



Regional level aggregate farm accounts for England

First estimate for 2016

This release is a revision of the estimates published on 28 September 2017.

Errors were identified in the value of gross output due to a methodological error. This results in minor corrections to data between 2010 and 2016. This release presents corrected estimates to the output value of milk, inseparable non-agricultural activities and gross fixed capital formation. For more detailed information please see the corrections section on page 18.

This release presents the first estimate of Total Income from Farming in England and each of the English regions for 2016. These statistics show the trends in Total Income from Farming and the contribution that the agricultural industry makes to the regional economy.

A comprehensive data series can be found <u>here</u>, under the heading "Agriculture in the English Regions – dataset".

All data relate to 2016, are in current price terms and comparisons are with 2015 unless stated otherwise.

Key points:

- Total Income from Farming in England fell by 12% (£345 million) to £2,460 million.
- Total Income from Farming in the United Kingdom is £3,610 million; England is the largest contributor accounting for 68% of this total, Scotland 21%, Northern Ireland 7% and Wales 4%. Detailed United Kingdom figures can be found here.
- In England, agriculture contributed £6,249 million to the economy (Gross Value Added) and 1.1% of people employed worked in agriculture.

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Latest figures for England (2016 compared to 2015)

Total Income from Farming fell between 2015 and 2016 by 12% (£345 million) to £2,460 million.

The greatest contribution to the total value of output was production of milk (£2,102 million), followed by poultry meat (£1,868 million), wheat (£1,498 million), cattle reared for meat (£1,302 million) and fresh vegetables and plants & flowers (around £1,130 million each).

Gross Value added at basic price, which identifies agricultures contribution to the Gross Domestic Product (GDP) fell by £395 million (-5.9%) to £6,249 million.

Direct payments to farmers increased by £194 million (11%) to £1,956 million as a result of the more favourable sterling/euro exchange rate.

<u>Outputs</u>

In England the overall value of crops fell by £370 million to £6,993 million and accounted for 41% of the total value of agricultural output. In 2016, after the record highs of the previous year, crop yields returned to more typical levels driving down volumes and although prices strengthened towards the end of 2016 this was not enough to offset the low prices seen early in the year.

The value of wheat fell by £410 million (-22%) to £1,498 million. Planted area remained little changed and more average yields resulted in lower volumes. Price was also lower overall, despite the upturn in prices towards the end of the year.

The value of barley decreased by \pounds 91 million (-15%) to \pounds 517 million, driven by both price and volume.

The value of oilseed rape fell by around a quarter to £502 million. A reduced planted area, the lowest for almost 10 years, and reduced yield largely driving this decrease.

The value of sugar beet fell by £23 million (-14%) to £150 million. Lower prices and a reduction in planted area for the fifth year running were largely responsible for this fall.

The value of potatoes rose by a third to £501 million. An increase in planted area along with higher prices contributed to this rise.

Overall, the total value of output of livestock was 4.3 % lower at £8,293 million and accounted for just under half of the total value of agricultural output.

The value of milk, the largest contributor to the value of outputs, fell by £282 million (-12%) to \pounds 2,102 million, driven by lower price and production. A combination of poorer grass quality due to the variable weather conditions and dairy farmers attempting to reduce costs such as supplementary feeds led to reduced production. In 2016 (calendar year) the United Kingdom average price of milk was 22.6 pence per litre (ppl) compared to 24.5 ppl in 2015.

The value of livestock primarily for meat was virtually unchanged at £4,853 million.

Intermediate consumption

The value of intermediate consumption fell by £352 million to £10,824 million. Reduced fertiliser, animal feed and energy costs were the main contributors to this fall.

The cost of fertiliser fell by £201 million (-19%) to £837 million, entirely price driven as the significantly lower oil prices at the beginning of the year put downward pressure on price overall.

The cost of energy fell by £43 million to £817 million, again largely driven by the decline in world oil prices which kept overall price down along with the continued drive to be more energy efficient.

The cost of animal feed, the largest contributor to the value of inputs, fell by £183 (-5.8%) million to £2,949 million due to a combination of both lower price and volume. Depressed cereal prices at the beginning of the year helped keep the average annual price lower combined with the reduced use as farmers strive to make efficiencies.

				llion curre	
	2012	2013	2014	2015	2016
Output at market prices					
1. Cereals	2 678	2 890	3 030	2 587	2 079
of which: wheat	2 005	1 930	2 298	1 909	1 498
barley	578	824	646	608	517
2. Industrial crops	1 300	1 135	1 111	1 002	813
of which: oilseed rape	938	705	643	668	502
protein crops	98	123	123	137	132
sugar beet	227	270	315	173	150
3. Forage plants	129	200	250	254	259
4. Vegetables and horticultural products	2 165	2 256	2 074	2 110	2 258
of which: fresh vegetables	1 096	1 145	995	1 033	1 128
plants and flowers	1 068	1 111	1 078	1 077	1 130
5. Potatoes (including seeds)	469	666	462	376	501
6. Fruit	482	485	508	524	527
7. Output of other crop products including seeds	641	578	645	511	555
Total crop output (sum 1 to 7)	7 863	8 212	8 079	7 363	6 993
8. Livestock	5 692	6 081	5 978	5 771	5 752
primarily for meat	4 638	5 026	4 824	4 844	4 853
of which: cattle	1 352	1 372	1 183	1 312	1 302
pigs	927	1 057	1 031	874	883
sheep	515	548	588	619	610
poultry	1 665	1 870	1 838	1 854	1 868
gross fixed capital formation	1 054	1 055	1 154	927	900
of which: cattle	626	691	698	465	446
pigs	7	5	4	3	4
sheep	263	211	270	235	240
poultry	158	148	182	224	210
9. Livestock products	2 970	3 283	3 474	2 899	2 541
of which: milk	2 457	2 700	2 936	2 383	2 102
eggs	479	525	470	458	382
Total livestock output (8 + 9)	8 662	9 364	9 452	8 670	8 293
10. Other agricultural activities	791	817	868	854	854
11. Inseparable non-agricultural activities	796	899	860	934	934
12. Output at market prices (sum 1 to 11)	18 112	19 292	19 258	17 821	17 074
13. Total subsidies (less taxes) on product	-	-	-	-	-
14. Gross output at basic prices (12 + 13)	18 112	19 292	19 258	17 821	17 074

Table 1.1 Production and income account for England (a)

continued

Table 1.1 continued

£ million current prices

	2012	2013	2014	2015	2016
Intermediate consumption					
15. Seeds and planting stock	631	759	665	625	647
16. Energy	1 008	1 034	991	860	817
17. Fertilisers	1 128	1 096	1 087	1 038	837
18. Plant protection products	742	767	848	872	890
19. Veterinary expenses	250	269	272	266	265
20. Animal feed	3 128	3 670	3 304	3 132	2 949
21. Total maintenance	1 096	1 147	1 252	1 255	1 264
22. Agricultural services	783	810	864	851	851
23. FISIM	56	71	48	57	61
24. Other goods and services	2 237	2 227	2 221	2 220	2 244
25. Total intermediate consumption (sum 15 to 24)	11 060	11 849	11 550	11 176	10 824
26. Gross value added at market prices (12 - 25)	7 052	7 442	7 708	6 644	6 249
27. Gross value added at basic prices (14 - 25)	7 052	7 442	7 708	6 644	6 249
28. Total consumption of fixed capital	2 960	2 957	3 025	2 911	2 999
of which: equipment	1 188	1 254	1 302	1 339	1 397
buildings	699	668	666	679	706
livestock	1 073	1 034	1 057	893	896
29. Net value added at market prices (26 - 28)	4 092	4 486	4 683	3 733	3 250
30. Net value added at basic prices (27 - 28)	4 092	4 486	4 683	3 733	3 250
31. Other subsidies (less taxes) not linked to production	1 981	2 053	1 819	1 763	1 956
32. Net value added at factor cost (29 + 31)	6 073	6 538	6 502	5 496	5 207
33. Compensation of employees	1 857	1 896	1 884	1 933	1 969
34. Rents	411	433	463	473	480
35. Interest	194	216	271	285	296
36. Total Income from Farming (32 - 33 - 34 - 35)	3 612	3 993	3 883	2 805	2 460

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

- means nil or negligible.

Latest figures and trends for England by region

Total Income from Farming decreased in all England regions in 2016. The South East and South West showed the largest falls of around 20% each, followed by the North West and East Midlands, both showing a fall of 16%.

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 for the main components of the account in 2016.

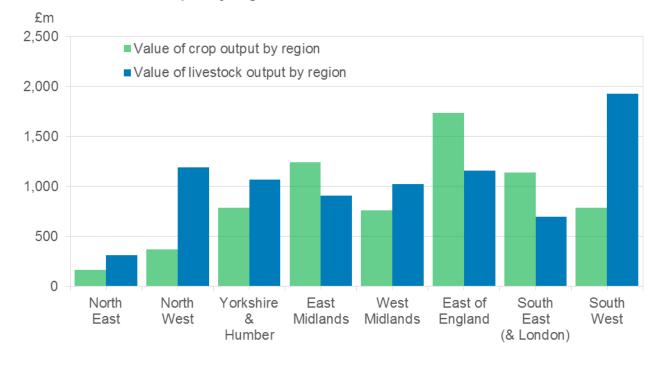


Chart 2.1: Value of output by region 2016

Table 2.1: Summary measures for English regions in 2016

					£ million current price				
			Yorkshire						
	North	North	& the	East	West		South	South	
	East	West	Humber	Midlands	Midlands	East	East	West	
Total crop output	163	372	788	1,241	762	1,737	1,140	790	
Total livestock output	315	1,191	1,071	906	1,024	1,160	696	1,929	
Gross output at basic prices	532	1,716	2,065	2,439	1,966	3,326	2,025	3,005	
Intermediate consumption	310	1,097	1,271	1,672	1,200	2,157	1,211	1,906	
Gross Value Added at basic prices	222	619	794	767	766	1,169	813	1,099	
Total Income from Farming	121	133	429	316	277	634	211	339	

			Yorkshire					
	North	North	& the	East	West		South	South
	East	West	Humber	Midlands	Midlands	East	East	West
Total crop output	2%	5%	11%	18%	11%	25%	16%	11%
Total livestock output	4%	14%	13%	11%	12%	14%	8%	23%
Gross output at basic prices	3%	10%	12%	14%	12%	19%	12%	18%
Intermediate consumption	3%	10%	12%	15%	11%	20%	11%	18%
Gross Value Added at basic prices	4%	10%	13%	12%	12%	19%	13%	18%
Total Income from Farming	5%	5%	17%	13%	11%	26%	9%	14%

Table 2.2: Regional share of England total for the main components of the production and income account in 2016

The East of England region contributed just over one quarter of the total income from farming for England followed by Yorkshire & the Humber with 17% and the South West 14% and the East Midlands 13%. As a comparison, chart 2.2 below shows the value of TIFF in the regions in 2016 and the area farmed in that year.

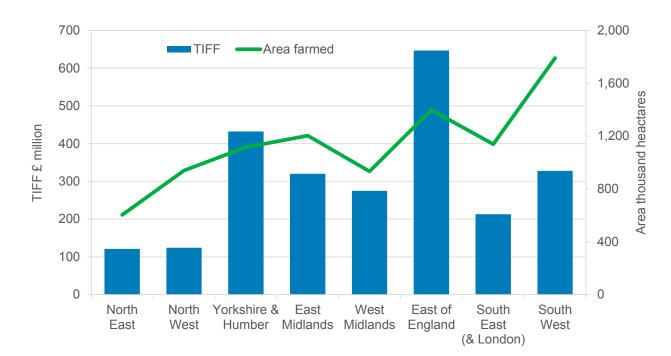
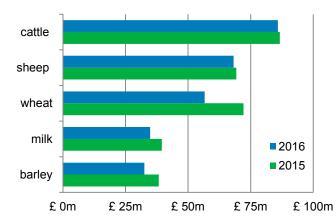


Chart 2.2: TIFF and area farmed in 2016 for English regions

North East region

Chart 3.1: North East selected output





In 2016 Total Income from Farming in the North East region fell to £121 million, a decrease of 11% or £16 million, accounting for 5% of the England total value.

The greatest contribution to the value of gross agricultural output came from cattle reared for meat at £86 million, followed by sheep meat production (£68 million), wheat production (£57 million) and milk production and barley (both just under £35 million).

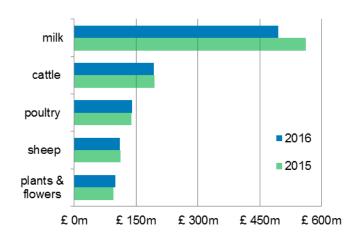
The North East contributed £222 million to the economy and agriculture employed 0.9% of the regional workforce. The area farmed was 603 thousand hectares; permanent grass accounted for 43%, cropped area 27% and rough grazing 20%. Table 3.1 shows the main components of the North East agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

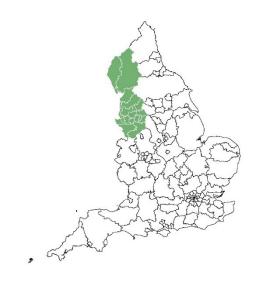
			£ milli	prices	
	2012	2013	2014	2015	2016
Total crop output	201	213	207	188	163
+ Total livestock output	324	339	342	322	315
+ Other and non-seperable agricultural activities	48	52	53	55	54
= Gross output at basic prices	573	604	602	565	532
- Total intermediate consumption	313	334	327	319	310
= Gross value added at basic prices	260	271	274	246	222
- Total consumption of fixed capital	106	102	108	105	105
= Net value added at basic prices	154	168	166	141	117
+ Other subsidies not linked to production	106	110	97	94	104
= Net value added at factor cost	260	278	263	235	221
- Compensation of employees	45	46	45	46	47
- Rents	37	39	42	43	43
- Interest	6	7	9	9	9
= Total Income from Farming	173	187	167	137	121

Table 3.1 Summary production and income account for the North East region

North West region

Chart 3.2: North West selected output





In 2016 Total Income from Farming in the North West region fell to £133 million, a fall of 16% or £26 million, accounting for 5% of the England total value.

The greatest contribution to the value of gross agricultural output came from production of milk at £495 million, followed by cattle reared for meat (£193 million), poultry meat production (£140 million) and sheep meat production (£109 million) and plants and flowers (£110 million).

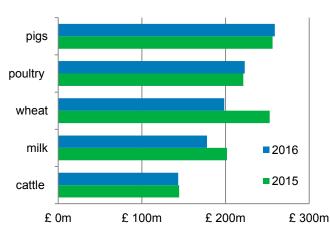
The North West contributed £619 million to the economy and agriculture employed 1.0% of the regional workforce. The area farmed was 940 thousand hectares; permanent grass accounted for 62%, cropped area 13% and rough grazing 12%. Table 3.2 shows the main components of the North West agricultural account, more detailed information and a longer time series can be found here, under the heading "dataset".

			£ million current pric				
	2012	2013	2014	2015	2016		
Total crop output	359	408	384	366	372		
+ Total livestock output	1284	1379	1420	1270	1191		
+ Other and non-seperable agricultural activities	135	147	147	153	153		
= Gross output at basic prices	1778	1933	1951	1788	1716		
- Total intermediate consumption	1118	1220	1173	1134	1097		
= Gross value added at basic prices	660	714	778	655	619		
- Total consumption of fixed capital	439	438	449	418	421		
= Net value added at basic prices	221	275	329	237	198		
+ Other subsidies not linked to production	189	196	174	168	187		
= Net value added at factor cost	410	471	503	405	384		
- Compensation of employees	163	166	165	170	173		
- Rents	44	46	49	50	51		
- Interest	18	20	25	26	27		
= Total Income from Farming	186	239	263	159	133		

Table 3.2: Summary production and income account for the North West region

Yorkshire & the Humber region

Chart 3.3: Yorkshire & the Humber selected output





In 2016 Total Income from Farming in the Yorkshire & the Humber region fell to £429 million, a decrease of 9% or £43 million, accounting for 17% of the England total value.

The greatest contribution to the value of gross output came from pig meat production at $\pounds 259$ million, followed by poultry meat production ($\pounds 223$ million), wheat ($\pounds 198$ million), milk production ($\pounds 178$ million) and cattle reared for meat production ($\pounds 143$ million).

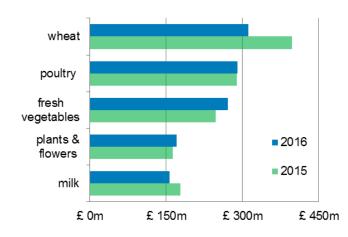
The Yorkshire & the Humber contributed £794 million to the economy and agriculture employed 1.3% of the regional workforce. The area farmed was 1,115 thousand hectares; permanent grass accounted for 33%, cropped area 48% and rough grazing 9%. Table 3.3 shows the main components of the Yorkshire & the Humber agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

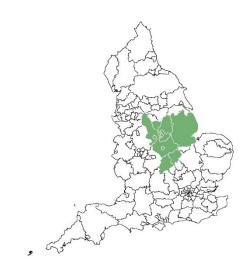
			£ milli	ion curren	t prices
	2012	2013	2014	2015	2016
Total crop output	918	965	932	844	788
+ Total livestock output	1107	1203	1205	1105	1071
+ Other and non-seperable agricultural activities	182	198	199	206	206
= Gross output at basic prices	2207	2367	2336	2156	2065
- Total intermediate consumption	1299	1388	1355	1312	1271
= Gross value added at basic prices	908	978	980	844	794
- Total consumption of fixed capital	320	318	326	317	328
= Net value added at basic prices	588	660	654	527	466
+ Other subsidies not linked to production	241	249	221	214	238
= Net value added at factor cost	829	910	875	741	704
- Compensation of employees	167	170	169	174	177
- Rents	52	55	59	60	61
- Interest	24	26	33	35	36
= Total Income from Farming	585	657	613	472	429

Table 3.3: Summary production and income account for the Yorkshire & the Humber
region

East Midlands region







In 2016 Total Income from Farming in the East Midlands region fell to £316 million, a decrease of 16% or £62 million, accounting for 13% of the England total value.

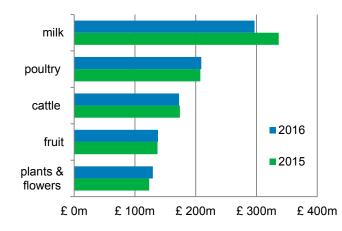
The greatest contribution to the value of gross output came from wheat production at £312 million, followed by poultry meat production (£291 million), fresh vegetables (£271 million), plants and flowers (£171 million) and production of milk (£157 million).

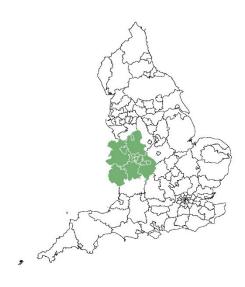
The East Midlands contributed £767 million to the economy and agriculture employed 1.5% of the regional workforce. The area farmed was 1,203 thousand hectares; permanent grass accounted for 23%, cropped area 63% and rough grazing 2%. Table 3.4 shows the main components of the East Midlands agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

			£ m	£ million curre		
	2012	2013	2014	2015	2016	
Total crop output	1466	1485	1469	1320	1241	
+ Total livestock output	932	1012	1007	945	906	
+ Other and non-seperable agricultural activities	259	280	282	291	291	
= Gross output at basic prices	2657	2777	2758	2556	2439	
- Total intermediate consumption	1711	1819	1784	1726	1672	
= Gross value added at basic prices	946	958	974	830	767	
- Total consumption of fixed capital	375	375	382	378	398	
= Net value added at basic prices	571	583	592	452	369	
+ Other subsidies not linked to production	281	291	258	250	278	
= Net value added at factor cost	851	874	850	702	647	
- Compensation of employees	207	211	210	215	219	
- Rents	55	58	63	64	65	
- Interest	31	34	43	45	47	
= Total Income from Farming	559	570	535	378	316	

West Midlands region







In 2016 Total Income from Farming in the West Midlands region fell to £277 million, a decrease of 9% or £28 million, accounting for 11% of the England total value.

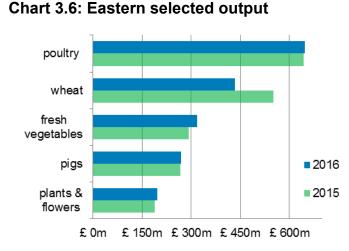
The greatest contribution to the value of gross output came from milk production at £297 million, followed by poultry meat production (£209 million), cattle reared for meat production (£173 million), fruit (£138 million) and plants and flowers (£130 million).

The West Midlands contributed £766 million to the economy and agriculture employed 1.6% of the regional workforce. The area farmed was 932 thousand hectares; permanent grass accounted for 40%, cropped area 42% and rough grazing 1%. Table 3.5 shows the main components of the West Midlands agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

			£ million current pric				
	2012	2013	2014	2015	2016		
Total crop output	808	856	835	782	762		
+ Total livestock output	1073	1153	1172	1077	1024		
+ Other and non-seperable agricultural activitie	159	173	173	180	180		
= Gross output at basic prices	2041	2182	2181	2039	1966		
- Total intermediate consumption	1225	1319	1281	1239	1200		
= Gross value added at basic prices	816	863	900	800	766		
- Total consumption of fixed capital	369	367	376	359	368		
= Net value added at basic prices	447	495	523	440	398		
+ Other subsidies not linked to production	218	226	200	194	215		
= Net value added at factor cost	665	721	724	634	613		
- Compensation of employees	245	250	248	254	259		
- Rents	38	40	43	44	45		
- Interest	21	23	29	31	32		
= Total Income from Farming	362	408	404	305	277		

Table 3.5: Summary production and income account for the West Midlands region

Eastern region





In 2016 Total Income from Farming in the Eastern region fell to £634 million, a decrease of 6% or £37 million, accounting for 26% of the England total value.

The greatest contribution to the value of gross output came from poultry meat production at $\pounds 648$ million, this was followed by wheat production ($\pounds 433$ million), fresh vegetables ($\pounds 319$ million), pig meat production ($\pounds 269$ million) and plants and flowers ($\pounds 197$ million).

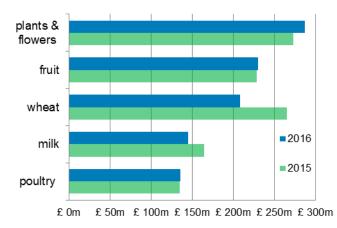
The Eastern region contributed £1,169 million to the economy and agriculture employed 1.3% of the regional workforce. The area farmed was 1,398 thousand hectares; permanent grass accounted for 12%, cropped area 76% and rough grazing 1%. Table 3.6 shows the main components of the Eastern region agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

			£ million current pri			
	2012	2013	2014	2015	2016	
Total crop output	2040	2124	2108	1837	1737	
+ Total livestock output	1117	1238	1221	1170	1160	
+ Other and non-seperable agricultural activitie	382	411	417	428	428	
= Gross output at basic prices	3539	3773	3746	3435	3326	
- Total intermediate consumption	2215	2350	2305	2228	2157	
= Gross value added at basic prices	1324	1423	1441	1207	1169	
- Total consumption of fixed capital	340	342	348	353	372	
= Net value added at basic prices	984	1081	1093	854	796	
+ Other subsidies not linked to production	312	324	287	279	310	
= Net value added at factor cost	1296	1405	1380	1133	1106	
- Compensation of employees	323	329	327	336	342	
- Rents	58	61	65	67	68	
- Interest	40	45	56	59	62	
= Total Income from Farming	875	969	931	671	634	

Table 3.6: Summary production and income account for the Eastern region

South East (incl London) region







In 2016 Total Income from Farming in the South East region fell to £211 million, a decrease of 20% or £52 million, accounting for 9% of the England total value.

The greatest contribution to the value of gross output came from plant & flowers at £287 million, followed by fruit (£230 million), wheat (£208 million), milk production (£145 million) and poultry meat production (£136 million).

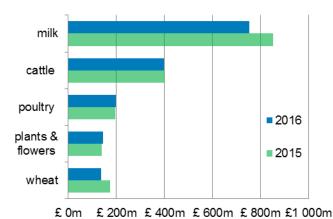
The South East contributed £813 million to the economy and agriculture employed 0.5% of the regional workforce. The area farmed was 1,139 thousand hectares; permanent grass accounted for 33%, cropped area 48% and rough grazing 2%. Table 3.7 shows the main components of the South East agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading "dataset".

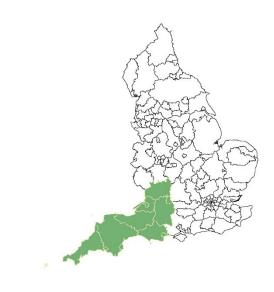
			£ million current price			
	2012	2013	2014	2015	2016	
Total crop output	1247	1265	1263	1196	1140	
+ Total livestock output	729	785	787	730	696	
+ Other and non-seperable agricultural activitie	167	181	181	189	189	
= Gross output at basic prices	2143	2231	2232	2114	2025	
- Total intermediate consumption	1241	1319	1293	1250	1211	
= Gross value added at basic prices	902	912	938	864	813	
- Total consumption of fixed capital	306	304	311	305	319	
= Net value added at basic prices	596	608	628	559	494	
+ Other subsidies not linked to production	234	243	215	209	231	
= Net value added at factor cost	831	851	843	767	725	
- Compensation of employees	396	405	402	413	420	
- Rents	51	54	57	59	60	
- Interest	22	25	31	33	34	
= Total Income from Farming	361	367	352	263	211	

Table 3.7: Summary production and income account for the South East region

South West region

Chart 3.8: South West selected output





In 2016 Total Income from Farming in the South West region fell to £339 million, a decrease of 19% or £81 million, accounting for 14% of the England total value.

The greatest contribution to the value of gross output came from production of milk at \pounds 752 million, followed by cattle reared for meat (\pounds 399 million), poultry meat production (\pounds 197 million), plants and flowers (\pounds 145 million) and wheat production (\pounds 137 million).

The South West contributed £1,099 million to the economy and agriculture employed 2.4% of the regional workforce. The area farmed was 1,791 thousand hectares; permanent grass accounted for 49%, cropped area 28% and rough grazing 4%. Table 3.8 shows the main components of the South West agricultural account, more detailed information and a longer time series can be found <u>here</u>, under the heading dataset.

			£ million current price			
	2012	2013	2014	2015	2016	
Total crop output	825	895	880	831	790	
+ Total livestock output	2097	2255	2297	2051	1929	
+ Other and non-seperable agricultural activitie	253	274	276	286	286	
= Gross output at basic prices	3174	3425	3453	3168	3005	
- Total intermediate consumption	1937	2100	2031	1968	1906	
= Gross value added at basic prices	1237	1325	1421	1199	1099	
- Total consumption of fixed capital	706	710	724	677	686	
= Net value added at basic prices	531	615	697	523	413	
+ Other subsidies not linked to production	400	414	366	355	394	
= Net value added at factor cost	930	1029	1064	878	807	
- Compensation of employees	312	319	316	325	331	
- Rents	75	79	85	86	88	
- Interest	32	36	45	47	49	
= Total Income from Farming	511	595	617	419	339	

Table 3.8: Summary production and income account for the 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 and by Eurostat.

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 2015/2016 at: <u>https://www.gov.uk/government/statistics/farm-accounts-in-england</u>

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.

Subsidies (less taxes) on product - Subsidies and taxes linked to the production of an 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 on 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 from the production and income account for the United Kingdom and similar accounts for Northern Ireland, Scotland and Wales. The regional accounts for England are constructed by apportioning values for England over NUTS 1 regions on the basis of crop and livestock standard outputs (SOs), which are estimated by applying coefficients to crop areas and livestock numbers.

<u>Outputs</u>

In general, the allocation is based on crop areas and livestock numbers. Regional variation in yields and prices are catered for by using standard outputs that assume one "standard" output for each type of commodity across a wide region. England is split into three regions: north, east and west. By applying the standard output to the area of wheat, say, one obtains an estimate of the value added – these value added estimates are used to make the allocation. Subsidies on output products are also apportioned in this way.

Non-agricultural output is apportioned based on total standard output (totalled over all agricultural outputs). This approach is crude but justified because it is a relatively small item in the account. Services between agricultural units (contract work) are apportioned based on total standard output. Transfers of store animals between regions can be ignored. Firstly imported livestock are, by convention, treated as negative contributions to output and not as input costs, and so there is no impact at all on input costs. Secondly, by using estimates of

gross margins for each type of animal, each region is allocated a full value added for all of its livestock.

Intermediate consumption

Consumption of inputs relates only indirectly to areas of crops and numbers of livestock. Therefore, data underlying the standard output estimates is used along with crops areas and livestock numbers to apportion input costs. Underlying the estimates of each of the standard outputs are the costs of each key type of input that are required to produce each key type of output. For example, we have estimates of the costs of animal feed per dairy cow per year. Many of these estimates are based on results of special studies and not on regular data sources. The allocation for a particular input is therefore derived as the sum of input contributions - one contribution for each type of output. The contribution associated with an output is still based on the area or livestock count.

<u>Labour</u>

Regional labour statistics from the annual June Survey are used to apportion compensation of employees. It is assumed that pay rates are the same across all the regions. Differences in the levels of part time work are accounted for. The annual June Survey provides statistics on both full time and part time workers. Standard factors are used to convert the number of part time workers into a smaller number of full time equivalents. Similarly, the volume of unpaid labour is apportioned on the basis of regional labour statistics from the annual June Survey.

Interest, rent and other subsidies on production

Interest payments and taxes are allocated based on the total standard output (totalled over all types of output). Rent received and rent paid for land or land & buildings is allocated on areas rented and owned. Environmental subsidies are not based on administrative data but on crop areas and livestock numbers. As environmental subsidies grow, it will become necessary to find a proper data source for their allocation into the regions.

Correction

This edition corrects errors found in the release published on 28 September 2017.

Errors were identified in the value of the output value of milk, inseparable non-agricultural activities and gross fixed capital formation due to a methodological error when calculating England values. Subsequently the value of gross output, gross value added and total income from farming have been corrected for each region. These corrections affect data from 2010 to 2016 and are relatively minor with the principal dairy regions, North West and South West, showing the largest change of 5% and 2% respectively. Table 4.1 details the revisions made to the estimates of Total Income from farming for each region between September 2017 and October 2017.

Table 4.1 Revisions to Total Income from Farming values by region betweenSeptember 2017 and October 2017

			Yorkshire					
	North	North	& the	East	West		South	South
	East	West	Humber	Midlands	Midlands	East	East	West
	(1) (2)	(1) (2)	(1) (2)	(1) (2)	(1) (2)	(1) (2)	(1) (2)	(1) (2)
2010	132 132	168 176	452 448	409 405	304 307	651 639	274 272	432 442
2011	183 184	191 199	588 585	573 569	375 378	881 869	384 382	522 532
2012	173 173	177 186	588 585	563 559	359 362	887 875	363 361	501 511
2013	186 187	230 239	661 657	574 570	406 408	981 969	369 367	585 595
2014	168 167	255 263	616 613	539 535	401 404	943 931	354 352	607 617
2015	137 137	151 159	475 472	382 378	303 305	683 671	266 263	409 419
2016	121 121	124 133	432 429	320 316	275 277	647 634	213 211	328 339

(1) value as published on 28 September 2017

(2) value as published on 12 October 2017

Revisions

Over time, as more data becomes available, estimates will be revised and forecasts replaced, for example intermediate consumption and other costs data estimated for this publication are, in November's edition, replaced by Farm Business Survey data.

In addition, 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 <u>Scottish Government</u>, <u>Welsh Government</u> and <u>Department of Agriculture and Rural Development</u>, <u>Northern Ireland</u>.

New methodology for measuring agriculture's share of employment in the regions was introduced in September 2017. Previously agriculture's share of employment by region was estimated by comparing agriculture labour numbers from June Surveys, Censuses of Agriculture and total workforce numbers from the ONS Workforce Jobs (WFJ). When the figures were reviewed it was found the % share of employment was underestimated as Workforce Jobs measures the number of jobs rather than number of people employed and there will be many people doing more than one job. ONS Labour Force Survey (LFS) data measures the number of people in work and is, therefore, a more accurate indicator of agriculture's % share of employment when compared to June Survey data.

Revisions were introduced from 2000. Chart 4.1 compares England's agricultural share of employment estimates when calculated using Workforce Jobs and Labour Force Survey data from 2000 to 2016.

f million

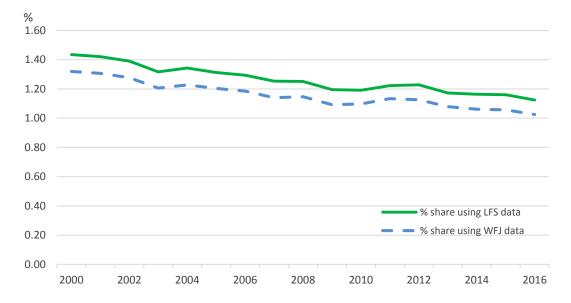


Chart 4.1: Difference between Workforce Jobs and Labour Force Survey data - England

Source: Defra, June Survey data, ONS Labour Force Survey, ONS Workforce Jobs

Further development work is planned, including a full methodology review. The aim is to improve the design and quality of the Agriculture in the English region statistics and publish results using revised methodology in June 2018.

Gross Value Added and Total Income from Farming are sensitive to small percentage changes in the values of output and intermediate consumption. As a result, there are small revisions to the percentage share agriculture contributed to the economy in England and the English regions. Updated historical figures are published in the dataset and can be found at https://www.gov.uk/government/publications/agriculture-in-the-english-regions.

Summary quality report

A summary quality report for Total Income from Farming at the UK level can be found at: <u>https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/aggregate-agricultural-accounts/</u> (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 £8.2 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 (<u>http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html</u>), 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.