,464 million.

The value of animal feed rose by £344 million (7.8%) to £4,729 million, largely driven by an increase in the value of compound feed. The value for energy, principally motor and machinery fuels, is estimated to have increased by £56 million (4.1%) to £1,430 million. The value of fertilisers is estimated to have fallen by £32 million (-2.0%) to £1,591 million, reflecting lower prices compared to 2011. The costs for animal feed and energy have increased by 60% over the last 5 years, while fertilisers have nearly doubled in price over the same period.

Gross Value Added

The increase in the value of intermediate consumption was greater than the increase in the value of output leading to a small fall in Gross Value Added at basic prices of £51 million (-0.6%) to £8,625 million.

Net Value Added at factor cost

Net Value Added at factor cost, which is Gross Value Added at basic prices adjusted for consumption of fixed capital, other taxes on production and other subsidies on production, is estimated to have fallen by £493 million (-6.0%) to £7,727 million.

The value of consumption of fixed capital, which is capital, such as equipment, buildings and the breeding herd, used up in the process of generating new output, is estimated to have increased by £205 million (5.4%) to £4,020 million. The value of other subsidies on production, which are direct payments received as a consequence of engaging in agricultural production but which are not linked to production, principally the Single Payment Scheme and agri-environment schemes, fell by £240 million (-6.9%) to £3,243 million, due principally to changes in the Pound and Euro exchange rate.

Compensation of employees

Compensation of employees, which is total remuneration in cash or in kind payable to employees in return for work done, is estimated to have increased by £22 million (0.9%) to £2,347 million.

Total Income from Farming

Total Income from Farming at current prices is estimated to have fallen by £549 million (10%) to £4,810 million between 2011 and 2012. Inflation, as measured by the Retail Price Index, increased by 3.2 per cent during 2012. In real terms, after adjustment for inflation, Total Income from Farming is estimated to have fallen by £721 million (13%).

Aggregate balance sheet for the United Kingdom agricultural industry

The aggregate balance sheet for agriculture values the total assets and liabilities for agriculture at the end of each calendar year and estimates the total net worth of the industry. Net worth was estimated to be £220 billion in December 2012. This shows a £5.7 billion increase on 2011, which is largely down to a £8.9 billion increase in the estimate of land values due to the higher prices seen in 2012, which was offset by increases in liabilities, particularly the long and medium term loans.

Description of Total income from Farming

Total Income from Farming is income generated by production within the agriculture industry including subsidies and represents business profits and remuneration for work done by owners and other unpaid workers. It excludes changes in the values of assets, including stocks, due to price changes but includes non-agricultural activities such as further processing or tourist activities where these cannot be separated from the

agricultural business. It is the preferred measure of aggregate income for the agricultural industry conforming to internationally agreed national accounting principles required by the UK National Accounts and by Eurostat.

Total Income from Farming per Annual Work Unit (AWU) of entrepreneurial labour is a related measure. It expresses Total Income from Farming in terms of annual work unit of entrepreneurial labour input. An annual work unit of entrepreneurial labour input corresponds to the input of one person with an entrepreneurial interest in the farm business who is engaged in agricultural activities on a full-time basis over an entire year. Annual work units are used rather than the number of individuals so to take account of part-time and seasonal work.

Total Income from Farming is designed to show the performance of the whole of the agricultural industry. A measure of farm incomes, Farm Business Income, designed to compare performance across different types of farming, is available in the publication Farm Accounts in England on the GOV.UK website at:

<https://www.gov.uk/government/collections/farm-business-survey>.

Definitions and explanations

Annual work unit:	the input of one person in the farm business who is engaged in agricultural activities on a full-time basis over an entire year.
Basic prices:	market prices plus directly paid subsidies that are linked to the production of specific products.
Current prices:	the value based on prices during the reference year.
Gross output:	the total value of output by producing enterprises.
Entrepreneurial labour:	the input of people who have an entrepreneurial interest in the farm business, e.g. farmers and other unpaid workers, usually expressed in annual work units.
Intermediate consumption:	the goods and services consumed or used as inputs in the productive process, e.g. feed, and fertiliser.
Real terms:	the value adjusted for inflation.
Total Income from Farming:	income to those with an entrepreneurial interest in the agricultural industry.

Basic quality information

These estimates for 2012 are based on incomplete data. The amounts of data available are presented below. Over time, more data becomes available, estimates are revised and forecasts are replaced.

Table 2: Approx. amount of data available for 2012 values

	April 2013	November 2013
Output	84%	98%
Intermediate consumption	40%	84%
Subsidies	95%	100%
Other costs	57%	98%

Revisions

All estimates, by definition, have an element of uncertainty that is inherent in any process or calculation that uses sampling, estimation or modelling. There is no simple way of measuring the accuracy of the estimates – that is, the extent to which estimates measures the underlying ‘true’ value for a particular period. One dimension of measuring accuracy is reliability, which is measured using evidence from analyses of revisions to assess the closeness of early estimates to subsequently estimated values.

The table in the section below presents a revision analysis of key values for 2012 that were published in April 2013 and November 2013. Revisions have been made owing to further information becoming available.

Total Income from Farming is sensitive to small percentage changes in the values of outputs and intermediate consumption. A combination of a revision downwards in output and revision upwards in intermediate consumption leads to more sizeable revisions in percentage terms to Gross Value Added and Total Income from Farming.

Table 3: Revisions made to the 2012 aggregate agricultural account between April 2013 and November 2013

	Apr-13	Nov-13	Revision % Apr-13 / Nov-13
Gross output at basic prices £m	23 927	24 089	1%
Total intermediate consumption £m	15 322	15 464	1%
Gross value added at basic prices £m	8 605	8 625	0%
Net Value Added at factor cost £m	7 665	7 727	1%
Total Income from Farming £m	4 704	4 810	2%

Development areas

Defra statisticians carry out a continuous review of methods employed in making estimates of the production and income accounts. This may lead to revisions to data series owing to improvements in methods in addition to the use of later information.

Changes made to the account in this publication include:

- The introduction of a 'protein crops' line in the industrial crops category. This covers crops in the legume family, principally peas and beans, that are produced to be traded in dried form, whether for human consumption or as animal feeds. The values were previously recorded elsewhere in the account, mostly as 'forage plants'.
- The value of output of straw, previously recorded in the 'other industrial crops' line, is now recorded in the 'other crop products including seeds' line. This reflects that the production of straw is not a prime objective of production and is rather a by-product of cereals and oilseed rape production.

These changes have been made to whole data series. As these are remapping of values within the account rather than new data, the total value of crop output is unchanged.

Future development areas include the consideration of an appropriate deflator to be used to express Total Income from Farming in real terms. In January 2013, the National Statistician concluded that one of the formulae used to produce the Retail Price Index (which is currently used as a deflator) did not meet international standards and subsequently the UK Statistics Authority withdrew 'National Statistics' accreditation from the Retail Price Index.

Summary quality report

A summary quality report for this statistical release can be found on the GOV.UK website at <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts>.

This is an overview note which is not release specific but will be reviewed and updated at regular intervals. It pulls together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output. It relates to estimates of Total Income from Farming and aim to provide users with information on usability and fitness for purpose of these estimates.

Quality Assurance

Defra has in place quality assurance processes to check the accuracy and reliability of the aggregate agricultural accounts that includes:

- Ongoing review of methods employed in the calculation of the accounts.
- Assessment of the quality of the estimates of components of the accounts with internal experts.
- Discussion of components of the accounts with external experts.

- Quality assessments made by Eurostat, the statistical office of the European Union.

Main uses of the aggregate agricultural accounts

The aggregate agricultural accounts are used in conjunction with other economic information to:

- To monitor the productivity and competitiveness of the farming industry.
- Inform policy decisions and to help monitor and evaluate current policies relating to agriculture in the UK by Government and in the European Union by the European Commission.
- Inform stakeholders of the performance of the agricultural industry.
- Inform research into the economic performance of the agricultural industry.
- Total Income from Farming sets the context when looking at a number of policies; the agricultural industry contributes around £5 billion to the national economy and accounts for about 0.5% of national GDP. It is most relevant to policies relating to CAP reform and the competitiveness of farming.

User engagement

As part of our ongoing commitment to compliance with the Code of Practice for Official Statistics (<http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>), we wish to strengthen our engagement with users of these statistics and better understand the use made of them and the types of decisions that they inform. Consequently, we invite users to make themselves known, to advise us of the use they do, or might, make of these statistics, and what their wishes are in terms of engagement. Feedback on this notice and enquiries about these statistics are also welcome.

Publication policy

First estimates of Total Income from Farming and the production and income accounts for the UK agricultural industry are published at the end of April followed by more detailed information in the publication 'Agriculture in the United Kingdom'. The production and income accounts are then updated and published at the end of the following November when Farm Business Survey data is available to inform estimates of elements of intermediate consumption. The production and income accounts may be revised later as further data becomes available.

DEFRA publishes all of its statistics and releases on the GOV.UK internet site at <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics>. Pre-announced publication dates can be found on the National Statistics Publication Hub at <http://www.statistics.gov.uk/hub/index.html>.

Table 4: Aggregate Agricultural Accounts : Production and income accounts
United Kingdom

£ million current prices		Calendar years			
		2009	2010	2011	2012
1	Output of cereals	2 338	2 306	3 126	3 193
of which:	wheat	1 562	1 680	2 228	2 060
	barley	701	560	834	999
	oats	72	63	59	129
2	Output of industrial crops	900	1 046	1 516	1 353
of which:	oilseed rape	476	674	1 110	986
	sugar beet	246	197	251	227
3	Output of forage plants	190	189	186	145
4	Output of vegetables and horticultural products	1 958	2 256	2 258	2 297
of which:	fresh vegetables	1 079	1 259	1 213	1 249
	plants and flowers	879	997	1 045	1 048
5	Output of potatoes (including seeds)	681	640	711	620
6	Output of fruit	570	585	600	560
7	Output of other crop products incl. seeds	379	436	471	640
	Total crop output (sum 1-7)	7 017	7 458	8 869	8 807
8	Output of livestock	7 148	7 241	8 244	8 654
	primarily for meat	5 846	6 108	6 914	7 220
of which:	cattle	2 131	2 154	2 584	2 776
	pigs	968	978	1 070	1 139
	sheep	967	979	1 149	1 020
	poultry	1 590	1 799	1 904	2 069
	gross fixed capital formation	1 302	1 133	1 330	1 434
of which:	cattle	871	649	696	904
	pigs	8	8	8	10
	sheep	238	295	413	317
	poultry	185	181	213	203
9	Output of livestock products	3 711	3 973	4 387	4 485
of which:	milk	3 738	3 769	661	3 769
	eggs	531	561	559	661
	Total livestock output (8+9)	10 859	11 214	12 631	13 139
10	Other agricultural activities	865	925	1 042	1 040
11	Inseparable non-agricultural activities	913	991	1 028	1 078
12	Output (at market prices) (sum 1 to 11)	19 654	20 588	23 570	24 065
13	Total subsidies (less taxes) on product	38	29	28	24
	14 Gross output at basic prices (12+13)	19 691	20 616	23 598	24 089

continued

Table 4: Aggregate Agricultural Accounts : Production and income accounts
United Kingdom (continued)

£ million	Calendar years			
	2009	2010	2011	2012
Intermediate consumption				
15 Seeds	690	636	658	668
16 Energy	1 094	1 201	1 374	1 430
of which: electricity and fuels for heating	340	354	369	388
motor and machinery fuels	754	846	1 005	1 042
17 Fertilisers	1 235	1 351	1 623	1 591
18 Plant protection products	715	762	809	925
19 Veterinary expenses	360	401	410	433
20 Animal feed	3 639	3 987	4 385	4 729
of which: compounds	2 088	2 255	2 614	2 876
straights	1 069	1 267	1 248	1 271
feed produced & used on farm or purchased from other farms	482	466	523	582
21 Total maintenance	1 283	1 364	1 436	1 397
of which: materials	790	845	895	857
buildings	494	519	541	540
22 Agricultural services	865	924	1 042	1 040
23 FISIM	137	153	174	196
24 Other goods and services	2 658	2 774	3 010	3 053
25 Total intermediate consumption (sum 15 to 24)	12 677	13 554	14 922	15 464
26 Gross value added at market prices (12-25)	6 977	7 034	8 648	8 601
27 Gross value added at basic prices (14-25)	7 014	7 062	8 676	8 625
28 Total consumption of Fixed Capital	3 487	3 430	3 815	4 020
of which: equipment	1 352	1 445	1 588	1 697
buildings	962	841	865	908
livestock	1 173	1 145	1 362	1 416
cattle	731	679	791	885
pigs	8	8	8	10
sheep	269	291	358	301
poultry	164	167	205	220
29 Net value added at market prices (26-28)	3 489	3 603	4 833	4 581
30 Net value added at basic prices (27-28)	3 527	3 632	4 860	4 605
31 Other taxes on production	- 108	- 117	- 123	- 122
32 Other subsidies on production	3 611	3 471	3 483	3 243
33 Net value added at factor cost (30+31+32)	7 030	6 986	8 220	7 727
34 Compensation of employees	2 168	2 216	2 325	2 347
35 Rent	366	366	373	390
36 Interest	167	165	163	180
37 Total income from farming (33-34-35-36)	4 329	4 240	5 359	4 810

Table 5: Aggregate balance sheet for the United Kingdom agricultural industry

£ million	As at December each year			
	2009	2010	2011	2012
At current prices				
Assets				
Fixed (a):				
Land	156 040	173 269	184 808	193 705
Buildings, plant, machinery and vehicles	21 523	21 899	23 435	24 485
Breeding livestock	8 246	6 824	8 621	7 587
Total fixed	185 810	201 992	216 863	225 776
Current:				
Trading livestock	3 508	3 290	4 021	4 005
Crops and stores	2 991	3 558	3 892	4 003
Debtors, cash deposits	5 279	6 107	7 246	8 432
Total current	11 777	12 955	15 159	16 440
Total Assets	197 587	214 947	232 022	242 217
Liabilities (b)				
Long and medium term:				
AMC, SASC	1 213	1 469	1 621	1 760
Building Societies and Institutions	947	1 017	1 437	1 864
Bank loans	3 696	4 324	5 910	7 954
Family Loans	446	538	523	680
Other	24	18	23	49
Total long and medium term	6 327	7 366	9 514	12 307
Short term:				
Leasing	89	80	81	82
Hire purchase	926	1 040	1 465	1 811
Trade Credit	1 703	1 912	2 678	3 431
Bank overdrafts	2 944	2 846	2 957	3 519
Other	100	106	84	86
Total short term	5 762	5 984	7 264	8 930
Total Liabilities	12 088	13 350	16 778	21 238
Net worth	185 499	201 598	215 244	220 979

(a) The valuations of land and breeding livestock are at average market prices; those of buildings, plant, machinery and vehicles are replacement cost, net of consumption of fixed capital.

(b) Financial estimates are derived in part from a year-end analysis of farms in the Farm Business Survey. In practice, year-ends vary from December through to April, with concentrations of year-ends at end-December and end-March.