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Farming Statistics Land Use, Livestock Populations and Agricultural Workforce At 1 June 2019 - England

This release contains the estimates of crop areas, livestock numbers and the agricultural workforce on commercial holdings in England on 1 June 2019. 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 26 September 2019.

Approximately 35 thousand commercial holdings were asked to complete the survey and results are based on almost 22 thousand responses, representing a response rate of 62%. 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 saw no significant change between 2018 and 2019 and now stands at just under 9.06 million hectares.
- The total croppable area accounts for just over half (54%) of UAA and has increased by 0.8% to just over 4.9 million hectares in 2019.
- Permanent grassland accounts for an additional 41% of UAA and has remained virtually unchanged at 3.7 million hectares in 2019.
- The area of owned land in England increased by 1.3% to just under 6.2 million hectares in 2019. Land rented in for a year or more decreased by 1.5% to just over 3.0 million hectares.

Crops ([Tables 3-6](#))

- The total area of arable crops has increased by 1.0% since 2018, and now stands at almost 3.9 million hectares in 2019.
- Cereals and oilseed crops account for the majority (82%) of the total arable crop area. The area of cereal crops increased by 3.7% to almost 2.7 million hectares in 2019. This was despite a fall of 5.8% in the area of spring sown barley which decreased to 444 thousand hectares in 2019. This was more than offset by the increases in the area of wheat, which rose by 3.6% to 1.7 million hectares and winter sown barley which increased by 15.6% to 388 thousand hectares.
- The area of oilseed crops decreased by 10.8%, falling from 571 thousand hectares in 2018 to 509 thousand hectares in 2019. This was mainly due to a 9.2% decrease in the area of winter oilseed rape, which accounts for the majority (96%) of all oilseed crops.

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- The area of horticultural crops accounts for 137 thousand hectares of land, a small decrease (0.9%) compared to 2018.

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

- The total number of cattle and calves in England is 5.3 million in June 2019, a decrease of 1.7% compared to 2018. The total breeding herd saw a slightly smaller decrease of 1.4% and now stands at just over 1.8 million.
- In 2019, the total number of pigs in England increased by 0.5% to just under 4.1 million animals. The increase was mainly driven by the rise in the number of fattening pigs, also up 0.5% to just under 3.7 million in 2019. Although neither change is statistically significant.
- The total number of sheep and lambs decreased by 1.7%, from 15.7 million in 2018 to almost 15.4 million in 2019. The female breeding flock decreased by 2.0% to 7.2 million, with the number of lambs also decreasing by 1.5% to 7.8 million.
- The total number of breeding and laying fowl in England increased by 0.4% between 2018 and 2019 to just under 33.8 million. The number of table chickens (broilers) decreased by 0.7% in 2019 to 95.1 million.
- In 2019, the number of horses on commercial holdings remained virtually unchanged at 162 thousand head.

Agricultural workforce ([Table 12](#))

The total number of people working on agricultural holdings in England decreased by 0.9% from 309 thousand in 2018 to 306 thousand in 2019. Farmers, business partners, directors and spouses account for over half (59%) of the total workforce and saw an increase of 1.0% to 180 thousand people in 2019.

Revisions

This release contains minor revisions that have been made to the confidence intervals for crop areas and livestock populations previously published on 26 September 2019. The crop areas and livestock population estimates remain unchanged.

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.

Feedback ([Page 20](#))

We would welcome any feedback on this release. Details on how to get in touch can be found on page 20.

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 just under 9.1 million hectares in 2019.

Figure 1: Total utilised agricultural area at 1 June 2000 to 2019

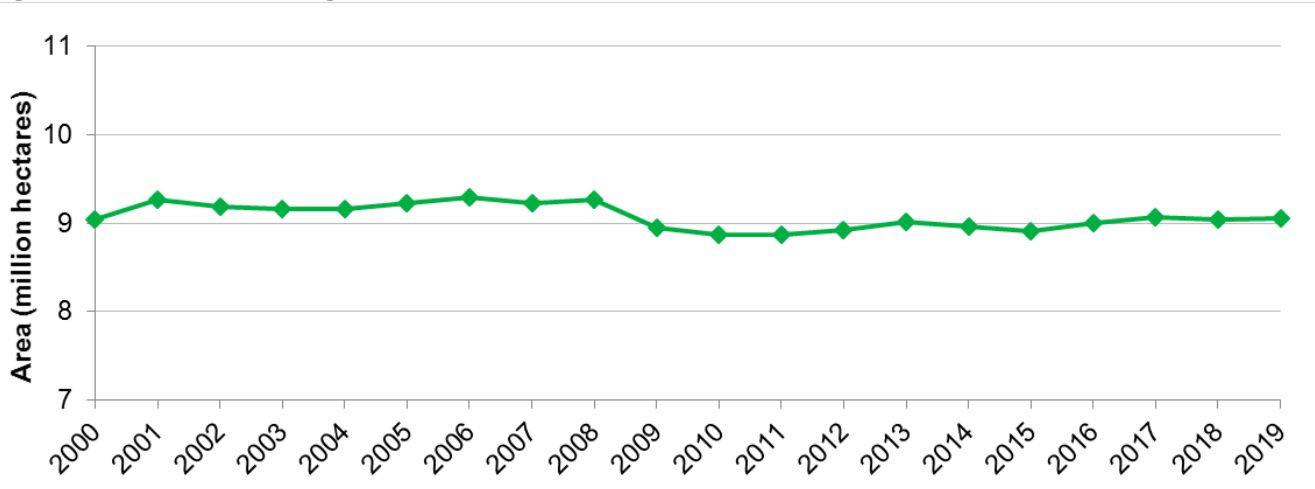


Figure 1 shows that the utilised agricultural area in England has remained stable around the 9 million hectare mark since 2000. The small drop seen between 2008 and 2009 is a result of register improvements made ahead of the 2010 Census which removed holdings that no longer have agricultural activity.

Croppable area

The area of land available for cropping increased by 0.8%, from just under 4.9 million hectares in 2018 to just over 4.9 million in 2019. 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 2019 compared to 2018

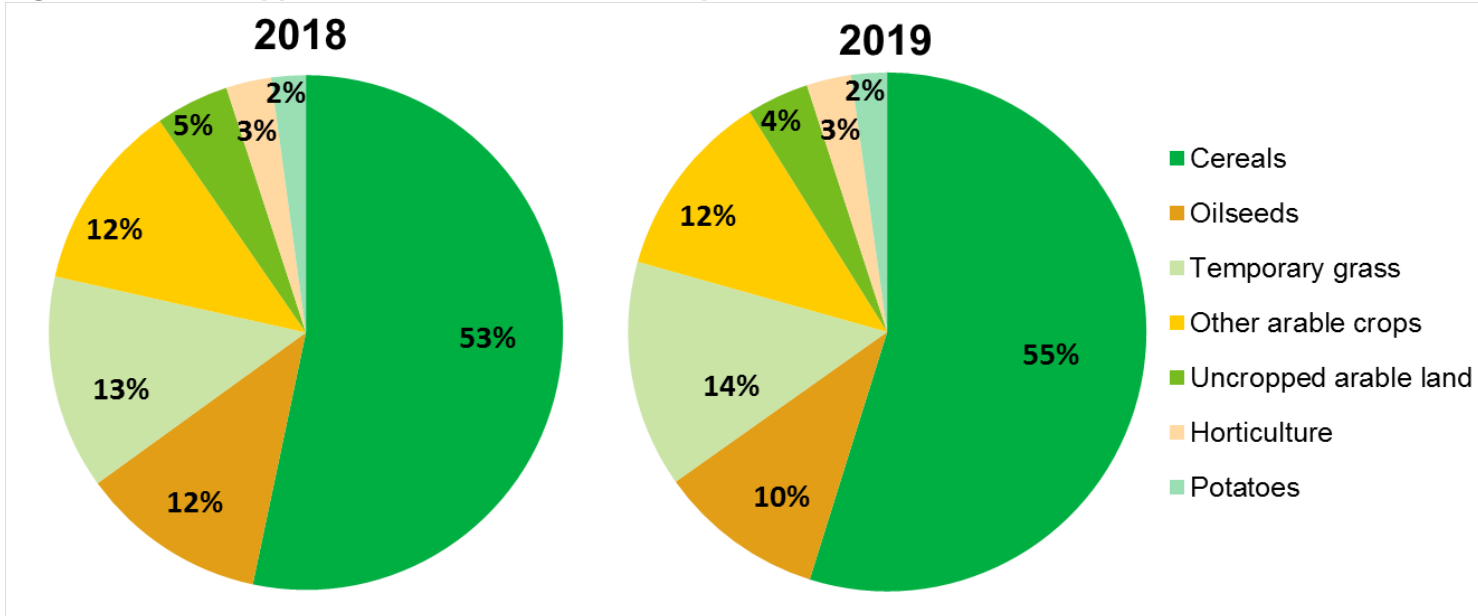


Figure 2 on the previous page shows that on the whole the proportion of croppable land used for each purpose remained similar between 2018 and 2019; however some categories did see value changes. In particular the area of uncropped arable land decreased by 15.3%, from 225 thousand hectares in 2018 to 191 thousand hectares in 2019. However it still only accounts for 4% of the total croppable area.

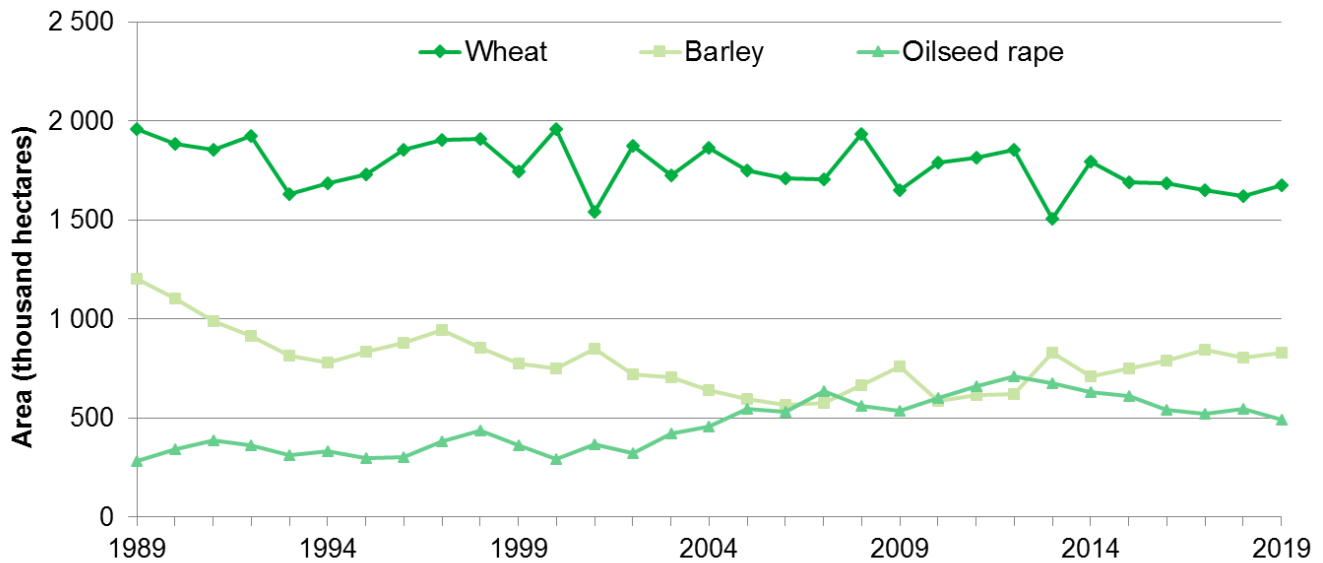
Oilseeds, other arable crops, uncropped arable land and horticulture all saw decreases in 2019 but the increases seen in cereals (3.7%), temporary grass (6.0%) and potatoes (3.4%) more than offset this resulting in the total croppable area increasing by 0.8%.

Cereals and oilseeds

The total area of cereal crops in England increased by 3.7% between 2018 and 2019 and stands at almost 2.7 million hectares.

The area of wheat rose by 3.6% between 2018 and 2019 and now stands at just below 1.7 million hectares. 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 1989 to 2019

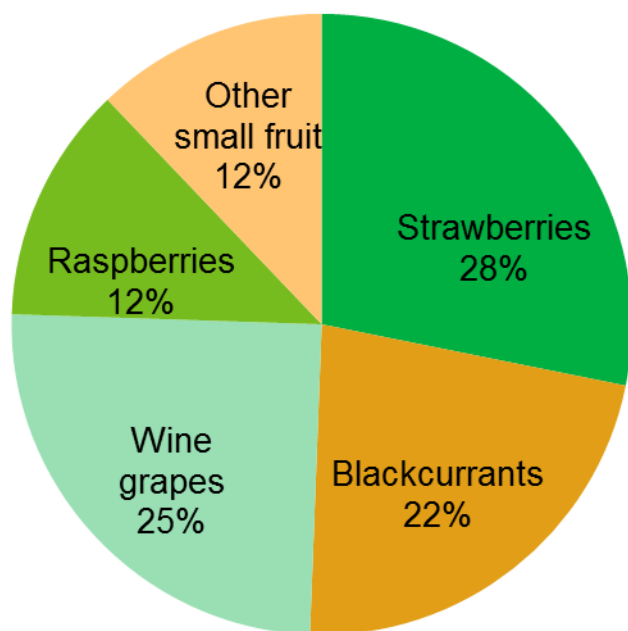


With the area of spring sown barley decreasing by 5.8% in 2019 to 444 thousand hectares compared to 471 thousand hectares in 2018 and winter sown barley increasing by 15.6%, the total barley area saw an increase of 3.1% and now stands at 832 thousand hectares.

The total area of oilseed rape fell by 9.7%, decreasing from 545 thousand hectares in 2018 to 492 thousand hectares in 2019. The decrease was due to a 9.2% fall in the area of winter sown oilseed rape which accounts for 96% of the total oilseed rape area and now stands at 488 thousand hectares. Spring oilseed rape also saw a decrease of 43.3% in 2019. However, at 4 thousand hectares this only accounts for 1% of the total oilseed area and is the 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 2019



Figures in chart may not add up due to rounding

The total area of orchards and small fruit remained almost unchanged between 2018 and 2019 at 32 thousand hectares. Orchards account for 68% of this total and cover just over 21 thousand hectares in 2019, a decrease of 1.4% since 2018.

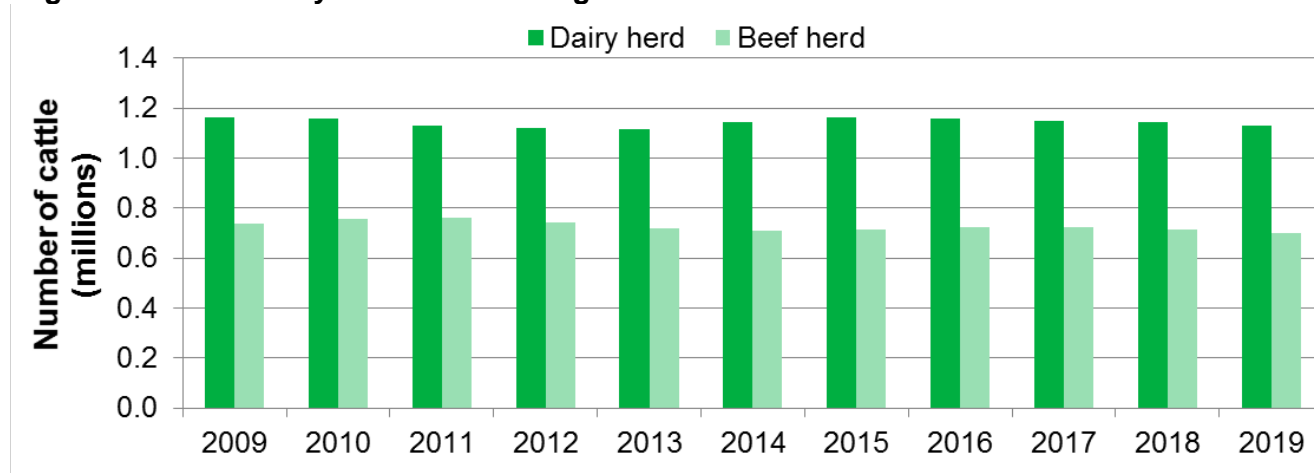
The remaining area of 10 thousand hectares is used to grow small fruit. This area increased by 4.3% since 2018 which offset the small decrease in the orchard area. Figure 4 shows the breakdown of small fruit areas in 2019. The largest proportion of the small fruit area is used to grow strawberries (28%) with blackcurrants (22%) and wine grapes (25%) being the next most common small fruit crops.

The area used to grow vegetables for human consumption decreased between 2018 and 2019, falling by 1.1% to 94 thousand hectares. The majority (64%) of this area is used to grow other vegetables and salad and this area decreased by 4.0% between 2018 and 2019.

Cattle

The total number of cattle and calves in England decreased by 1.7% between 2018 and 2019 and now stands at just under 5.3 million animals. The female breeding herd continues to account for just over a third (35%) of this total.

Figure 5: Female dairy and beef breeding herds at 1 June 2009 to 2019

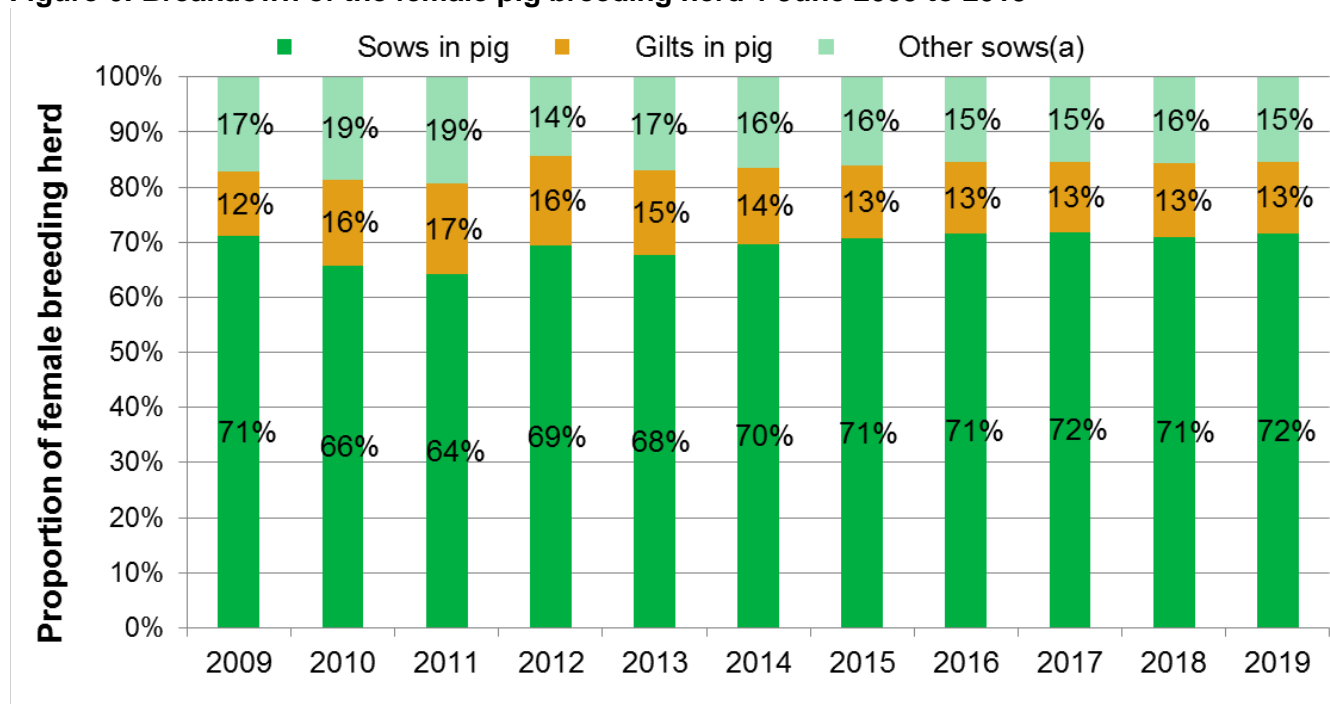


The breeding herd decreased slightly in 2019, falling by 1.4% to 1.8 million animals. The dairy herd accounts for the majority (62%) of the breeding herd and fell by 1.1% in 2019 and now stands at over 1.1 million animals. The beef herd also saw a decrease in the breeding herd between 2018 and 2019 of 1.8% to 699 thousand animals (Figure 5).

Pigs

The total number of pigs in England increased by 0.5% from just over 4.0 million animals in 2018 to just under 4.1 million in 2019. This increase was driven by a similar rise in the number of fattening pigs which account for 90% of all pigs (see table 8). Although neither change is statistically significant.

Figure 6: Breakdown of the female pig breeding herd 1 June 2009 to 2019



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

The female breeding herd showed little change in 2019 and remains at 327 thousand animals. Figure 6 above shows how the female breeding herd is made up. Other breeding pigs also saw an increase in 2019 of 1.6%, rising from 82 to 83 thousand animals.

Sheep

The total number of sheep and lambs in England decreased by 1.7%, from 15.7 million in 2018 to almost 15.4 million in 2019. Lambs account for just over half (51%) of all sheep and decreased by 1.5% from 7.9 million in 2018 to 7.8 million in 2019. The female breeding flock account for a further 47% of all sheep and decreased by 2.0% to 7.2 million sheep in 2019.

Poultry

The number of table chickens (broilers) decreased by 0.7%, from 95.8 million birds on 1 June 2018 to 95.1 million on 1 June 2019. Table chickens account for two thirds of all poultry in England and consumer demand remains strong.

In 2019 the total number of breeding and laying fowl in England increased by 0.4% and now stands at just under 33.8 million birds. Hens and pullets laying eggs for eating account for the majority (75%) of the breeding and laying flock and increased by 0.4% from 25.3 million in 2018 to 25.4 million in 2019.

The number of ducks, geese and turkeys in England all saw decreases in 2019, falling by 9.8%, 9.6% and 4.6% respectively.

Other livestock

In 2019 the number of horses on commercial holdings in England remained virtually unchanged at 162 thousand animals. The number of farmed deer increased by 0.1%, rising from 21 thousand in 2018 to 22 thousand in 2019. The number of goats also saw an increase, rising by 1.9% during the same period, to 89 thousand animals.

Agricultural workforce

The total number of people working in agriculture in England was 306 thousand on 1 June 2019, showing a decrease of 0.9% since 1 June 2018. Farmers, business partners, directors and spouses account for over half (59%) of the total workforce and saw an increase (1.0%) to 180 thousand people in 2019. Salaried managers make up a much smaller proportion of the total (4%) and fell by 1.0% in 2019 to 12 thousand people.

Regular employees and casual workers make up the remainder (37%) of the total workforce. Full time regular workers increased by 0.3% between 2018 and 2019 and now stand at 43 thousand. Part time regular workers saw a decrease of 1.6% to 26 thousand people. These results are a snapshot of the workforce on the farm at 1 June, given the nature of agricultural work, it is therefore not unusual for the number of casual workers to vary from year to year. The number of casual workers decreased by 8.0% from 50 thousand people on 1 June 2018 to 46 thousand on 1 June 2019. (Figure 7).

Figure 7: Number of regular and casual workers at 1 June 2002 to 2019



Results tables

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

	Thousand hectares					
	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(e)	Indicator
Utilised agricultural area ^(a)	9 061	9 034	9 059	0.3	+/- 70	✓✓✓
Total agricultural area	9 575	9 559	9 605	0.5	+/-70	✓✓✓
Common rough grazing ^(b)	399	399	399	-	-	
Total area on agricultural holdings	9 176	9 160	9 206	0.5	+/- 70	✓✓✓
Total croppable area	4 894	4 874	4 914	0.8	+/- 40	✓✓✓
Total crops	4 054	3 992	4 028	0.9	+/- 37	✓✓✓
Arable crops	3 914	3 853	3 890	1.0	+/- 37	✓✓✓
Cereals	2 660	2 598	2 695	3.7	+/- 29	✓✓✓
Oilseeds	550	571	509	-10.8	+/- 13	✓✓✓
Potatoes	108	106	109	3.4	+/- 4	✓✓✓
Other crops	596	578	577	-0.2	+/- 19	✓✓✓
Horticultural crops	140	138	137	-0.9	+/- 6	✓✓✓
Uncropped arable land ^(c)	200	225	191	-15.3	+/- 7	✓✓✓
Temporary grass under 5 years old	640	656	696	6.0	+/- 14	✓✓✓
Permanent grassland (incl. rough grazing)	3 757	3 752	3 736	-0.4	+/- 54	✓✓✓
Grass over 5 years old	3 279	3 296	3 294	0.0	+/- 52	✓✓✓
Sole right rough grazing ^(d)	479	456	442	-3.1	+/- 15	✓✓✓
Other land on agricultural holdings	525	534	555	3.9	+/- 21	✓✓✓
Woodland	369	372	379	2.0	+/- 10	✓✓✓
Land used for outdoor pigs	10	10	10	-0.1	+/- 1	✓✓
All other non-agricultural land	146	153	166	8.7	+/- 19	✓

(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.

(e) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

	Thousand hectares					
	2017	2018	2019	% change 2019-18	June 2019 confidence interval	Indicator
Land owned	6 107	6 101	6 179	1.3	+/- 48	✓✓✓
Land rented in for 1 year or more	3 039	3 057	3 013	-1.5	+/- 43	✓✓✓
Full Agricultural Tenancies	1 396	1 354	1 305	-3.6	+/- 23	✓✓✓
Farm Business Tenancies	1 208	1 263	1 267	0.3	+/- 32	✓✓✓
Other agreements	436	440	441	0.2	+/- 17	✓✓✓
Seasonally rented in land ^(a)	527	544	542	-0.4	+/- 17	✓✓✓
Seasonally let out land ^(a)	401	418	482	15.1	+/- 22	✓✓✓

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

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

Thousand hectares

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(b)	Indicator
Total arable crops	3 914	3 853	3 890	1.0	+/- 37	✓✓✓
Cereals	2 660	2 598	2 695	3.7	+/- 29	✓✓✓
Wheat	1 652	1 619	1 677	3.6	+/- 23	✓✓✓
Barley	842	807	832	3.1	+/- 15	✓✓✓
winter	361	336	388	15.6	+/- 11	✓✓✓
spring	482	471	444	-5.8	+/- 10	✓✓✓
Oats	121	132	143	8.0	+/- 7	✓✓
Rye, mixed corn and triticale	44	41	43	6.7	+/- 4	✓✓
Oilseed crops	550	571	509	-10.8	+/- 13	✓✓✓
Oilseed rape	523	545	492	-9.7	+/- 13	✓✓✓
winter	515	537	488	-9.2	+/- 12	✓✓✓
spring	8	8	4	-43.3	+/- 3	☒
Linseed	26	25	15	-38.1	+/- 2	✓
Borage	1	2	2	38.0	+/- 1	☒
Potatoes	108	106	109	3.4	+/- 4	✓✓✓
Early crop (harvested on or before 31 July)	10	10	11	14.8	+/- 2	✓
Main crop (harvested after 31 July)	98	96	98	2.2	+/- 4	✓✓✓
Other (non-horticultural) crops	596	578	577	-0.2	+/- 19	✓✓✓
Sugar beet ^(a)	111	114	108	-5.6	+/- 5	✓✓✓
Field beans	189	152	135	-11.4	+/- 7	✓✓
Peas for harvesting dry	39	37	40	7.6	+/- 8	✓
Maize	183	206	211	2.4	+/- 12	✓✓
- of which grain maize	8	10	9	-5.9	+/- 2	☒
- of which fodder maize	118	140	136	-3.1	+/- 6	✓✓✓
- of which maize for anaerobic digestion	57	57	67	17.2	+/- 10	✓
Root crops, brassicas and fodder beet for stock feeding	24	25	35	40.8	+/- 6	✓
Leguminous forage crops	16	15	15	-1.9	+/- 2	✓
Other crops for stockfeeding	7	8	10	35.2	+/- 3	☒
All other arable crops	27	21	23	11.9	+/- 5	☒
- of which short rotation coppice	3	3	2	-21.0	+/- 1	☒
- of which miscanthus	7	7	8	14.3	+/- 1	✓
- of which crops for aromatic or medicinal use	2	2	3	78.4	+/- 3	☒

(a) Not for stockfeeding.

(b) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

Thousand hectares

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(d)	Indicator
Total fruit and vegetables	128	127	126	-0.7	+/- 6	✓✓✓
Orchards ^(a)	22	22	21	-1.4	+/- 1	✓✓✓
Small fruit ^(b)	9.8	9.8	10.2	4.3	+/- 0.6	✓✓
Strawberries	3.1	3.0	2.9	-3.0	+/- 0.2	✓✓
Raspberries	1.5	1.2	1.3	4.2	+/- 0.2	✓
Blackcurrants	2.1	2.2	2.3	5.2	+/- 0.3	✓
Wine grapes	2.0	2.2	2.5	18.1	+/- 0.3	✓
Other small fruit (incl. gooseberries & blackberries)	1.2	1.3	1.2	-3.7	+/- 0.1	✓
Vegetables and salad for human consumption ^(c)	96	95	94	-1.1	+/- 6	✓✓
Vining peas for processing	27	27	27	2.8	+/- 3	✓
Other peas and beans	2	2	3	29.9	+/- 1	☒
Culinary plants for human consumption (incl. herbs)	3	4	4	2.9	+/- 1	☒
All other vegetables and salad	64	63	60	-4.0	+/- 5	✓✓
- of which carrots	8	6	7	14.1	+/- 1	✓
- of which onions	14	12	13	10.2	+/- 2	✓

(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.

(d) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

Table 5: Hardy nursery stock on commercial agricultural holdings on 1 June

Hectares

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(a)	Indicator
Total hardy nursery stock, bulbs and flowers	10 982	10 178	9 903	-2.7	+/- 507	✓✓
Christmas trees	1 980	1 581	1 570	-0.7	+/- 148	✓✓
Perennial herbaceous plants	327	400	405	1.4	+/- 142	☒
Other hardy nursery stock	2 320	2 190	2 051	-6.3	+/- 153	✓✓
Bulbs and flowers grown in the open	6 355	6 008	5 876	-2.2	+/- 438	✓✓

(a) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(d)	Indicator
Total glasshouse area on 1 June	1 304	1 223	1 195	-2.3	+/- 66	✓✓
Vegetables, salad and fruit	697	680	684	0.7	+/- 56	✓✓
Flowers, foliage and other plants	478	405	409	1.0	+/- 26	✓✓
Mushroom sheds ^(c)	4	na	na	-		
Not in use on 1 June	125	139	102	-26.8	+/- 23	☒

(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) Since 2018 there has not been enough response data to produce robust estimates and therefore the figures are excluded from the results and the totals.

(d) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

	Thousands			
	2017	2018	2019	% change 2019-18
Total cattle and calves	5 418	5 372	5 280	-1.7
All female cattle	3 921	3 890	3 832	-1.5
Aged 2 years or more	2 265	2 240	2 194	-2.1
Total breeding herd	1 871	1 855	1 829	-1.4
- Beef herd	721	712	699	-1.8
- Dairy herd	1 150	1 143	1 131	-1.1
Other female cattle	394	385	365	-5.4
- Beef	189	194	197	2.0
- Dairy	205	192	167	-12.8
Aged between 1 and 2 years	799	792	789	-0.4
- Beef	460	478	479	0.4
- Dairy	340	314	309	-1.5
Less than 1 year	856	858	849	-1.0
- Beef	529	535	533	-0.4
- Dairy	327	323	316	-2.1
All male cattle	1 497	1 483	1 448	-2.3
Aged 2 years or more	193	190	191	0.3
Aged between 1 and 2 years	572	566	559	-1.3
Less than 1 year	732	726	698	-3.9

(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

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(b)	Indicator
Total pigs	3 969	4 038	4 060	0.5	+/- 263	✓✓
Breeding pigs	416	408	410	0.4	+/- 21	✓✓
Female breeding herd	334	327	327	0.1	+/- 20	✓✓
Sows in pig	240	232	234	1.1	+/- 19	✓✓
Gilts in pig	43	44	43	-2.0	+/- 4	✓
Other sows ^(a)	51	51	50	-2.3	+/- 7	✓
Other breeding pigs	82	82	83	1.6	+/- 5	✓✓
Boars being used for service	11	11	10	-5.0	+/- 1	✓✓
Gilts intended for first time breeding	71	71	73	2.6	+/- 5	✓✓
Fattening pigs (incl. barren sows)	3 553	3 630	3 650	0.5	+/- 262	✓✓

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

(b) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

Thousands

	2017	2018	2019	% change 2019-18	June 2019 confidence interval ^(a)	Indicator
Total sheep and lambs	15 757	15 651	15 390	-1.7	+/- 189	✓✓✓
Female breeding flock	7 385	7 383	7 234	-2.0	+/- 110	✓✓✓
Ewes intended for further breeding	5 675	5 703	5 597	-1.9	+/- 99	✓✓✓
Breeding ewes intended for slaughter	478	527	521	-1.1	+/- 33	✓✓
Ewes intended for first time breeding	1 232	1 152	1 115	-3.2	+/- 37	✓✓✓
Other sheep and lambs	8 372	8 268	8 156	-1.4	+/- 153	✓✓✓
Lambs under 1 years old	8 001	7 889	7 775	-1.5	+/- 152	✓✓✓
Rams	192	192	193	0.3	+/- 5	✓✓✓
Other sheep 1 year and over	179	187	189	1.1	+/- 17	✓✓

(a) Minor revisions have been made to the confidence intervals since the publication on 26 September 2019.

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

	Thousands					
	2017	2018	2019	% change 2019-18	June 2019 confidence interval	Indicator
Total poultry	134 869	139 689	138 850	-0.6	+/- 6 345	✓✓✓
Total breeding and laying fowl	33 748	33 678	33 799	0.4	+/- 2 000	✓✓
Hens and pullets laying eggs for eating	25 486	25 278	25 388	0.4	+/- 1 443	✓✓
Breeding flock	8 262	8 400	8 411	0.1	+/- 1 385	✓
Table chickens (broilers)	90 605	95 849	95 150	-0.7	+/- 5 781	✓✓
Other poultry	10 516	10 162	9 901	-2.6	+/- 1 684	✓
Ducks	2 077	1 897	1 712	-9.8	+/- 171	✓
Geese	158	156	141	-9.6	+/- 8	✓✓
Turkeys	3 997	3 985	3 802	-4.6	+/- 678	✓
All other poultry	4 285	4 124	4 246	3.0	+/- 1 531	☒

(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					
	2017	2018	2019	% change 2019-18	June 2019 confidence interval	Indicator
Total other livestock	299	293	298	1.6	+/- 11.0	✓✓✓
Goats	84	87	89	1.9	+/- 6.4	✓✓
Farmed deer	20	21	22	0.1	+/- 4.3	☒
Horses	170	162	162	0.0	+/- 5.7	✓✓✓
Any livestock not recorded elsewhere ^(a)	26	23	26	13.4	+/- 5.4	☒
- of which alpacas	11	8	9	19.3	+/- 2.5	☒
- of which llamas	1	1	1	-2.8	+/- 0.8	☒

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

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

	2017	2018	2019	% change 2019-18	June 2019 confidence interval	Thousands Indicator
Total number of people working on commercial agricultural holdings	306	309	306	-0.9	+/- 3.0	✓✓✓
Farmers, partners, directors and spouses	175	178	180	1.0	+/- 1.7	✓✓✓
Full time	90	93	93	-0.1	+/- 1.1	✓✓✓
Part time ^(a)	85	85	87	2.1	+/- 1.4	✓✓✓
Salaried managers	11	12	12	-1.0	+/- 0.4	✓✓✓
Full time	8	9	9	-1.8	+/- 0.4	✓✓✓
Part time ^(a)	3	3	3	1.4	+/- 0.3	✓✓
Regular and casual workers	120	119	115	-3.6	+/- 2.3	✓✓✓
Regular workers	72	69	69	-0.4	+/- 1.6	✓✓✓
- Full time	45	43	43	0.3	+/- 1.3	✓✓✓
- Part time ^(a)	27	26	26	-1.6	+/- 1.0	✓✓✓
Casual workers	48	50	46	-8.0	+/- 1.7	✓✓✓
- Male	31	32	29	-9.0	+/- 1.4	✓✓✓
- Female	17	18	17	-6.2	+/- 0.9	✓✓

(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 35 thousand 'commercial' holdings were asked to complete the survey in 2019. 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 2019 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	16%	46 771
2	SLR >= 0.5 and < 1	22%	16 161
3	SLR >= 1 and < 2	36%	13 942
4	SLR >= 2 and < 3	52%	7 541
5	SLR >= 3 and < 5	72%	7 593
6	SLR >= 5	86%	7 847
10	SLR unknown	33%	7 737
All		32%	107 592

The results in this statistical release are based on usable responses from almost 22 thousand commercial holdings, representing a response rate of 62%.

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 2019 figures, ranging from 3 ticks (good) to 1 cross (poor). The ranges relate to the relative standard errors (RSE) as follows:

- ✓✓✓ RSE $\leq 2.5\%$
- ✓✓ RSE > 2.5 and $\leq 5\%$
- ✓ RSE > 5 and $\leq 10\%$
- ☒ RSE > 10 and $\leq 20\%$
- ☒ 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 17.
- 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 2020 results. First early estimates of cereal, oilseed and uncropped arable land areas will be available in August 2020.

UK Publications

- 19 December 2019: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2019 – 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.

National Statistics Status

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

The continued designation of these statistics as National Statistics was confirmed in 2014 following a [full assessment](#) by the UK Statistics Authority against the [Code of Practice for Statistics](#).

Since the last review of these statistics in 2014, we have continued to comply with the Code of Practice for Statistics, and have made improvements including:

- Reviewed and amended the validation checks carried out on response data including validation against new administrative data sources to better assure ourselves of the quality of the statistics.
- Enhanced trustworthiness by removing pre-release access

Feedback

We welcome feedback and any thoughts to improve the publication further. Please send any feedback to: farming-statistics@defra.gov.uk. Suggested questions to help you structure your feedback are below but all feedback is welcome:

- How relevant is the current content of the publication to your needs as a user?
- What purpose do you require the data for?
- Which data do you find most useful?
- Is there any content that you did not find useful?
- Do you have any suggestions for further development of this release; including additional content, presentation and any other thoughts?

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