



Total Income from Farming in the United Kingdom

First estimate for 2016

This release corrects errors found in the edition published on 27 April 2017.

Errors were identified in the output value of fruit, vegetables and milk due to the use of incorrect data. This affects 2016 data, with minor corrections to 2014 and 2015 data. This release presents corrected estimates, along with further minor revisions to the value of output of cereals, eggs and animal feed costs, a result of new data becoming available since publishing in April. For more detailed information on the corrections please go to the revisions section on page 11.

Key points:

- Between 2015 and 2016 Total Income from Farming fell by 7.5% (£292 million) in real terms to £3,610 million.
 - The value of all outputs fell by 5.0% to £23,149 million. This was mainly driven by falls in both volume and value for cereals and milk.
 - The cost of intermediate consumption fell by 4.5%, due to lower prices and a general fall in volumes used.
 - A weaker pound led to an increase of 18% in the value of payments under the Basic Payment Scheme
- Total Income from Farming per annual work unit (AWU)¹ of entrepreneurial labour (farmers and other unpaid labour) fell by 6.9% between 2015 and 2016 in real terms to £18,816
- Gross value added at basic price², which identifies agriculture's contribution to the Gross Domestic Product (GDP), fell by 5.9% (£517 million), in real terms, to £8,196 million.

¹ Annual Work Unit (AWU) is equivalent to the input of one person engaged in agricultural activities of the farm business on a full-time basis for one year.

² Gross value added at basic price is the total value of outputs (plus any product related subsidies) less the value of intermediate consumption

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Total Income from Farming is the income to those with an entrepreneurial interest in the agricultural industry, typically farmers and partners. A second estimate incorporating data that becomes available later in the year will be published in November 2017.

Summary (in real terms)

Real term value is where previous years' data is adjusted to take account of inflation so the values are comparable. The following commentary refers to table 1.

In real terms Total Income from Farming in 2016 was 7.5% lower than the 2015 total, a fall of £292 million to £3,610 million.

The value of all outputs fell by 5.0% to £23,149 million. Overall cereal production was down, driven by a return to more typical yields following the record yields of 2015 and, despite market prices strengthening in the latter part of the year, cereal prices for the year as a whole were lower. Similarly milk production and price was lower in 2016.

The cost of intermediate consumption fell by 4.5%, due to lower prices and a general fall in volumes used. This led to a 5.9% (£517 million) fall in gross value added at basic price to £8.2 billion.

The pound weakened against the euro in 2016 and subsequently increased the value of direct payments to UK farmers with the net value of support payments paid under the Basic Payment Scheme 18% higher in 2016 than 2015. Payments are set in Euros and converted to sterling each year using the exchange rate set by the European Central Bank every September. In 2016 €1=85.2p compared to €1=73.1p in 2015.

Labour, rent and interest remained virtually unchanged on the year.

Total Income from Farming per AWU of entrepreneurial labour follows a similar trend to Total Income from Farming, but owing to a decline in the number of farmers and other unpaid workers has performed better over time (see figure 1). In 2016 total Income from Farming per AWU of entrepreneurial labour was 6.9% lower than 2015 at £18,816.

Figure 1 Agriculture industry income trends in the United Kingdom (in real terms)

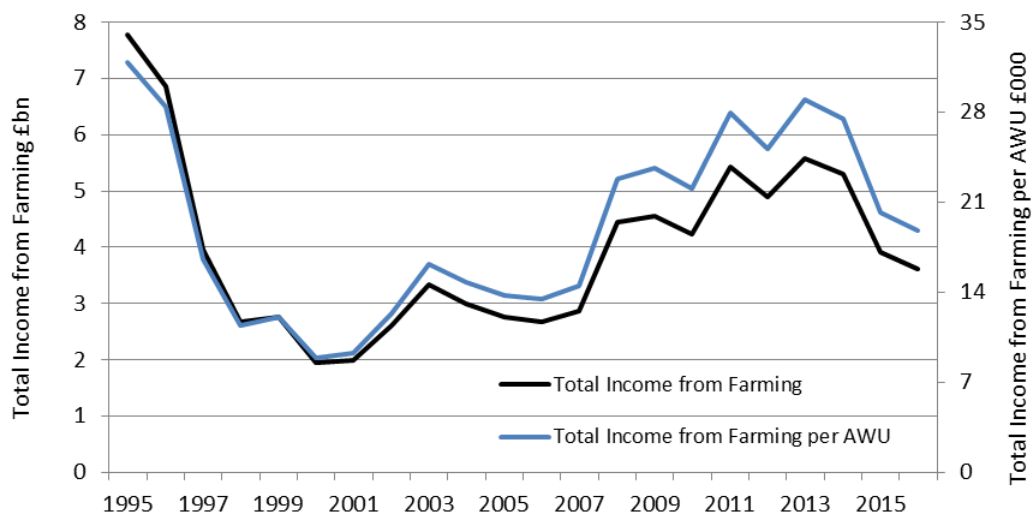


Table 1 Aggregate Agricultural Accounts: real term price production and income accounts for the United Kingdom

£ million	Calendar years			
	2013	2014	2015	2016
1 Output of cereals	3 506	3 527	3 024	2 435
of which:				
wheat	2 153	2 501	2 089	1 627
barley	1 180	918	843	717
oats	166	101	87	86
2 Output of industrial crops	1 229	1 183	1 071	859
of which:				
oilseed rape	798	713	733	555
protein crops	128	126	140	132
sugar beet	280	321	176	150
3 Output of forage plants	225	270	274	278
4 Output of vegetables and horticultural products	2 628	2 403	2 426	2 531
of which:				
fresh vegetables	1 391	1 214	1 257	1 329
plants and flowers	1 236	1 189	1 169	1 202
5 Output of potatoes (including seeds)	983	690	587	747
6 Output of fruit	625	634	702	668
7 Output of other crop products incl. seeds	604	660	522	557
Total crop output (sum 1-7)	9 799	9 367	8 606	8 075
8 Output of livestock	9 480	9 140	8 807	8 704
primarily for meat	8 036	7 614	7 526	7 485
of which:				
cattle	2 997	2 662	2 804	2 763
pigs	1 324	1 289	1 099	1 099
sheep	1 077	1 144	1 139	1 153
poultry	2 414	2 295	2 259	2 246
gross fixed capital formation	1 444	1 526	1 281	1 219
of which:				
cattle	953	943	699	646
pigs	6	5	4	4
sheep	282	338	295	304
poultry	202	239	283	265
9 Output of livestock products	5 268	5 474	4 534	3 983
of which:				
milk	4 436	4 684	3 756	3 296
eggs	746	693	693	603
Total livestock output (8+9)	14 748	14 614	13 341	12 686
10 Other agricultural activities	1 093	1 144	1 110	1 089
11 Inseparable non-agricultural activities	1 221	1 193	1 270	1 257
12 Output (at market prices) (sum 1 to 11)	26 861	26 318	24 327	23 107
13 Total subsidies (less taxes) on product	22	21	36	42
14 Gross output at basic prices (12+13)	26 883	26 339	24 363	23 149

continued

Table 1 Aggregate Agricultural Accounts: real term price production and income accounts for the United Kingdom (continued)

£ million	Calendar years			
	2013	2014	2015	2016
Intermediate consumption				
15 Seeds	901	781	727	731
16 Energy	1 506	1 405	1 205	1 135
of which: electricity and fuels for heating	401	382	384	367
motor and machinery fuels	1 106	1 024	821	768
17 Fertilisers	1 569	1 491	1 418	1 144
18 Plant protection products	889	959	981	978
19 Veterinary expenses	464	466	462	457
20 Animal feed	5 772	5 152	4 814	4 527
of which: compounds	3 417	3 057	2 895	2 769
straights	1 630	1 440	1 315	1 200
feed produced & used on farm	726	654	604	557
21 Total maintenance	1 559	1 639	1 625	1 607
of which: materials	973	981	960	951
buildings	585	658	665	655
22 Agricultural services	1 093	1 144	1 110	1 089
23 FISIM	109	101	109	111
24 Other goods and services	3 261	3 227	3 200	3 175
25 Total intermediate consumption (sum 15 to 24)	17 124	16 366	15 651	14 953
26 Gross value added at market prices (12-25)	9 738	9 952	8 676	8 154
27 Gross value added at basic prices (14-25)	9 759	9 973	8 712	8 196
28 Total consumption of Fixed Capital	4 139	4 147	4 020	4 058
of which: equipment	1 738	1 752	1 788	1 824
buildings	1 016	995	1 003	1 012
livestock	1 384	1 400	1 229	1 222
cattle	890	893	713	660
pigs	7	6	4	5
sheep	278	301	292	279
poultry	209	201	220	279
29 Net value added at market prices (26-28)	5 599	5 805	4 656	4 096
30 Net value added at basic prices (27-28)	5 620	5 826	4 692	4 138
31 Other taxes on production	- 122	- 101	- 97	- 96
32 Other subsidies on production	3 467	2 998	2 852	3 106
33 Net value added at factor cost (30+31+32)	8 965	8 723	7 447	7 149
34 Compensation of employees	2 496	2 453	2 546	2 541
35 Rent	540	566	572	572
36 Interest	344	406	427	426
37 Total income from farming (33-34-35-36)	5 585	5 297	3 903	3 610

Aggregate Agricultural Accounts: production and income accounts: main findings in current price

The following commentary refers to table 2 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.

Headline figures

In 2016 Total Income from Farming fell by £225 million to £3,610 million, a 5.9% decrease on 2015. The key contributors to the change were the falls in the value of wheat by £426 million, milk by £395 million and oilseed rape by £170 million. In contrast these were somewhat offset by an increase in direct payments of £309 million, potatoes by £171 million combined with reductions in fertiliser costs of £250 million and animal feed costs of £204 million.

As a result gross value added at basic price, which identifies agriculture's contribution to the Gross Domestic Product (GDP), fell by 4.3% (£366 million) to £8,196 million.

Outputs: Crops

Overall output of crops value fell by 4.5% to £8,075 million, with decreases in wheat, oilseed rape, sugar beet and barley more than offsetting the increases in potatoes, vegetable and horticulture.

Cereal harvests were down on last year as yields returned to more typical levels following the record highs of 2015 and despite strengthening prices in the latter part of the year, lower prices for the year as a whole drove values down.

The value of wheat fell by £426 million to £1,627 million. Planted area was little changed on the year and quality generally good however yield was much lower than the record high of 2015 resulting in volumes down by 12%. Price fell by 10%, as the higher prices seen in the second half of the year failed to offset the low prices at the beginning of the year.

The value of barley fell by £111 million to £717 million, driven by both price and volume. Whilst planted area was 2% higher, yield returned to more average levels, resulting in an 8.3% fall in volume. Low prices at the beginning of the year, despite an upturn in the second half, resulted in a 5.6% fall in price.

Oilseed rape saw a fall in value of £170 million to £541million, this 24% decrease was largely due to a fall in volume as lower yield and a reduction in crop area led to a 30% decrease in production.

In 2016, the value of sugar beet fell by £23 million to £150 million. Planted area fell for the fifth year running and led to a further 8.5% fall in volume with price down by 5.5% on the year.

Potatoes rose in value by £171 million to £747 million in 2016. An 8% increase in planted area and price increase of around a quarter contributed to this rise.

The value of vegetables increased by £93 million to £1,329 million, driven by higher prices for most vegetable types. Similar price rises were also seen in the fruit sector however

these failed to offset the lower production levels, down 11% on 2015 which resulted in an overall decrease in value of £22 million to £668 million.

Outputs: Livestock

Overall the total value of output of livestock was 3.2% lower at £12,686 million.

Milk decreased in value by £395 million to £3,296 million, driven by lower production and price. A combination of poorer grass quality due to variable weather conditions and dairy farmers attempting to reduce key costs such as the use of supplementary feeds left production 3.2% lower than 2015. The average price of milk in 2016 (calendar year) was 22.6 pence per litre (ppl) compared to 24.5 ppl in 2015, 8% lower.

The value of eggs fell by £78 million to £603 million, entirely price-driven as volume of throughput at egg packing stations rose by 4.2%, pushing price down by 15%.

The value of livestock primarily for meat rose by £89 million with increases seen in all sectors. Higher slaughterings and heavier calf and adult cattle weights resulted in a 2.5% increase in volumes whilst prices are 1.2% lower.

Pig meat rose in value by £19 million to £1,099 million. This rise is entirely due to higher production, with levels higher in the first half of the year compared to 2015 which drove the price down for the year as a whole. The value of sheep meat increased by £33 million to £1,153 million with production 3.4% lower and price 6.5% higher on 2015.

The value of poultry meat rose by £26 million to £2,246 million, chiefly production-driven as prices fell by 2.3%.

Intermediate consumption

The total cost of intermediate consumption fell by £427 million to £14,953 million.

In general most intermediate consumption costs fell with animal feed and fertiliser the main contributors.

The cost of fertiliser fell by £250 million to £1,144 million, entirely price-driven as the lower oil prices in the first half of the year put downward pressure on price overall.

In 2016 the cost of animal feed fell by £204 million to £4,527 million, a combination of reduced volumes and feed price. Depressed cereal prices in the first half of the year helped keep the annual average price lower combined with reduced use as farmers strived to make efficiencies.

Energy costs fell by £49 million to £1,135 million, wholly price driven as lower global oil prices at the beginning of the year kept overall annual average price down. Typical weather conditions and efficiency savings kept volumes virtually unchanged on the year.

Compensation of employees

The total value of compensation to employees was £2,541 million, a £39 million increase resulting from higher rates of pay which offset the slight decline in numbers employed.

Other subsidies on production

Direct payments, including payments on product, rose by £309 million to £3,148 million. Overall this is an 11% increase in payments and is mainly due to the change in euro/sterling exchange rate and is a significant contributor to Total Income from Farming. In 2016 payments under the Environmental Stewardship Entry Level Scheme reduced by £70 million as 2010/211 agreement final payments were made.

Table 2 Aggregate Agricultural Accounts: Current price production and income accounts for the United Kingdom

£ million	Calendar years			
	2013	2014	2015	2016
1 Output of cereals	3 375	3 459	2 971	2 435
of which:				
wheat	2 073	2 453	2 053	1 627
barley	1 136	900	828	717
oats	160	99	85	86
2 Output of industrial crops	1 183	1 160	1 053	859
of which:				
oilseed rape	744	684	711	541
protein crops	123	123	137	132
sugar beet	270	315	173	150
3 Output of forage plants	217	265	269	278
4 Output of vegetables and horticultural products	2 530	2 357	2 384	2 531
of which:				
fresh vegetables	1 340	1 191	1 235	1 329
plants and flowers	1 191	1 166	1 149	1 202
5 Output of potatoes (including seeds)	947	677	577	747
6 Output of fruit	602	622	690	668
7 Output of other crop products incl. seeds	581	648	513	557
Total crop output (sum 1-7)	9 435	9 187	8 457	8 075
8 Output of livestock	9 128	8 964	8 654	8 704
primarily for meat	7 738	7 468	7 396	7 485
of which:				
cattle	2 886	2 611	2 756	2 763
pigs	1 274	1 264	1 080	1 099
sheep	1 037	1 122	1 119	1 153
poultry	2 324	2 250	2 220	2 246
gross fixed capital formation	1 390	1 496	1 258	1 219
of which:				
cattle	917	925	687	646
pigs	6	5	4	4
sheep	272	332	290	304
poultry	195	234	278	265
9 Output of livestock products	5 072	5 369	4 455	3 983
of which:				
milk	4 271	4 594	3 691	3 296
eggs	718	679	681	603
Total livestock output (8+9)	14 200	14 334	13 110	12 686
10 Other agricultural activities	1 052	1 122	1 091	1 089
11 Inseparable non-agricultural activities	1 176	1 170	1 248	1 257
12 Output (at market prices) (sum 1 to 11)	25 864	25 813	23 906	23 107
13 Total subsidies (less taxes) on product	21	21	36	42
14 Gross output at basic prices (12+13)	25 885	25 833	23 942	23 149

continued

Table 2: Aggregate Agricultural Accounts: Current price production and income accounts for the United Kingdom (continued)

£ million	Calendar years			
	2013	2014	2015	2016
Intermediate consumption				
15 Seeds	867	766	715	731
16 Energy	1 450	1 378	1 184	1 135
of which: electricity and fuels for heating	386	374	377	367
motor and machinery fuels	1 065	1 004	807	768
17 Fertilisers	1 511	1 462	1 393	1 144
18 Plant protection products	856	941	964	978
19 Veterinary expenses	447	457	454	457
20 Animal feed	5 558	5 053	4 730	4 527
of which: compounds	3 290	2 999	2 845	2 769
straights	1 569	1 413	1 292	1 200
feed produced & used on farm	699	642	593	557
21 Total maintenance	1 501	1 607	1 597	1 607
of which: materials	937	962	943	951
buildings	563	645	654	655
22 Agricultural services	1 052	1 122	1 091	1 089
23 FISIM	105	99	108	111
24 Other goods and services	3 140	3 165	3 145	3 175
25 Total intermediate consumption (sum 15 to 24)	16 488	16 051	15 380	14 953
26 Gross value added at market prices (12-25)	9 376	9 761	8 526	8 154
27 Gross value added at basic prices (14-25)	9 397	9 782	8 561	8 196
28 Total consumption of Fixed Capital	3 985	4 067	3 950	4 058
of which: equipment	1 674	1 719	1 757	1 824
buildings	979	975	985	1 012
livestock	1 333	1 373	1 208	1 222
cattle	857	876	701	660
pigs	7	5	4	5
sheep	267	295	287	279
poultry	202	197	217	279
29 Net value added at market prices (26-28)	5 391	5 694	4 575	4 096
30 Net value added at basic prices (27-28)	5 411	5 715	4 611	4 138
31 Other taxes on production	- 118	- 99	- 96	- 96
32 Other subsidies on production	3 339	2 940	2 803	3 106
33 Net value added at factor cost (30+31+32)	8 632	8 555	7 318	7 149
34 Compensation of employees	2 403	2 406	2 502	2 541
35 Rent	520	555	562	572
36 Interest	332	399	419	426
37 Total income from farming (33-34-35-36)	5 378	5 196	3 835	3 610

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 AWU of entrepreneurial labour input. An AWU 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. AWU are used rather than the number of individuals in order 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/statistics/farm-business-income>

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.
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.
Gross output:	the total value of output by producing enterprises.
Intermediate consumption:	the goods and services 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.

Revisions

This edition corrects errors found in the release published on 27 April 2017. The correction affects vegetables, fruit and milk output values, see table 3 for details on the size of revisions. These revisions were slightly offset by amendments to the value of cereal, eggs and animal feed costs as a result of new data becoming available since publishing in April 2017.

The corrections have a negative impact on gross output at basic prices, gross value added at basic price and net value added at factor cost, with overall Total Income from Farming revised downwards from £3,963 million to £3,610 million, a correction of £353 million or 8.9%.

Table 3: Revisions made to the 2016 aggregate agricultural account between April 2017 and May 2017

	Apr 17 2016	May 2017 2016	change %	change (£m)
Gross output (£m)	23 548	23 149	-1.7%	- 399
<i>of which: vegetables</i>	1 656	1 329	-19.8%	- 327
<i>fruit</i>	789	668	-15.4%	- 121
<i>milk</i>	3 263	3 296	1.0%	33
Intermediate consumption (£m)	15 000	14 953	-0.3%	- 47
GVA (£m)	8 548	8 196	-4.1%	- 352
NVA at factor cost (£m)	7 501	7 149	-4.7%	- 352
TIFF (£m)	3 963	3 610	-8.9%	- 353

Table 4 below details revisions made to 2015 data since November 2016 as published in April 2017. These were largely a result of revisions made by Scotland, Northern Ireland and Wales following publication of their 2016 TIFF figures in January and March. More details on their revisions can be found here [Scotland](#), [Wales](#) and [Northern Ireland](#).

Table 4: Revisions made to the 2015 aggregate agricultural account between April 2016 and December 2016

	Dec 2016 2015	Apr 2017 2015	% change to 2015
Gross output (£m)	24 013	23 942	-0.3%
Intermediate consumption (£m)	15 303	15 380	0.5%
GVA (£m)	8 710	8 561	-1.7%
NVA at factor cost (£m)	7 475	7 318	-2.1%
TIFF (£m)	4 009	3 835	-4.3%

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.

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.

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.

Main users and uses of the aggregate agricultural accounts

The aggregate agricultural accounts are used in conjunction with other economic information 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 £4 billion to the national economy and accounts for about 0.5% of national Gross Domestic Product. It is most relevant to policies relating to Common Agricultural Policy 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.