Department for Environment Food & Rural Affairs

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Farming Statistics
Final crop areas, yields, livestock populations and agricultural workforce At June 2017 - United Kingdom

This release contains the final estimates for 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 2017. These results replace those provisional results published on 12 October 2017.

The key results are given below.

Agricultural land and arable crop areas (Tables 1 - 2)

The total utilised agricultural area (UAA) in the UK has increased by 0.7% to almost 17.5 million hectares. The area of total crops has increased by 1.7%, helping to offset the 7.8% decrease in uncropped arable land.

Crop yields and production (Tables 3 - 4)

Wheat: UK wheat yields increased by 5%, rising from 7.9 tonnes per hectare in 2016 to 8.3 tonnes per hectare in 2017. This helped to offset the reduction in area planted, and resulted in an increase in UK provisional wheat production of 3.2% to 14.8 million tonnes.

Barley: The UK barley yield also increased, rising by 2.7% from 5.9 tonnes per hectare in 2016 to 6.1 tonnes per hectare in 2017. The total barley production for 2017 is 7.2 million tonnes. Winter planted barley saw a 3.8% decrease in area, however strong yields resulted in production for winter planted barley rising 4.4% to 2.9 million tonnes. The spring planted barley area increased by 10%, and combined with a small decrease in yield this meant that production grew 10% to 4.2 million tonnes.

Oats: Areas of oats had the largest proportional increase of the major cereal crops rising by 14% to 161 thousand hectares. The yield decreased by 6.2%, resulting in a production increase of 7.2% to 0.9 million tonnes in 2017.

Oilseed rape: The oilseed rape harvest has shown an increase of 22.1% to 2.2 million tonnes in 2017. There was a fall of 2.9% in the planted area, however the total oilseed rape yield increased by 26%, from 3.1 tonnes per hectare in 2016 to 3.9 tonnes per hectare in 2017. This is a return to similar yields seen in 2015.

Enquiries on this publication to Sarah Thompson (crop areas and livestock numbers) or Amanda Lyons (cereal and oilseed production and yields), Farming Statistics, Department for Environment, Food and Rural Affairs. Tel: 03000 600170, email: farming-statistics@defra.gsi.gov.uk.

Horticultural crops (Tables 5 - 7)

In 2017 the total area of horticultural crops increased by 3.5% to 168 thousand hectares. Vegetables and salad for human consumption make up the majority (70%) of this area and increased by 4.0% to 117 thousand hectares in 2017.

Livestock (Tables 8 - 12)

The total number of cattle and calves in the UK is 10 million in 2017. The female breeding herd accounts for over a third of the total cattle and stands at almost 3.5 million head in 2017.

Fattening pigs increased by 2.3% in 2017 and along with a small increase of 0.4% in the female breeding herd, the total number of pigs rose by 2.1% to almost 5.0 million.

In 2017, the number of lambs in the UK increased by 3.0% to 17.3 million and the female breeding flock increased by 2.2%. This led to a total UK sheep and lamb population of 34.8 million.

Total Poultry increased by 5.3% to almost 182 million birds in 2017. This increase was largely due to the 6.3% rise in broiler numbers (table chickens) to 118 million birds, which account for almost two thirds of the total.

Agricultural workforce (Table 13)

The total number of people working on agricultural holdings in the UK in 2017 rose by 1.7% to 474 thousand.

Key country level changes

Figure 1 shows how the UK percentage change for certain items compares to the country level changes. The decrease seen in the wheat area in England has driven the overall UK level change. This is due to the largest proportion of this crop (92%) being grown in England.

Figure 1: Percentage changes between 2016 and 2017 by UK country

	UK % change	England % change	Scotland % change	N. Ireland % change	Wales % change
Wheat area	-1.7	-1.9	-0.1	1.3	0.3
Potatoes area	4.6	3.9	6.4	8.4	6.9
Pigs	2.1	1.5	-1.3	8.0	5.6
Sheep	2.6	3.1	2.3	1.5	2.3
Cattle	-0.3	-0.2	-1.2	0.1	0.3

Data uses, next publications and survey methodology (pages 19 - 24)

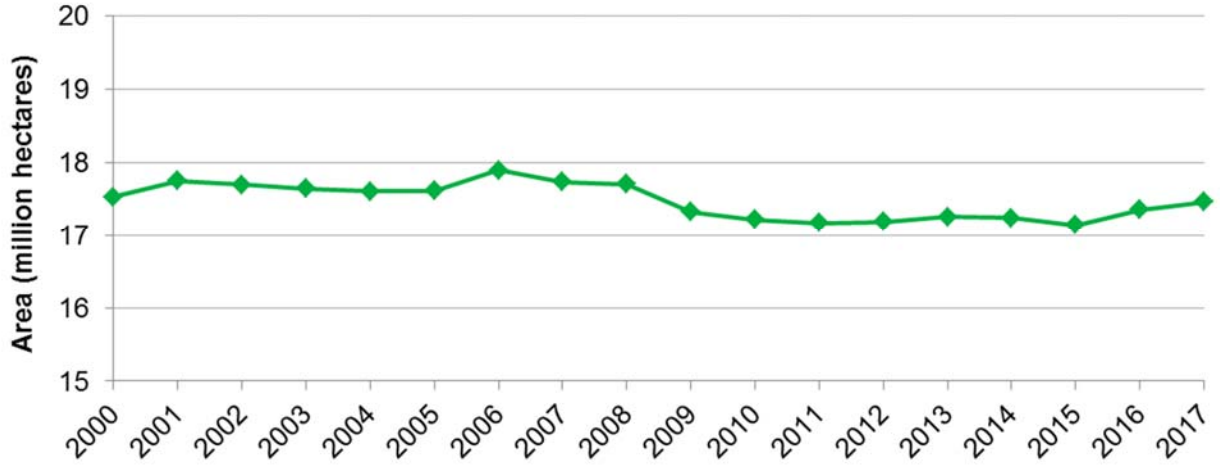
Information on how each of the UK countries run their surveys can be found on pages 19 to 24 along with data uses and upcoming publication dates.

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 2017 the total utilised agricultural area in the UK was almost 17.5 million hectares, covering 72% 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 2017

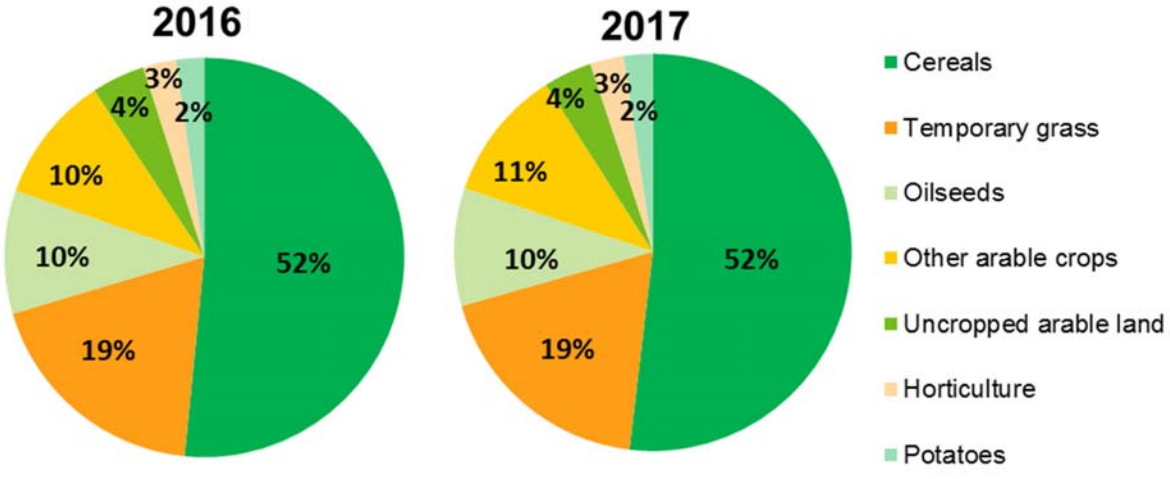


Croppable area

Croppable area consists of cereals, oilseed, potatoes, other arable crops, horticultural crops, uncropped arable land and temporary grass. In 2017, the croppable area rose by 1.0% to 6.1 million hectares. This represents over a third of the UK utilised agricultural area.

Figure 3 shows that on the whole the proportion of croppable land used for each purpose remained similar between 2016 and 2017, however some categories did see large value changes (Table 1). The largest proportional change in area was uncropped arable land which decreased by 7.8%. Other arable crops saw the largest increase of 5.5%.

Figure 3: Breakdown of croppable area at 1 June 2017 compared to 2016



Cereals and oilseeds

Figure 4: Crop areas in the UK between 1984 and 2017

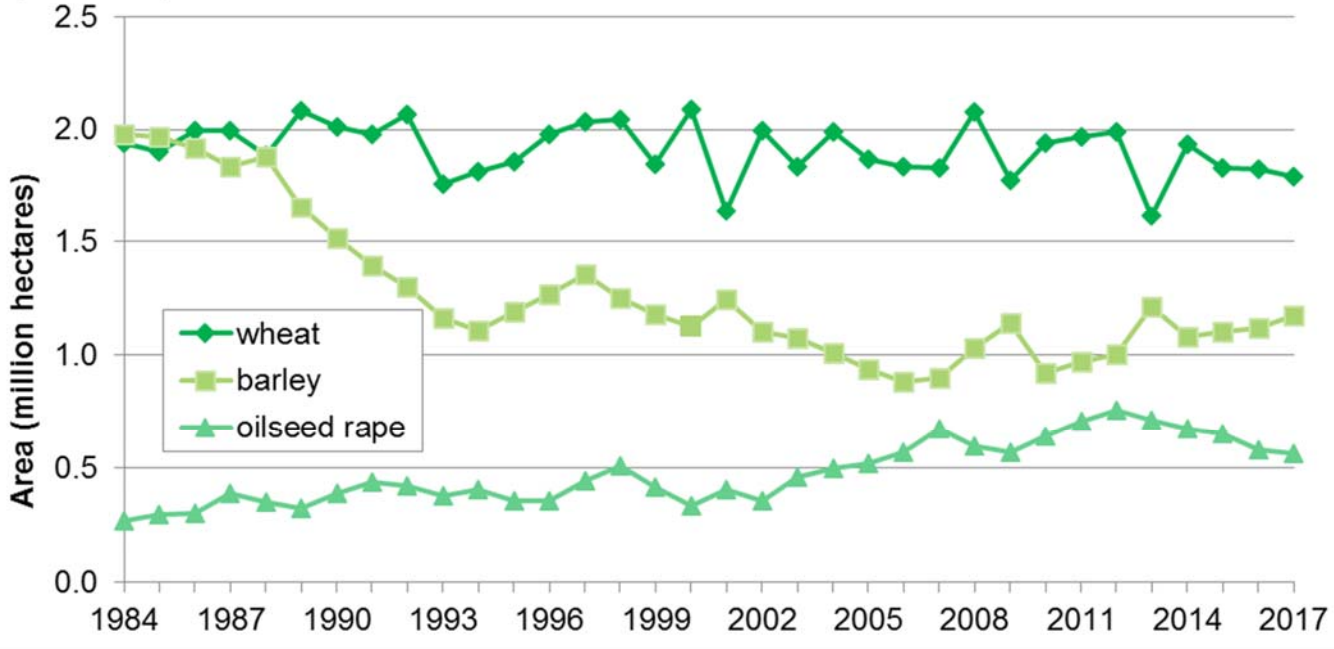
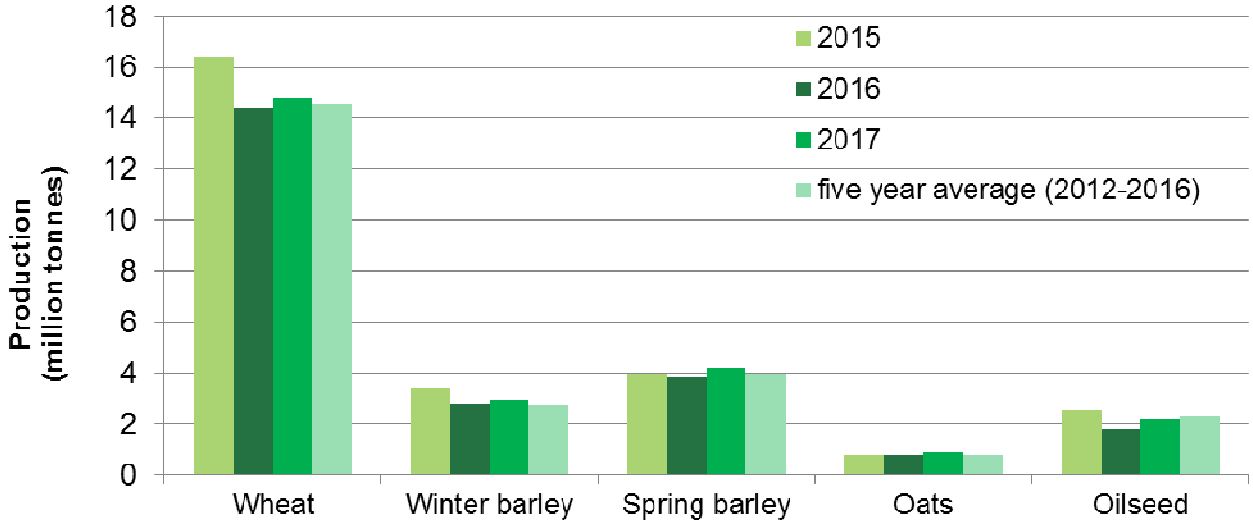


Figure 4 shows the area of the three most popular crops grown in the UK; wheat, barley and oilseed rape. Since 1984 the wheat area has fluctuated between approximately 1.6 and 2.1 million hectares. The area of barley has declined considerably over the years. However, the last three years have seen modest increases and the total barley now stands at 1.2 million hectares. The oilseed rape area increased from 269 thousand hectares in 1984, reaching a peak of 756 thousand hectares in 2012. However since then the area has decreased every year and now stands at 562 thousand hectares.

As a whole, yields for all cereal crops are still down from the peak of 2015. However, the overall yield for total cereals is showing a 3% increase from 7.0 tonnes per hectare in 2016 to 7.2 tonnes per hectare in 2017. Harvest was completed for the majority of English farms by late September, but a period of unsettled weather at the end of the month prolonged the harvest in North West England, Scotland and Wales.

As a result of the increase in yield, total cereal production has risen by 4.7% to 23 million tonnes. This is also partially due to a 1.6% increase in the UK area of cereal crops.

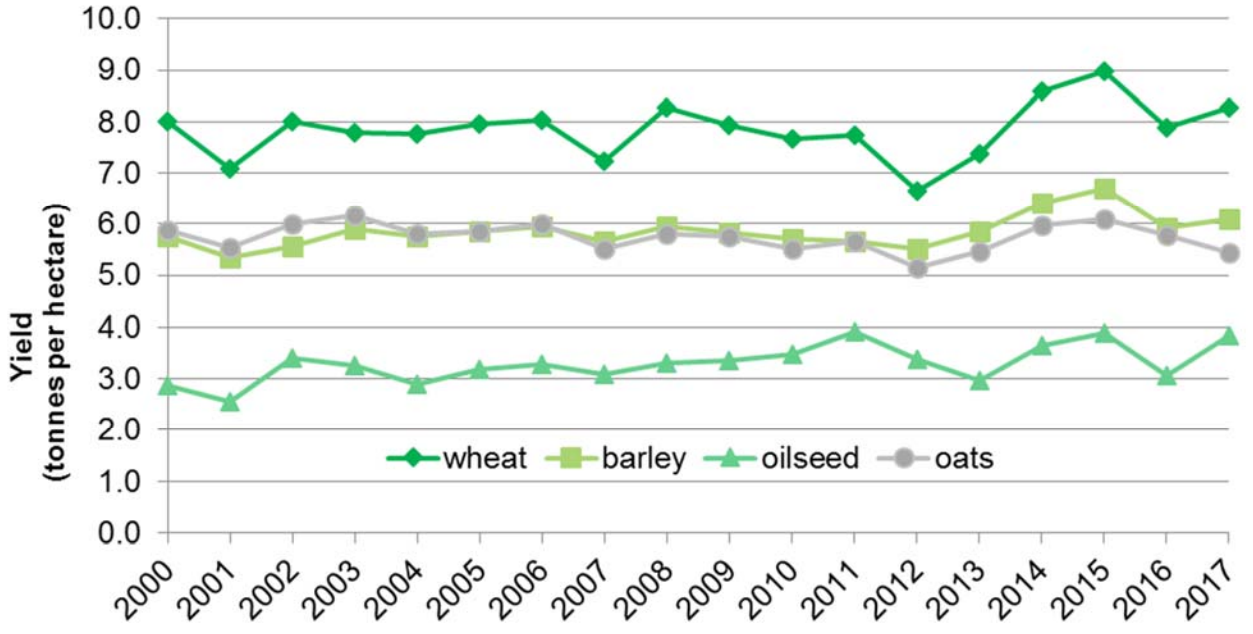
Figure 5: Crop production in the UK: 2015 to 2017, and 5 year average



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 2017 wheat yield is 8.3 tonnes per hectare, an increase of 5% on the 2016 level.

The UK barley yield also peaked in 2015 at 6.7 tonnes per hectare. After a fall of 11% in 2016, it increased again in 2017 by 2.7% to 6.1 tonnes per hectare. Yields for oilseed rape show the largest proportional increase up over a quarter (26%) on the 2016 level of 3.1 tonnes per hectare and now stand at 3.9 tonnes per hectare. This is despite some reports of crops struggling in some areas due to pigeon damage or poor establishment.

Figure 6: UK crop yields between 2000 and 2017



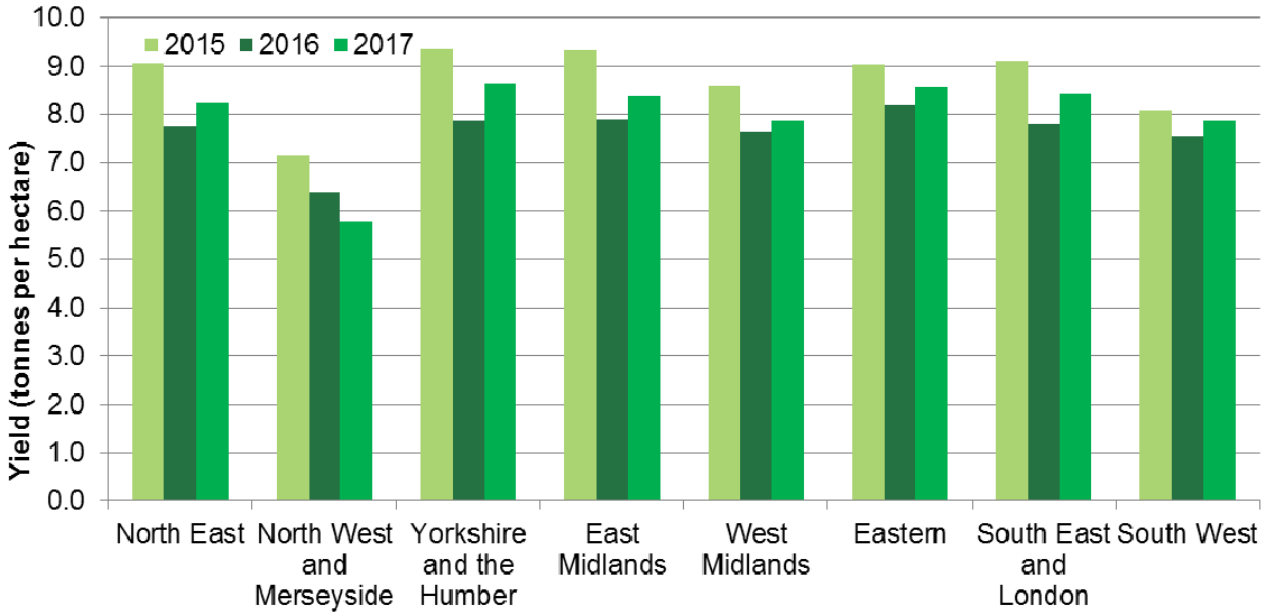
UK country and English regional figures are available in the cereal and oilseed dataset on our website at: https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry.

Wheat

The increased wheat yield and a 1.7% fall in area resulted in a 3.2% rise in production, from 14.4 million tonnes in 2016 to 14.8 million tonnes in 2017. Although lower than in 2014 and 2015 the wheat harvest is above the five year average of 14.5 million tonnes.

Figure 7 shows the variation of wheat yields across the English regions. There were reduced yields in all regions since the highs of 2015, however all except the North West showed increases on 2016 levels.

Figure 7: Wheat yield by English region 2015 to 2017



Barley

Winter and spring barley both saw increased levels of production in 2017. A 10% increase in the planted area of spring barley, and a slight decrease in yield to 5.6 tonnes per hectare resulted in a production increase of 10%. Winter barley areas fell by 3.8% to 423 thousand hectares but yields increased 8.5% to 7.0 tonnes per hectare, leading to a 4.4% rise in production. The combined total yield for barley sits at 6.1 tonnes per hectare for 2017, matching the five year average.

Oats

The planted area of oats had the largest proportional increase of the major cereal crops rising by 14% to 161 thousand hectares. The yields in England, Wales and Scotland decreased, resulting in a 6.2% fall in the UK yield to 5.4 tonnes per hectare. The increase in area more than offset the lower yields to give a 7.2% increase in production which rose from 816 thousand tonnes in 2016 to 875 thousand tonnes in 2017.

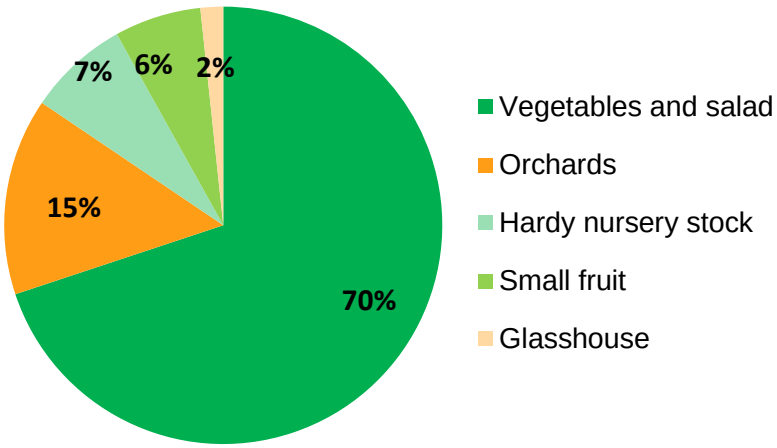
Oilseed Rape
The oilseed rape harvest has shown an increase of 22% to 2.2 million tonnes in 2017. There was a fall of 2.9% in the planted area, however there was an increase in total oilseed rape yield of 26%, from 3.1 tonnes per hectare in 2016 to 3.9 tonnes per hectare in 2017. This is similar to the yields seen in 2015.

Minor cereal crops
Grain production from the minor cereal crops (rye, mixed corn and triticale) usually comprises between 0.5% and 0.6% of the UK total cereal estimate. The 2017 harvest fit into this range, however, minor crop estimates are not considered as reliable as the other surveyed crops as outlined in the methodology.

Horticultural crops

The total area of horticultural crops saw an increase of 3.5% between 2016 and 2017 and now stands at 168 thousand hectares.

Figure 8: Breakdown of total horticultural area at 1 June 2017



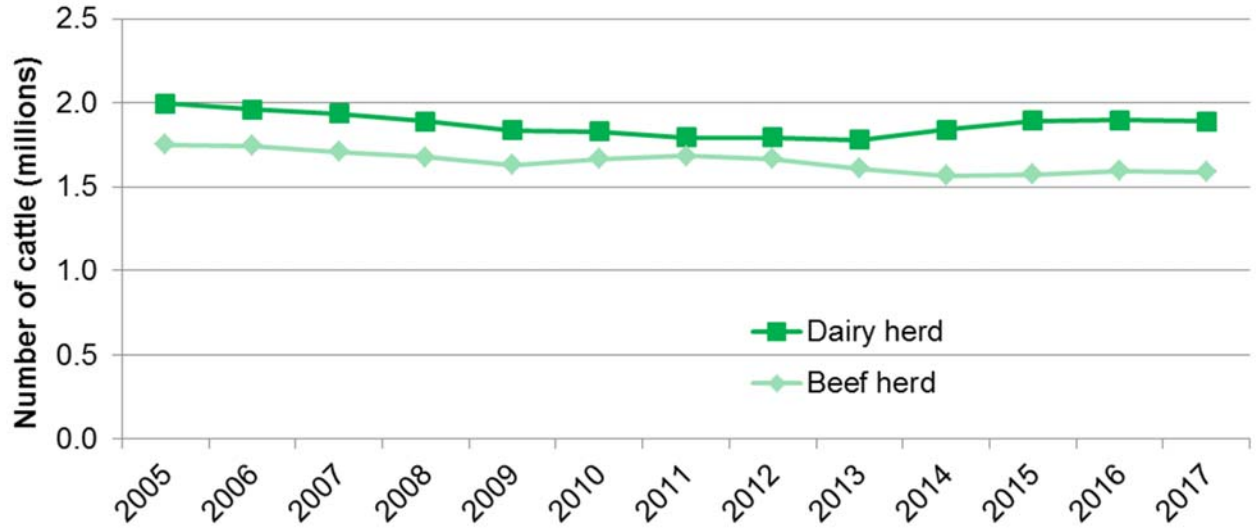
The area of vegetables and salad for human consumption increased by 4.0% between 2016 and 2017 and accounts for 70% of the total horticultural area (see Figure 8). Orchards and small fruit together account for a further 21% of the horticultural area with hardy nursery stock and glasshouse accounting for the remaining 7% and 2% respectively.

Livestock results

Cattle

In 2017 the total number of cattle and calves in the UK is just over 10.0 million head. The breeding herd accounts for over a third of total cattle and remained at almost 3.5 million head in 2017. The beef and dairy herds have remained largely unchanged in recent years at approximately 1.6 and 1.9 million animals respectively (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 2017



Pigs

The total number of pigs in the UK increased by 2.1%, from 4.9 million animals in 2016 to almost 5 million in 2017. The main reason for this was the 2.3% increase in fattening pigs, largely due to the 1.7% increase in the England figures which account for 80% of the UK fatteners.

Sheep

In 2017, the number of lambs in the UK increased by 3.0% to 17.3 million and the female breeding flock increased by 2.2%. This led to a total UK sheep and lamb population of 34.8 million, the highest level since 2005.

Poultry

The total number of poultry in the UK increased by 5.3% to almost 182 million birds in 2017 compared to 173 million in 2016. Laying and breeding fowl saw an increase of 4.2%, whilst table chickens increased by 6.3% to 118 million birds.

Other livestock

The number of goats and farmed deer in the UK increased between 2016 and 2017, rising by 1.4% and 0.6% respectively. The number of horses decreased by 3.6% and now stands at 258 thousand animals.

Agricultural workforce

The total labour force on agricultural holdings in the UK increased by 1.7% to 474 thousand in 2017. Farmers, business partners, directors and spouses account for the majority (62%) of the total labour force and increased by 1.3% to 294 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://ec.europa.eu/eurostat/web/agriculture/data/main-tables

According to the data from 2016, the UK is the 7th largest cereal producer, the largest producer of sheep and the 3rd largest producer of cattle of the EU 28 Member States. Figures 9 to 11 below show the comparison of these activities across all Member States.

Figure 9: Cereal areas in 2016 by EU Member State

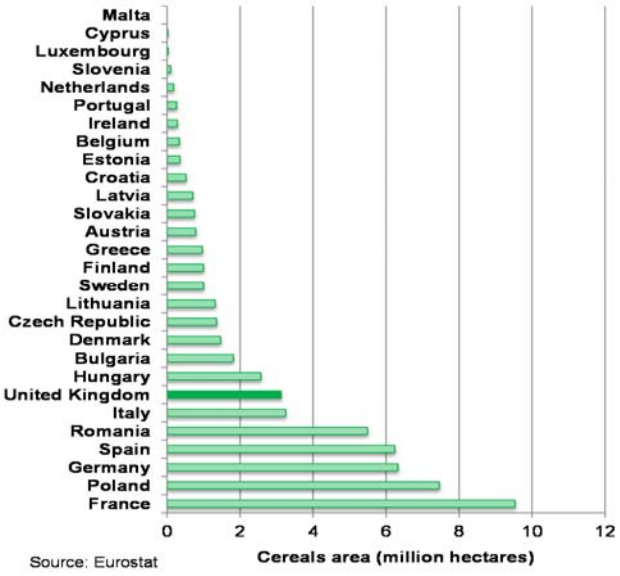
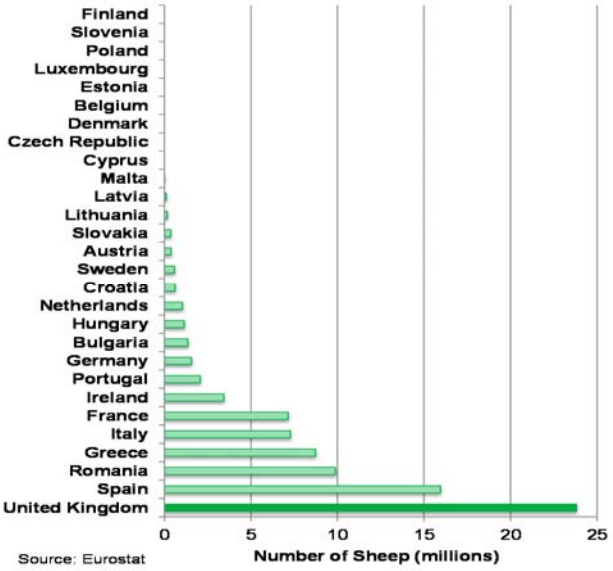
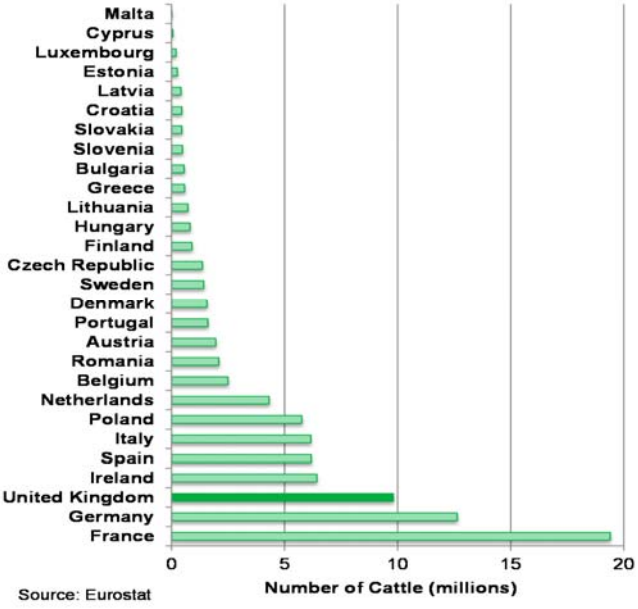


Figure 10: Number of sheep in 2016 by EU Member State



(data in figures 9 and 10 refer to December 2016, not June 2016)

Figure 11: Number of cattle in 2016 by EU Member State



Results Tables

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

Thousand hectares

	2015	2016	2017	% change 2017-16
Utilised agricultural area [a]	**17 147**	**17 360**	**17 476**	**0.7**
Total agricultural land (including common rough grazing)	**18 428**	**18 662**	**18 835**	**0.9**
Common rough grazing	**1 199**	**1 199**	**1 198**	**-0.1**
Total area on agricultural holdings	**17 229**	**17 463**	**17 637**	**1.0**
Total croppable area	**6 059**	**6 073**	**6 131**	**1.0**
Total crops	**4 679**	**4 667**	**4 745**	**1.7**
Arable crops	4 505	4 505	4 577	1.6
Cereals	3 100	3 132	3 181	1.6
Oilseeds	670	608	590	-3.0
Potatoes	129	139	145	4.6
Other arable crops	606	627	661	5.5
Horticultural crops	174	162	168	3.5
Uncropped arable land [b]	**214**	**262**	**241**	**-7.8**
Temporary grass under 5 years old	**1 167**	**1 144**	**1 144**	**0.1**
Permanent grassland (incl. rough grazing)	**9 880**	**10 079**	**10 138**	**0.6**
Grass over 5 years old	6 078	6 118	6 135	0.3
Sole right rough grazing [c]	3 801	3 961	4 003	1.1
Other land on agricultural holdings	**1 290**	**1 312**	**1 368**	**4.3**
Woodland	961	978	1 037	6.0
Land used for outdoor pigs	9	10	10	-1.9
All other non-agricultural land	320	323	321	-0.7

(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 bare fallow, 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

	2015	2016	2017	% change 2017-16
Total arable crops	**4 505**	**4 505**	**4 577**	**1.6**
Cereals	**3 100**	**3 132**	**3 181**	**1.6**
Wheat	1 832	1 823	1 792	-1.7
Barley	1 101	1 122	1 177	4.8
winter	442	439	423	-3.8
spring	659	683	754	10.4
Oats	131	141	161	14.3
Minor cereals [a]	35	45	52	14.0
Oilseed crops	**670**	**608**	**590**	**-3.0**
Oilseed rape	652	579	562	-2.9
winter	645	570	554	-2.8
spring	7	9	9	-7.6
Linseed	15	27	26	-3.3
Borage	3	1	1	-38.7
Potatoes	**129**	**139**	**145**	**4.6**
Other (non-horticultural) crops	**606**	**627**	**661**	**5.5**
Sugar beet (not for stock feeding)	90	86	111	29.5
Field beans	170	177	193	8.9
Peas for harvesting dry	44	51	40	-21.3
Maize (incl. fodder and grain maize)	187	194	197	1.9
Root crops, brassicas and fodder beet for stock feeding	41	44	42	-3.8
Other crops for stock feeding [b]	38	36	39	9.5
All other arable crops [c]	37	40	39	-3.2

(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.

Table 3: Yield of cereals and oilseed rape on agricultural holdings

Tonnes per hectare

	2013	2014	2015	2016	2017	% change 2017-16
Cereals[a]	**6.6**	**7.7**	**8.0**	**7.0**	**7.2**	**3.0**
Wheat	7.4	8.6	9.0	7.9	8.3	5.0
Barley	5.8	6.4	6.7	5.9	6.1	2.7
winter	6.4	7.2	7.7	6.4	7.0	8.5
spring	5.7	5.9	6.0	5.6	5.6	-0.2
Oats	5.5	6.0	6.1	5.8	5.4	-6.2
Minor cereals [b]	4.4	5.0	3.5	2.7	2.3	-14.6
Oilseed rape[c]	**3.0**	**3.6**	**3.9**	**3.1**	**3.9**	**25.7**

(a) All cereal production estimates have been standardised to 14.5% moisture content.
(b) Minor cereals are a total of rye, mixed corn and triticale.
(c) Oilseed rape production estimates have been standardised to 9% moisture content.

Table 4: Production of cereals and oilseed rape on agricultural holdings

Thousand tonnes

	2013	2014	2015	2016	2017	% change 2017-16
Cereals[a]	**20 084**	**24 468**	**24 734**	**21 964**	**22 999**	4.7
Wheat	11 921	16 606	16 444	14 383	14 837	3.2
Barley	7 092	6 911	7 370	6 655	7 169	7.7
winter	1 983	3 094	3 382	2 823	2 948	4.4
spring	5 110	3 817	3 988	3 832	4 220	10.1
Oats	964	820	799	816	875	7.2
Minor cereals [b]	107	131	122	110	119	8.1
Oilseed rape[c]	**2 128**	**2 460**	**2 542**	**1 775**	**2 167**	**22.1**

(a) All cereal production estimates have been standardised to 14.5% moisture content.
(b) Minor cereals are a total of rye, mixed corn and triticale.
(c) Oilseed rape production estimates have been standardised to 9% moisture content.

Table 5: Area of fruit and vegetables grown in the open on agricultural holdings on 1 June

Thousand hectares

	2015	2016	2017	% change 2017-16
Total fruit and vegetables	**159**	**148**	**152**	**3.1**
Orchards [(a)]	**25.9**	**25.1**	**24.4**	**-2.8**
Small fruit [(b) (c)]	**10.0**	**10.0**	**10.7**	**7.6**
Strawberries	3.3	3.4	3.1	-6.0
Other small fruit (incl. gooseberries and blackberries)	6.6	6.6	7.6	14.4
Vegetables and salad for human consumption[(b)(d)]	**123**	**113**	**117**	**4.0**
Peas and beans	40	37	39	4.2
All other vegetables and salad	83	75	78	3.9

(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 6: Area of hardy nursery stock on agricultural holdings on 1 June

Thousand hectares

	2015	2016	2017	% change 2017-16
Total hardy nursery stock, bulbs and flowers [a]	**12.7**	**11.5**	**12.5**	**8.7**
Hardy nursery stock	5.5	5.3	5.0	-6.2
Bulbs and flowers grown in the open	6.8	5.8	7.1	23.2

(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 7: Area of glasshouses and protected crops on agricultural holdings on 1 June [a] [b]

Hectares

	2015	2016	2017	% change 2017-16
Total glasshouse area on 1 June [c]	**2 667**	**2 747**	**2 807**	**2.2**
Vegetables, salad and fruit	1 930	2 055	2 098	2.1
Flowers, foliage and other plants	529	522	546	4.5
Not in use on 1 June	179	141	136	-4.1

(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 5).

(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 8: Cattle and calves on agricultural holdings on 1 June [(a)]

Thousands

	2015	2016	2017	% change 2017-16
Total cattle and calves	**9 919**	**10 033**	**10 004**	**-0.3**
All female cattle	**7 188**	**7 250**	**7 240**	**-0.1**
Aged 2 years or more	**4 238**	**4 204**	**4 193**	**-0.3**
Total breeding herd	3 472	3 493	3 481	-0.4
- Beef herd	1 576	1 596	1 589	-0.4
- Dairy herd	1 895	1 897	1 891	-0.3
Other female cattle	767	712	712	0.1
- Beef	381	365	366	0.2
- Dairy	386	346	346	0.0
Aged between 1 and 2 years	**1 379**	**1 442**	**1 464**	**1.5**
- Beef	834	872	898	2.9
- Dairy	545	570	567	-0.6
Less than 1 year	**1 570**	**1 603**	**1 583**	**-1.3**
- Beef	980	1 015	1 040	2.4
- Dairy	590	588	543	-7.6
All male cattle	**2 730**	**2 783**	**2 763**	**-0.7**
Aged 2 years or more	388	364	355	-2.6
Aged between 1 and 2 years	1 001	1 032	1 051	1.9
Less than 1 year	1 342	1 386	1 357	-2.1

(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.

Table 9: Pigs on agricultural holdings on 1 June

Thousands

	2015	2016	2017	% change 2017-16
Total pigs	**4 739**	**4 866**	**4 969**	**2.1**
Breeding pigs	**507**	**509**	**512**	**0.5**
Female breeding herd	**408**	**415**	**417**	**0.4**
Sows in pig	285	295	297	0.8
Gilts in pig	56	55	55	0.1
Other sows [(a)]	66	65	64	-1.2
Other breeding pigs	**100**	**94**	**95**	**0.8**
Boars being used for service	15	15	14	-9.0
Gilts intended for first time breeding	85	79	81	2.6
Fattening pigs (incl. barren sows)	**4 232**	**4 356**	**4 457**	**2.3**

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

Table 10: Sheep and lambs on agricultural holdings on 1 June

Thousands

	2015	2016	2017	% change 2017-16
Total sheep and lambs	**33 337**	**33 943**	**34 832**	**2.6**
Female breeding flock	**16 024**	**16 304**	**16 669**	**2.2**
Ewes intended for further breeding or for slaughter	13 278	13 460	13 762	2.2
Ewes intended for first time breeding	2 746	2 844	2 907	2.2
Other sheep and lambs	**17 313**	**17 639**	**18 163**	**3.0**
Lambs under 1 year old	16 528	16 840	17 340	3.0
Rams	408	409	417	1.8
Other sheep 1 year and over	377	389	405	4.3

Table 11: Poultry on agricultural holdings on 1 June [(a)]

Thousands

	2015	2016	2017	% change 2017-16
Total poultry	**167 579**	**172 607**	**181 818**	**5.3**
Total breeding and laying fowl	**49 509**	**50 798**	**52 939**	**4.2**
Hens and pullets laying eggs for eating	36 998	38 058	39 510	3.8
Breeding flock	12 511	12 740	13 429	5.4
Table chickens (broilers)	**107 056**	**110 639**	**117 619**	**6.3**
Other poultry	**11 014**	**11 170**	**11 260**	**0.8**
Ducks	2 237	1 993	2 301	15.5
Geese	143	152	160	5.0
Turkeys	4 322	4 228	4 149	-1.9
All other poultry	4 312	4 798	4 651	-3.1

(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 12: All other livestock on agricultural holdings on 1 June

Thousands

	2015	2016	2017	% change 2017-16
Total other livestock	**437**	**426**	**422**	**-1.0**
Goats	101	104	105	1.4
Farmed deer	31	31	31	0.6
Horses	283	268	258	-3.6
Any livestock not recorded elsewhere [(a)]	22	24	27	16.8
- *of which alpacas*	12	12	13	7.2
- *of which llamas*	2	2	2	-14.4

(a) Includes camelids, donkeys and mules.

Table 13: Number of people working on agricultural holdings on 1 June

Number of people (thousands)

	2015	2016	2017	% change 2017-16
Total number of people working on agricultural holdings	**476**	**466**	**474**	**1.7**
Farmers, partners, directors and spouses	**294**	**290**	**294**	**1.3**
Full time	142	139	141	1.5
Part time[c]	152	151	153	1.2
Regular employees, salaried managers and casual workers	**183**	**176**	**180**	**2.3**
Regular employees[a][b]	115	na	na	
- Full time	73	na	na	
- Part time[c]	43	na	na	
Casual workers[b]	67	na	na	

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

(b) From 2016 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

(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. Amongst many other things, this helps us assess the impacts of the abolition of formal set-aside.
- The data will enable us to assess how land areas vary across the UK regions 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 veterinary 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 2018: Farming Statistics provisional arable crop areas at 1 June 2018 – England.
- September 2018: Farming Statistics final crop areas and cattle, sheep and pig populations at 1 June 2018 – England.
- October 2018: Farming statistics final land use, livestock populations and agricultural workforce at 1 June 2018 – England.

UK Publications

- October 2018: Farming Statistics provisional crop areas, yields, livestock populations at 1 June 2018 – United Kingdom.
- December 2018: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2018 – 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 2017. 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 25 thousand 'commercial' holdings were asked to complete the survey in 2017. Commercial holdings are defined as those with significant levels of farming activity, i.e. holdings with more than five hectares of agricultural land, one hectare of orchards, 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.

The small farms (those with low SLRs) were sampled at a lower rate and the sampling rate increased with farm size as in table 14 below. 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.

Table 14: June 2017 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	10%	50 057
2	SLR >= 0.5 and < 1	15%	15 585
3	SLR >= 1 and < 2	25%	15 061
4	SLR >= 2 and < 3	37%	7 992
5	SLR >= 3 and < 5	54%	7 786
6	SLR >= 5	67%	7 853
10	SLR unknown	47%	3 031
All		**23%**	**107 365**

The results in this statistical release are based on responses from almost 17 thousand commercial holdings, representing a response rate of 67%.

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 2017 June Survey were published on 14 September 2017 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

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 2016 were also sent a cut-down census form (22,000 forms) to collect the additional data on livestock and labour.
From the remaining holdings that did not complete a SAF in 2016, 10,000 (potentially including holdings that submitted a SAF for the first time in 2017) 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 15 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 the SAF or from returned full census forms (shaded grey).
Cattle data was received for 100 per cent of holdings with cattle, from the CTS.
Other data was received for holdings covering 63 per cent of the total agricultural area, from returned census forms (the final column in the table).

Table 15: 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	24,635	23,337	15,878	4,963,754	4,869,897	3,288,604
full form		1,120	674		144,724	111,805
part form		22,217	15,204		4,725,173	3,176,799
Non-SAF	26,721	9,237	4,479	790,585	536,047	355,187
full form		8,364	4,100		452,923	336,780
part form		873	379		83,124	18,407
Total	51,356	32,574	20,357	5,754,339	5,405,944	3,643,791

(1) "SAF" refers to holdings where land-use data is available from the Single Application Form 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.

Full results for Scotland were published on 11th October 2017 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-isheries/PubFinalResultsJuneCensus. Some of the data have since been amended slightly after that original publication.
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 2017 a total of 11,600 survey forms were sent out. Final results were based on a response rate of 55%. Final results for Wales were published by the Welsh Government on 21 November 2017 at: www.wales.gov.uk/statistics

For further details contact Agricultural & Rural Affairs Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: Cardiff (0300) 025 5082). E-mail: stats.agric@wales.gsi.gov.uk

Northern Ireland

In 2017 the Northern Ireland Agricultural and Horticultural Survey was conducted as a sample survey. A total of 20,100 forms were issued with results based on 14,400 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 30 November 2017 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 provisional 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 results are based on responses from 2,477 farms (71% response rate) across the country (see table 16).

Table 16: Provisional response rate for Cereal and Oilseed Rape Production Survey 2017 by region

English region	Number sampled	Number of responses	Response rate (%)
North East	180	130	72
North West and Merseyside	223	143	64
Yorkshire and the Humber	516	353	68
East Midlands	503	369	73
West Midlands	271	191	70
Eastern	758	565	75
South East and London	402	285	71
South West	617	441	71
Total	3 470	2 477	71

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.

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.

Final results for Wales were published by the Welsh Government in November 2017 at: www.wales.gov.uk/statistics. For further details contact Agricultural Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: 03000 252244).

Scotland

The 2017 estimates of production are based on provisional crop areas from the 2017 June Survey of Agriculture and Horticulture, along with crop yield estimates from discussions between Scottish Government analysts, industry experts and trade organisations
.http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubCerealHarvest

Northern Ireland

Areas are based on provisional estimates from the 2017 June Survey of Agriculture and Horticulture. Production figures are based on yield estimates from the Northern Ireland Department of Agriculture, Environment and Rural Affairs.

Minor crops
The England cereals and oilseed production survey collects the same elements for rye as it does for the main cereal crops. Mixed corn and triticale are included in the minor cereals estimates of yield and production in tables 3 and 4. Mixed corn and triticale estimates are not derived from survey returns. 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. The derived yields are applied to the areas of mixed corn and triticale that have been estimated from England June survey returns.

England survey forms were sent to 100 holdings that reported a rye area in their June survey return. To date, useable returns have been received from 54 holdings; a response rate of 54% which is lower than the response rate of the survey as a whole of 71%.

Of these 54 returns 12 reported some cereal production from their rye crop. In the remaining 42 holdings all the rye was harvested wholecrop. Based on this small sample an England estimate of yield and production has been produced and included in minor cereals in this release. Not unexpectedly the confidence intervals around these estimates are much larger than main cereal crops.

Scotland data includes triticale in the total cereals estimates. Mixed corn is estimated by Defra. Rye is currently excluded from the estimate.
Northern Ireland estimate areas for mixed corn and triticale but do not estimate forecast yields due to the very small areas grown. Estimated Great Britain yields are applied. Rye is not included.
Wales include the minor crops in their “other combinable cereals” category.

Data notes
The cereal production (tonnage) figures include tail corn, cereals still to be harvested for grain, grain to be crimped and cereals intended for seed production. The figures exclude crops which have become unfit for harvesting, carry over stocks from the 2016 harvest, bought in grain and crops harvested as wholecrop for silage.