



Department
for Environment
Food & Rural Affairs



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Farming Statistics

Final crop areas, yields, livestock populations and agricultural workforce At June 2016 - United Kingdom

This release contains the final estimates of land use, crop areas, livestock populations, the agricultural workforce on agricultural holdings in the UK and the size of the UK cereals and oilseed rape harvest for 2016. These results replace those provisional results published on 13 October 2016. The key results are given below.

This release was revised on 20 December 2016 to correct figures in Table 3a. Text and charts derived from these numbers have been revised. Full details of the revisions can be found on page 12.

Agricultural land areas ([Tables 1 - 2](#))

The total utilised agricultural area (UAA) in the UK has increased by 1.2% to 17.4 million hectares. The area of total crops has decreased by 0.2%, helping to slightly offset the 22% increase in uncropped arable land.

Crop yields and production ([Table 3](#))

Wheat: UK wheat yields decreased by 12%, falling from 9.0 tonnes per hectare in 2015 to 7.9 tonnes per hectare in 2016. 2014 and 2015 were exceptionally high yielding years for wheat and the 2016 figure is more in line with short term averages.

Barley: Yields fell by 11% from 6.7 tonnes per hectare in 2015 to 5.9 tonnes per hectare in 2016. The production estimate for 2016 is 6.7 million tonnes. Winter planted barley saw a minor decrease in area and as a result of yield reductions production estimates for winter planted barley are down 17% to 2.8 million tonnes. The spring planted barley area increased (3.6%) but the reduced yields meant that production has fallen 3.9% to 3.8 million tonnes.

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Oilseed rape: The oilseed rape harvest has shown a decrease of 30% to 1.8 million tonnes in 2016. This decrease in production has been a result of an 11% decrease in the planted area and a 21% decrease in total oilseed rape yield from 3.9 tonnes per hectare in 2015 to 3.1 tonnes per hectare in 2016.

Horticultural crops ([Tables 4 - 6](#))

In 2016 the total area of horticultural crops decreased by 7.0% to 162 thousand hectares. Vegetables and salad for human consumption make up the majority (70%) of this area and decreased by 8.4% to 113 thousand hectares in 2016.

Livestock ([Tables 7 - 11](#))

In 2016, the total number of cattle and calves increased by 1.1% to 10.0 million. The breeding herd increased by 0.6% to almost 3.5 million, largely due to the 1.2% increase seen in the beef herd.

Fattening pigs increased by 2.9% in 2016 and with the breeding herd also increasing by 1.8%, the total number of pigs rose by 2.7% to almost 4.9 million.

The UK population of sheep and lambs has increased by 1.8% in 2016, to 33.9 million animals, with both the breeding flock and the number of lambs increasing by 1.7% and 1.9% respectively.

Total poultry increased by 3.0% to 173 million birds in 2016. This increase was largely due to the 3.3% rise in broiler numbers (table chickens) to 111 million birds, which account for almost two thirds of the total.

Agricultural workforce ([Table 12](#))

The total number of people working on agricultural holdings in the UK in 2016 fell by 2.1% to 466 thousand.

Key country level changes

Figure 1 shows how the UK percentage change for certain items compares to the country level changes. The area of potatoes in the UK has increased by 7.8% in 2016 with increases seen in all countries.

Figure 1: Percentage changes between 2015 and 2016 by UK country

	UK % change	England % change	Scotland % change	N. Ireland % change	Wales % change
Wheat area	-0.5	-0.5%	0.0%	8.0%	-1.9%
Potatoes area	7.8	8.1%	6.8%	4.0%	10.3%
Pigs	2.7	2.2%	3.9%	5.5%	-8.3%
Sheep	1.8	0.9%	1.9%	1.7%	3.2%
Cattle	1.1	0.8%	-0.1%	3.5%	1.4%

Data uses, next publications and survey methodology ([pages 18 - 23](#))

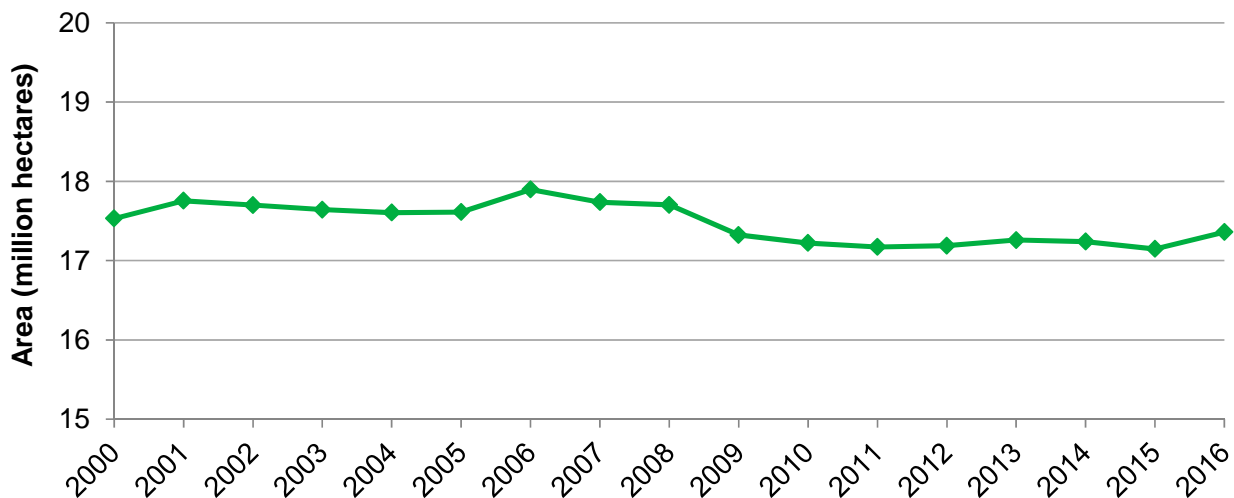
Information on how each of the UK countries runs their surveys can be found on pages 18 to 23 along with data uses and upcoming publication dates.

Detailed results

Utilised agricultural area

The utilised agricultural area is made up of all arable and horticultural crops, uncropped arable land, land used for outdoor pigs, temporary and permanent grassland and common rough grazing. In June 2016 the total utilised agricultural area in the UK was 17.4 million hectares, covering 71% of the UK land area. [Figure 2](#) shows that the total utilised agricultural area has remained between 17 and 18 million hectares since 2000.

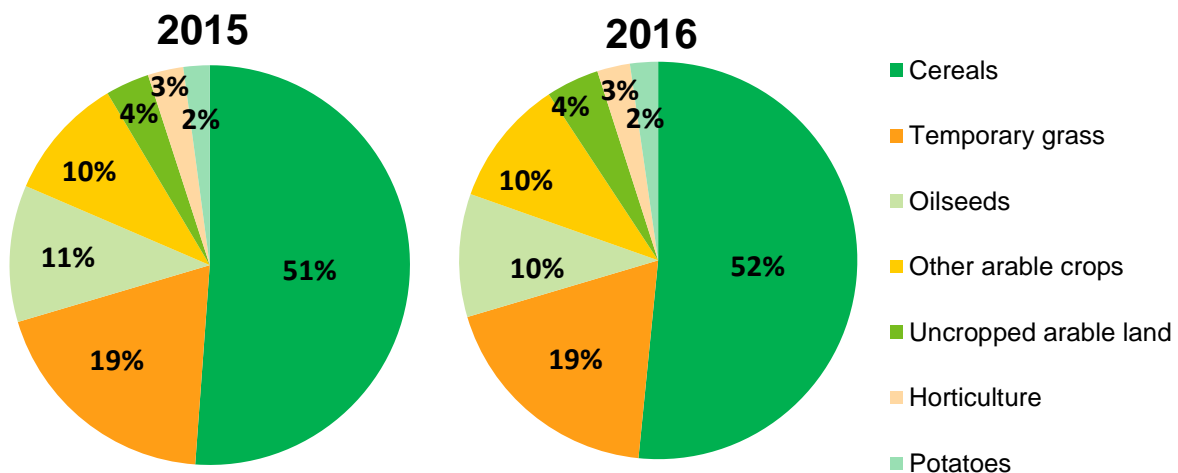
Figure 2: Total utilised agricultural area at 1 June 2000 to 2016



Croppable area

Croppable area consists of cereals, oilseed, potatoes, other arable crops, horticultural crops, uncropped arable land and temporary grass. In 2016, the croppable area remained almost unchanged at just under 6.1 million hectares. This represents over a third of the UK utilised agricultural area.

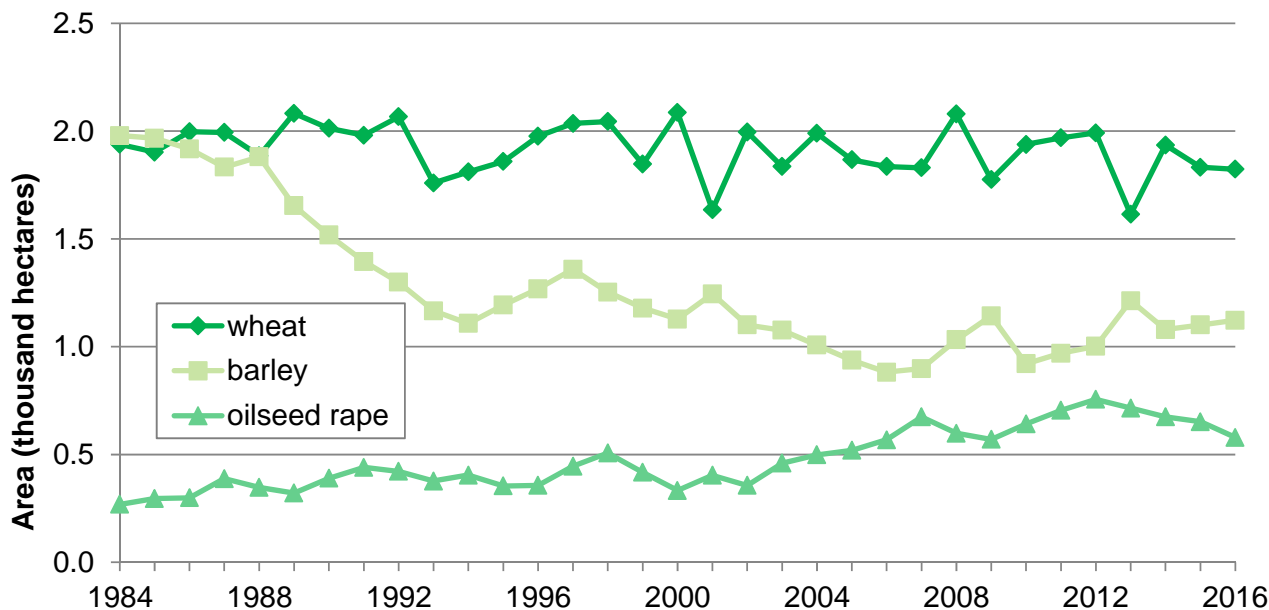
Figure 3: Breakdown of croppable area at 1 June 2016 compared to 2015



[Figure 3](#) shows that on the whole the proportion of croppable land used for each purpose remained similar between 2015 and 2016, however some categories did see large value changes ([Table 1](#)). The largest proportional change in area was uncropped arable land which increased by 22%. Cereals are the predominant crop type in the UK and continue to account for over half of the croppable area.

Cereals and oilseeds

Figure 4: Crop areas in the UK between 1984 and 2016

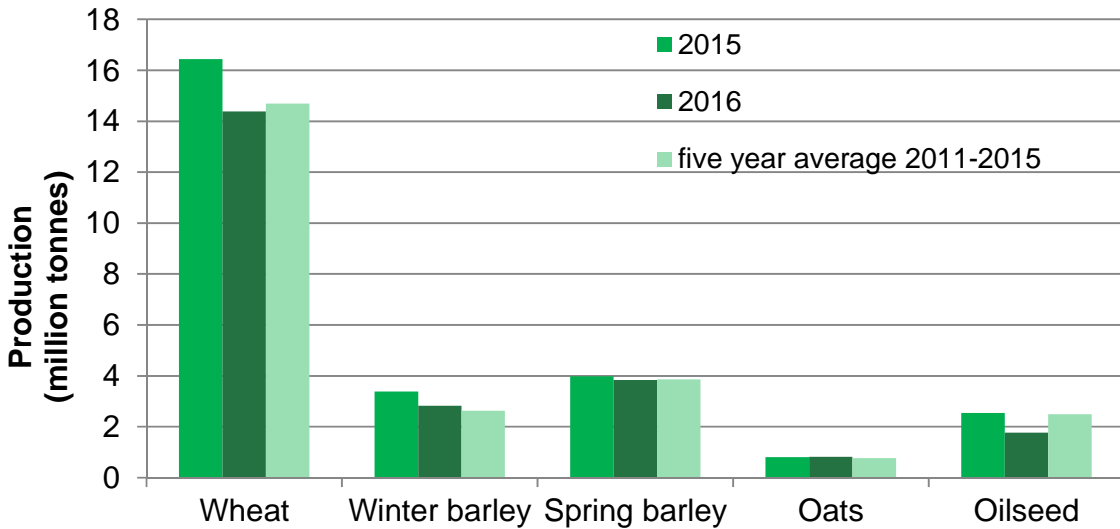


[Figure 4](#) shows the area of the three most popular crops grown in the UK; wheat, barley and oilseed rape. Since 1984 the wheat area has fluctuated between approximately 1.6 and 2.1 million hectares. The area of barley has declined considerably over the years. However, in 2016 barley increased by 2.0% to 1.1 million hectares. The oilseed rape area has increased from 269 to 579 thousand hectares between 1984 and 2016. However, the oilseed rape area has decreased for the last four years after reaching a record high in 2012.

As a whole, yields for all cereal crops are down from the peak of 2015. The overall yield for total cereals is showing a 12% decrease from 8.0 tonnes per hectare in 2015 to 7.0 tonnes per hectare in 2016. Heavy rains towards the end of the harvest in some regions resulted in problems with combining. However temperatures were above average in late August and early September.

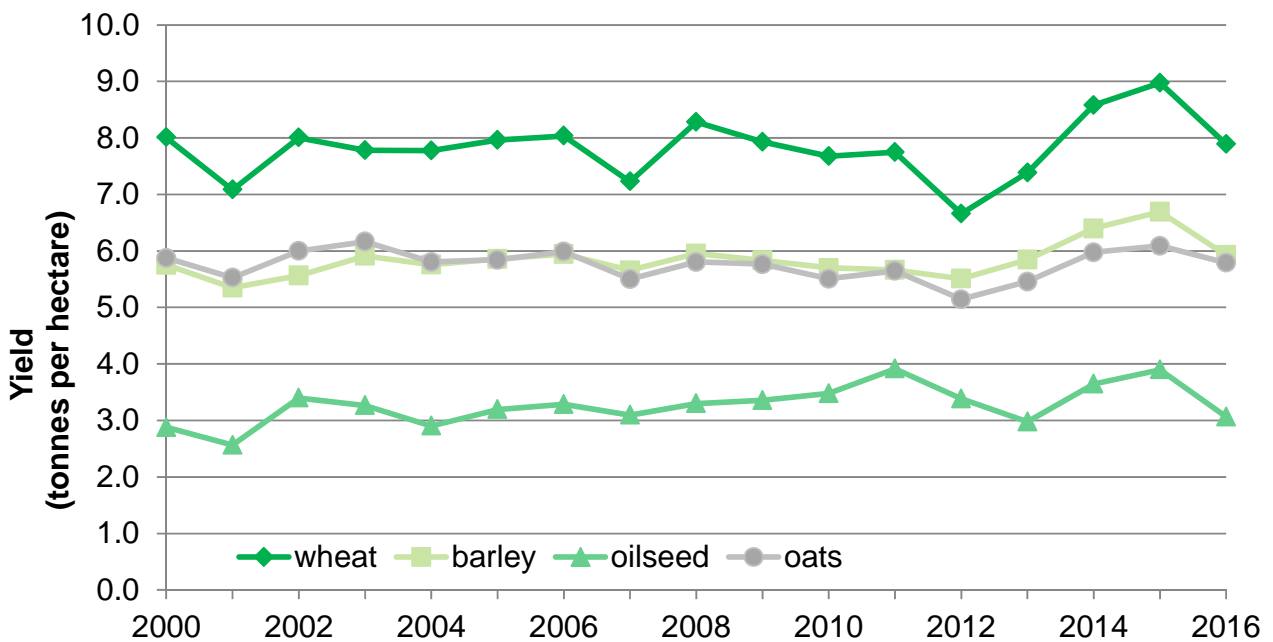
As a result of the decrease in yield, total cereal production has decreased by 11% to 22.0 million tonnes. This is despite the 1% increase seen in the total cereals area.

Figure 5: Crop production in the UK between 2015 and 2016 and 5 year average



As expected the yields for individual crops differ greatly (Figure 6). The UK wheat yield had been increasing in recent years and reached a peak in 2015 of 9.0 tonnes per hectare, the highest it has been in the past 25 years. The 2016 estimate is a wheat yield of 7.9 tonnes per hectare, a decrease of 12% but remaining in line with longer term average. The UK barley yield also peaked in 2015 at 6.7 tonnes per hectare and has decreased by 11% to an estimated 5.9 tonnes per hectare in 2016. Yields for oilseed rape show the largest proportional decrease down over a fifth (21%) on the 2015 high of 3.9 tonnes per hectare to now stand at an estimated 3.1 tonnes per hectare. There are many reports of poor crops due to weeds especially blackgrass, poor drainage and disease.

Figure 6: UK crop yields between 2000 and 2016



UK country and English regional figures are available in the cereal and oilseed dataset on our website at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

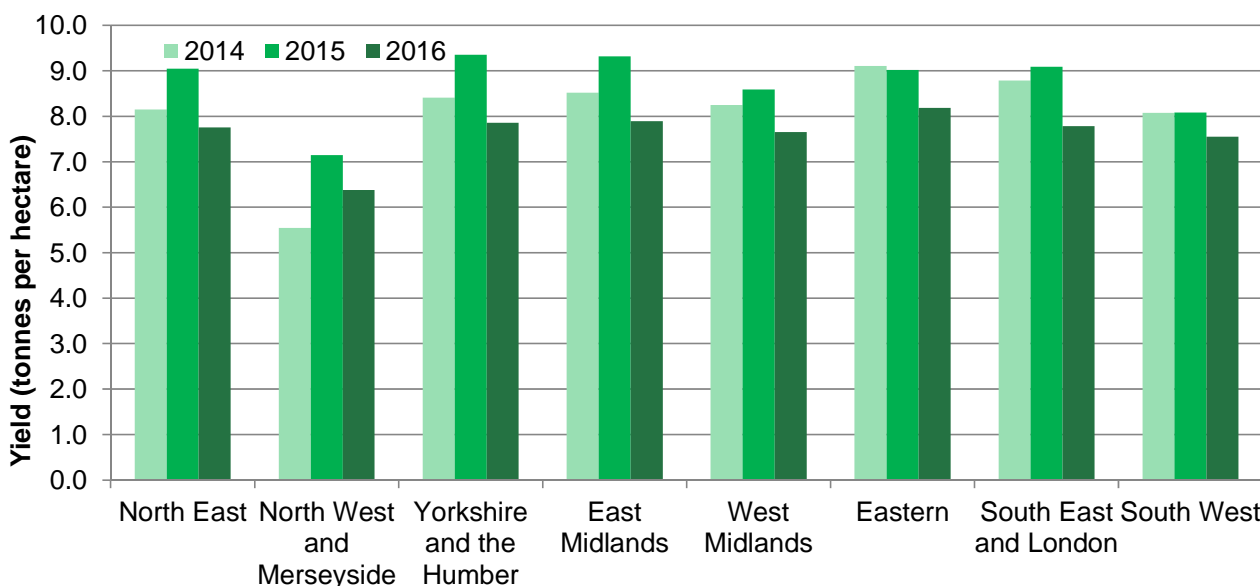
Wheat

The decreased wheat yield and a 0.5% fall in area resulted in a 13% decrease in production, which fell from 16.4 million tonnes in 2015 to 14.4 million tonnes in 2016. Although lower than in 2014 and 2015 the wheat harvest is in line with the 5 year average of 14.7 million tonnes.

The area of planted wheat in England which has been harvested as wholecrop for silage in 2016 is estimated at 23 thousand hectares, representing 1.4% of the total planted area. Compared with 2015, the estimated percentage of total planted area is relatively unchanged whilst the harvested as wholecrop area has decreased from 29 thousand hectares. These estimates are based on 103 positive responses to the 2016 Cereal & Oilseed Production survey where it was indicated that wheat was harvested as wholecrop for silage.

Figure 7 shows the variation of wheat yields across the English regions. There were reduced yields in all regions since the highs of 2015 and 2014. With the exception of the historically lower yielding region of North West all yields are within the range of 7.6 tonnes per hectare (South West) to 8.2 tonnes per hectare (Eastern).

Figure 7: Wheat yield by English region 2014 to 2016



Barley

Winter and spring barley both saw decreased levels of production in 2016. Despite a 3.6% increase in the planted area of spring barley, production decreased by 3.9%, due to a 7.2% drop in yield to 5.6 tonnes per hectare. Winter barley areas remained roughly unchanged at 439 thousand hectares but yields decreased 16% to 6.4 tonnes per hectare leading to a 17% drop in production. However 2015 was an exceptionally well performing harvest and the 2016 yield of 6.4 is in line with values seen from 2009 to 2013 with the exception of 2011.

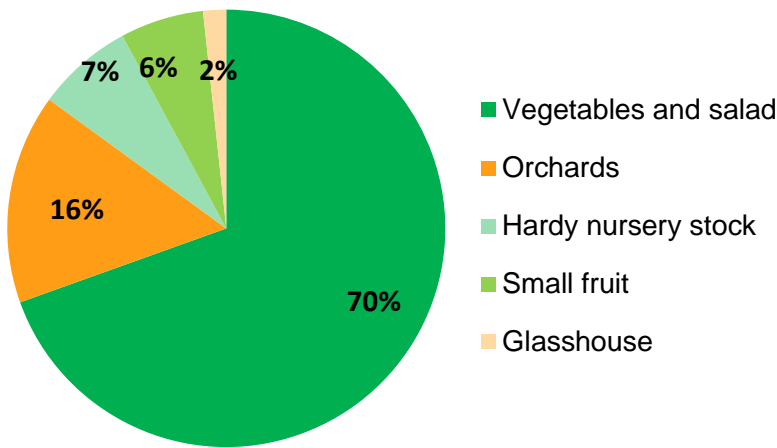
Oilseed rape

Yields of oilseed rape have fallen by 21% to 3.1 tonnes per hectare. Areas have also continued to decrease from a high of 756 thousand hectares in 2012 to now stand at 579 thousand hectares. As a result production has decreased by an estimated 30%.

Horticultural crops

The total area of horticultural crops saw a decrease of 7.0% between 2015 and 2016 and now stands at 162 thousand hectares.

Figure 8: Breakdown of total horticultural area at 1 June 2016



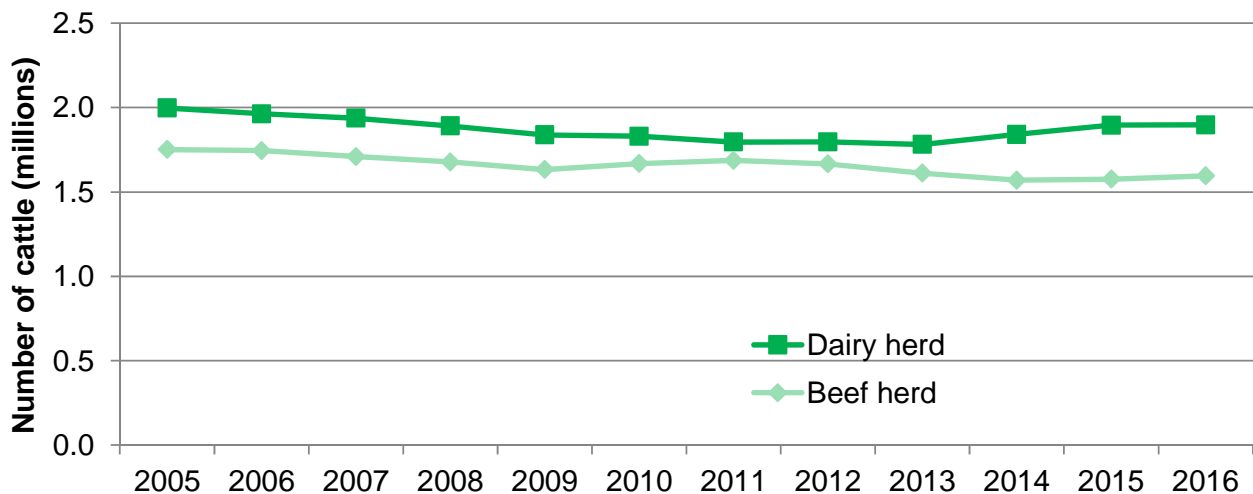
The area of vegetables and salad for human consumption in 2016 decreased by 8.4% compared to 2015. This accounts for 70% of the total horticultural area (see [Figure 8](#)). Orchards and small fruit together account for a further 22% of the horticultural area with hardy nursery stock and glasshouse accounting for the remaining 7% and 2% respectively.

Livestock results

Cattle

The total number of cattle and calves in the UK increased by 1.1% in 2016 to 10.0 million head. The breeding herd accounts for over a third of total cattle and increased by 0.6% to 3.5 million head in 2016. The beef herd rose for the second year running, increasing by 1.2%, whilst the dairy herd remained stable at 1.9 million (see [Figure 9](#)). The main dairy and beef herds are made up of female cattle aged 2 years or more that have calved.

Figure 9: Dairy and beef herd numbers at June 2005 to 2016



Pigs

The total number of pigs in the UK increased by 2.7%, from 4.7 million animals in 2015 to almost 4.9 million in 2016. The main reason for this was the 2.9% increase in fattening pigs, largely due to the 2.4% rise in the England figures which account for 80% of the UK fatteners. The female breeding herd showed an increase (1.8%) to 415 thousand animals.

Sheep

Sheep figures increased by 1.8% in 2016 to 33.9 million sheep and lambs in the UK, a combination of a 1.9% increase in the number of lambs and the female breeding flock rising by 1.7% to 16.3 million.

Poultry

The total number of poultry in the UK increased by 3.0% to almost 173 million birds in 2016 compared to 168 million in 2015. Laying and breeding fowl saw an increase of 2.6%, whilst table chickens increased by 3.3% to 111 million birds.

Other livestock

The number of goats and farmed deer in the UK increased between 2015 and 2016, rising by 2.9% and 1.0% respectively. The number of horses decreased by 5.2% and now stands at 268 thousand animals.

Agricultural workforce

The total labour force on agricultural holdings in the UK decreased by 2.1% to 466 thousand in 2016. Farmers, business partners, directors and spouses account for the majority (62%) of the total labour force and decreased by 1.3% to 290 thousand.

Comparisons to other EU countries

Data on livestock populations are collected each year under EU Regulation 1165/2008 (cattle, pigs and sheep) and 543/2009 (crops and land). Therefore, results can be compared across EU Member States. Data are available to search and download on the Eurostat website at http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/main_tables.

According to the data from 2015, the UK is the 6th largest cereal producer, the largest producer of sheep and the 3rd largest producer of cattle of the EU 28 Member States. [Figures 10 to 12](#) below show the comparison of these activities across all Member States.

Figure 10: Cereal areas in 2015 by EU Member State

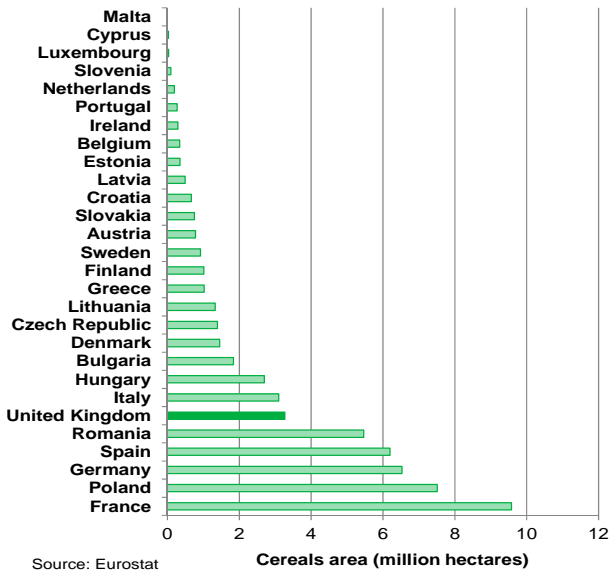
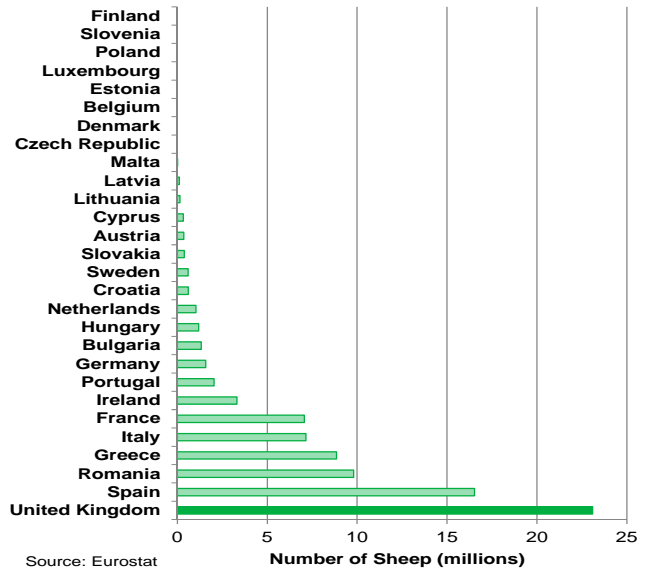
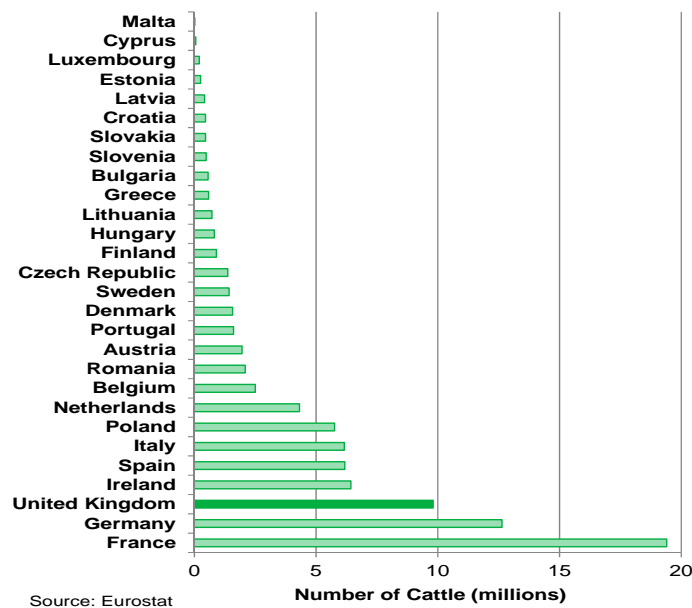


Figure 11: Number of sheep in 2015 by EU Member State



(data in figures 10 and 11 refer to December 2015, not June 2015)

Figure 12: Number of cattle in 2015 by EU Member State



Results Tables

Table 1: Summary of land use on agricultural holdings on 1 June

Thousand hectares

	2014	2015	2016	% change 2016-15
Utilised agricultural area ^(a)	17 240	17 147	17 360	1.2%
Total agricultural land (including common rough grazing)	18 456	18 428	18 662	1.3%
Common rough grazing	1 199	1 199	1 199	0.0%
Total area on agricultural holdings	17 257	17 229	17 463	1.4%
Total croppable area	6 278	6 059	6 073	0.2%
Total crops	4 722	4 679	4 667	-0.2%
Arable crops	4 559	4 505	4 505	0.0%
Cereals	3 179	3 100	3 132	1.0%
Oilseeds	691	670	608	-9.3%
Potatoes	141	129	139	7.8%
Other arable crops	548	606	627	3.5%
Horticultural crops	164	174	162	-7.0%
Uncropped arable land ^(b)	160	214	262	22.4%
Temporary grass under 5 years old	1 396	1 167	1 144	-2.0%
Permanent grassland (incl. rough grazing)	9 755	9 880	10 079	2.0%
Grass over 5 years old	5 824	6 078	6 118	0.6%
Sole right rough grazing ^(c)	3 930	3 801	3 961	4.2%
Other land on agricultural holdings	1 224	1 290	1 312	1.7%
Woodland	897	961	978	1.8%
Land used for outdoor pigs	8	9	10	12.5%
All other non-agricultural land	318	320	323	1.1%

(a) Includes all arable and horticultural crops, uncropped arable land, common rough grazing, temporary and permanent grassland and land used for outdoor pigs (excludes woodland and other non-agricultural land).

(b) Includes all arable land not in production, including GAEC12 land, game strips, wild bird cover and game cover.

(c) Classified as mountains, hills, heathland or moorland.

Table 2: Area of arable crops on agricultural holdings on 1 June

	Thousand hectares			
	2014	2015	2016	% change 2016-15
Total arable crops	4 559	4 505	4 505	0.0%
Cereals	3 179	3 100	3 132	1.0%
Wheat	1 936	1 832	1 823	-0.5%
Barley	1 080	1 101	1 122	2.0%
winter	429	442	439	-0.5%
spring	651	659	683	3.6%
Oats	137	131	141	7.5%
Minor cereals ^(a)	26	35	45	28.6%
Oilseed crops	691	670	608	-9.3%
Oilseed rape	675	652	579	-11.2%
winter	661	645	570	-11.7%
spring	14	7	9	36.6%
Linseed	15	15	27	81.6%
Borage	2	3	1	-54.1%
Potatoes	141	129	139	7.8%
Other (non-horticultural) crops	548	606	627	3.5%
Sugar beet (not for stock feeding)	116	90	86	-4.8%
Field beans	107	170	177	4.4%
Peas for harvesting dry	32	44	51	16.5%
Maize (incl. fodder and grain maize)	183	187	194	3.7%
Root crops, brassicas and fodder beet for stock feeding	39	41	44	6.8%
Other crops for stock feeding ^(b)	40	38	36	-4.6%
All other arable crops ^(c)	30	37	40	7.2%

(a) Minor cereals are a total of rye, mixed corn and triticale.

(b) Includes leguminous forage crops.

(c) Includes short rotation coppice, miscanthus and crops for aromatic or medicinal use.

Revision note: An error was noticed in the formula used to calculate the total barley production estimate. This affected the total barley yield and also impacted on the production and yield estimates for total cereals. Winter and spring barley estimates for yield and production were originally correct and all other figures remain unaffected.

Table 3a shows the revised yield and production figures for total barley and total cereals, along with all other cereal and oilseed rape estimates. Table 3b shows the original estimates for the affected crops as they were published on the 15 December 2016 prior to revision to allow the effect of the change to be seen.

Table 3a: Yield and production of cereals and oilseed rape on agricultural holdings ^(a)

	Yield (tonnes per hectare)			Production (thousand tonnes)		
	2015	2016	% change 2016-15	2015	2016	% change 2016-15
Total cereals ^{(b)(e)}	8.0	7.0^(e)	-12.0	24 734	21 964^(e)	-11.2
Wheat	9.0	7.9	-12.1	16 444	14 383	-12.5
Barley ^(e)	6.7	5.9 ^(e)	-11.4	7 370	6 655 ^(e)	-9.7
winter	7.7	6.4	-16.1	3 382	2 823	-16.5
spring	6.0	5.6	-7.2	3 988	3 832	-3.9
Oats	6.1	5.8	-4.9	799	816	2.2
Minor cereals ^(c)	3.5	2.6	-23.4	122	110	-9.4
Oilseed rape ^(d)	3.9	3.1	-21.4	2 542	1 775	-30.2

(a) England Regional results for the Defra cereal and oilseed rape production are available on our website at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

(b) All cereal production estimates have been standardised to 14.5% moisture content.

(c) Minor cereals are a total of rye, mixed corn and triticale. Mixed corn and triticale estimates of yields are not derived from survey returns in England. The proportionate change in English winter barley yield since 2015 is applied to the 2015 estimate of mixed corn yield. Correspondently the proportionate change in English wheat yield is applied to the 2015 estimate of triticale yield. The derived yields are applied to the areas of mixed corn and triticale that have been estimated from England June survey returns

(d) Oilseed rape production estimates have been standardised to 9% moisture content.

(e) 2016 figures were revised on 20 December 2016 due to calculation errors in the production and yield figures for total barley which also affected the total cereals estimates. All other estimates remain unchanged.

Table 3b: Total cereal and barley yields and production on agricultural holdings as published on 15 December 2016

	Yield (tonnes per hectare)			Production (thousand tonnes)		
	2015	2016	% change 2016-15	2015	2016	% change 2016-15
Total cereals ^(a)	8.0	7.1	-11.5	24 734	22 098	-10.7
Barley	6.7	6.0	-9.6	7 370	6 789	-7.9

(a) All cereal production estimates have been standardised to 14.5% moisture content.

Table 4: Area of fruit and vegetables grown in the open on agricultural holdings on 1 June

	Thousand hectares			
	2014	2015	2016	% change 2016-15
Total fruit and vegetables	149	159	148	-7.0%
Orchards ^(a)	23.4	25.9	25.1	-2.9%
Small fruit ^{(b)(c)}	9.4	10.0	10.0	0.4%
Strawberries	3.1	3.3	3.4	0.4%
Other small fruit (incl. gooseberries and blackberries)	6.2	6.6	6.6	0.4%
Vegetables and salad for human consumption ^{(b)(d)}	116	123	113	-8.4%
Peas and beans	38	40	37	-6.8%
All other vegetables and salad	78	83	75	-9.2%

(a) Includes both commercial and non-commercial. Commercial orchards are those from which growers intend to sell fruit.

(b) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

(c) Small fruit includes crops grown in Spanish tunnels.

(d) These figures relate to land usage on 1 June and are not necessarily good indicators of annual production as more than one crop may be obtained in each season, a crop may overlap two seasons, or may be planted after 1 June.

Table 5: Area of hardy nursery stock on agricultural holdings on 1 June

	Thousand hectares			
	2014	2015	2016	% change 2016-15
Total hardy nursery stock, bulbs and flowers ^(a)	12.0	12.7	11.5	-9.6%
Hardy nursery stock	5.8	5.5	5.3	-3.6%
Bulbs and flowers grown in the open	5.9	6.8	5.8	-15.7%

(a) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

Table 6: Area of glasshouses and protected crops on agricultural holdings on 1 June ^{(a)(b)}

	Hectares			
	2014	2015	2016	% change 2016-15
Total glasshouse area on 1 June ^(c)	2 594	2 667	2 748	3.1%
Vegetables, salad and fruit	1 869	1 930	2 055	6.5%
Flowers, foliage and other plants	568	529	522	-1.2%
Not in use on 1 June	127	179	141	-21.1%

(a) These figures relate to land usage on 1 June and are not necessarily good indicators of annual production as more than one crop may be obtained in each season, a crop may overlap two seasons, or may be planted after 1 June.

(b) 'Glasshouse' includes any fixed or mobile structure high enough to walk through, which is glazed or clad with film, rigid plastics or other glass substitutes. It excludes lights, low plastic tunnels, French and Spanish tunnels. These are reported as crops grown in the open (table 4).

(c) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

Table 7: Cattle and calves on agricultural holdings on 1 June ^{(a) (b)}

	Thousands			
	2014	2015	2016	% change 2016-15
Total cattle and calves	9 837	9 919	10 033	1.1%
All female cattle	7 100	7 188	7 250	0.9%
Aged 2 years or more	4 228	4 238	4 204	-0.8%
Total breeding herd	3 411	3 472	3 493	0.6%
- Beef herd	1 569	1 576	1 596	1.2%
- Dairy herd	1 841	1 895	1 897	0.1%
Other female cattle	817	767	712	-7.2%
- Beef	409	381	365	-4.0%
- Dairy	408	386	346	-10.3%
Aged between 1 and 2 years	1 373	1 379	1 442	4.6%
- Beef	834	834	872	4.6%
- Dairy	539	545	570	4.6%
Less than 1 year	1 499	1 570	1 603	2.1%
- Beef	936	980	1 015	3.6%
- Dairy	563	590	588	-0.4%
All male cattle	2 737	2 730	2 783	1.9%
Aged 2 years or more	424	388	364	-6.0%
Aged between 1 and 2 years	1 011	1 001	1 032	3.1%
Less than 1 year	1 302	1 342	1 386	3.3%

(a) These figures have been sourced from the Cattle Tracing System (CTS) in England, Wales and Scotland and the equivalent APHIS system in Northern Ireland.

(b) In 2013 Scotland changed the source of cattle figures from survey data to the Cattle Tracing System and has since revised results back to 2006. More information about these changes can be found in the Scottish June release here:

<http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Fisheries/PubFinalResultsJuneCensus>

Table 8: Pigs on agricultural holdings on 1 June

	Thousands			
	2014	2015	2016	% change 2016-15
Total pigs	4 815	4 739	4 866	2.7%
Breeding pigs	501	507	509	0.4%
Female breeding herd	406	408	415	1.8%
Sows in pig	282	285	295	3.2%
Gilts in pig	57	56	55	-1.1%
Other sows ^(a)	67	66	65	-1.9%
Other breeding pigs	95	100	94	-5.5%
Boars being used for service	14	15	15	-0.3%
Gilts intended for first time breeding	80	85	79	-6.4%
Fattening pigs (incl. barren sows)	4 315	4 232	4 356	2.9%

(a) Either being suckled or dry sows being kept for further breeding.

Table 9: Sheep and lambs on agricultural holdings on 1 June

	Thousands			
	2014	2015	2016	% change 2016-15
Total sheep and lambs	33 743	33 337	33 943	1.8%
Female breeding flock	16 026	16 024	16 304	1.7%
Ewes intended for further breeding or for slaughter	13 515	13 278	13 460	1.4%
Ewes intended for first time breeding	2 511	2 746	2 844	3.6%
Other sheep and lambs	17 717	17 313	17 639	1.9%
Lambs under 1 year old	16 936	16 528	16 840	1.9%
Rams	417	408	409	0.3%
Other sheep 1 year and over	364	377	389	3.1%

Table 10: Poultry on agricultural holdings on 1 June ^(a)

	Thousands			
	2014	2015	2016	% change 2016-15
Total poultry	169 684	167 579	172 607	3.0%
Total breeding and laying fowl	48 404	49 509	50 798	2.6%
Hens and pullets laying eggs for eating	37 146	36 998	38 058	2.9%
Breeding flock	11 258	12 511	12 740	1.8%
Table chickens (broilers)	110 374	107 056	110 639	3.3%
Other poultry	10 907	11 014	11 170	1.4%
Ducks	1 998	2 237	1 993	-10.9%
Geese	103	143	152	6.5%
Turkeys	3 772	4 322	4 228	-2.2%
All other poultry	5 033	4 312	4 798	11.3%

(a) Due to production cycles, subgroups within the poultry population are often volatile as the 'point in time' nature of the June Survey can lead to large variations in the numbers in each category.

Table 11: All other livestock on agricultural holdings on 1 June

	Thousands			
	2014	2015	2016	% change 2016-15
Total other livestock	453	437	426	-2.4%
Goats	100	101	104	2.9%
Farmed deer	32	31	31	1.0%
Horses	303	283	268	-5.2%
Any livestock not recorded elsewhere ^(a)	18	22	24	4.9%
- of which alpacas	9	12	12	-1.0%
- of which llamas	2	2	2	-20.0%

(a) Includes camelids, donkeys and mules.

Table 12: Number of people working on agricultural holdings on 1 June

	Number of people (thousands)			
	2014	2015	2016	% change 2016-15
Total number of people working on agricultural holdings	476	476	466	-2.1%
Farmers, partners, directors and spouses	294	294	290	-1.3%
Full time	140	142	139	-2.0%
Part time ^(a)	155	152	151	-0.6%
Regular employees, salaried managers and casual workers	181	183	176	-3.5%
Regular employees ^{(a)(b)}	115	115	na	
- Full time	72	73	na	
- Part time ^(c)	43	43	na	
Casual workers ^(b)	66	67	na	

(a) Not all UK countries collect separate estimates for salaried managers. These figures are included with regular employees.

(b) Wales no longer provide a breakdown for these categories, for more information please see their publication: <http://gov.wales/statistics-and-research/survey-agricultural-horticulture/?lang=en>

Links to the breakdowns for the other countries can be found in the methodology section of this publication (pages 20-21).

(c) Part time is defined as working less than 39 hours per week.

Data uses and users

Land

- Data on crop areas (both arable and horticultural) help us monitor the long term trends in cropping.
- The data allows us to assess how land areas vary across the UK and in different geographic areas (such as the Uplands, National Parks, and River Basin Districts).
- The cereals and oilseed rape harvest estimates are heavily used by the cereals industry to monitor the availability of grain throughout the year.
- Any changes in the agricultural sector also affect people. For many, it is their livelihood and a way of life.

Livestock

- Data from the June Survey help us monitor changes in livestock populations over time and the effects of e.g. CAP reform on the industry.
- The numbers are also used to make forecasts of meat and milk production to inform industry of the availability of supply which affects prices.
- Livestock distributions across the UK help assess the risk of animal disease and to control outbreaks.
- The data are also used heavily in calculations of the greenhouse gas and ammonia emissions inventories.

Results from the England June Survey of Agriculture and Horticulture also have a wide range of uses and users with requests for data being made on a daily basis. A document providing information of specific uses and users can be found via the following link:

<https://www.gov.uk/government/statistical-data-sets/structure-of-the-agricultural-industry-in-england-and-the-uk-at-june>.

Other survey results and publications

Results from all the Defra farming surveys can be viewed on the Defra website via the following link: https://www.gov.uk/government/publications?publication_filter_option=statistics. This also contains details of future publication dates.

The next Farming Statistics publications due from the June Survey of Agriculture and the Cereal and Oilseed Rape Production Survey are shown below. Please note that the publication dates are provisional and subject to change.

England Publications

- August 2017: Farming Statistics provisional arable crop areas at 1 June 2017 – England.
- September 2017: Farming Statistics final crop areas and cattle, sheep and pig populations at 1 June 2017 – England.
- October 2017: Farming Statistics final land use, livestock populations and agricultural workforce at 1 June 2017 – England.

UK Publications

- October 2017: Farming Statistics provisional crop areas, yields, livestock populations at 1 June 2017 – United Kingdom.
- December 2017: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2017 – United Kingdom.

More detailed results from the June Survey can be found at:

<https://www.gov.uk/government/statistical-data-sets/structure-of-the-agricultural-industry-in-england-and-the-uk-at-june>. This includes various time series of crop areas and livestock numbers dating back as early as 1866 and detailed geographical breakdowns of the results.

Methodology: June Survey of Agriculture and Horticulture

Data on crop areas and livestock populations are collected in the June Survey of Agriculture and Horticulture carried out by each of the UK agriculture departments. The methodology adopted by each country is below.

England

England results are the final results from the June Survey of Agriculture and Horticulture in 2016. The June Survey of Agriculture and Horticulture was historically a postal survey run annually. However from 2011 onwards, the survey has been run predominantly online with an option for farmers to complete a paper form if they preferred.

Approximately 55 thousand ‘commercial’ holdings were asked to complete the survey in 2016. Commercial holdings are defined as those with significant levels of farming activity, i.e. holdings with any one of the following: more than five hectares of agricultural land, or one hectare of orchards, or 0.5 hectares of vegetables or 0.1 hectares of protected crops, or more than 10 cows, 50 pigs, 20 sheep, 20 goats or 1,000 poultry.

Checks were carried out to ensure the sample was representative across farm size. The size of a farm is determined by its Standard Labour Requirement (SLR). In the SLR system, each livestock type and land-use has a theoretical amount of labour required each year. This value is multiplied by the land area or livestock numbers and then summed to give the SLR for the holding. The SLR represents the typical number of full time workers required on the holding.

Table 13: June 2016 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	26	45 803
2	SLR >= 0.5 and < 1	58	16 796
3	SLR >= 1 and < 2	68	15 277
4	SLR >= 2 and < 3	73	8 527
5	SLR >= 3 and < 5	88	7 534
6	SLR >= 5	87	7 661
10	SLR unknown	47	6 366
All		51	107 964

The small farms (those with low SLRs) were sampled at a lower rate and the sampling rate increased with farm size as in table 13 above. This method minimises the burden on farmers whilst maximising the coverage. To improve the coverage of the pig and poultry sectors, a special data collection exercise was run to collect data from a central point for some of the largest companies.

The results in this statistical release are based on responses from just over 28 thousand commercial holdings, representing a response rate of 51%.

The data are subject to rigorous validation checks which identify inconsistencies within the data or large year-on-year changes. Any records that have not been cleaned by the results production stage are excluded from the analysis.

Population totals are estimated for each question on the survey to account for the non-sampled and non-responding holdings. This survey uses the technique known as ratio raising, in which the trend between the sample data and base data (previous year's data) is calculated for each stratum. The calculated ratio is then applied to the previous year's population data to give England level estimates. For holdings where we do not have base data (new holdings or long-term non-responders) the sample estimates are raised according to the inverse sampling fraction.

Cattle results are sourced from the Cattle Tracing System (CTS). The data include returns from all holdings with cattle so are not subject to survey error. More information on the use of this administrative data can be found on the "survey notes and guidance" web page via the following link:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182225/defra-stats-foodfarm-landuselivestock-june-results-BovineRegisters.pdf

Final crop areas and cattle, sheep and pig populations from the England 2016 June Survey were published on 15 September 2016 and can be viewed on our website via the following link:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

More details on the June Survey methodology can be found at:

<https://www.gov.uk/structure-of-the-agricultural-industry-survey-notes-and-guidance>.

Scotland

Data collection

The June Agricultural Census is conducted annually by the Scottish Government's Rural and Environmental Science Analytical Services division (RESAS). Data are requested from all holdings who submitted a Single Application Form (SAF) in the previous year, together with some other large businesses that would not be eligible for support payments. A sample of holdings which didn't submit a SAF or who didn't return a form last year were also sent a census form.

Data for the June census is collected from three sources:

Land data were extracted from the Single Application Form (SAF) database for around 23,700 holdings that are claiming under the Basic Payment Scheme (BPS). Holdings that submitted a

SAF in 2015 were also sent a cut-down census form (23,400 forms) to collect the additional data on livestock and labour. See section 4.7 for more details on the use of SAF data.

From the remaining holdings that did not complete a SAF in 2015, 8,200 (potentially including holdings that submitted a SAF for the first time in 2016) were sent a full census form covering land, livestock and labour.

All cattle data (including data on cattle breeds) were collected from the Cattle Tracing Scheme administrative source. This means that we effectively have 100 per cent coverage, even for those smaller holdings that were not selected for inclusion in the census.

[Table 14](#) gives a breakdown for forms returned for each category of holding. Land-use data was received for holdings covering 90 per cent of the total agricultural area, either from returned full census forms or the SAF (shaded grey).

Cattle data was received for 100 per cent of holdings with cattle, from the CTS.

Other data was received for holdings covering 67 per cent of the total agricultural area, from returned census forms (the final column in the table).

Table 14: Number of returned forms

Census type ⁽¹⁾	Total number	Number selected ⁽²⁾	Number of returns ⁽³⁾	Total area	Area of selected ⁽²⁾	Area of returns ⁽³⁾
SAF	23,683	23,027	16,567	4,900,309	4,853,166	3,492,922
full form		509	290		90,839	60,138
part form		22,518	16,277		4,762,327	3,432,784
Non-SAF	28,213	8,533	4,407	751,843	494,870	297,117
full form		7,631	3,910		386,739	224,492
part form		916	523		108,131	72,658
Total	51,896	31,574	20,975	5,652,152	5,348,036	3,790,039

(1) "SAF" refers to holdings where land-use data is available from the Single Application Form 2016 dataset. "Non-SAF" refers to holdings where land-use data is only available through the June Agricultural Census form (if at all).

"full form" refers to the long version of the census form covering land use, livestock (except cattle), and labour, designed for those not completing the SAF.

"part form" refers to the short version of the census form covering livestock (except cattle), and labour, designed for those known to be completing the SAF.

(2) The numbers selected are slightly lower than the total number eventually identified due to annual changes in the list of holdings.

(3) The return numbers quoted here relate to the number of survey forms received. For SAF holdings this masks the fact that we effectively receive 100 per cent response for all land items. Cattle data, from the CTS database, is also effectively 100 per cent complete. Response rates based on these figures therefore relate to other livestock and employment data.

Final results for Scotland were published on 25th October 2016 by the Scottish Government Rural and Environment Science and Analytical Services (RESAS) division and are available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Isneries/PubFinalResultsJuneCensus>.

Contact details - Saughton House (Q Spur), Broomhouse Drive, Edinburgh, EH11 3XD (telephone: 0300 244 9707, email: agric.stats@scotland.gsi.gov.uk).

Wales

The Welsh population currently stands at around 35,000 holdings. In 2016 a total of 18,800 survey forms were sent out. Final results were based on a response rate of 57%. Final results for Wales were published by the Welsh Government on 24 November 2016 at: www.wales.gov.uk/statistics

For further details contact Agricultural & Rural Affairs Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: Cardiff (02920) 825082). E-mail: stats.agric@wales.gsi.gov.uk

Northern Ireland

In 2016 the Northern Ireland Agricultural and Horticultural Survey was conducted as a sample survey. A total of 20,150 forms were issued with results based on 13,900 returned forms. Data for the cattle section is a complete census as it is extracted from the APHIS cattle tracing database. Data for the pig and poultry sections are also complete censuses extracted from the NI Annual Inventory of Pigs and Update of NI Bird Register respectively. Final results were published on 24 November 2016 by the Department of Agriculture, Environment and Rural Affairs for Northern Ireland, Dundonald House, Belfast, BT4 3SB (telephone: Belfast (02890) 525450) and are available on the internet at: www.daera-ni.gov.uk/topics/statistics/statistical-bulletins

Methodology: Cereal and Oilseed Rape Production Survey

England

Results are based on final results from the Cereal and Oilseed Rape Production Survey, a representative sample of cereal and oilseed rape growers across English regions and farm sizes. These final results are based on responses from 2,651 farms (76% response rate) across the country (see [table 15](#)).

Table 15: Response rate for Cereal and Oilseed Rape Production Survey 2016 by region

English region	Number sampled	Number of responses	Response rate (%)
North East	171	125	73
North West and Merseyside	246	180	73
Yorkshire and the Humber	522	388	74
East Midlands	462	357	77
West Midlands	245	182	74
Eastern	885	674	76
South East and London	388	301	78
South West	581	444	76
Total	3500	2651	76

The Cereal and Oilseed Rape Production Survey gathers data on production tonnages and moisture content for the various cereal and oilseed rape crops and seeks confirmation of the planted areas for these crops gathered from the June Survey of Agriculture and Horticulture. All moisture contents are standardised to ensure production estimates are comparable.

Cereal production estimates are standardised to 14.5% moisture content and oilseed rape to 9% moisture content, with production tonnages being adjusted accordingly. These data are then used to calculate regional yield estimates for each crop type. Yield estimates are applied to regional June crop areas to derive England production estimates for each of the cereal and oilseed rape crops.

The cereal production (tonnage) figures include tail corn, grain to be crimped and cereals intended for seed production. The figures exclude carry over stocks from the 2015 harvest, and bought in grain. Crops which have become unfit for harvesting are included in the averages as are wholecrop areas.

Wales

No yield data were collected for Wales. The Welsh production figures have been estimated on a regional basis within Wales using the final results of the June 2016 Survey along with the yields for the English regions bordering Wales.

Scotland

The 2016 estimates of production are derived from the Scottish Government's cereal production and disposal survey, which this year included responses from 342 Scottish cereal growers (a response rate of 54%). More information about Scottish cereal production figures can be found at:

<http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubCerealHarvest>

Northern Ireland

Areas are based on final estimates from the 2016 June Survey of Agriculture and Horticulture. The estimates for cereal yields are taken from a post-harvest survey of 235 growers. Farms are selected from the census population using a stratified random method. DAERA Farm account officers complete a cereal survey questionnaire with each farm selected. The information is collated with mean yields calculated for each cereal type. Cereal yields are then combined with the respective cereal areas from the latest census to derive production figures.