



Department
for Environment
Food & Rural Affairs



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FARMING STATISTICS FINAL CROP AREAS AND CATTLE, SHEEP AND PIG POPULATIONS AT 1 JUNE 2013 - ENGLAND

This release contains the final estimates of crop areas and livestock numbers on commercial agricultural holdings in England on 1 June 2013. 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 31 October 2013.

Approximately 50 thousand commercial holdings were asked to complete the survey and results are based on 31 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 increased by 1.0% between 2012 and 2013 from 8.9 to 9.0 million hectares. The total croppable area accounts for just over half (54%) of UAA and increased by 0.8% to just under 4.9 million hectares in 2013. Permanent grassland accounts for an additional 42% of UAA and also increased in 2013 to 3.7 million hectares.

Estimates of the areas of land owned and rented will be published on 31 October 2013.

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

The area of arable and horticultural crops both decreased in 2013 falling by 1.7% and 6.1% respectively. This resulted in an overall decrease of 1.9% in the area of total crops.

Difficult weather conditions led to many farmers growing spring sown crops instead of winter sown varieties. This is highlighted by the decreases seen in wheat, winter barley and winter oilseed rape and the increases in spring sown barley and spring oilseed rape. As a result other arable crops were also favoured this year with maize, field beans and peas for harvesting dry increasing by 27%, 26% and 21% respectively.

In some cases many farmers were unable to plant certain crops due to water logged fields. As a result large areas of land have been left out of production and the area of uncropped arable land increased by 74% to 237 thousand hectares.

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Cattle ([Table 7](#))

The total number of cattle and calves in England is just under 5.4 million in June 2013, showing almost no change since 2012. The total breeding herd fell by 1.6% to 1.8 million in 2013. This was due to a 3.0% decrease in the beef herd which now stands at 720 thousand. The dairy herd remained at 1.1 million animals.

Pigs ([Table 8](#))

The total number of pigs in England increased by 11% to just under 4.1 million animals in 2013. This was as a result of the 13% increase seen in the number of fattening pigs which rose from 3.2 million in 2012 to 3.6 million in 2013. Breeding pigs saw a small decrease of 0.6% to 434 thousand pigs in 2013.

Sheep ([Table 9](#))

The total number of sheep and lambs increased by 2.1% from 14.6 million in 2012 to 14.9 million in 2013. The female breeding flock increased by 3.8% to 7.1 million whereas the number of lambs remained almost unchanged at 7.4 million.

Poultry ([Table 10](#))

Estimates of the poultry population will be published on 31 October 2013.

Other livestock ([Table 11](#))

The 2013 estimates of the number of horses, goats, farmed deer and camelids in England will be published on 31 October 2013.

Agricultural workforce ([Table 12](#))

The size of the agricultural workforce in England will be published on 31 October 2013.

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 saw a small increase of 1.0% between 2012 and 2013 and now stands at 9 million hectares.

Figure 1: Total utilised agricultural area at 1 June 2000 to 2013

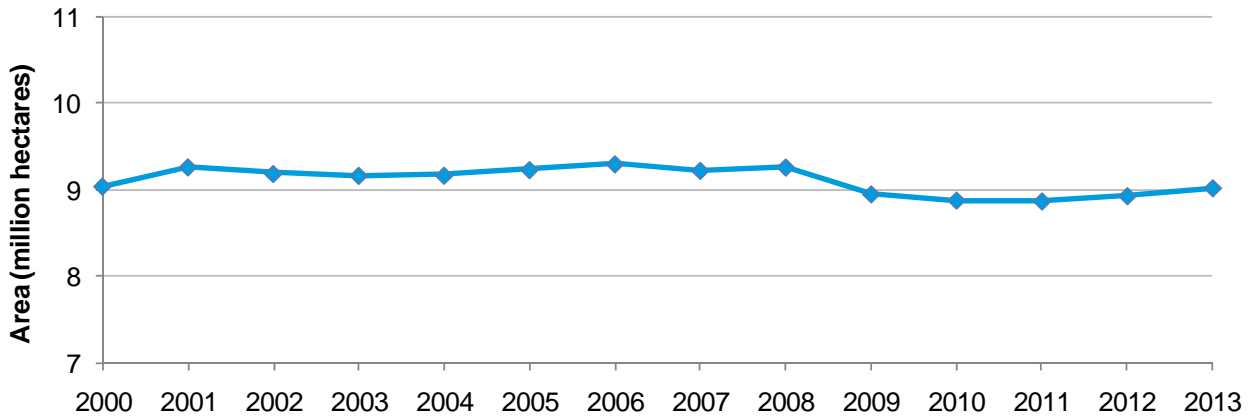


Figure 1 shows that the utilised agricultural area in England has remained stable around the 9 million hectare mark since 2000. The small drop seen between 2008 and 2009 is a result of register improvements made ahead of the 2010 Census which removed holdings that no longer have agricultural activity.

Croppable area

The area of land available for cropping increased by 0.8% to just under 4.9 million hectares in 2013. 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 2013 compared to 2012

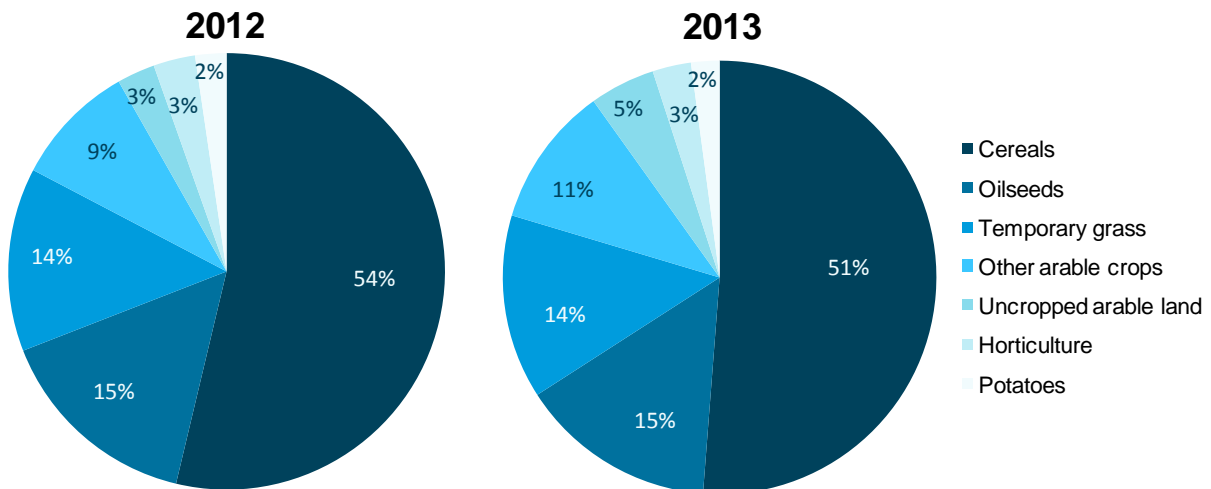


Figure 2 on the previous page shows that on the whole the proportion of croppable land used for each purpose remained similar between 2012 and 2013, however some categories did see large value changes. The area of land used to grow cereals and oilseed crops both decreased by 3.9% and 3.8% respectively, whereas increases were seen in the areas of uncropped arable land (74%) and other arable crops (16%).

Conversations with farmers revealed that many chose to plant spring sown crops instead of winter crops due to the difficult weather conditions at time of planting. Alternatively some farmers planted other arable crops as opposed to cereals and oilseeds and others' opted to leave land uncropped and out of production.

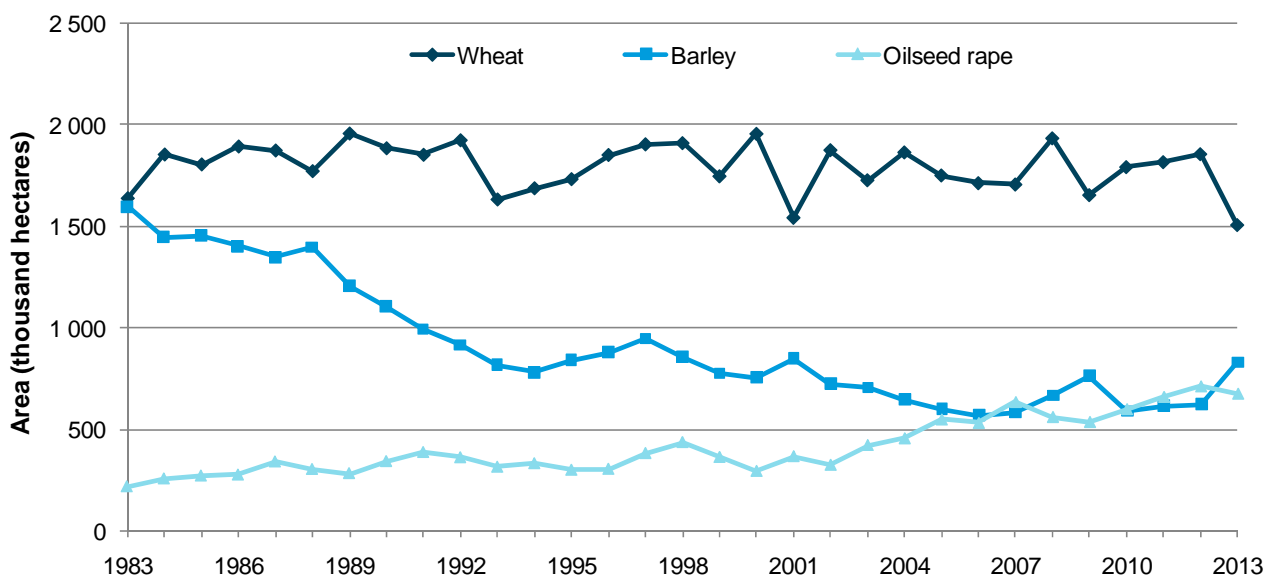
Cereals and oilseeds

As mentioned above the weather has been a major factor in determining how arable land has been used in England this year. With the difficulty in planting winter crops and a larger area of land being left out of production both the total cereal and the total oilseed areas decreased between 2012 and 2013 by 3.9% and 3.8% respectively.

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 2013 area of 1.5 million hectares is the smallest area seen during this period. Despite this wheat continues to be the most popular crop grown in England.

Barley has seen a long term downward trend over the past 30 years, however the total area of barley increased by 33% to 828 thousand hectares in 2013. The large increase of 94% in the area of spring sown barley more than offset the 22% decrease in the area of winter sown barley. Part of the increase may be as a result of land previously used to grow wheat being used for spring barley instead.

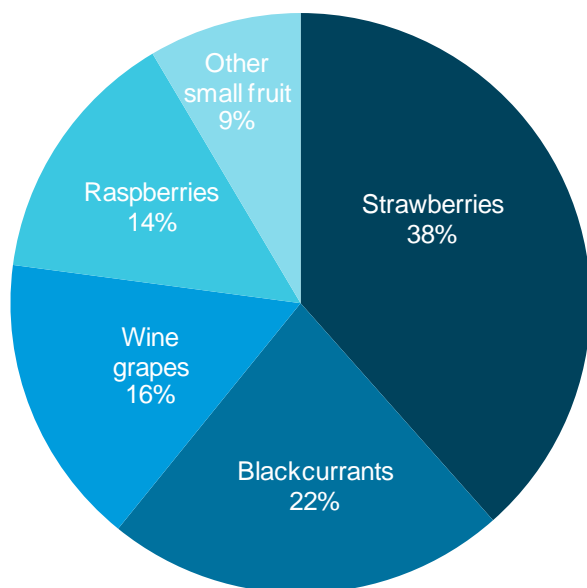
Figure 3: Area of wheat, barley and oilseed rape at 1 June 1983 to 2013



A similar pattern can be seen within oilseed crops. Winter sown oilseed rape fell by 17% to 584 thousand hectares, however spring sown oilseed rape increased from 11 thousand hectares in 2012 to 92 thousand hectares in 2013. This led to an overall oilseed rape area of 676 thousand hectares, which despite being a 5.1% decrease from 2012, is still the second largest area of oilseed rape seen on record.

Fruit and vegetables

Figure 4: Breakdown of small fruit as at 1 June 2013



The total area of orchards and small fruit decreased by 1.5% from 2012 to just under 30 thousand hectares in 2013. Orchards account for 71% of this total and cover 21 thousand hectares in 2013.

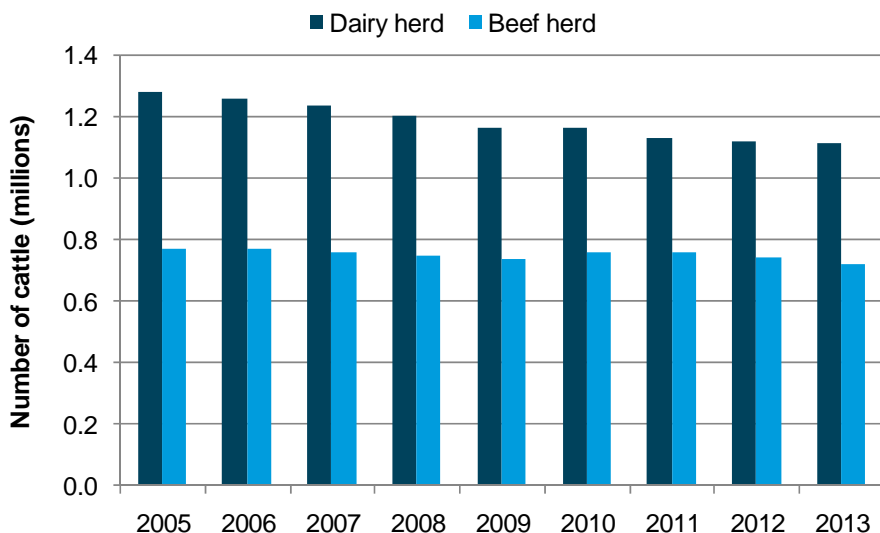
The remaining area of 8.6 thousand hectares is used to grow small fruit. Figure 4 shows the breakdown of small fruit areas in 2013. The largest proportion of the small fruit area is used to grow strawberries (38%) with blackcurrants being the next most common small fruit crop (22%).

The area used to grow vegetables for human consumption decreased by 7.6% between 2012 and 2013 and now stands at 98 thousand hectares. This was due to the decrease seen in other vegetables and salad which fell from 75 to 66 thousand hectares and now accounts for just over two thirds of the total area. The second largest area is vining peas which remained almost unchanged at 25 thousand hectares.

Cattle

The total number of cattle and calves in England remained almost unchanged between 2012 and 2013 and stands at just under 5.4 million animals. The female breeding herd accounts for just over a third of this total.

Figure 5: Female dairy and beef herds at 1 June 2005 to 2013



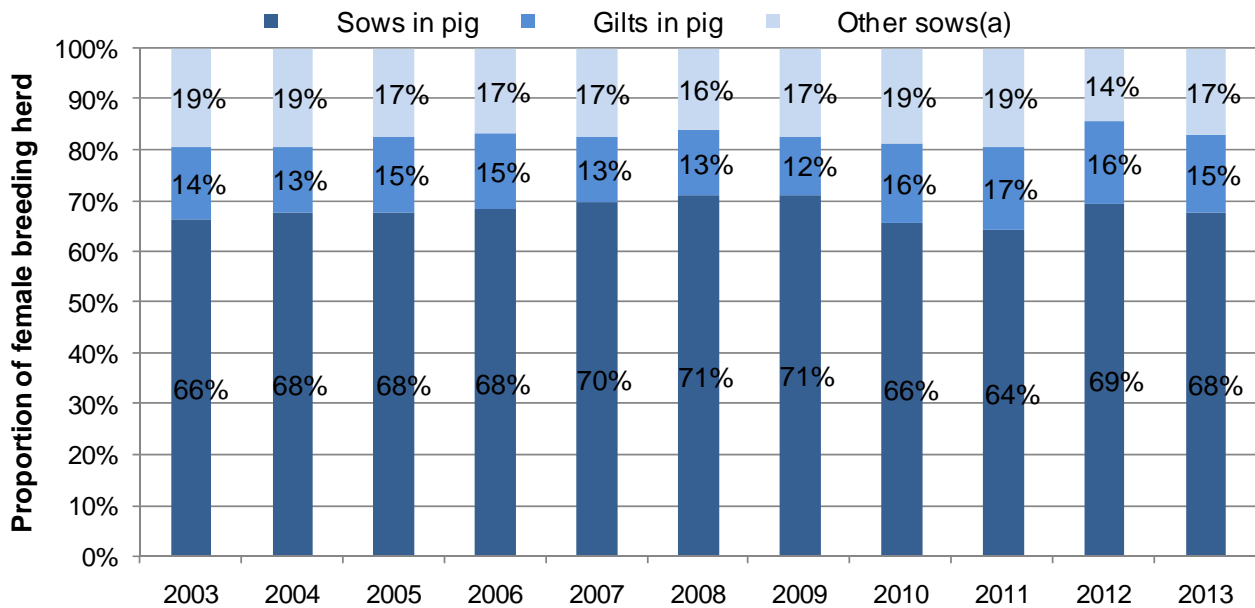
In recent years the breeding herd has been steadily decreasing from just over 2.0 million in 2005 to 1.8 million in 2013. The dairy herd accounts for 61% of the breeding herd and has remained at 1.1 million animals for the past 3 years. The beef herd decreased by 3.0% this year from 742 thousand in 2012 to 720 thousand in 2013 (figure 5).

Pigs

The total number of pigs in England increased by 11% between 2012 and 2013 from 3.7 to almost 4.1 million animals. This increase was driven by the 13% rise in the number of fattening pigs which accounts for 89% of all pigs.

The increase in fattening pigs may partly be due to improved sow productivity and better management of herds. The sector has also seen greater optimism as a result of strengthening pig prices and easing feed prices.

Figure 6: Breakdown of the female pig breeding herd 1 June 2003 to 2013



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

The female breeding herd decreased by 1.4% to 346 thousand pigs in 2013. Figure 6 above shows how the female breeding herd is made up. Other breeding pigs increased by 3.0% in 2013. This partially offset the decrease in the breeding herd and led to an overall decrease of 0.6% in the total number of breeding pigs.

Sheep

In June 2013 the total number of sheep and lambs is 14.9 million animals, an increase of 2.1% from the same period in 2012. The increase was largely due to an increase of 3.8% in the female breeding flock to 7.1 million. Ewes intended for further breeding account for almost 80% of the breeding flock and increased from 5.4 million in 2012 to 5.5 million in 2013. The number of lambs remained almost unchanged between 2012 and 2013 at 7.4 million animals.

Results tables

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

	Thousand hectares					
	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Utilised agricultural area ^(a)	8 863	8 925	9 018	1.0	+/- 58	✓✓✓
Total agricultural area	9 314	9 384	9 485	1.1	+/- 58	✓✓✓
Common rough grazing ^(b)	399	399	399	0.0	-	
Total area on agricultural holdings	8 915	8 985	9 086	1.1	+/- 58	✓✓✓
Total croppable area	4 720	4 828	4 865	0.8	+/- 40	✓✓✓
Total crops	3 961	4 036	3 960	-1.9	+/- 36	✓✓✓
Arable crops	3 809	3 887	3 820	-1.7	+/- 36	✓✓✓
Cereals	2 535	2 594	2 492	-3.9	+/- 28	✓✓✓
Oilseeds	698	742	714	-3.8	+/- 18	✓✓✓
Potatoes	108	112	103	-7.9	+/- 5	✓✓✓
Other crops	468	439	511	16.3	+/- 11	✓✓✓
Horticultural crops	152	149	140	-6.1	+/- 6	✓✓✓
Uncropped arable land ^{(c) (d)}	139	136	237	74.4	+/- 10	✓✓✓
Temporary grass under 5 years old	620	656	668	1.8	+/- 12	✓✓✓
Permanent grassland (incl. rough grazing)	3 736	3 691	3 745	1.5	+/- 41	✓✓✓
Grass over 5 years old	3 239	3 208	3 273	2.0	+/- 32	✓✓✓
Sole right rough grazing ^(e)	497	483	472	-2.4	+/- 25	✓✓
Other land on agricultural holdings	459	466	476	2.2	+/- 9	✓✓✓
Woodland	305	308	325	5.4	+/- 8	✓✓✓
Land used for outdoor pigs	9	7	9	23.0	+/- 1	✓✓
All other non-agricultural land	146	150	142	-5.3	+/- 4	✓✓✓

(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 now an estimate of total common land in England. The vast majority is eligible for grazing and claimed upon under the Single Payment Scheme (SPS) but isn't necessarily used for grazing. The figure used in this release was revised as of 2011 based on more up to date information. This figure will remain fixed in future years.

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

(d) In 2012 changes to the survey form meant this data was collected in a different way to previous years. Based on conversations with farmers we believe that they are now correctly recording relevant land under agri-environment schemes as 'uncropped' rather than grassland or 'other' land as in previous years.

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

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

	Thousand hectares					
	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Land owned	5 627	5 733	tba			
Land rented in for 1 year or more	3 147	3 127	tba			
Full Agricultural Tenancies	1 592	1 592	tba			
Farm Business Tenancies	1 075	1 084	tba			
Other agreements	479	450	tba			
Seasonally rented in land ^(a)	477	497	tba			
Seasonally let out land ^(a)	352	326	tba			

tba: to be announced. Estimates for owned and rented land areas will be published on 31 October 2013. 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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total arable crops	3 809	3887	3 820	-1.7	+/- 36	✓✓✓
Cereals	2 535	2 594	2 492	-3.9	+/- 28	✓✓✓
Wheat	1 817	1 856	1 505	-18.9	+/- 21	✓✓✓
Barley	615	623	828	32.9	+/- 18	✓✓✓
winter	298	329	257	-21.9	+/- 7	✓✓✓
spring	316	294	571	94.2	+/- 17	✓✓✓
Oats	80	92	138	50.2	+/- 7	✓✓
Rye, mixed corn and triticale	24	23	22	-4.1	+/- 2	✓✓
Oilseed crops	698	742	714	-3.8	+/- 18	✓✓✓
Oilseed rape	660	713	676	-5.1	+/- 18	✓✓✓
winter	638	702	584	-16.8	+/- 13	✓✓✓
spring	23	11	92	754.9	+/- 12	✓
Linseed	36	28	34	24.1	+/- 4	✓
Borage	1	1	3	81.9	+/- 1	☒
Potatoes	108	112	103	-7.9	+/- 5	✓✓✓
Early crop (harvested on or before 31 July)	11	11	11	-0.2	+/- 1	✓
Main crop (harvested after 31 July)	96	101	92	-8.8	+/- 5	✓✓
Other (non-horticultural) crops	468	439	511	16.3	+/- 11	✓✓✓
Sugar beet ^(a)	113	120	117	-2.6	+/- 4	✓✓✓
Field beans	119	91	115	26.1	+/- 7	✓✓
Peas for harvesting dry	29	24	28	21.0	+/- 4	✓
Maize ^(b)	147	143	182	27.1	+/- 6	✓✓✓
- of which grain maize	15	9	11	20.1	+/- 3	☒
- of which fodder maize	132	134	171	27.6	+/- 6	✓✓✓
Root crops, brassicas and fodder beet for stock feeding	19	19	26	37.9	+/- 2	✓✓
Leguminous forage crops	11	10	12	12.3	+/- 2	✓
Other crops for stockfeeding	9	9	8	-17.2	+/- 1	✓
All other arable crops	22	23	23	2.3	+/- 3	✓
- of which short rotation coppice	3	3	3	3.9	+/- 0	✓✓
- of which miscanthus	8	8	7	-5.8	+/- 0	✓✓
- of which crops for aromatic or medicinal use	2	3	3	10.8	+/- 1	☒

(a) Not for stockfeeding.

(b) Grain maize and fodder maize were previously collected as one maize item.

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

Thousand hectares

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total fruit and vegetables	141	137	128	-6.3	+/- 6	✓✓
Orchards ^(a)	22	22	21	-3.4	+/- 1	✓✓
Small fruit ^(b)	7.9	8.3	8.6	3.3	+/- 0.4	✓✓✓
Strawberries	3.0	3.1	3.3	7.9	+/- 0.3	✓✓
Raspberries	0.9	1.1	1.2	9.6	+/- 0.1	✓✓
Blackcurrants	2.0	2.0	1.9	-2.5	+/- 0.2	✓✓
Wine grapes	1.3	1.5	1.4	-7.2	+/- 0.1	✓
Other small fruit (incl. gooseberries and blackberries)	0.6	0.7	0.7	12.1	+/- 0.1	✓
Vegetables and salad for human consumption ^(c)	112	106	98	-7.6	+/- 6	✓✓
Vining peas for processing	27	25	25	0.4	+/- 2	✓✓
Other peas and beans	5	4	4	5.1	+/- 1	✓
Culinary plants for human consumption (incl. herbs)	2	2	3	18.5	+/- 1	☒
All other vegetables and salad	78	75	66	-11.8	+/- 6	✓✓
- of which carrots	10	9	8	-12.8	+/- 1	✓
- of which onions	16	14	14	-2.1	+/- 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 food 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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total hardy nursery stock, bulbs and flowers	9 843	10 748	10 322	-4.0	+/- 584	✓✓
Christmas trees	1 939	1 989	1 973	-0.8	+/- 139	✓✓
Perennial herbaceous plants	283	356	420	17.8	+/- 30	✓✓
Other hardy nursery stock	3 304	3 061	2 766	-9.6	+/- 336	✓
Bulbs and flowers grown in the open	4 318	5 342	5 163	-3.4	+/- 455	✓✓

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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total glasshouse area on 1 June	1 534	1 487	1 434	-3.6	+/- 64	✓✓✓
Vegetables, salad and fruit	793	757	761	0.6	+/- 58	✓✓
Flowers, foliage and other plants	560	554	545	-1.6	+/- 26	✓✓✓
Mushroom sheds ^(c)	10	9	4	-50.0	+/- 1	☒
Not in use on 1 June	171	168	124	-26.4	+/- 9	✓✓

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

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

(c) Due to the smaller sample sizes in 2011 and 2012 and the relatively small number of producers these results should be treated with caution.

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

	Thousands			
	2011	2012	2013	% change 2013-12
Total cattle and calves	5 416	5 373	5 364	-0.2
All female cattle	3 925	3 882	3 855	-0.7
Aged 2 years or more	2 343	2 286	2 273	-0.6
Total breeding herd	1 888	1 863	1 833	-1.6
- Beef herd	759	742	720	-3.0
- Dairy herd	1 129	1 121	1 113	-0.6
Other female cattle	455	423	439	3.8
- Beef	200	182	205	12.4
- Dairy	255	241	235	-2.7
Aged between 1 and 2 years	749	764	777	1.6
- Beef	430	436	450	3.1
- Dairy	319	328	327	-0.3
Less than 1 year	833	832	805	-3.2
- Beef	495	494	469	-5.0
- Dairy	337	338	336	-0.5
All male cattle	1 490	1 491	1 509	1.2
Aged 2 years or more	205	196	214	9.1
Aged between 1 and 2 years	565	554	581	4.9
Less than 1 year	720	741	714	-3.6

(a) These figures have been sourced from the Cattle Tracing System (CTS). 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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total pigs	3 600	3 662	4 066	11.0	+/- 133	✓✓✓
Breeding pigs	433	437	434	-0.6	+/- 14	✓✓✓
Female breeding herd	354	351	346	-1.4	+/- 10	✓✓✓
Sows in pig	227	244	234	-3.9	+/- 9	✓✓✓
Gilts in pig	58	57	53	-6.7	+/- 3	✓✓
Other sows ^(a)	68	51	59	16.1	+/- 4	✓✓
Other breeding pigs	79	85	88	3.0	+/- 10	✓
Boars being used for service	14	14	13	-6.4	+/- 1	✓✓✓
Gilts intended for first time breeding	65	72	75	4.8	+/- 10	✓
Fattening pigs (incl. barren sows)	3 167	3 225	3 632	12.6	+/- 132	✓✓✓

(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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total sheep and lambs	14 326	14 612	14 922	2.1	+/- 110	✓✓✓
Female breeding flock	6 553	6 833	7 091	3.8	+/- 64	✓✓✓
Ewes intended for further breeding	5 313	5 446	5 535	1.6	+/- 54	✓✓✓
Breeding ewes intended for slaughter	338	345	447	29.4	+/- 19	✓✓✓
Ewes intended for first time breeding	902	1 042	1 109	6.4	+/- 28	✓✓✓
Other sheep and lambs	7 773	7 779	7 831	0.7	+/- 89	✓✓✓
Lambs under 1 years old	7 370	7 415	7 448	0.5	+/- 88	✓✓✓
Rams	168	178	179	0.7	+/- 3	✓✓✓
Other sheep 1 year and over	234	186	204	9.4	+/- 15	✓✓

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

	Thousands					
	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total poultry	120 291	117 931	tba			
Total breeding and laying fowl	35 166	33 509	tba			
Hens and pullets laying eggs for eating	28 142	26 626	tba			
Breeding flock	7 024	6 883	tba			
Table chickens (broilers)	74 441	74 272	tba			
Other poultry	10 684	10 150	tba			
Ducks	2 266	2 185	tba			
Geese	107	88	tba			
Turkeys	3 549	3 349	tba			
All other poultry	4 762	4 528	tba			

tba: to be announced. Estimates for poultry numbers will be published on 31 October 2013. 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					
	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Indicator
Total other livestock	334	339	tba			
Goats	79	84	tba			
Farmed deer	21	21	tba			
Horses	217	215	tba			
Any livestock not recorded elsewhere ^(a)	17	19	tba			
- of which alpacas	13	13	tba			
- of which llamas	1	2	tba			

tba: to be announced. Estimates for other livestock numbers will be published on 31 October 2013. 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

	2011	2012	2013	% change 2013-12	June 2013 confidence interval	Thousands Indicator
Total number of people working on commercial agricultural holdings	303	307	tba			
Farmers, partners, directors and spouses	174	173	tba			
Full time	88	89	tba			
Part time ^(a)	86	84	tba			
Salaried managers	11	11	tba			
Full time	8	8	tba			
Part time ^(a)	3	3	tba			
Regular and casual workers	118	123	tba			
Regular workers	77	78	tba			
- Full time	48	49	tba			
- Part time ^(a)	29	30	tba			
Casual workers	40	45	tba			
- Male	27	30	tba			
- Female	14	15	tba			

tba: to be announced. Estimates for the agricultural workforce will be published on 31 October 2013. 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 is historically a postal survey run annually. However in 2011, the survey was run predominantly online with an option for farmers to complete a paper form if they preferred. This method was repeated in 2012 and 2013 and is likely to continue for future years.

Approximately 50 thousand 'commercial' holdings were asked to complete the survey in 2013. 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 2013 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	23	43 292
2	SLR >= 0.5 and < 1	56	14 681
3	SLR >= 1 and < 2	65	16 324
4	SLR >= 2 and < 3	71	9 052
5	SLR >= 3 and < 5	80	8 289
6	SLR >= 5	83	7 819
10	SLR unknown	32	5 176
All		48	104 633

The results in this statistical release are based on responses from just over 31 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 "About Farming Statistics" web page via the UK Bovine Registers link: <http://www.defra.gov.uk/statistics/foodfarm/landuselivestock/farmstats/aboutfarmstats/>.

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 2012 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 16.
- All percentage changes are based on unrounded figures.
- Totals may not necessarily agree with the sum of their components due to rounding.

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

- 31 October 2013: Farming Statistics final land use, livestock populations and agricultural workforce at 1 June 2013 – England.

UK Publications

- 17 October 2013: Farming Statistics provisional crop areas, yields and livestock populations at 1 June 2013 – United Kingdom.
- 19 December 2013: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2013 – 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.