



# Aggregate farm accounts for England and the Regions

#### First estimate for 2017

This release presents the first estimate of Total Income from Farming (TIFF) in England and each of the English regions for 2017. These statistics show the trends in Total Income from Farming and the contribution that the agricultural industry makes to the regional economy. These estimates include minor revisions to both 2015 and 2016 data. All data relate to the 2017 calendar year, are in current price terms and comparisons are with 2016 unless stated otherwise.

A comprehensive data series can be found <u>here</u>, under the heading "Agriculture in the English Regions – dataset". A more detailed overview of agriculture in each of the regions is published in "Agricultural Facts: England Regional Profiles".

# **Key points**

- Total Income from Farming in England increased by 41% (£1,191 million) to £4,077 million.
- The main drivers of this change are:
  - An increase of £2,043 million (12%) in gross output to £19,442 million
  - a 14% increase in crop output was driven by increases in both prices and production for cereals and industrial crops
  - o a 10% increase in livestock for meat was driven by price increases
  - a 22% increase in livestock products was driven by an increase in milk price
- The cost of intermediate consumption rose by 7% driven by higher prices, in particular for animal feed.
- Total Income from Farming in the United Kingdom is £5,743 million; England is the largest contributor accounting for 71% of this total, Scotland 16%, Northern Ireland 8% and Wales 5%. Detailed United Kingdom figures can be found <a href="here">here</a>.

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# Latest figures for England (2017 compared to 2016)

Total Income from Farming increased by 41% (£1,191 million) to £4,077 million.

The greatest contribution to the total value of output was production of milk (£2,733 million), followed by poultry meat (£2,018 million), wheat (£1,835 million), cattle reared for meat (£1,447 million), plants & flowers (£1,266) and fresh vegetables (£1,224 million).

Gross Value Added at basic price, which identifies agriculture's contribution to the Gross Domestic Product (GDP) increased by £1,303 million (20%) to £7,799 million.

Direct payments to farmers fell by £52 million (2%) to £2,063 million as a result of the slightly stronger sterling against the euro.

### Outputs

In England the overall value of crops increased by £996 million to £8,166 million and accounted for 44% of the total value of agricultural output. This was mainly driven by increases in both volumes and prices for cereals and industrial crops.

The value of wheat increased by £340 million (+23%) to £1,835 million. This was mainly driven by a significant increase in price whilst volume was up slightly on 2016.

The value of barley increased by £126 million (+26%) to £620 million, driven by increases in both price and volume.

The value of oilseed rape increased by £211 million (+42%) to £713 million. This was as a result of increases in both price and volume, with the yield matching the record high seen in 2015.

The value of sugar beet increased by £78 million (+52%) to £228 million. The abolition of EU sugar quotas led to a 30% increase in cropped area and, combined with increased yields led to a 58% rise in production.

The value of potatoes increased by £74 million (+13%) to £642 million. Increases in both planted area and yield contributed to high year-end stocks.

Overall, the total value of output from livestock (including livestock products) increased by £987 million (+12%) to £9,377 million and accounted for approximately half of the total value of agricultural output.

The value of milk, the largest contributor to the value of outputs, increased by £584 million (+27%) to £2,733 million. This was driven by increases in both price and yield.

The value of livestock primarily for meat increased by £471 million (+10%) to £5,356 million, with increases seen across all sectors. The increases for cattle and pig meat were entirely price driven whereas increases for sheep meat and poultry meat were driven by both price and volume.

## Intermediate consumption

The total cost of intermediate consumption increased by £740 million (+7%) to £11,643 million. This was mainly driven by a 14% increase in animal feed costs, with smaller increases for all other costs.

The cost of energy increased by £92 million (+11%) to £918 million, driven by increased global oil prices.

The cost of fertiliser increased by £70 million (+7%) to £1,013 million. This was driven by increased global oil prices which outweighed the reduction in fertiliser usage.

The cost of animal feed, the largest contributor to the value of inputs, increased by £428 million (+14%) to £3,416 million as a result of both price and volume. Higher cereal prices kept the annual feed price up on the year. Greater demand by the dairy sector on the back of higher milk prices, higher livestock numbers and variable forage quality all led to increased supplementary feed use.

Table 1.1 Production and income account for England (a)

£ million current price

	2015	2016	2017	2016	to 2017
				Diff	% diff.
Output at market prices	-				
1. Cereals	2,585	2,053	2,533	480	23%
of which: wheat	1,907	1,495	1,835	340	23%
barley	608	494	620	126	26%
2. Industrial crops	1,002	813	1,125	312	38%
of which: oilseed rape	668	502	713	211	42%
protein crops	137	131	153	22	17%
sugar beet	173	150	228	78	52%
3. Forage plants	209	216	196	-19	-9%
Vegetables and horticultural products	2,197	2,412	2,490	78	3%
of which: fresh vegetables	1,119	1,201	1,224	23	2%
plants and flowers	1,078	1,211	1,266	55	5%
5. Potatoes (including seeds)	427	568	642	74	13%
6. Fruit	524	538	597	59	11%
7. Output of other crop products including seeds	511	569	582	13	2%
Total crop output (sum 1 to 7)	7,454	7,170	8,166	996	14%
8. Livestock	5,824	5,792	6,201	409	7%
primarily for meat	4,884	4,885	5,356	471	10%
of which: cattle	1,314	1,307	1,447	140	11%
pigs	875	885	1,051	166	19%
sheep	618	606	644	39	6%
poultry	1,894	1,898	2,018	120	6%
gross fixed capital formation	940	908	845	-62	-7%
of which: cattle	481	458	449	-9	-2%
pigs	3	4	4	1	16%
sheep	235	240	194	-46	-19%
poultry	221	207	198	-8	-4%
9. Livestock products	2,954	2,598	3,176	578	22%
of which: milk	2,443	2,148	2,733	584	27%
eggs	458	384	383	-1	0%
Total livestock output (8 + 9)	8,778	8,390	9,377	987	12%
10. Other agricultural activities	863	867	878	11	1%
11. Inseparable non-agricultural activities	926	972	1,021	49	5%
12. Output at market prices (sum 1 to 11)	18,022	17,399	19,442	2,043	<b>12</b> %
13. Total subsidies (less taxes) on product	-	-	_	0	
14. Gross output at basic prices (12 + 13)	18,022	17,399	19,442	2,043	12%
continued	, -		•	,	

continued

Table 1.1 continued

£ million current prices

	2015	2016	2017	2016 to 2017	
				Diff	% diff.
Intermediate consumption					
15. Seeds and planting stock	623	647	698	51	8%
16. Energy	865	826	918	92	11%
17. Fertilisers	1,037	943	1,013	70	7%
18. Plant protection products	871	864	899	36	4%
19. Veterinary expenses	275	267	271	5	2%
20. Animal feed	3,125	2,988	3,416	428	14%
21. Total maintenance	1,202	1,220	1,239	19	2%
22. Agricultural services	859	860	872	13	2%
23. FISIM	64	71	72	1	2%
24. Other goods and services	2,240	2,218	2,244	26	1%
25. Total intermediate consumption (sum 15 to 24)	11,161	10,903	11,643	740	<b>7</b> %
26. Gross value added at market prices (12 - 25)	6,860	6,495	7,799	1,303	20%
27. Gross value added at basic prices (14 - 25)	6,860	6,495	7,799	1,303	20%
28. Total consumption of fixed capital	2,935	2,998	3,012	14	0%
of which: equipment	1,341	1,386	1,423	37	3%
buildings	668	693	718	25	4%
livestock	926	919	871	-48	-5%
29. Net value added at market prices (26 - 28)	3,925	3,497	4,787	1,289	<b>37</b> %
30. Net value added at basic prices (27 - 28)	3,925	3,497	4,787	1,289	37%
31. Other subsidies (less taxes) not linked to production	1,784	2,116	2,063	-52	-2%
32. Net value added at factor cost (29 + 31)	5,709	5,613	6,850	1,237	22%
33. Compensation of employees	1,935	1,966	2,004	37	2%
34. Rents	473	479	479	-1	0%
35. Interest	281	281	291	10	4%
36. Total Income from Farming (32 - 33 - 34 - 35)	3,021	2,886	4,077	1,191	41%

<sup>(</sup>a) due to methodology differences sub-total data contained in this table may not agree with sub-totals shown in Chapter 3 Agriculture in the United Kingdom.

<sup>-</sup> means nil or negligible.

## Latest figures and trends for England by region

Chart 2.1 shows the value of crop and livestock output in each region. Livestock output is most predominant in the South West and North West while crop output is greatest in the East of England. Table 2.1 presents regional summary measures from the production and income accounts whilst table 2.2 presents regional share of these.

Chart 2.1: Value of output by region 2017

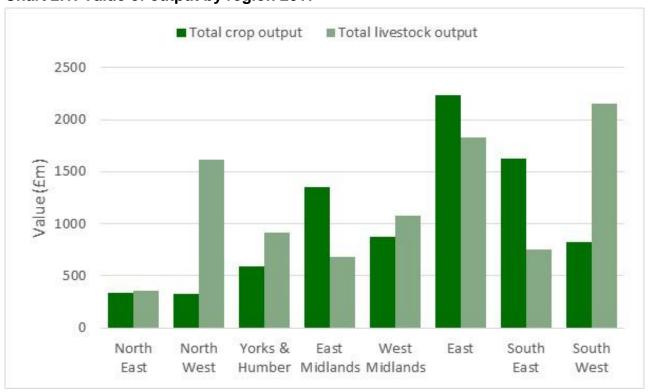


Table 2.1: Aggregate farm accounts values by region, 2017

£ million

	North East	North West	Yorks & Humber	East Midlands	West Midlands	East	South East	South West
Total crop output	339	330	588	1,348	874	2,235	1,627	824
Total livestock output	357	1,612	918	677	1,080	1,824	757	2,152
Gross output at basic prices	809	2,092	1,648	2,236	2,175	4,461	2,726	3,296
Intermediate consumption	580	1,366	1,059	1,375	1,261	2,615	1,352	2,036
Gross Value Added at basic prices	229	726	589	861	914	1,846	1,374	1,260
Total Income from Farming	64	332	315	468	493	1,066	724	616

Table 2.2: Aggregate farm accounts proportions by region, 2017

£ million

	North	North	Yorks &	East	West	_	South	South
	East	West	Humber	Midlands	Midlands	East	East	West
Total crop output	4%	4%	7%	17%	11%	27%	20%	10%
Total livestock output	4%	17%	10%	7%	12%	19%	8%	23%
Gross output at basic prices	4%	11%	8%	11%	11%	23%	14%	17%
Intermediate consumption	5%	12%	9%	12%	11%	22%	12%	17%
Gross Value added at basic prices	3%	9%	8%	11%	12%	24%	18%	16%
Total Income from Farming	2%	8%	8%	11%	12%	26%	18%	15%

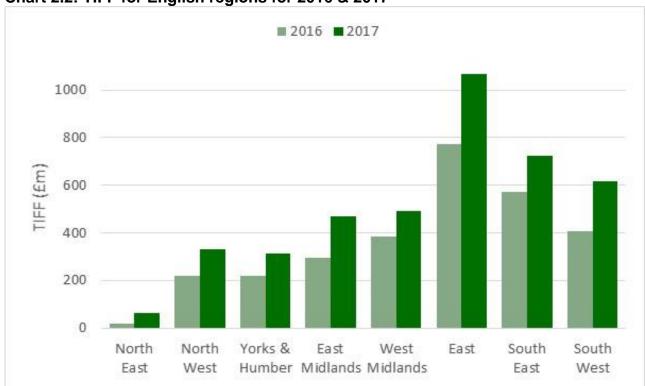


Figure 3.1 North East

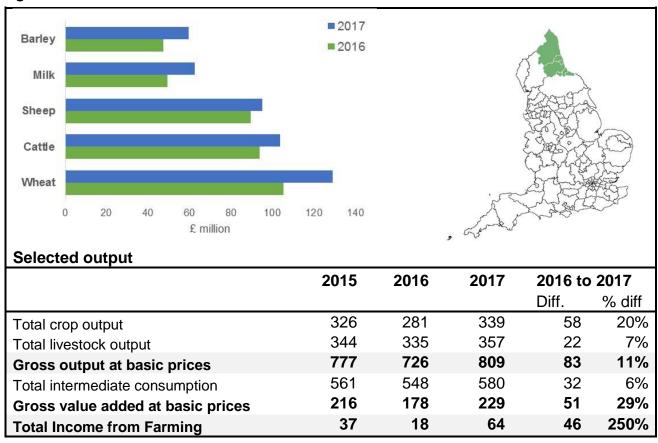


Figure 3.2 North West

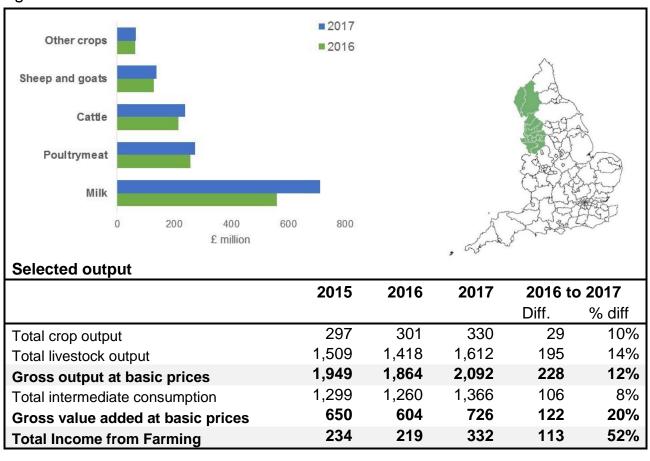


Figure 3.3 Yorkshire & the Humber

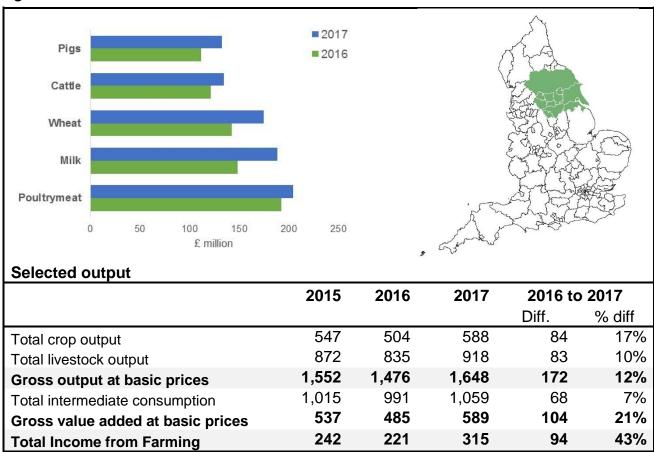


Figure 3.4 East Midlands

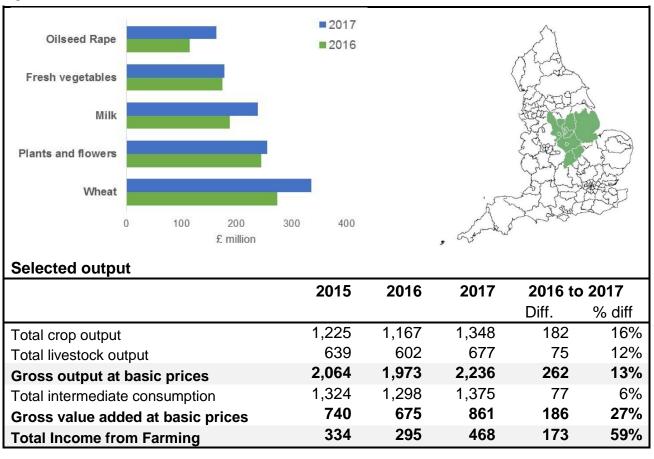


Figure 3.5 West Midlands region

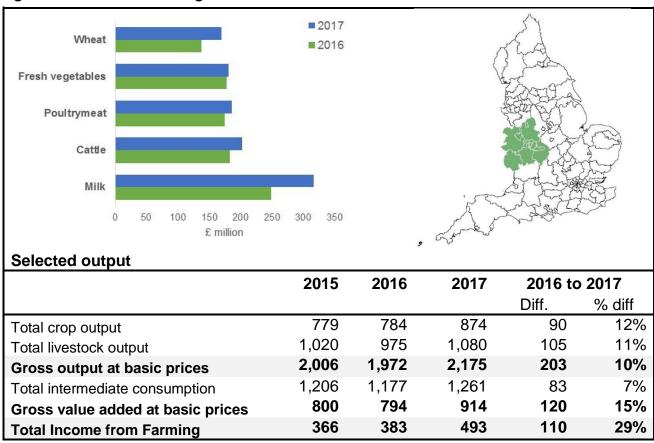


Figure 3.6 Eastern region

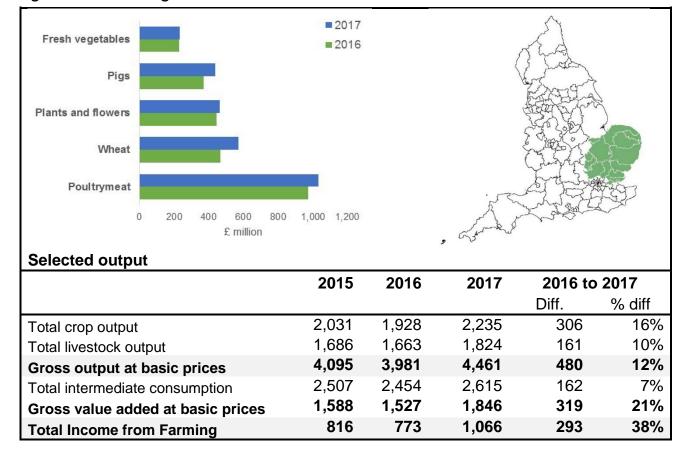


Figure 3.7 South East (inc. London) region

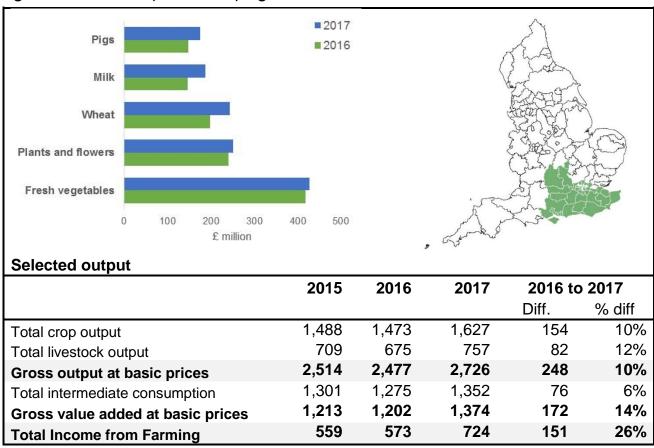
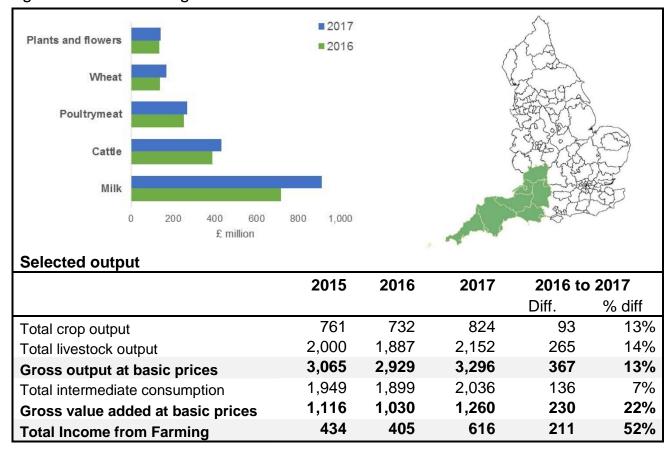


Figure 3.8 South West region



# **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.

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 by Government Office Regions in the publication Farm Accounts in England 2016/2017at: <a href="https://www.gov.uk/government/statistics/farm-accounts-in-england">https://www.gov.uk/government/statistics/farm-accounts-in-england</a>

#### Definition of terms used in this release

Agricultural industry - All activities taking place within businesses that carry out any agricultural activities. These businesses include all farms and specialist agricultural contractors.

Gross Fixed Capital Formation (GFCF) in livestock - Is the production of animals that will be used as the means of production, e.g. breeding animals.

Other agricultural activities - Agricultural activities that do not result in sales of final product, e.g. quota leasing, contract work.

Inseparable non-agricultural activities - Non-agricultural activities that are included within the business level accounts and are inseparable, e.g. some cases of bed and breakfast and recreation facilities.

Output at market prices - Output excluding subsidies. The output of the agricultural industry includes some non-agricultural activities and transactions within the industry.

Basic prices - Market price plus directly paid subsidies that are linked to production of specific product. There have been no direct subsidies in England since 2013.

Subsidies (less taxes) on product - Subsidies and taxes linked to the production of a specific agricultural product. All subsidies are recorded on an 'as due' basis.

FISIM - Financial Intermediation Services Indirectly Measured (FISIM) is an estimate of the value of services provided by financial intermediaries, such as banks, for which no explicit charges are made, and which are paid for as part of the margin between rates applied to savers and borrowers.

Intermediate consumption - Goods and services consumed or used as inputs in the productive process e.g. feed, seeds, fertiliser, and pesticides.

Gross Value Added - Gross output less intermediate consumption.

Consumption of fixed capital - The reduction in value (at current prices) of capital assets used in the production process, e.g. buildings, plant, machinery, vehicles and livestock.

Net Value Added - Gross Value Added at basic prices less consumption of fixed capital.

Other subsidies (less taxes) not linked to production - Subsidies and taxes not linked to production of a specific product, e.g. Single Payment Scheme, agri-environment payments, animal disease compensation.

Net Value Added at factor cost - Net Value Added at basic prices plus other subsidies (less taxes) on production.

Compensation of employees - The full costs of employees to the business including national insurance contributions.

Total Income from Farming - Income to those with an entrepreneurial interest in the agricultural industry, e.g. farmers, partners, spouses and most other family workers.

# **Regional classification**

The Nomenclature of Units for Territorial Statistics (NUTS) provides a single uniform breakdown for the production of regional statistics for the EU. In this release, statistics are presented at the NUTS1 level of regions in England.

Information on Nomenclature of Units for Territorial Statistics (NUTS) and Local Administrative Units (LAU) can be found at:

https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat.

# Regional production and income accounts methodology

Values for England are derived by deduction from the production and income account for the United Kingdom of similar accounts for Northern Ireland, Scotland and Wales. The regional accounts for England are constructed by apportioning each account item value for England to NUTS3 using regional estimates from the Farm Business Survey (FBS) and June Survey of Agriculture and Horticulture ('June Survey') data. NUTS1 and NUTS2 estimates can then be obtained through aggregation. New methodology has been implemented from August 2018. The FBS records detailed account data from a relatively small panel of farms whereas the June Survey records a snapshot of crop areas and livestock numbers as at June 1 each year.

#### Outputs

For most outputs, NUTS1 estimates from the FBS have been used to apportion outputs. Where FBS data was not available, the most appropriate measure from the June Survey was, used which in many cases was 'Utilised Agricultural Area' (UAA). FBS regional outputs were chosen as they are likely to be in line with input coefficients, where FBS regional estimates are the only viable data source. Inseparable non-agricultural activities are split using diversification estimates from FBS. Indirect subsidies are split using June Survey UAA as testing showed this to be an extremely good proxy for actual RPA payment data. Below NUTS1, June Survey data is used.

#### Intermediate consumption

Similar to outputs, inputs (including labour) have been apportioned to NUTS1 regions using regional estimates of the most appropriate costs from the FBS. Below NUTS1, the most appropriate June Survey items have been used. The methodology for regional coefficients has been reviewed and tested in great depth. However the limitations of relevant data sources means that a high level of uncertainty exists in all regional estimates presented in this release. For this reason, caution should be observed when drawing conclusions from these statistics. The relatively small sample size in the FBS means that the number of observations for specific enterprises in each region can be small. It is for this reason that the FBS is only used to split account items to NUTS1 level. The June Survey has a much greater sample size, but similar issues are encountered for some of the smaller NUTS3 areas. The variability between years of FBS regional estimates can be large, so a three year average has been taken in establishing coefficients. Whilst this will subdue any changes specific to an individual year, it is expected that the regional distribution of account items should change only slowly over time.

#### Revisions

Values for England are derived from similar accounts for, Scotland, Wales and Northern Ireland. Any revisions made by the devolved authorities due to improvements or corrections in methodology or receipt of new data will impact on these regional accounts data. For further details see <a href="Scottish Government">Scottish Government</a>, <a href="Welsh Government">Welsh Government</a> and <a href="Department of Agriculture">Department of Agriculture</a> and <a href="Rural Development">Rural Development</a>, <a href="Northern Ireland">Northern Ireland</a>.

### Summary quality report

A summary quality report for Total Income from Farming at the UK level can be found at: <a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts/">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts/</a> (see "Total income from farming - quality report"). This report 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 users and uses of the aggregate agricultural accounts

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

- 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 £9 billion to the UK economy and accounts for about 0.5% of UK 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 (<a href="http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html">http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html</a>), 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.