Department for Environment Food & Rural Affairs

Published 25 October 2018

Farming Statistics
Final Land Use, Livestock Populations and Agricultural Workforce At 1 June 2018 - England

This release contains the final estimates of crop areas, livestock numbers and the agricultural workforce on commercial holdings in England on 1 June 2018. This release has been updated to include land ownership, poultry, horse, goat, farmed deer and camelid populations and the size of the agricultural workforce. Crop areas and populations of cattle, sheep and pigs remain unchanged to those published on 13 September 2018.

Approximately 25 thousand commercial holdings were asked to complete the survey and results are based on almost 15 thousand responses, representing a response rate of 59%. Commercial holdings are those farms with a significant level of activity. A full definition can be found in the methodology section on page 17. The key results are given below.

Agricultural land use and ownership (Tables 1-2)

- The utilised agricultural area (UAA) in England increased by 1.5% between 2017 and 2018 and now stands at almost 9.2 million hectares.
- The total croppable area accounts for just over half (54%) of UAA and has increased by 2.1% to almost 5.0 million hectares in 2018.
- Permanent grassland accounts for an additional 41% of UAA and has remained virtually unchanged at 3.8 million hectares in 2018.
- The area of owned land in England increased by 1.7% to just over 6.2 million hectares in 2018. Land rented in for a year or more increased by 1.9% to over 3.0 million hectares.

Crops (Tables 3-6)

- The total area of arable crops has increased by 1.1% since 2017, and now stands at almost 4.0 million hectares in 2018.
- Cereals and oilseed crops account for the majority (82%) of the total arable crop area. The area of cereal crops showed little change increasing by 0.4% and remains at almost 2.7 million hectares in 2018. This was despite a fall of 4.9% in the area of winter sown barley which decreased to 343 thousand hectares in 2018 but was partially offset by an 11% increase in the area of oats.
- The area of oilseed crops increased by 7.1%, rising from 550 thousand hectares in 2017 to 589 thousand hectares in 2018. This was mainly due to a 7.9% increase in the area of winter oilseed rape, which accounts for the majority (94%) of all oilseed crops.

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- The area of horticultural crops accounts for 140 thousand hectares of land and was virtually unchanged in 2018.

Livestock (Tables 7-11)

- The total number of cattle and calves in England is 5.4 million in June 2018, a decrease of 0.8% compared to 2017. The total breeding herd saw a similar decrease of 0.9% and now stands at almost 1.9 million.
- In 2018, the total number of pigs in England increased by 1.7% to just over 4.0 million animals. The increase was mainly driven by the rise in the number of fattening pigs, up 2.2% to 3.6 million in 2018. This was offset slightly by the fall in the number of breeding pigs, which decreased by 1.9% to 408 thousand animals. However it should be noted that when considered alongside the confidence intervals displayed in the results table these changes are not statistically significant.
- The total number of sheep and lambs decreased by 0.7%, from 15.8 million in 2017 to almost 15.7 million in 2018. The female breeding flock remained stable at just under 7.4 million whilst the number of lambs decreased by 1.4% to 7.9 million.
- The total number of breeding and laying fowl in England decreased by 0.2% between 2017 and 2018 to just under 33.7 million. The number of table chickens (broilers) saw an increase in 2018, rising by 5.8% to 95.8 million.
- In 2018, the number of horses on commercial holdings decreased by 4.5% to 162 thousand head.

Agricultural workforce (Table 12)

The total number of people working on agricultural holdings in England increased by 0.9% from 306 thousand in 2017 to 309 thousand in 2018. Farmers, business partners, directors and spouses account for over half (58%) of the total workforce and saw an increase of 1.9% to 178 thousand people in 2018.

Survey methodology (Pages 17-18)

For information on how the survey is run and details of data analysis and accuracy of results please see the methodology section on pages 17 and 18 at the end of this release.

Other surveys and next publications due (Page 19)

Further information on the next publications due from the results of the June Agricultural Survey can be found on page 19. This includes both England and UK publications.

Defra is extremely grateful to the many farmers who complete the June Survey questionnaire each year. The support of farmers enables the Department to produce timely figures on the latest trends which are important for the Department's business and the industry's market operations.

Detailed results

Utilised agricultural area

The utilised agricultural area includes all arable and horticultural crops, uncropped arable land, land used for outdoor pigs, temporary and permanent grassland and common rough grazing. The total utilised agricultural area in England is almost 9.2 million hectares in 2018.

Figure 1: Total utilised agricultural area at 1 June 2000 to 2018

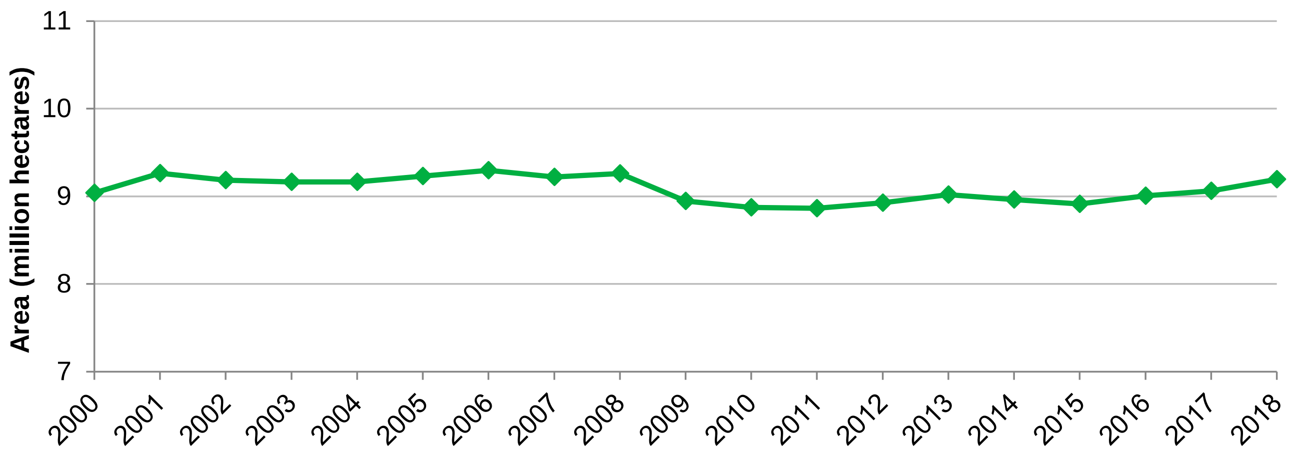


Figure 1 shows that the utilised agricultural area in England has remained stable around the 9 million hectare mark since 2000. The small drop seen between 2008 and 2009 is a result of register improvements made ahead of the 2010 Census which removed holdings that no longer have agricultural activity.

Croppable area

The area of land available for cropping increased by 2.1%, from 4.9 million hectares in 2017 to almost 5.0 million in 2018. The croppable area consists of cereals, oilseeds, potatoes, other arable crops, horticultural crops, uncropped arable land and temporary grassland.

Figure 2: Total croppable area at 1 June 2018 compared to 2017

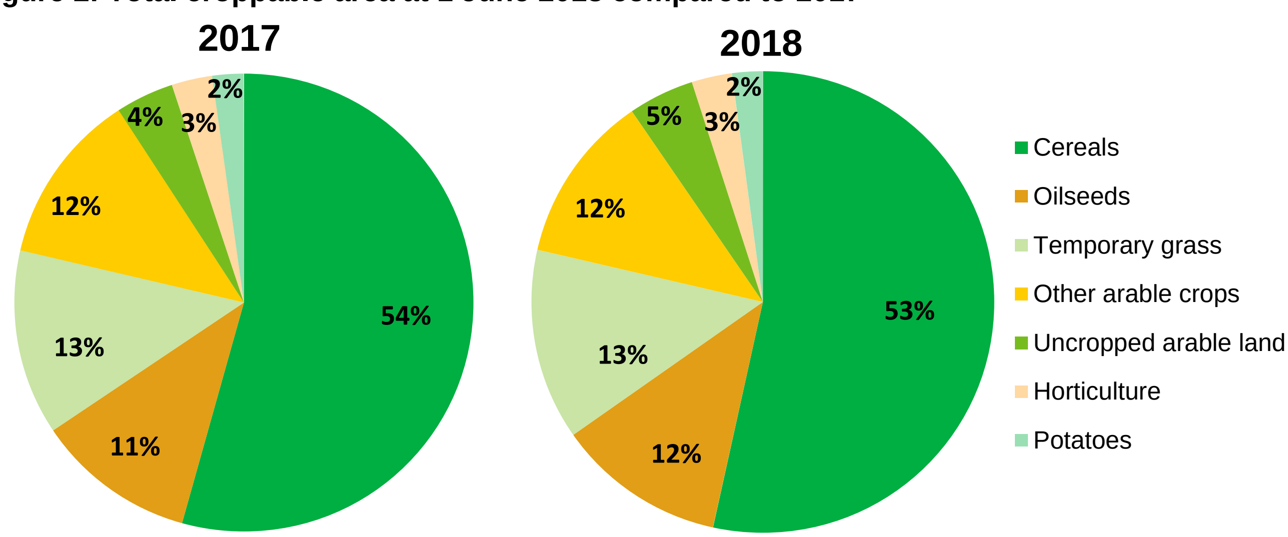


Figure 2 on the previous page shows that on the whole the proportion of croppable land used for each purpose remained similar between 2017 and 2018; however some categories did see value changes. In particular the area of uncropped arable land increased by 14.9%, from 200 thousand hectares in 2017 to 230 thousand hectares in 2018. However it still only accounts for 5% of the total croppable area.

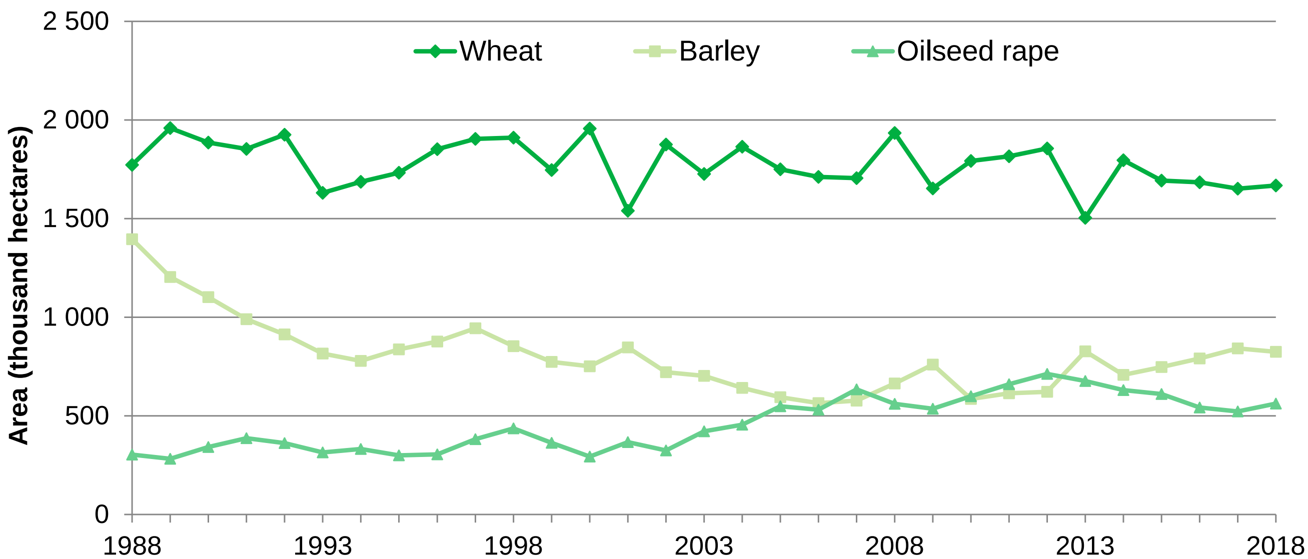
With the exception of potatoes and other arable crops which both decreased in area in 2018, all other components of the croppable area saw increases. The increases seen in cereals (0.4%), horticultural crops (0.1%), temporary grassland (4.4%) and oilseed crops (7.1%) more than offset the modest decreases in potatoes and other arable crops.

Cereals and oilseeds

The total area of cereal crops in England remained virtually unchanged between 2017 and 2018 and stands at almost 2.7 million hectares.

The area of wheat increased for the first time since 2014, rising by 1.0% between 2017 and 2018 and now stands at just below 1.7 million hectares. However, wheat continues to be the most popular crop grown in England and accounts for 62% of the total cereal area. Historically the area of wheat has fluctuated between approximately 1.5 and 2.0 million hectares over the past 30 years (Figure 3).

Figure 3: Area of wheat, barley and oilseed rape at 1 June 1988 to 2018

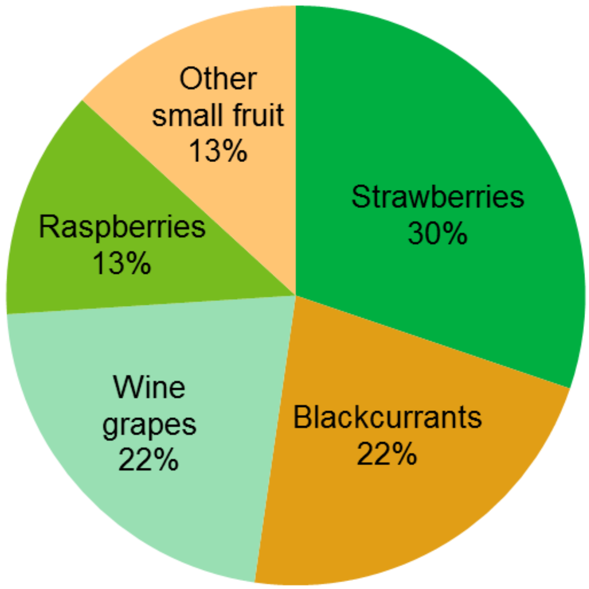


With the area of winter sown barley decreasing by 4.9% in 2018 to 343 thousand hectares compared to 361 thousand hectares in 2017 and spring sown barley remaining virtually unchanged, the total barley area has seen the first decrease since 2014 and now stands at 825 thousand hectares.

The total area of oilseed rape rose for the first time since 2012, increasing by 7.6% from 523 thousand hectares in 2017 to 563 thousand hectares in 2018. The increase was due to a 7.9% rise in the area of winter sown oilseed rape which accounts for 99% of the total oilseed rape area and now stands at 555 thousand hectares. Spring oilseed rape saw a decrease of 7.7% in 2018. However, at 8 thousand hectares this only accounts for 1% of the total oilseed area and is the second smallest area of the spring sown crop seen in the past decade.

Fruit and vegetables

Figure 4: Breakdown of small fruit as at 1 June 2018



The total area of orchards and small fruit remained almost unchanged between 2017 and 2018 at 32 thousand hectares. Orchards account for 69% of this total and cover just over 22 thousand hectares in 2018, a decrease of 0.9% since 2017.

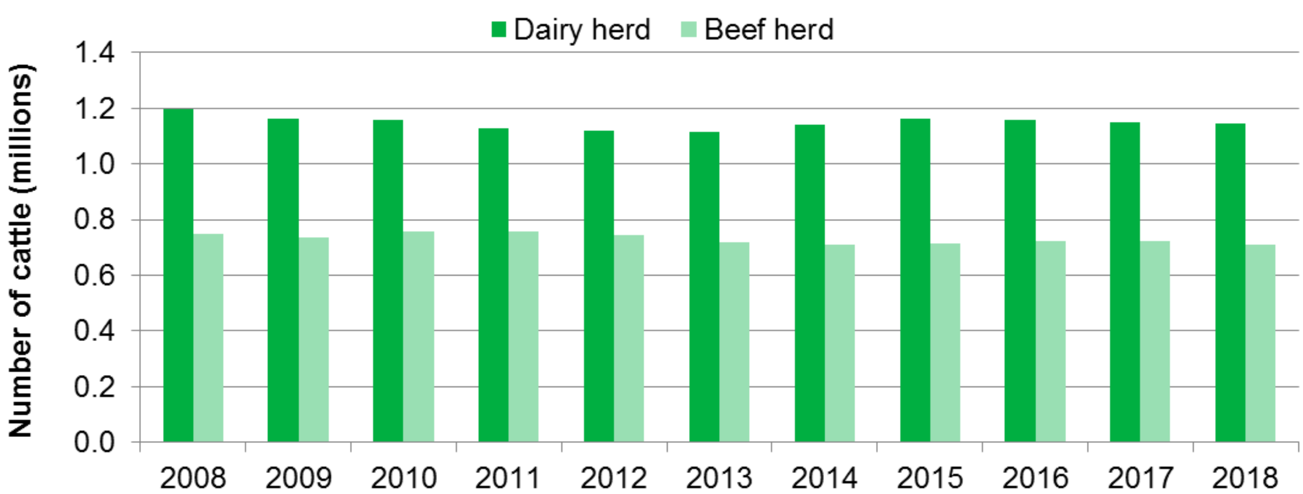
The remaining area of 10 thousand hectares is used to grow small fruit. This area increased by 1.6% since 2017 which helped to offset the small decrease in the orchard area. Figure 4 shows the breakdown of small fruit areas in 2018. The largest proportion of the small fruit area is used to grow strawberries (30%) with blackcurrants (22%) and wine grapes (22%) being the next most common small fruit crops.

The area used to grow vegetables for human consumption increased between 2017 and 2018, rising by 1.0% to 97 thousand hectares. The majority (66%) of this area is used to grow other vegetables and salad and this area remained virtually unchanged between 2017 and 2018.

Cattle

The total number of cattle and calves in England decreased by 0.8% between 2017 and 2018 and now stands at almost 5.4 million animals. The female breeding herd continues to account for just over a third (35%) of this total.

Figure 5: Female dairy and beef herds at 1 June 2008 to 2018

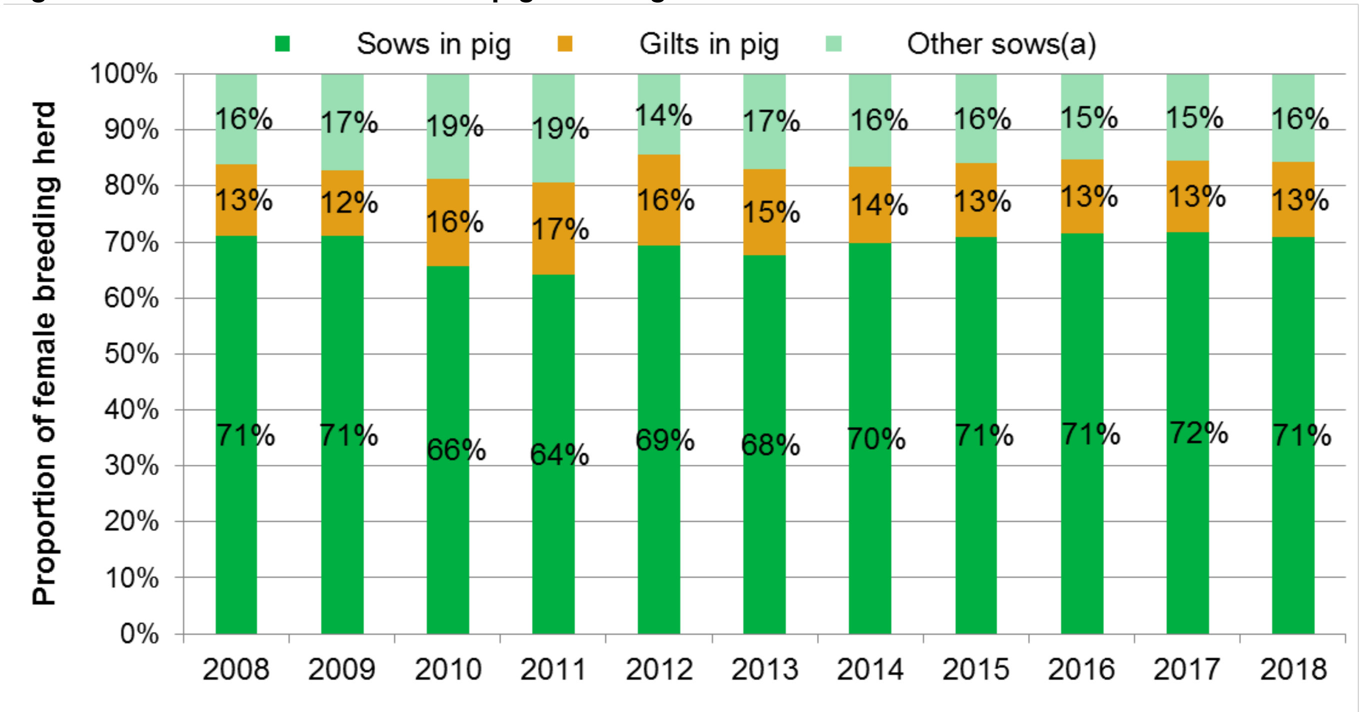


The breeding herd has decreased slightly in 2018, falling by 0.9% to just under 1.9 million animals. The dairy herd accounts for the majority (62%) of the breeding herd and fell by 0.6% in 2018 and now stands at 1.1 million animals. The beef herd also saw a decrease between 2017 and 2018 of 1.3% to 712 thousand animals (Figure 5).

Pigs

The total number of pigs in England increased by 1.7% from 3.97 million animals in 2017 to 4.04 million in 2018. This increase was driven by a 2.2% rise in the number of fattening pigs which account for 90% of all pigs. However it is worth noting that when considered alongside the 95% confidence intervals (see table 8) these changes are not statistically significant.

Figure 6: Breakdown of the female pig breeding herd 1 June 2008 to 2018



(a) Other sows are those either being suckled or dry sows kept for further breeding.

The female breeding herd decreased by 2.2%, from 334 thousand animals in 2017 to 327 thousand in 2018. Figure 6 above shows how the female breeding herd is made up. Other breeding pigs also saw a small decrease of 1.1% in 2018.

Sheep

The total number of sheep and lambs in England decreased by 0.7%, from 15.8 million in 2017 to almost 15.7 million in 2018. Lambs account for half (50%) of all sheep and decreased by 1.4% from 8.0 million in 2017 to 7.9 million in 2018. The female breeding flock account for a further 47% and showed little change at almost 7.4 million sheep in 2018.

Poultry

The number of table chickens (broilers) increased by 5.8%, from 90.6 million birds in 2017 to 95.8 million in 2018. Table chickens account for two thirds of all poultry in England and consumer demand remains strong.

In 2018 the total number of breeding and laying fowl in England decreased by 0.2% and now stands at just under 33.7 million birds. Despite a rise of 1.7% in the breeding flock, the decrease was driven by the 0.8% fall in hens and pullets laying eggs for eating which account for the majority (75%) of the breeding and laying flock.

The number of ducks, geese and turkeys in England all saw decreases in 2018, falling by 8.6%, 1.3% and 0.3% respectively.

Other livestock

In 2018 the number of horses on commercial holdings in England decreased by 4.5% and now stands at 162 thousand animals. The number of farmed deer increased, rising from 20 thousand in 2017 to 21 thousand in 2018. The number of goats also saw an increase, rising by 4.2% during the same period, to 87 thousand animals.

Agricultural workforce

The total number of people working in agriculture in England was 309 thousand in 2018, showing an increase of 0.9% since June 2017. Farmers, business partners, directors and spouses account for over half (58%) of the total workforce and saw an increase (1.9%) to 178 thousand people in 2018. Salaried managers make up a much smaller proportion of the total (4%) and rose by 3.8% in 2018 to 12 thousand people.

Regular employees and casual workers make up the remainder (39%) of the total workforce. Full time regular workers decreased by 4.5% between 2017 and 2018 and now stand at 43 thousand. Part time regular workers also saw a decrease of 1.6% to 26 thousand people. As might be expected the number of casual workers in agriculture can vary greatly due to weather conditions, cropping areas, harvest timing and numerous other factors. In June 2018 the number of casual workers increased by 2.9% from 48 thousand people in 2017 to 50 thousand in 2018.

Results tables

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

Thousand hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Utilised agricultural area [a]	**9 006**	**9 061**	**9 194**	**1.5**	**+/- 105**	✓✓✓
Total agricultural area	**9 520**	**9 575**	**9 727**	**1.6**	**+/-105**	✓✓✓
Common rough grazing [b]	**399**	**399**	**399**	**0.0**	**-**	
Total area on agricultural holdings	**9 121**	**9 176**	**9 328**	**1.7**	**+/- 105**	✓✓✓
Total croppable area	**4 836**	**4 894**	**4 995**	**2.1**	**+/- 51**	✓✓✓
Total crops	**3 993**	**4 054**	**4 097**	**1.1**	**+/- 46**	✓✓✓
Arable crops	3 857	3 914	3 957	1.1	+/- 46	✓✓✓
Cereals	2 617	2 660	2 671	0.4	+/- 37	✓✓✓
Oilseeds	571	550	589	7.1	+/- 18	✓✓✓
Potatoes	104	108	107	-0.7	+/- 7	✓✓
Other crops	564	596	589	-1.1	+/- 18	✓✓✓
Horticultural crops	136	140	140	0.1	+/- 8	✓✓
Uncropped arable land [c]	**216**	**200**	**230**	**14.9**	**+/- 10**	✓✓✓
Temporary grass under 5 years old	**627**	**640**	**668**	**4.4**	**+/- 18**	✓✓✓
Permanent grassland (incl. rough grazing)	**3 760**	**3 757**	**3 789**	**0.8**	**+/- 89**	✓✓✓
Grass over 5 years old	3 282	3 279	3 332	1.6	+/- 85	✓✓✓
Sole right rough grazing [d]	479	479	457	-4.5	+/- 26	✓✓
Other land on agricultural holdings	**524**	**525**	**544**	**3.7**	**+/- 22**	✓✓✓
Woodland	370	369	376	1.9	+/- 17	✓✓✓
Land used for outdoor pigs	10	10	11	4.4	+/- 1	✓
All other non-agricultural land	143	146	158	8.1	+/- 14	✓✓

(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) This area is an estimate of total common land in England. The vast majority is eligible for grazing and claimed upon under the Basic Payment Scheme (BPS) but isn't necessarily used for grazing. The area was last revised in 2011.

(c) Includes all arable land not in production, including bare fallow, game strips, wild bird cover and game cover.

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

Table 2: Areas of owned and rented land on commercial agricultural holdings on 1 June

Thousand hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Land owned	**6 056**	**6 107**	**6 209**	**1.7**	**+/- 73**	✓✓✓
Land rented in for 1 year or more	**3 020**	**3 039**	**3 098**	**1.9**	**+/- 65**	✓✓✓
Full Agricultural Tenancies	1 407	1 396	1 365	-2.2	+/- 35	✓✓✓
Farm Business Tenancies	1 193	1 208	1 288	6.6	+/- 45	✓✓✓
Other agreements	420	436	445	2.1	+/- 31	✓✓
Seasonally rented in land [(a)]	**518**	**527**	**551**	**4.6**	**+/- 24**	✓✓✓
Seasonally let out land [(a)]	**386**	**401**	**423**	**5.7**	**+/- 29**	✓✓

(a) Land rented for less than 1 year, including grazing licenses.

Table 3: Arable crops on commercial agricultural holdings on 1 June

Thousand hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total arable crops	**3 857**	**3 914**	**3 957**	**1.1**	**+/- 46**	✓✓✓
Cereals	**2 617**	**2 660**	**2 671**	**0.4**	**+/- 37**	✓✓✓
Wheat	1 684	1 652	1 668	1.0	+/- 29	✓✓✓
Barley	791	842	825	-2.0	+/- 20	✓✓✓
winter	376	361	343	-4.9	+/- 12	✓✓✓
spring	416	482	482	0.1	+/- 16	✓✓✓
Oats	102	121	134	11.0	+/- 9	✓✓
Rye, mixed corn and triticale	40	44	43	-3.5	+/- 4	✓✓
Oilseed crops	**571**	**550**	**589**	**7.1**	**+/- 18**	✓✓✓
Oilseed rape	543	523	563	7.6	+/- 18	✓✓✓
winter	534	515	555	7.9	+/- 17	✓✓✓
spring	9	8	8	-7.7	+/- 3	☒
Linseed	27	26	25	-6.2	+/- 4	✓
Borage	1	1	2	82.9	+/- 1	☒
Potatoes	**104**	**108**	**107**	**-0.7**	**+/- 7**	✓✓
Early crop (harvested on or before 31 July)	10	10	10	-1.0	+/- 2	✓
Main crop (harvested after 31 July)	94	98	98	-0.6	+/- 7	✓✓
Other (non-horticultural) crops	**564**	**596**	**589**	**-1.1**	**+/- 18**	✓✓✓
Sugar beet [(a)]	86	111	116	4.5	+/- 6	✓✓
Field beans	173	189	155	-17.9	+/- 9	✓✓
Peas for harvesting dry	50	39	40	1.9	+/-8	✓
Maize	182	183	209	14.2	+/- 10	✓✓✓
- of which grain maize	8	8	10	26.0	+/- 2	✓
- of which fodder maize	122	118	142	19.9	+/- 6	✓✓✓
- of which maize for anaerobic digestion	52	57	58	0.9	+/- 7	✓
Root crops, brassicas and fodder beet for stock feeding	25	24	25	8.1	+/- 4	✓
Leguminous forage crops	14	16	15	-6.7	+/- 3	✓
Other crops for stockfeeding	6	7	8	10.0	+/- 4	☒
All other arable crops	29	27	21	-22.0	+/- 4	✓
- of which short rotation coppice	3	3	3	-0.1	+/- 1	⍓
- of which miscanthus	7	7	7	-2.9	+/- 1	✓
- of which crops for aromatic or medicinal use	5	2	2	-12.5	+/- 1	☒

(a) Not for stockfeeding.

Table 4: Fruit and vegetables grown in the open on commercial agricultural holdings on 1 June

Thousand hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total fruit and vegetables	**125**	**128**	**129**	**0.7**	**+/- 8**	✓✓
Orchards [(a)]	**23**	**22**	**22**	**-0.9**	**+/- 1**	✓✓
Small fruit [(b)]	**9.2**	**9.8**	**10.0**	**1.6**	**+/- 1.1**	✓
Strawberries	3.3	3.1	3.0	-1.5	+/- 0.1	✓✓✓
Raspberries	1.2	1.5	1.3	-11.8	+/- 0.2	✓
Blackcurrants	2.0	2.1	2.2	6.4	+/- 0.6	⍓
Wine grapes	1.8	2.0	2.2	8.7	+/- 0.8	⍓
Other small fruit (incl. gooseberries & blackberries)	1.0	1.2	1.3	5.8	+/- 0.2	✓
Vegetables and salad for human consumption [(c)]	**93**	**96**	**97**	**1.0**	**+/- 8**	✓✓
Vining peas for processing	25	27	27	1.4	+/- 3	✓
Other peas and beans	3	2	2	-14.1	+/- 1	⍓
Culinary plants for human consumption (incl. herbs)	3	3	4	38.0	+/- 3	⊠
All other vegetables and salad	62	64	64	-0.3	+/- 6	✓✓
- of which carrots	8	8	6	-26.1	+/- 2	⍓
- of which onions	14	14	12	-10.6	+/- 3	⍓

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

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

(c) 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: Hardy nursery stock on commercial agricultural holdings on 1 June

Hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total hardy nursery stock, bulbs and flowers	**9 998**	**10 982**	**10 324**	**-6.0**	**+/- 834**	✓✓
Christmas trees	2 137	1 980	1 590	-19.7	+/- 265	✓
Perennial herbaceous plants	358	327	403	23.3	+/- 94	⍓
Other hardy nursery stock	2 440	2 320	2 223	-4.2	+/- 288	✓
Bulbs and flowers grown in the open	5 063	6 355	6 108	-3.9	+/- 730	✓

Table 6: Glasshouses and protected crops on commercial agricultural holdings on 1 June (a) (b)

Hectares

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total glasshouse area on 1 June	**1 326**	**1 304**	**1 251**	**-4.0**	**+/- 68**	✓✓
Vegetables, salad and fruit	733	697	697	-0.1	+/- 57	✓✓
Flowers, foliage and other plants	471	478	415	-13.3	+/- 31	✓✓
Mushroom sheds[(c)]	3	4	na	-		
Not in use on 1 June	119	125	140	12.3	+/- 19	✓

(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) In 2018 there was not enough response data to produce robust estimates and therefore the figure is excluded from the results and the total.

Table 7: Cattle and calves on agricultural holdings on 1 June [(a)]

Thousands

	2016	2017	2018	% change 2018-17
Total cattle and calves	**5 429**	**5 418**	**5 372**	**-0.8**
All female cattle	**3 925**	**3 921**	**3 890**	**-0.8**
Aged 2 years or more	**2 274**	**2 265**	**2 240**	**-1.1**
Total breeding herd	1 877	1 871	1 855	-0.9
- Beef herd	721	721	712	-1.3
- Dairy herd	1 156	1 150	1 143	-0.6
Other female cattle	396	394	385	-2.2
- Beef	190	189	194	2.5
- Dairy	207	205	192	-6.6
Aged between 1 and 2 years	**789**	**799**	**792**	**-0.9**
- Beef	447	460	478	3.9
- Dairy	342	340	314	-7.6
Less than 1 year	**863**	**856**	**858**	**0.2**
- Beef	510	529	535	1.1
- Dairy	353	327	323	-1.1
All male cattle	**1 504**	**1 497**	**1 483**	**-1.0**
Aged 2 years or more	200	193	190	-1.5
Aged between 1 and 2 years	559	572	566	-0.9
Less than 1 year	744	732	726	-0.9

(a) These figures have been sourced from the Cattle Tracing System (CTS). Confidence intervals and confidence indicators are not appropriate for this table as the data include returns from all holdings with cattle so are not subject to survey error.

Table 8: Pigs on commercial agricultural holdings on 1 June

Thousands

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total pigs	**3 911**	**3 969**	**4 038**	**1.7**	**+/- 193**	✓✓✓
Breeding pigs	**417**	**416**	**408**	**-1.9**	**+/- 30**	✓✓
Female breeding herd	**334**	**334**	**327**	**-2.2**	**+/- 20**	✓✓
Sows in pig	239	240	232	-3.4	+/- 19	✓✓
Gilts in pig	44	43	44	2.1	+/- 5	✓
Other sows [(a)]	51	51	51	0.0	+/- 5	✓
Other breeding pigs	**82**	**82**	**82**	**-1.1**	**+/- 23**	⍓
Boars being used for service	13	11	11	-0.9	+/- 1	✓
Gilts intended for first time breeding	69	71	71	-1.1	+/- 23	⍓
Fattening pigs (incl. barren sows)	**3 494**	**3 553**	**3 630**	**2.2**	**+/- 191**	✓✓

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

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

Thousands

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total sheep and lambs	**15 283**	**15 757**	**15 651**	**-0.7**	**+/- 239**	✓✓✓
Female breeding flock	**7 114**	**7 385**	**7 383**	**0.0**	**+/- 149**	✓✓✓
Ewes intended for further breeding	5 462	5 675	5 703	0.5	+/- 134	✓✓✓
Breeding ewes intended for slaughter	458	478	527	10.2	+/- 43	✓✓
Ewes intended for first time breeding	1 194	1 232	1 152	-6.5	+/- 47	✓✓✓
Other sheep and lambs	**8 169**	**8 372**	**8 268**	**-1.2**	**+/- 187**	✓✓✓
Lambs under 1 years old	7 794	8 001	7 889	-1.4	+/- 186	✓✓✓
Rams	185	192	192	0.2	+/- 6	✓✓✓
Other sheep 1 year and over	189	179	187	4.1	+/- 22	✓

Table 10: Poltry on commercial agricultural holdings on 1 June [(a)]

Thousands

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total poultry	**128 879**	**134 869**	**139 689**	**3.6**	**+/- 8 669**	✓✓
Total breeding and laying fowl	**33 201**	**33 748**	**33 678**	**-0.2**	**+/- 2 021**	✓✓
Hens and pullets laying eggs for eating	25 451	25 486	25 278	-0.8	+/- 1 932	✓✓
Breeding flock	7 750	8 262	8 400	1.7	+/- 593	✓✓
Table chickens (broilers)	**85 328**	**90 605**	**95 849**	**5.8**	**+/- 8 266**	✓✓
Other poultry	**10 351**	**10 516**	**10 162**	**-3.4**	**+/- 1 656**	✓
Ducks	1 832	2 077	1 897	-8.6	+/- 201	✓
Geese	148	158	156	-1.3	+/- 6	✓✓✓
Turkeys	3 890	3 997	3 985	-0.3	+/- 1 101	⍓
All other poultry	4 480	4 285	4 124	-3.7	+/- 1 221	⍓

(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 commercial agricultural holdings on 1 June [(a)]

Thousands

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total other livestock	**302**	**299**	**293**	**-2.0**	**+/- 15.1**	✓✓
Goats	83	84	87	4.2	+/- 9.3	✓
Farmed deer	21	20	21	6.3	+/- 6.7	⍓
Horses	177	170	162	-4.5	+/- 8.2	✓✓
Any livestock not recorded elsewhere [(a)]	22	26	23	-11.9	+/- 5.3	⍓
- of which alpacas	11	11	8	-32.8	+/- 1.9	⍓
- of which llamas	2	1	1	6.3	+/- 0.6	⊠

(a) Includes camelids, donkeys, mules and hinnies.

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

Thousands

	2016	2017	2018	% change 2018-17	June 2018 confidence interval	Indicator
Total number of people working on commercial agricultural holdings	**302**	**306**	**309**	**0.9**	**+/- 3.4**	✓✓✓
Farmers, partners, directors and spouses	**173**	**175**	**178**	**1.9**	**+/- 2.2**	✓✓✓
Full time	89	90	93	3.8	+/- 1.5	✓✓✓
Part time [(a)]	84	85	85	0.0	+/- 1.7	✓✓✓
Salaried managers	**11**	**11**	**12**	**3.8**	**+/- 0.6**	✓✓
Full time	8	8	9	7.0	+/- 0.5	✓✓
Part time [(a)]	3	3	3	-5.0	+/- 0.3	✓
Regular and casual workers	**117**	**120**	**119**	**-0.8**	+/- 2.6	✓✓✓
Regular workers	**73**	**72**	**69**	**-3.4**	**+/- 1.7**	✓✓✓
- Full time	47	45	43	-4.5	+/- 1.3	✓✓✓
- Part time [(a)]	27	27	26	-1.6	+/- 1.2	✓✓✓
Casual workers	**44**	**48**	**50**	**2.9**	**+/- 1.9**	✓✓✓
- Male	29	31	32	3.2	+/- 1.6	✓✓
- Female	15	17	18	2.4	+/- 1.0	✓✓

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

Survey methodology

Full details of the survey methodology are available on the website at:
https://www.gov.uk/structure-of-the-agricultural-industry-survey-notes-and-guidance.
A summary is given below.

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 2018. 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 13 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 13: June 2018 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	10%	48 926
2	SLR >= 0.5 and < 1	15%	16 686
3	SLR >= 1 and < 2	25%	14 682
4	SLR >= 2 and < 3	37%	7 810
5	SLR >= 3 and < 5	54%	7 648
6	SLR >= 5	66%	7 900
10	SLR unknown	46%	3 501
All		**23%**	**107 153**

The results in this statistical release are based on usable responses from almost 15 thousand commercial holdings, representing a response rate of 59%.

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.

Data analysis

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.

Confidence indicators

We calculate the standard error for all our estimated figures. The standard error is a measure of the variation in the data. Typically, large estimates also have large standard errors. The standard error divided by the estimated total gives the relative standard error (RSE). This is expressed as a percentage and is easier to interpret than the standard error. Low RSEs indicate greater reliability in the figures, whereas estimates with high RSEs should be treated with caution.

Tick based confidence indicators have been shown against the June 2018 figures, ranging from 3 ticks (good) to 1 cross (poor). The ranges relate to the relative standard errors (RSE) as follows:

✓✓✓	RSE <=2.5%
✓✓	RSE >2.5 and <=5%
✓	RSE >5 and <=10%
	RSE >10 and <=20%
☒	RSE >20%

We have also shown confidence intervals against the figures. They are based on the standard error multiplied by 1.96 which gives a 95% confidence interval. We are 95% confident that this interval contains the true value. The standard errors only give an indication of the sampling error. They do not take into account any other sources of survey errors, such as non-response bias or administrative data errors.

Data notes

- All figures in tables 1 to 12 relate to commercial holdings only with the exception of the cattle figures in table 7, which relate to all holdings. Further details on commercial holdings can be seen in the methodology section on page 16.
- All percentage changes are based on unrounded figures.
- Totals may not necessarily agree with the sum of their components due to rounding.

Data uses and users

Results from the June Survey of Agriculture and Horticulture 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

- The next publications from the June Survey will relate to 2019 results. First early estimates of cereal, oilseed and uncropped arable land areas will be available in August 2019.

UK Publications

- 20 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.