



Department
for Environment
Food & Rural Affairs



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Farming Statistics

Final crop area and cattle, sheep and pig populations At 1 June 2015 - England

This release contains the final estimates of crop areas and livestock numbers on commercial agricultural holdings in England on 1 June 2015. The results in this release are final and will not be updated. Results are not yet available for the areas of owned and rented land, poultry, horses, goats, farmed deer, camelids and labour numbers. These will be published on 29 October 2015.

Approximately 25 thousand commercial holdings were asked to complete the survey and results are based on almost 16 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 16. The key results are given below.

Agricultural land use and ownership ([Tables 1-2](#))

The utilised agricultural area (UAA) in England decreased by 0.6% between 2014 and 2015 and now stands at 8.9 million hectares. The total croppable area accounts for just over half (54%) of UAA and remained almost unchanged at 4.8 million hectares in 2015. Permanent grassland accounts for an additional 41% of UAA and was 3.7 million hectares in 2015.

Estimates of the areas of land owned and rented will be published on 29 October 2015.

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

The total area of arable crops decreased by 0.9%, falling from 3.9 million hectares in 2014 to 3.8 million hectares in 2015. This resulted in an overall decrease of 0.6% in the area of total crops.

Cereals and oilseed crops account for the majority (84%) of the total arable crop area. Both of these areas decreased between 2014 and 2015, falling by 2.3% and 3.0% respectively. The decrease in the total cereals area was due to a 5.8% reduction in the area of wheat planted in June 2015, which now stands at 1.7 million hectares. In contrast barley has increased by 5.6%, with winter barley seeing the largest area of the crop sown since 2003 at 376 thousand hectares in 2015.

The area of horticultural crops accounts for 150 thousand hectares of land and has increased by 7.5% in 2015. This was driven mainly by the 6.6% increase in the area used to grow vegetables and salad for human consumption, which accounts for 70% of the total horticultural area.

Enquiries on this publication to: Jennie Blackburn, Farming Statistics, Department for Environment, Food and Rural Affairs, Room 201, Foss House, Kings Pool, 1-2 Peasholme Green, York YO1 7PX
Tel: 01904 455332. Email: farming-statistics@defra.gsi.gov.uk.

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Cattle ([Table 7](#))

The total number of cattle and calves in England is just under 5.4 million in June 2015, showing little change since 2014. The total breeding herd increased by 1.1% to almost 1.9 million in 2015. This was mainly due to a 1.7% increase in the dairy herd, which increased to almost 1.2 million. The beef herd also increased, rising by 0.3% from 710 thousand in 2014 to 713 thousand in 2015.

Pigs ([Table 8](#))

In 2015 the total number of pigs in England decreased by 3.2% to 3.8 million animals. The fall was mainly driven by the drop in the number of fattening pigs, down 3.6% to 3.4 million in 2015. The breeding herd showed very little change between 2014 and 2015.

Sheep ([Table 9](#))

The total number of sheep and lambs decreased by 1.6% from 15.4 million in 2014 to 15.1 million in 2015. The female breeding flock remained almost unchanged at 7.1 million, whereas the number of lambs decreased by 2.8% to 7.7 million.

Poultry ([Table 10](#))

Estimates of the poultry population will be published on 29 October 2015.

Other livestock ([Table 11](#))

Estimates of the number of horses, goats, farmed deer and camelids in England will be published on 29 October 2015.

Agricultural workforce ([Table 12](#))

The size of the agricultural workforce in England will be published on 29 October 2015.

Survey methodology ([Pages 16-17](#))

For information on how the survey is run and details of data analysis and accuracy of results please see the methodology section on pages 16 and 17 at the end of this release.

Other surveys and next publications due ([Page 18](#))

Further information on the next publications due from the results of the June Agricultural Survey can be found on page 18. 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 8.9 million hectares in 2015.

Figure 1: Total utilised agricultural area at 1 June 2000 to 2015

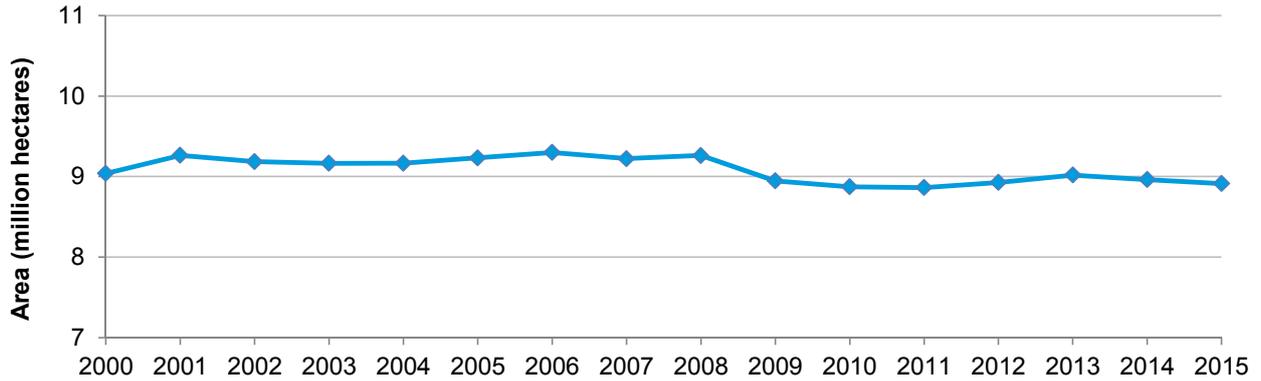


Figure 1 shows that the utilised agricultural area in England has remained stable around the 9 million hectare mark since 2000. The small drop seen between 2008 and 2009 is a result of register improvements made ahead of the 2010 Census which removed holdings that no longer have agricultural activity.

Croppable area

The area of land available for cropping remained almost unchanged at 4.8 million hectares in 2015. 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 2015 compared to 2014

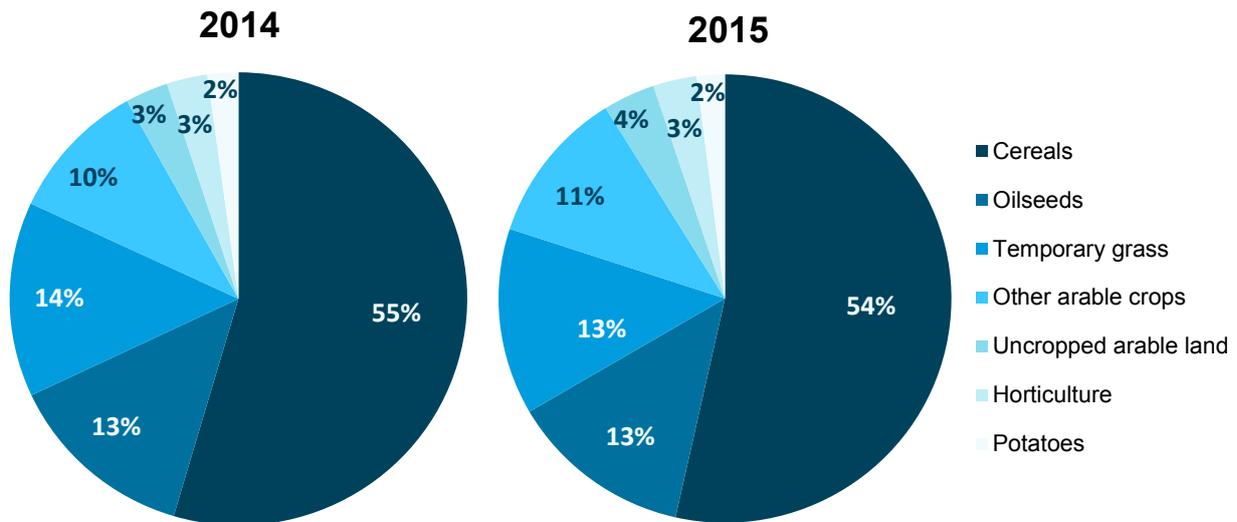


Figure 2 on the previous page shows that on the whole the proportion of croppable land used for each purpose remained similar between 2014 and 2015; however some categories did see value changes. In particular the area of uncropped arable land increased by 22% to 179 thousand hectares in 2015. This may partly be due to uncertainty over CAP greening and EFA (Ecological Focus Areas) requirements. The area of other arable crops has also increased by 11% to 535 thousand hectares. This was mainly due to the planted areas of field beans and peas for harvesting dry increasing by 59% and 37% respectively. In contrast the area of potatoes decreased by 8.3%, from 105 to 96 thousand hectares in 2015. This may be due to a difficult marketing year in 2014/15.

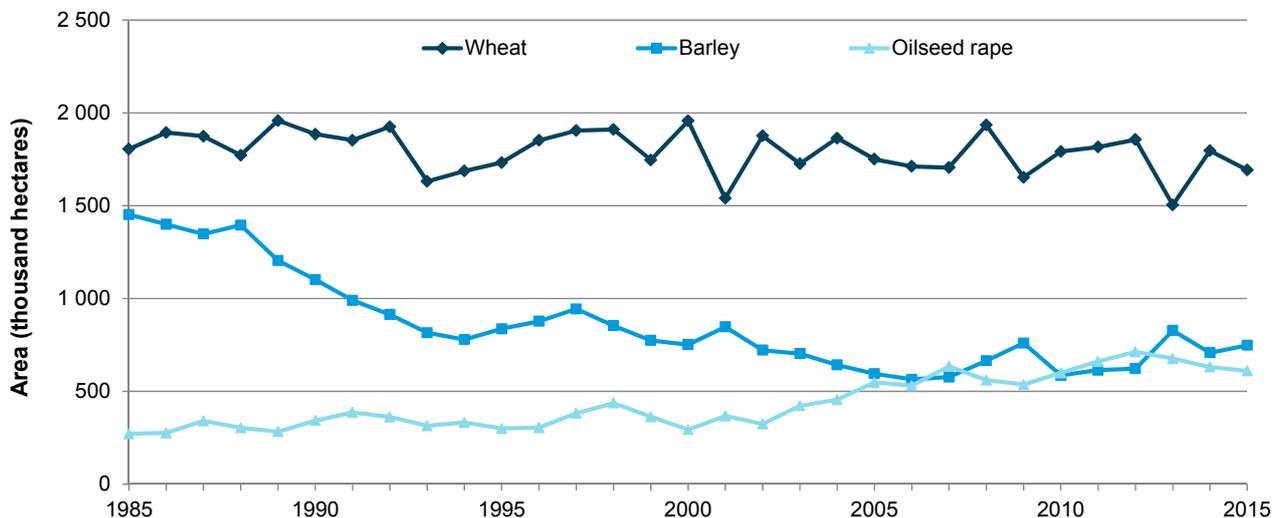
Cereals and oilseeds

The total areas of cereal and oilseed crops both decreased in 2015, falling by 2.3% and 3.0% respectively. Favourable weather conditions suggests these changes may be driven by economic and agronomic trends resulting in evolving cropping patterns including intensive wheat and oilseed rotations.

Figure 3 shows that the area of wheat has fluctuated between approximately 1.5 and 2.0 million hectares over the past 30 years. The area of wheat decreased by 5.8% between 2014 and 2015 and now stands at just under 1.7 million hectares. Despite the decrease in area, wheat continues to be the most popular crop grown in England.

In contrast, the total barley area saw an increase of 5.6%, rising from 709 thousand hectares in 2014 to 748 thousand hectares in 2015. Both spring and winter barley saw increases of 7.9% and 3.5% respectively. The 2015 area of winter barley is the largest area of the crop planted since 2003. Increases maybe due to both winter and spring sown barley being used for black-grass management and the earlier harvest time of winter sown barley allowing good opportunity to drill winter oilseed. The ratio between winter and spring sown barley is now a 50/50 split.

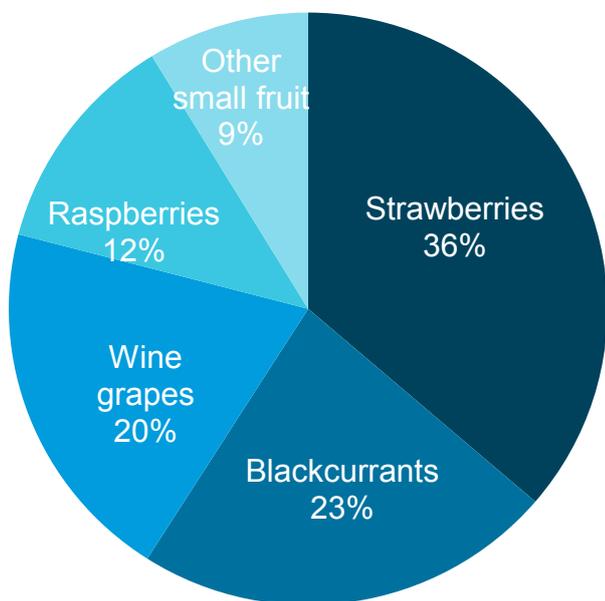
Figure 3: Area of wheat, barley and oilseed rape at 1 June 1985 to 2015



The total area of oilseed rape fell for the third year running, decreasing by 3.3% from 632 thousand hectares in 2014 to 611 thousand hectares in 2015. Both spring and winter sown areas of oilseed decreased, falling by 53% and 2.2% respectively. Several factors may have contributed to the changes including low market prices and the increasing risks of growing the crop.

Fruit and vegetables

Figure 4: Breakdown of small fruit as at 1 June 2015



The total area of orchards and small fruit in 2015 increased by 10% to 33 thousand hectares compared to June 2014. Orchards account for 72% of this total and cover 24 thousand hectares in 2015.

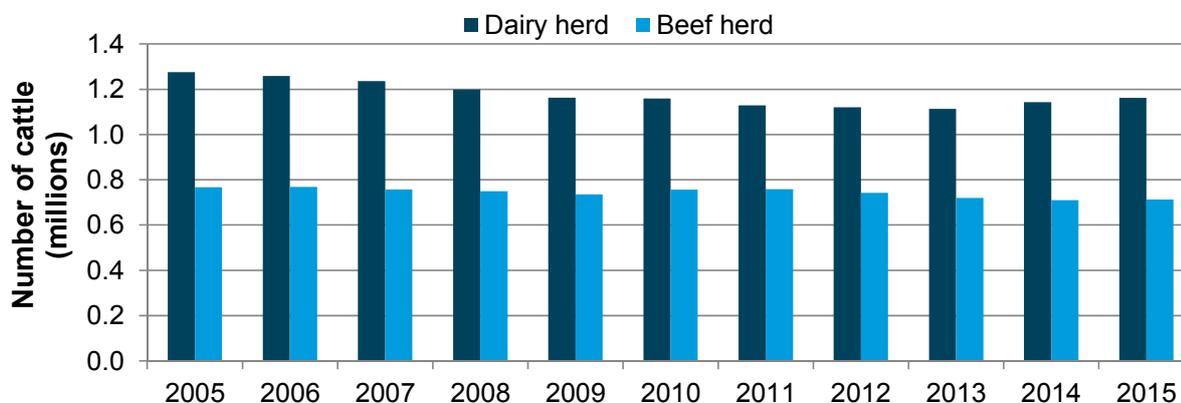
The remaining area of 9.1 thousand hectares is used to grow small fruit. Figure 4 shows the breakdown of small fruit areas in 2015. The largest proportion of the small fruit area is used to grow strawberries (36%) with blackcurrants being the next most common small fruit crop (23%).

The area used to grow vegetables for human consumption also showed an increase between 2014 and 2015, up by 6.6% to 104 thousand hectares. The majority (66%) of this area is used to grow other vegetables and salad and this area increased by 7.5% to 69 thousand hectares in 2015. The second largest area is vining peas which increased by 4.8% to 28 thousand hectares.

Cattle

The total number of cattle and calves in England remained almost unchanged between 2014 and 2015 and stands at just under 5.4 million animals. The female breeding herd continues to account for just over a third of this total.

Figure 5: Female dairy and beef herds at 1 June 2005 to 2015

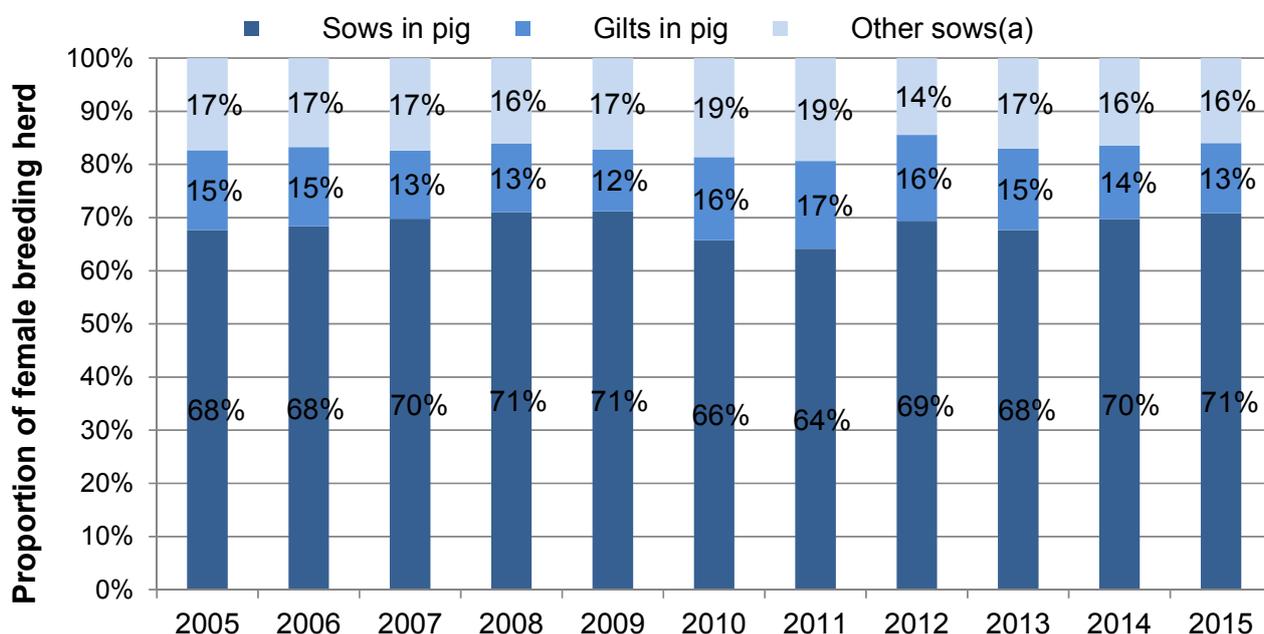


In recent years the breeding herd has been steadily decreasing from just over 2.0 million in 2005 to 1.8 million in 2013. However, in both 2014 and 2015 the breeding herd increased by 1.1% and now stands at almost 1.9 million animals. The dairy herd continues to account for 62% of the breeding herd and increased by 1.7% in 2015. The beef herd also showed a small increase of 0.3%, the first since 2011 (Figure 5).

Pigs

The total number of pigs in England decreased by 3.2% from 4.0 million animals in 2014 to 3.8 million in 2015. This decrease was driven by a 3.6% fall in the number of fattening pigs which account for almost 90% of all pigs.

Figure 6: Breakdown of the female pig breeding herd 1 June 2005 to 2015



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

The female breeding herd showed a small decrease of 0.4%, from 329 thousand pigs in 2014 to 328 thousand in 2015. Figure 6 above shows how the female breeding herd is made up. Other breeding pigs increased by 3.5% to 85 thousand animals in 2015. This offset the decrease in the breeding herd and led to an increase of 0.4% in the total number of breeding pigs.

Sheep

The total number of sheep and lambs decreased by 1.6%, from 15.4 million in 2014 to 15.1 million in 2015. This was mainly due to the decrease in ewes intended for further breeding and lambs under 1 year old which account for 36% and 51% of the total respectively.

Results tables

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

	Thousand hectares					
	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Utilised agricultural area ^(a)	9 018	8 963	8 912	-0.6	+/- 67	✓✓✓
Total agricultural area	9 485	9 432	9 391	-0.4	+/- 67	✓✓✓
Common rough grazing ^(b)	399	399	399	0.0	-	
Total area on agricultural holdings	9 086	9 033	8 992	-0.5	+/- 67	✓✓✓
Total croppable area	4 865	4 827	4 809	-0.4	+/- 48	✓✓✓
Total crops	3 960	4 010	3 984	-0.6	+/- 45	✓✓✓
Arable crops	3 820	3 870	3 834	-0.9	+/- 45	✓✓✓
Cereals	2 492	2 634	2 573	-2.3	+/- 36	✓✓✓
Oilseeds	714	648	629	-3.0	+/- 19	✓✓✓
Potatoes	103	105	96	-8.3	+/- 6	✓✓
Other crops	511	482	535	11.0	+/- 17	✓✓✓
Horticultural crops	140	139	150	7.5	+/- 6	✓✓✓
Uncropped arable land ^(c)	237	146	179	22.2	+/- 8	✓✓✓
Temporary grass under 5 years old	668	671	646	-3.7	+/- 14	✓✓✓
Permanent grassland (incl. rough grazing)	3 745	3 728	3 695	-0.9	+/- 45	✓✓✓
Grass over 5 years old	3 273	3 252	3 231	-0.6	+/- 38	✓✓✓
Sole right rough grazing ^(d)	472	476	464	-2.6	+/- 25	✓✓
Other land on agricultural holdings	476	477	488	2.2	+/- 13	✓✓✓
Woodland	325	331	348	4.9	+/- 12	✓✓✓
Land used for outdoor pigs	9	8	9	10.3	+/- 1	✓
All other non-agricultural land	142	138	131	-4.8	+/- 5	✓✓✓

(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 GAEC12 land, 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					
	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Land owned	5 796	5 826	tba			
Land rented in for 1 year or more	3 146	3 076	tba			
Full Agricultural Tenancies	1 565	1 512	tba			
Farm Business Tenancies	1 123	1 120	tba			
Other agreements	458	443	tba			
Seasonally rented in land ^(a)	499	506	tba			
Seasonally let out land ^(a)	345	345	tba			

tba: to be announced. Estimates for owned and rented land areas will be published on 29 October 2015. The table has been included here to show historic results only.

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

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

	Thousand hectares					
	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total arable crops	3 820	3 870	3 834	-0.9	+/- 45	✓✓✓
Cereals	2 492	2 634	2 573	-2.3	+/- 36	✓✓✓
Wheat	1 505	1 797	1 693	-5.8	+/- 30	✓✓✓
Barley	828	709	748	5.6	+/- 19	✓✓✓
winter	257	363	376	3.5	+/- 13	✓✓✓
spring	571	345	373	7.9	+/- 14	✓✓✓
Oats	138	105	98	-6.2	+/- 7	✓✓
Rye, mixed corn and triticale	22	24	34	39.2	+/- 5	✓
Oilseed crops	714	648	629	-3.0	+/- 19	✓✓✓
Oilseed rape	676	632	611	-3.3	+/- 18	✓✓✓
winter	584	618	605	-2.2	+/- 18	✓✓✓
spring	92	13	6	-53.0	+/- 2	☒
Linseed	34	15	15	3.3	+/- 5	☒
Borage	3	2	3	37.2	+/- 2	☒
Potatoes	103	105	96	-8.3	+/- 6	✓✓
Early crop (harvested on or before 31 July)	11	10	10	-3.1	+/- 2	✓
Main crop (harvested after 31 July)	92	95	86	-8.9	+/- 5	✓✓
Other (non-horticultural) crops	511	482	535	11.0	+/- 17	✓✓✓
Sugar beet ^(a)	117	116	90	-22.3	+/- 4	✓✓✓
Field beans	115	103	165	59.3	+/- 11	✓✓
Peas for harvesting dry	28	31	42	37.0	+/- 5	✓
Maize ^(b)	182	171	173	1.4	+/- 9	✓✓
- of which grain maize	11	7	8	10.1	+/- 2	☒
- of which fodder maize	171	135	132	-2.0	+/- 6	✓✓✓
- of which maize for anaerobic digestion	nc	29	34	14.7	+/- 6	✓
Root crops, brassicas and fodder beet for stock feeding	26	21	23	5.6	+/- 2	✓
Leguminous forage crops	12	11	12	9.4	+/- 4	☒
Other crops for stockfeeding	8	9	8	-9.9	+/- 2	☒
All other arable crops	23	20	22	13.1	+/- 3	✓
- of which short rotation coppice	3	3	3	1.3	+/- 1	✓
- of which miscanthus	7	7	7	-1.5	+/- 1	✓✓
- of which crops for aromatic or medicinal use	3	3	4	20.0	+/- 2	☒

nc: not collected

(a) Not for stockfeeding.

(b) Maize for anaerobic digestion was added as a new category in 2014. The percentage changes for grain maize and fodder maize should be treated with caution as maize for anaerobic digestions could have been classed as grain or fodder maize in 2013.

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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total fruit and vegetables	128	128	137	7.5	+/- 6	✓✓✓
Orchards ^(a)	21	21	24	11.4	+/- 2	✓✓
Small fruit ^(b)	8.6	8.5	9.1	7.5	+/- 0.6	✓✓
Strawberries	3.3	3.0	3.3	8.6	+/- 0.3	✓✓
Raspberries	1.2	1.3	1.1	-13.9	+/- 0.1	✓
Blackcurrants	1.9	2.0	2.1	5.2	+/- 0.3	✓
Wine grapes	1.4	1.4	1.8	29.3	+/- 0.4	☒
Other small fruit (incl. gooseberries and blackberries)	0.7	0.8	0.8	5.2	+/- 0.1	✓✓
Vegetables and salad for human consumption ^(c)	98	98	104	6.6	+/- 6	✓✓
Vining peas for processing	25	27	28	4.8	+/- 3	✓✓
Other peas and beans	4	4	3	-9.0	+/- 1	☒
Culinary plants for human consumption (incl. herbs)	3	3	4	23.6	+/- 1	☒
All other vegetables and salad	66	64	69	7.5	+/- 5	✓✓
- of which carrots	8	8	9	8.7	+/- 2	✓
- of which onions	14	12	16	34.6	+/- 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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total hardy nursery stock, bulbs and flowers	10 322	10 287	11 266	9.5	+/- 837	✓✓
Christmas trees	1 973	1 890	1 897	0.4	+/- 260	✓
Perennial herbaceous plants	420	398	354	-11.1	+/- 78	☒
Other hardy nursery stock	2 766	2 747	2 833	3.1	+/- 250	✓✓
Bulbs and flowers grown in the open	5 163	5 253	6 182	17.7	+/- 751	✓

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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total glasshouse area on 1 June	1 434	1 387	1 309	-5.6	+/- 79	✓✓
Vegetables, salad and fruit	761	737	671	-9.0	+/- 57	✓✓
Flowers, foliage and other plants	545	520	475	-8.6	+/- 49	✓
Mushroom sheds	4	6	4	-26.7	+/- 2	☒
Not in use on 1 June	124	124	159	27.9	+/- 26	✓

(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).

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

	Thousands			
	2013	2014	2015	% change 2015-14
Total cattle and calves	5 364	5 374	5 385	0.2
All female cattle	3 855	3 871	3 903	0.8
Aged 2 years or more	2 273	2 303	2 295	-0.3
Total breeding herd	1 833	1 853	1 874	1.1
- Beef herd	720	710	713	0.3
- Dairy herd	1 113	1 143	1 162	1.7
Other female cattle	439	450	421	-6.5
- Beef	205	212	194	-8.4
- Dairy	235	238	227	-4.7
Aged between 1 and 2 years	777	751	759	1.0
- Beef	450	426	429	0.6
- Dairy	327	325	330	1.6
Less than 1 year	805	816	849	3.9
- Beef	469	476	495	4.0
- Dairy	336	341	354	3.8
All male cattle	1 509	1 503	1 482	-1.4
Aged 2 years or more	214	237	212	-10.7
Aged between 1 and 2 years	581	554	549	-0.9
Less than 1 year	714	712	721	1.3

(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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total pigs	4 066	3 954	3 826	-3.2	+/- 137	✓✓✓
Breeding pigs	434	411	413	0.4	+/- 30	✓✓
Female breeding herd	346	329	328	-0.4	+/- 29	✓✓
Sows in pig	234	230	232	1.2	+/- 28	✓
Gilts in pig	53	46	43	-4.9	+/- 5	✓
Other sows ^(a)	59	54	52	-3.3	+/- 5	✓✓
Other breeding pigs	88	82	85	3.5	+/- 8	✓✓
Boars being used for service	13	12	13	6.3	+/- 2	✓
Gilts intended for first time breeding	75	70	72	3.1	+/- 8	✓
Fattening pigs (incl. barren sows)	3 632	3 542	3 413	-3.6	+/- 134	✓✓✓

(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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total sheep and lambs	14 922	15 389	15 142	-1.6	+/- 192	✓✓✓
Female breeding flock	7 091	7 115	7 057	-0.8	+/- 118	✓✓✓
Ewes intended for further breeding	5 535	5 605	5 481	-2.2	+/- 107	✓✓✓
Breeding ewes intended for slaughter	447	448	421	-5.9	+/- 29	✓✓
Ewes intended for first time breeding	1 109	1 062	1 154	8.7	+/- 38	✓✓✓
Other sheep and lambs	7 831	8 274	8 085	-2.3	+/- 152	✓✓✓
Lambs under 1 years old	7 448	7 936	7 716	-2.8	+/- 151	✓✓✓
Rams	179	185	186	0.8	+/- 5	✓✓✓
Other sheep 1 year and over	204	154	182	18.5	+/- 17	✓✓

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

	Thousands					
	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total poultry	120 504	125 544	tba			
Total breeding and laying fowl	33 349	32 672	tba			
Hens and pullets laying eggs for eating	25 856	25 374	tba			
Breeding flock	7 493	7 297	tba			
Table chickens (broilers)	76 999	82 693	tba			
Other poultry	10 156	10 179	tba			
Ducks	2 238	1 856	tba			
Geese	82	99	tba			
Turkeys	3 738	3 443	tba			
All other poultry	4 098	4 780	tba			

tba: to be announced. Estimates for poultry numbers will be published on 29 October 2015. The table has been included here to show historic results only.

(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					
	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Indicator
Total other livestock	317	323	tba			
Goats	80	82	tba			
Farmed deer	22	21	tba			
Horses	194	205	tba			
Any livestock not recorded elsewhere ^(a)	21	15	tba			
- of which alpacas	10	8	tba			
- of which llamas	1	1	tba			

tba: to be announced. Estimates for other livestock numbers will be published on 29 October 2015. The table has been included here to show historic results only.

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

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

	2013	2014	2015	% change 2015-14	June 2015 confidence interval	Thousands Indicator
Total number of people working on commercial agricultural holdings	296	302	tba			
Farmers, partners, directors and spouses	172	174	tba			
Full time	88	88	tba			
Part time ^(a)	83	86	tba			
Salaried managers	11	11	tba			
Full time	8	8	tba			
Part time ^(a)	3	3	tba			
Regular and casual workers	113	117	tba			
Regular workers	74	74	tba			
- Full time	47	47	tba			
- Part time ^(a)	28	28	tba			
Casual workers	39	43	tba			
- Male	22	28	tba			
- Female	17	15	tba			

tba: to be announced. Estimates for the agricultural workforce will be published on 29 October 2015. The table has been included here to show historic results only.

(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 2015. 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 2015 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	11	39 683
2	SLR >= 0.5 and < 1	16	15 885
3	SLR >= 1 and < 2	26	15 348
4	SLR >= 2 and < 3	38	8 408
5	SLR >= 3 and < 5	55	7 641
6	SLR >= 5	67	7 648
10	SLR unknown	13	9 862
All		24	104 475

The results in this statistical release are based on responses from almost 16 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 2015 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

- 29 October 2015: Farming Statistics final land use, livestock populations and agricultural workforce at 1 June 2015 – England.

UK Publications

- 15 October 2015: Farming Statistics provisional crop areas, yields and livestock populations at 1 June 2015 – United Kingdom.
- 17 December 2015: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2015 – 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.