



Department
for Environment
Food & Rural Affairs



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Farming Statistics

Final Crop Areas, Yields, Livestock Populations and Agricultural Workforce at 1 June 2013, United Kingdom

This release contains the final estimates of land use, crop areas, livestock populations, the agricultural workforce on agricultural holdings and the size of the UK cereals and oilseed rape harvest for 2013. These results replace those provisional results published on 17 October 2013.

Agricultural land areas ([Tables 1 - 2](#))

The total utilised agricultural area (UAA) in the UK is 17.3 million hectares. There has been an increase of 66% in uncropped arable land which rose from 153 to 255 thousand hectares between 2012 and 2013. This was largely as a result of poor weather conditions leaving many farmers unable to plant crops.

Crop yields and production ([Table 3](#))

Wheat: The 2013 wheat harvest for the UK is 11.9 million tonnes, a decrease of 10% on 2012. This drop in production has been driven by the large fall in planted area, a decrease of 19% since last year to 1.6 million hectares. The decrease in planted area is a result of the prolonged wet weather leading to very difficult planting conditions. Improved yields have slightly offset the impact of the fall in area with yields increasing by 11% since 2012 to 7.4 tonnes per hectare.

Oilseed rape: The oilseed rape harvest has shown a decline of 17% to 2.1 million tonnes for 2013. This has been the result of falls in both yield and planted area. The yield has decreased by 12% to 3.0 tonnes per hectare following the very poor weather over the winter and spring. The area has decreased by 5.4% to 715 thousand hectares.

Barley: Production for 2013 has shown a large increase of 28% to 7.1 million tonnes. This increase has been driven by the large increase in the area of spring barley planted which increased by 46% to 903 thousand hectares. The area of winter barley decreased by 19% to 310 thousand hectares following difficult planting conditions throughout the winter. The yield for barley increased by 6.1% to 5.8 tonnes per hectare.

Horticultural crops ([Tables 4 - 6](#))

The horticultural crop area has decreased by 5.0% between 2012 and 2013, now standing at 163 thousand hectares. Vegetables and salad for human consumption accounts for almost three quarters

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of the horticultural area and decreased by 6.1% from 123 thousand hectares in 2012 to 116 thousand hectares in 2013.

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

- The total number of cattle and calves decreased by 0.6% from 9.9 million in 2012 to 9.8 million in 2013. Both the beef herd and the dairy herd have seen decreases of 2.8% and 1.6% respectively. The beef herd now stands at 1.6 million and the dairy herd at just under 1.8 million. Male cattle have increased by 0.4% this year to just under 2.8 million.
- Pig numbers have increased by 9.0% from 4.5 million in 2012 to 4.9 million in 2013. The increase is mainly due to the 10% increase in fattening pigs, with fat pigs weighing less than 20kg seeing the largest proportional increase of 16%.
- The UK population of sheep and lambs has risen by 2.0% to almost 33 million animals; this increase reflects an increase in all categories of sheep at the UK level.
- Total poultry increased by 1.6% to 163 million birds in 2013. This increase was largely due to the 2.0% increase in broilers (table chicken) which rose to almost 105 million birds.

Agricultural workforce ([Table 12](#))

The total number of people working on agricultural holdings in the UK is 464 thousand, a decrease of 3.6% from June 2012. The largest proportional decrease was seen in seasonal, casual and gang labour which fell by 8.5%

Key country level changes

Figure 1 shows how the UK percentage change for certain items compares to the country level changes. England areas have driven the UK level change in wheat and potatoes. This is due to the largest proportion of these crops being grown in England.

Figure 1: Percentage changes between 2012 and 2013 by UK country

	UK % change	England % change	Scotland % change	N. Ireland % change	Wales % change
Wheat	-19	-19	-14	-15	-41
Potatoes	-6.4	-7.9	-1.4	4.2	-12
Pigs	9.0	11	-14	13	-13
Sheep	2.0	2.1	-2.5	-3.3	6.3
Cattle	-0.6	0.2	0.5	-2.3	-1.7

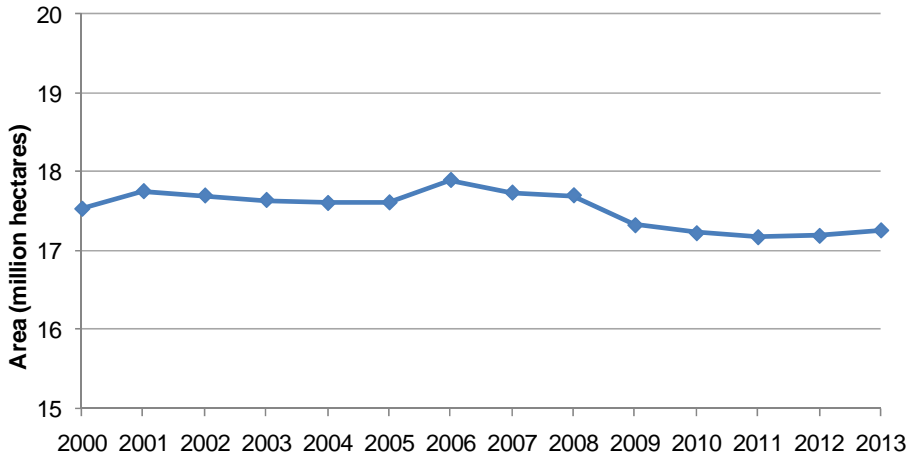
Data uses, next publications and survey methodology ([pages 17 - 22](#))

Information on how each of the UK countries run their surveys can be found on pages 17 to 22 along with data uses and upcoming publication dates.

Detailed results

Utilised agricultural area

Figure 2: Total utilised agricultural area at 1 June 2000 to 2013



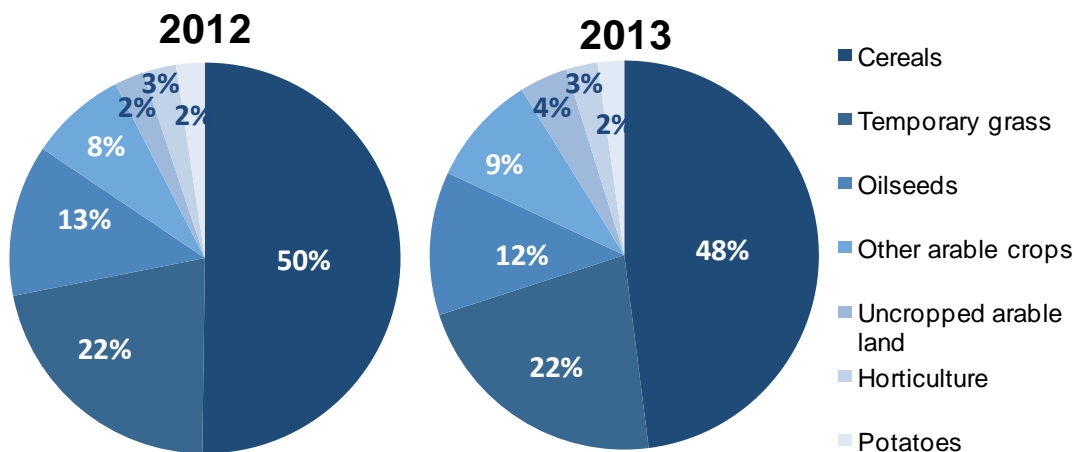
The utilised agricultural area (UAA) is made up of all arable and horticultural crops, uncropped arable land, land used for outdoor pigs, temporary and permanent grassland and common rough grazing. In June 2013 the total utilised agricultural area in the UK was 17.3 million hectares, covering 71% of the UK land area. Figure 2 shows that the total utilised agricultural area has been fairly stable since 2000.

Croppable area

Croppable land consists of land currently under arable or horticultural crops, uncropped arable land and temporary grass. At June 2013 the croppable area remained almost unchanged at 6.3 million hectares. This area represents over a third of the utilised agricultural area.

Despite fluctuations in individual crop and land areas, the proportions of land that make up the croppable area tend to remain stable from year to year. Figure 3 shows how these proportions have remained almost unchanged between 2012 and 2013, with cereals continuing to account for around half of the croppable area.

Figure 3: Breakdown of croppable area at 1 June 2013 compared to 2012



Cereals and oilseeds

Figure 4: Crop areas in the UK between 1984 and 2013

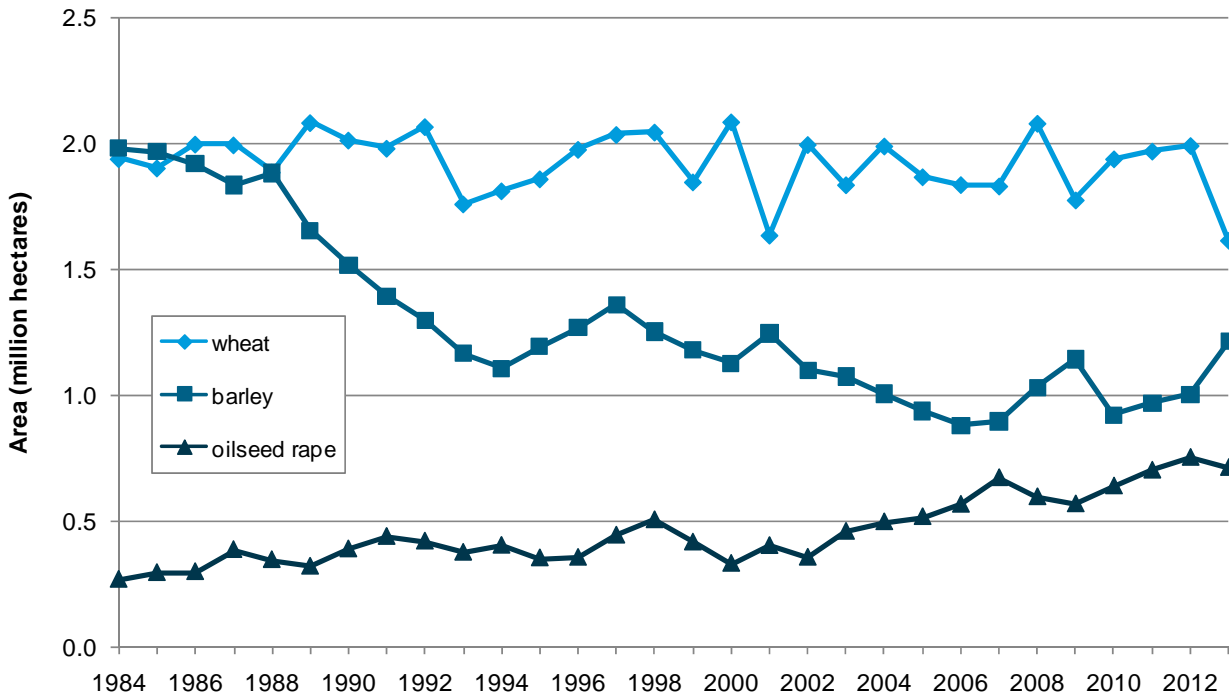


Figure 4 shows the area of the three most popular crops grown in the UK, wheat, barley and oilseed rape. Since 1984 the wheat area has fluctuated between approximately 1.6 and 2.1 million hectares. The area of barley has made a recovery in recent years from its steady decline earlier in the period, although the area of barley is approximately 40% less than in 1984. Conversely the area of oilseed rape has increased over two and a half times to 715 thousand hectares in 2013.

Figure 5: Crop production in the UK: 2012 and 2013

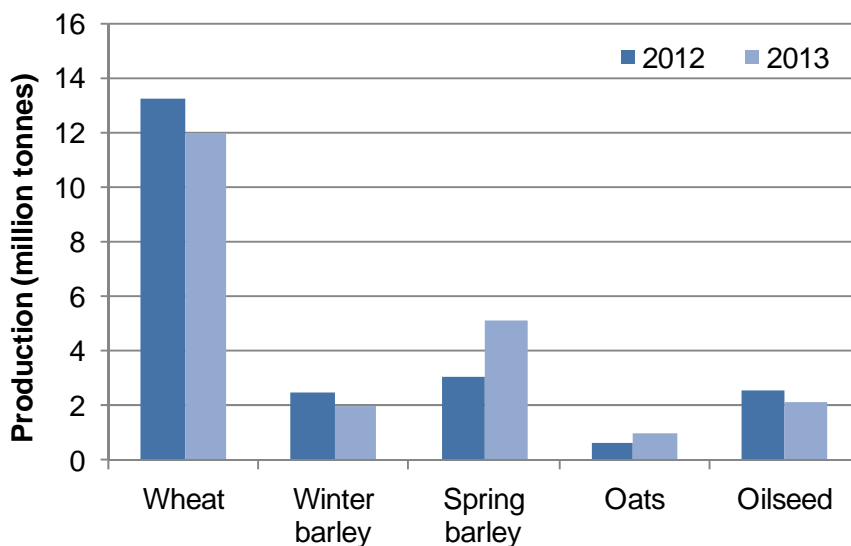


Figure 5 shows that wheat, winter barley and oilseed rape production all suffered following the difficult weather conditions of last winter and spring. Oats and spring barley both showed increases in production, with spring barley showing a large increase of 67% as farmers had to replace winter with spring planting following the very poor weather over the winter.

Figure 6: UK crops yields between 2000 and 2013

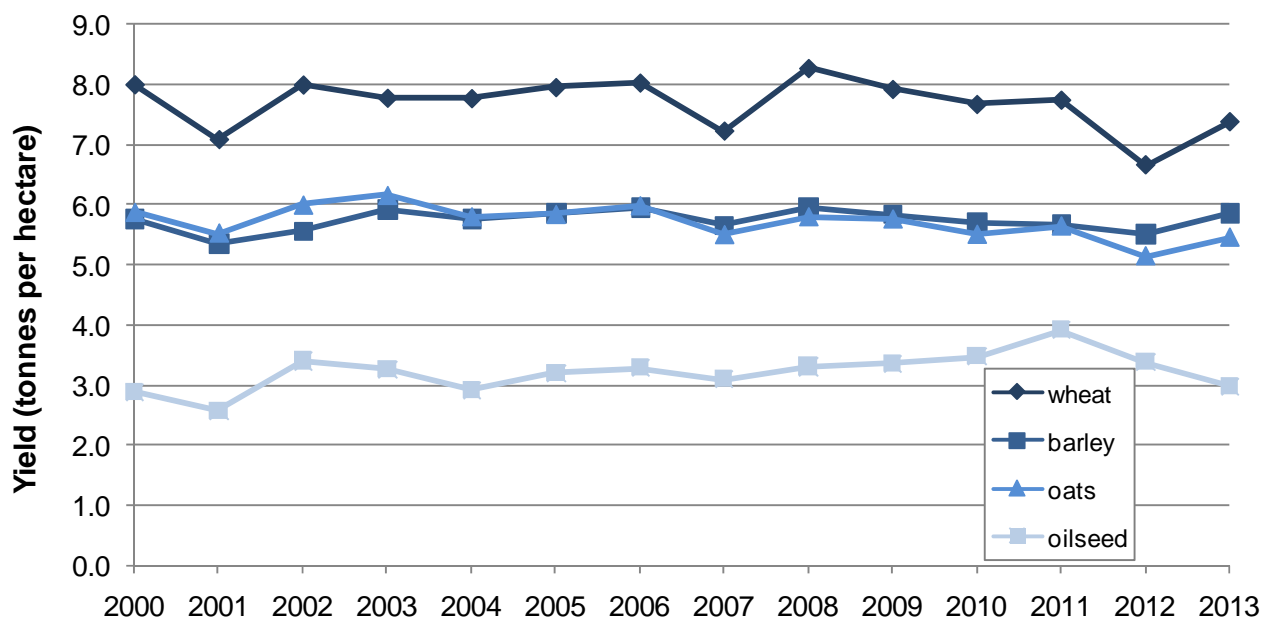


Figure 6 shows that all cereals except oilseed rape have recovered from the poor yields of 2012 with wheat, barley and oats all showing increases on last year's yields.

Regional figures are available in the cereal and oilseed dataset on our website at:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

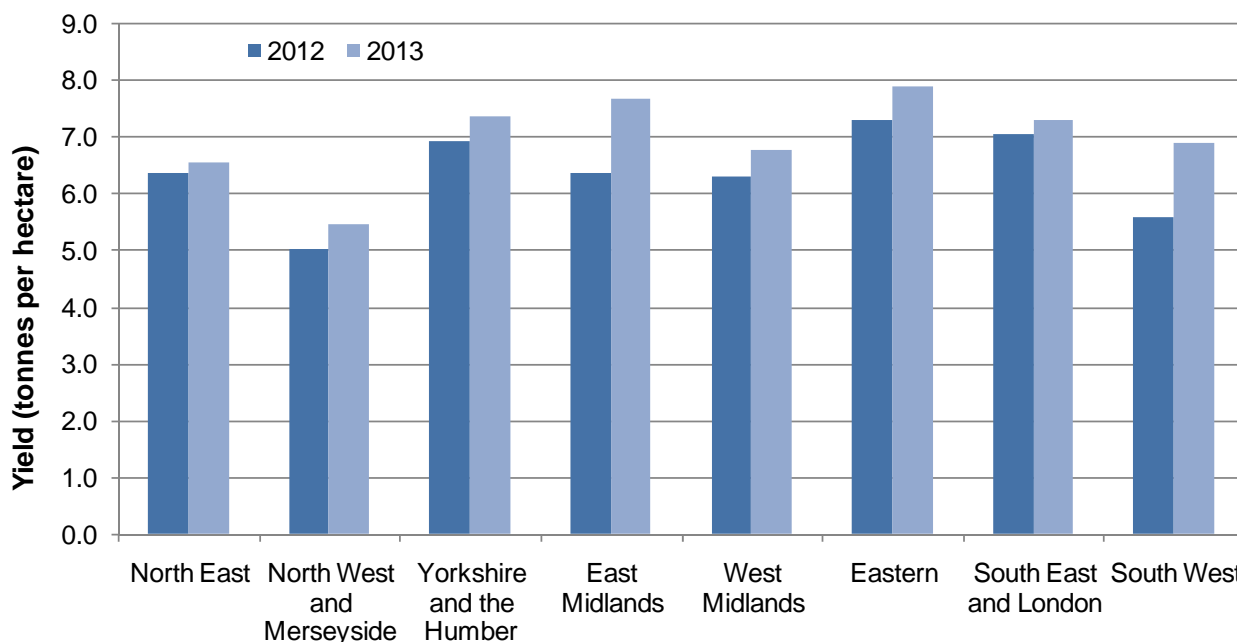
Wheat

The final estimate of the UK wheat harvest for 2013 is 11.9 million tonnes which is a decrease of 10% on 2012. This is the lowest level of production since 2001 and reflects the very difficult planting conditions over the winter which led to a 19% decrease in the planted area. The weather finally improved over late spring and summer which allowed those crops that survived to produce improved yields on last year with yields increasing by 11% to 7.4 tonnes per hectare.

The area of planted wheat in England which has been harvested as wholecrop for silage in 2013 was 19 thousand hectares, representing 1.2% of the total planted area. This is a slight decrease on 2012 where the area of wheat taken for wholecrop represented 1.4% of the total planted area.

Figure 7 (over the page) shows the variation of wheat yields across the regions with the Eastern region showing the highest average yield of 7.9 tonnes per hectare while the North West and Merseyside continues to show the lowest yield of 5.4 tonnes per hectare. Yields were not as bad as originally feared following the wet winter and cold spring as the sunshine during July greatly improved the situation.

Figure 7: Wheat yield by English region: 2012 and 2013



Barley

The yield for barley increased by 6.1% since 2012 to 5.8 tonnes per hectare. On a regional basis the highest yields for barley were found in the Yorkshire and Humber region at 6.2 tonnes per hectare. The North East and North West regions had the lowest regional yield at 5.3 tonnes per hectare.

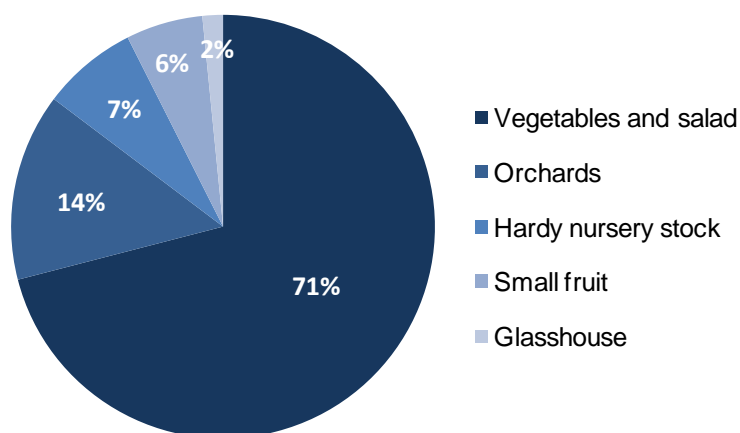
Oilseed rape

UK production for 2013 has decreased by 17% to 2.1 million hectares. This continued decline in production is due to falls in both planted area and yield. Yield has fallen by 12% to 3.0 tonnes per hectare, while planted area has fallen by 5.4% to 715 thousand hectares. The winter oilseed rape yield suffered due to late drilling followed by the wet winter, and this combined with a higher proportion of lower yielding spring plantings has contributed to the overall fall in yield.

Horticultural crops

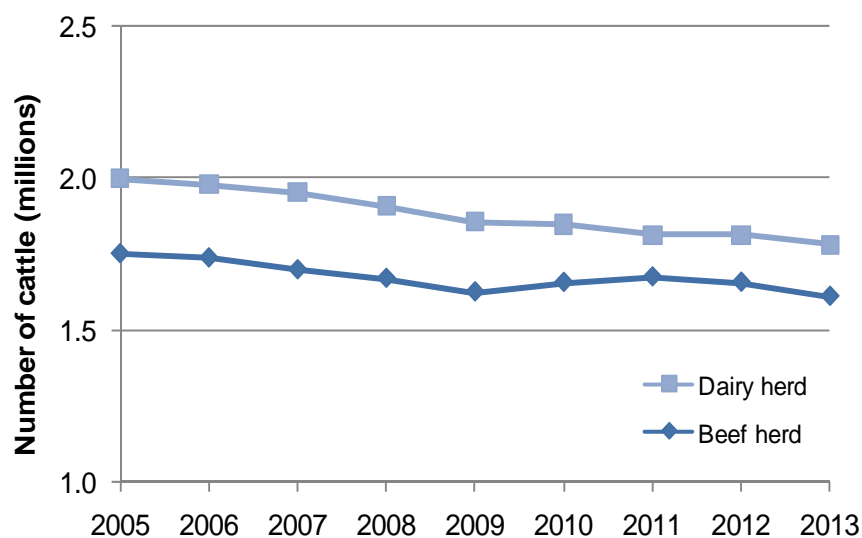
The horticultural crop area has decreased by 5.0% between 2012 and 2013, now standing at 163 thousand hectares. Vegetables and salad for human consumption accounts for almost three quarters of the horticultural area and decreased by 6.1% from 123 thousand hectares in 2012 to 116 thousand hectares in 2013. Orchards account for the next largest area at 23 thousand hectares, followed by hardy nursery stock, small fruit and glasshouse.

Figure 8: Breakdown of total horticultural area at 1 June 2013



Cattle

Figure 9: Dairy and beef herd numbers at June 2005 to 2013



The total number of cattle and calves has seen a slight decrease to 9.8 million in 2013 from 9.9 million in 2012. Both the beef herd and the dairy herd have seen decreases of 2.8% and 1.6% respectively. The beef herd now stands at 1.6 million and the dairy herd at just under 1.8 million. The decline in the dairy herd continues the long term downward trend since 2005. The main dairy and beef herds are made up of female cattle aged 2 years or more that have calved.

Pigs

The total number of pigs in the UK now stands at just under 4.9 million, this represents a 9.0% increase on 2012. The main contributor to this rise has been the 10% increase in the numbers of fattening pigs, with fat pigs weighing less than 20kg seeing the largest proportional increase of 16%. Breeding pigs saw a small decrease of 0.3% and now stand at 522 thousand.

Sheep

The UK population of sheep and lambs has risen by 2.0% to almost 33 million animals. This increase reflects an increase in all categories of sheep at the UK level. The female breeding flock increased by 2.2% from 15.2 million in 2012 to 15.6 million in 2013. The number of lambs also increased between 2012 and 2013 and now stands at just under 16.4 million.

Poultry

The number of total poultry increased by 1.6% to just under 163 million birds. The number of total laying and breeding fowl has remained almost unchanged at 47 million birds whilst the number of table chickens has increased to just under 105 million birds from almost 103 million birds in 2012.

Agricultural workforce

The total labour force on agricultural holdings has decreased to 464 thousand this year from 481 thousand in 2012. This represents a 3.6% decrease. The main contributor to this decrease has been the 8.5% reduction in seasonal, casual and gang labour which fell from 67 thousand in 2012 to 61 thousand in 2013.

Comparisons to other EU countries

Data on livestock populations are collected each year under EU Regulation 1165/2008 (cattle, pigs and sheep) and 543/2009 (crops and land). Therefore, results can be compared across EU Member States. Data are available to search and download on the Eurostat website at http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/main_tables.

According to the data from 2010, the UK is the 7th largest cereal producer, the largest producer of sheep and the 3rd largest producer of cattle of the EU 27 Member States. Figures 10 to 12 below show the comparison of these activities across all Member States.

Figure 10: Cereal areas in 2010 by EU Member State

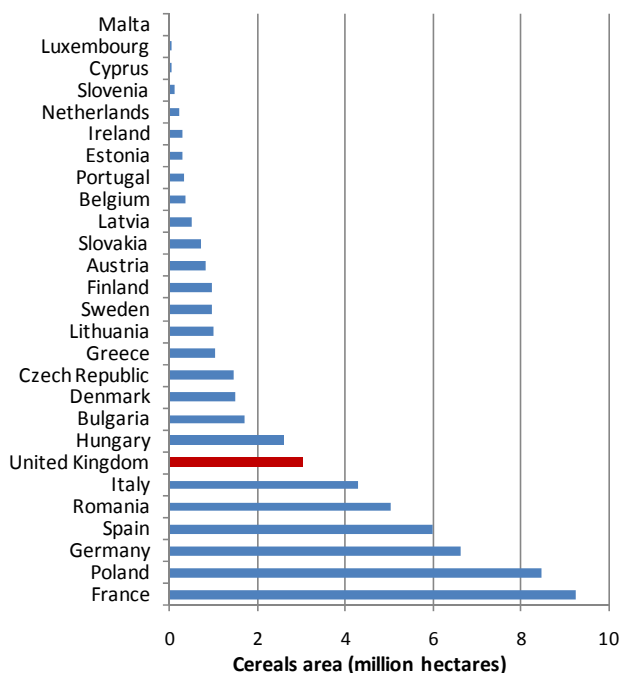
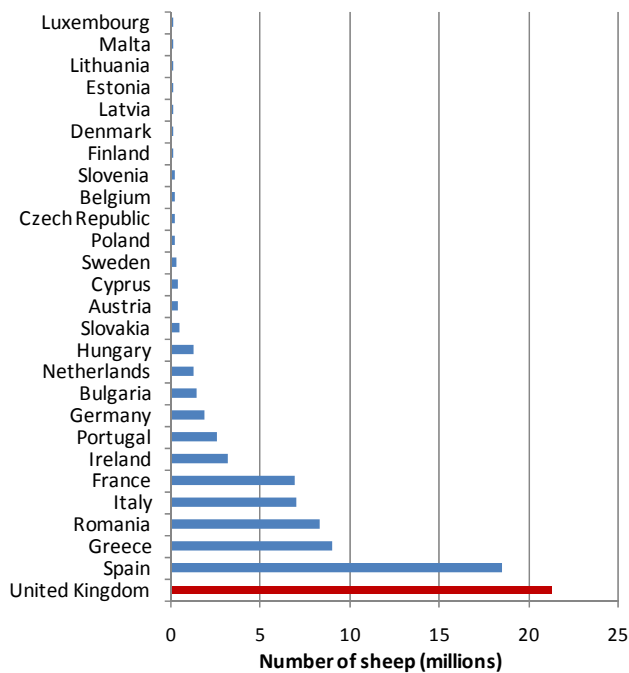
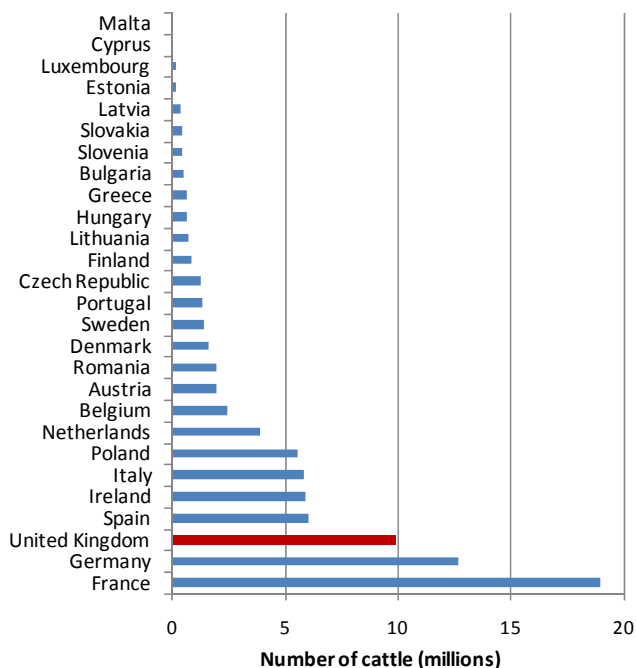


Figure 11: Number of sheep in 2010 by EU Member State



(data in figure 11 refers to December 2010, not June 2010)

Figure 12: Number of cattle in 2010 by EU Member State



Source: Eurostat

Results Tables

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

Thousand hectares

	2011	2012	2013	% change 2013-12
Utilised agricultural area ^(a)	17 172	17 190	17 259	0.4
Total agricultural land (including common rough grazing)	18 263	18 349	18 449	0.5
Common rough grazing	1 199	1 200	1 198	-0.1
Total area on agricultural holdings	17 064	17 149	17 250	0.6
Total croppable area	6 106	6 258	6 310	0.8
Total crops	4 673	4 748	4 665	-1.7
Arable crops	4 497	4 576	4 502	-1.6
Cereals	3 075	3 142	3 028	-3.6
Oilseeds	742	785	752	-4.2
Potatoes	146	149	139	-6.4
Other arable crops	534	500	582	16.4
Horticultural crops	175	172	163	-5.0
Uncropped arable land ^(b)	156	153	255	66.5
Temporary grass under 5 years old	1 278	1 357	1 390	2.4
Permanent grassland (incl. rough grazing)	9 858	9 725	9 742	0.2
Grass over 5 years old	5 877	5 799	5 802	0.0
Sole right rough grazing ^(c)	3 981	3 926	3 940	0.4
Other land on agricultural holdings	1 100	1 166	1 198	2.7
Woodland	786	827	865	4.6
Land used for outdoor pigs	9	7	9	23.0
All other non-agricultural land	305	332	324	-2.3

(a) Includes all arable and horticultural crops, uncropped arable land, common rough grazing, temporary and permanent grassland and land used for outdoor pigs (excludes woodland and other non-agricultural land).

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

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

Table 2: Area of arable crops on agricultural holdings on 1 June

	Thousand hectares			
	2011	2012	2013	% change 2013-12
Total arable crops	4 497	4 576	4 502	-1.6
Cereals	3 075	3 142	3 028	-3.6
Wheat	1 969	1 992	1 615	-18.9
Barley	970	1 002	1 213	21.0
winter	359	385	310	-19.5
spring	611	618	903	46.3
Oats	109	122	177	44.8
Minor cereals ^(a)	27	26	24	-6.8
Oilseed crops	742	785	752	-4.2
Oilseed rape	705	756	715	-5.4
winter	680	744	621	-16.6
spring	24	12	95	696.4
Linseed	36	28	34	24.1
Borage	1	1	3	81.9
Potatoes	146	149	139	-6.4
Other (non-horticultural) crops	534	500	582	16.4
Sugar beet (not for stock feeding)	113	120	117	-2.6
Field beans	125	96	118	23.5
Peas for harvesting dry	30	24	29	19.3
Maize (incl. fodder and grain maize)	164	158	194	23.3
Root crops, brassicas and fodder beet for stock feeding	32	32	48	48.9
Other crops for stock feeding ^(b)	37	38	40	4.9
All other arable crops ^(c)	32	32	35	10.4

(a) Minor cereals are a total of rye, mixed corn and triticale.

(b) Includes leguminous forage crops.

(c) Includes short rotation coppice, miscanthus and crops for aromatic or medicinal use.

Table 3: Yield and production of cereals and oilseed rape on agricultural holdings ^(a)

	Yield (tonnes per hectare)			Production (thousand tonnes)		
	2012	2013	% change 2013-12	2012	2013	% change 2013-12
Total cereals ^(b)	6.2	6.6	6.8	19 515	20 084	2.9
Wheat	6.7	7.4	10.9	13 261	11 921	-10.1
Barley	5.5	5.8	6.1	5 522	7 092	28.4
winter	6.4	6.4	0.2	2 456	1 983	-19.3
spring	5.0	5.7	13.9	3 066	5 110	66.6
Oats	5.1	5.5	6.1	627	964	53.7
Minor cereals ^(c)	4.0	4.4	9.0	105	107	1.6
Oilseed rape ^(d)	3.4	3.0	-12.0	2 557	2 128	-16.8

(a) Regional results for cereal and oilseed rape production are available on our website at:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

(b) All cereal production estimates have been standardised to 14.5% moisture content.

(c) Minor cereals are a total of rye, mixed corn and triticale.

(d) Oilseed rape production estimates have been standardised to 9% moisture content.

Table 4: Area of fruit and vegetables grown in the open on agricultural holdings on 1 June

Thousand hectares

	2011	2012	2013	% change 2013-12
Total fruit and vegetables	162	157	149	-5.1
Orchards ^(a)	23.7	24.2	23.4	-3.3
Small fruit ^{(b) (c) (d)}	9.7	9.3	9.6	2.6
Strawberries	3.8	3.3	3.5	5.8
Other small fruit (incl. gooseberries and blackberries)	5.9	6.1	6.1	0.9
Vegetables and salad for human consumption ^{(b)(e)}	129	123	116	-6.1
Peas and beans	39	37	37	0.7
All other vegetables and salad	90	87	79	-9.0

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

(b) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

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

(d) A change in the way glasshouse and open field areas for small fruit were collected in Scotland resulted in a large shift between areas counted as open field and those counted as glasshouse or walk-in plastic structures between 2011 and 2012. More information can be found at <http://www.scotland.gov.uk/Publications/2012/09/1148/4>.

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

	Thousand hectares			
	2011	2012	2013	% change 2013-12
Total hardy nursery stock, bulbs and flowers ^(a)	11.3	12.3	11.9	-3.4
Hardy nursery stock	6.0	6.1	5.8	-4.3
Bulbs and flowers grown in the open	4.9	5.9	5.8	-2.9

(a) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

Table 6: Area of glasshouses and protected crops on agricultural holdings on 1 June ^{(a) (b) (c)}

	Hectares			
	2011	2012	2013	% change 2013-12
Total glasshouse area on 1 June ^(d)	1 977	2 586	2 555	-1.2
Vegetables, salad and fruit	1 147	1 717	1 799	4.8
Flowers, foliage and other plants	606	601	594	-1.2
Not in use on 1 June	187	234	132	-43.6

(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) A change in the way glasshouse and open field areas for small fruit were collected in Scotland resulted in a large shift between areas counted as open field and those counted as glasshouse or walk-in plastic structures between 2011 and 2012. More information can be found at <http://www.scotland.gov.uk/Publications/2012/09/1148/4>.

(d) Due to the small areas grown, some UK countries do not collect data on individual crops in this category. For these countries the areas are included in this total estimate only. Therefore the total estimate does not always sum to the component parts.

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

	Thousands			
	2011	2012	2013	% change 2013-12
Total cattle and calves	9 933	9 900	9 844	-0.6
All female cattle	7 186	7 151	7 083	-1.0
Aged 2 years or more	4 291	4 216	4 177	-0.9
Total breeding herd	3 489	3 469	3 393	-2.2
- Beef herd	1 675	1 657	1 611	-2.8
- Dairy herd	1 814	1 812	1 782	-1.6
Other female cattle	803	748	784	4.9
- Beef	404	370	397	7.5
- Dairy	399	378	387	2.4
Aged between 1 and 2 years	1 378	1 398	1 414	1.1
- Beef	838	845	876	3.6
- Dairy	541	553	538	-2.6
Less than 1 year	1 517	1 537	1 492	-2.9
- Beef	981	991	938	-5.4
- Dairy	536	546	554	1.5
All male cattle	2 747	2 749	2 761	0.4
Aged 2 years or more	376	360	384	6.9
Aged between 1 and 2 years	1 042	1 021	1 060	3.8
Less than 1 year	1 330	1 369	1 316	-3.8

(a) These figures have been sourced from the Cattle Tracing System (CTS) in England and Wales, the equivalent APHIS system in Northern Ireland and June survey data in Scotland.

(b) From 2013 onwards Scotland changed the source of cattle figures from survey data to the cattle tracing system. More information about these changes can be found in the Scottish June release here:

<http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Fisheries/PubFinalResultsJuneCensus>

Table 8: Pigs on agricultural holdings on 1 June

	Thousands			
	2011	2012	2013	% change 2013-12
Total pigs	4 441	4 481	4 885	9.0
Breeding pigs	523	523	522	-0.3
Female breeding herd	432	425	421	-1.1
Sows in pig	279	293	284	-2.9
Gilts in pig	70	69	66	-4.0
Other sows ^(a)	83	64	70	10.2
Other breeding pigs	92	98	101	3.4
Boars being used for service	16	16	15	-7.2
Gilts intended for first time breeding	75	82	86	5.5
Fattening pigs (incl. barren sows)	3 917	3 958	4 363	10.2
fat pigs \geq 20kg (including barren sows)	2 746	2 784	2 999	7.7
under 20kg	1 171	1 173	1 364	16.2

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

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

	Thousands			
	2011	2012	2013	% change 2013-12
Total sheep and lambs	31 634	32 215	32 856	2.0
Female breeding flock	14 868	15 229	15 561	2.2
Ewes intended for further breeding or for slaughter	12 644	12 799	12 998	1.6
Ewes intended for first time breeding	2 224	2 431	2 564	5.5
Other sheep and lambs	16 765	16 985	17 295	1.8
Lambs under 1 year old	15 990	16 229	16 381	0.9
Rams	378	392	432	10.3
Other sheep 1 year and over	398	364	482	32.4

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

	Thousands			
	2011	2012	2013	% change 2013-12
Total poultry	162 551	160 061	162 609	1.6
Total breeding and laying fowl	48 610	46 633	47 024	0.8
Hens and pullets laying eggs for eating	38 357	36 646	35 841	-2.2
Breeding flock	10 253	9 987	11 184	12.0
Table chickens (broilers)	102 461	102 558	104 576	2.0
Other poultry	11 481	10 870	11 008	1.3
Ducks	2 367	2 294	2 354	2.6
Geese	111	92	86	-7.4
Turkeys	3 930	3 747	4 113	9.8
All other poultry	5 072	4 737	4 455	-5.9

(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 agricultural holdings on 1 June

	Thousands			
	2011	2012	2013	% change 2013-12
Total other livestock	459	466	447	-4.1
Goats	94	98	98	-0.2
Farmed deer	33	31	32	2.1
Horses	313	315	293	-6.9
Any livestock not recorded elsewhere ^(a)	19	21	24	10.9
- of which alpacas	13	14	11	-22.1
- of which llamas	1	2	1	-40.5

(a) Includes camelids, donkeys and mules.

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

	Number of people (thousands)			
	2011	2012	2013	% change 2013-12
Total number of people working on agricultural holdings	476	481	464	-3.6
Farmers, partners, directors and spouses	299	298	290	-2.6
Full time	140	141	138	-1.8
Part time ^(a)	159	158	152	-3.4
Salaried managers	11	11	11	0.1
Regular and casual workers	166	172	162	-5.6
Regular workers	104	105	101	-3.8
- Full time	64	65	63	-2.8
- Part time ^(a)	39	41	39	-5.4
Casual workers	62	67	61	-8.5
- Male	44	48	40	-16.5
- Female	18	19	21	11.5

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

Data uses

Land

- Data on crop areas (both arable and horticultural) help us monitor the long term trends in cropping. Amongst many other things, this helps us assess the impacts of the abolition of formal set-aside.
- The data will enable us to assess how land areas vary across the UK regions and in different geographic areas (such as the Uplands, National Parks, River Basin Districts).
- The cereals and oilseed rape harvest estimates are heavily used by the cereals industry to monitor the availability of grain throughout the year.
- Any changes in the agricultural sector also affect people. For many, it is their livelihood and a way of life.

Livestock

- Data from the June Survey help us monitor changes in livestock populations over time and the effects of e.g. CAP reform on the industry.
- The numbers are also used to make forecasts of meat and milk production to inform industry of the availability of supply which affects prices.
- Livestock distributions across the UK help assess the risk of veterinary disease and to control outbreaks.
- The data are also used heavily in calculations of the greenhouse gas and ammonia emissions inventories.

Other survey results and publications

Results from all the Defra farming surveys can be viewed on the Defra website via the following link: https://www.gov.uk/government/publications?publication_filter_option=statistics. This also contains details of future publication dates.

The next Farming Statistics publications due from the June Survey of Agriculture and the Cereal and Oilseed Rape Production Survey are shown below. Please note that the publication dates are provisional and subject to change.

England Publications

- August 2014: Farming Statistics provisional arable crop areas at 1 June 2014 – England.
- September 2014: Farming Statistics final crop areas and cattle, sheep and pig populations at 1 June 2014 – England.
- October 2014: Farming Statistics final land use, livestock populations and agricultural workforce at 1 June 2014 – England.

UK Publications

- October 2014: Farming Statistics provisional crop areas, yields and livestock populations at 1 June 2014 – United Kingdom.
- December 2014: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2014 – United Kingdom.

More detailed results from the June Survey can be found at: <https://www.gov.uk/government/statistical-data-sets/structure-of-the-agricultural-industry-in-england-and-the-uk-at-june>. This includes various time series of crop areas and livestock numbers dating back as early as 1866 and detailed geographical breakdowns of the results.

Methodology: June Survey of Agriculture and Horticulture

Data on crop areas and livestock populations are collected in the June Survey of Agriculture and Horticulture carried out by each of the UK agriculture departments. The methodology adopted by each country is below.

England

England results are the final results from the June Survey of Agriculture and Horticulture in 2013. This 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 4 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 \geq 0.5 and < 1	56	14 681
3	SLR \geq 1 and < 2	65	16 324
4	SLR \geq 2 and < 3	71	9 052
5	SLR \geq 3 and < 5	80	8 289
6	SLR \geq 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%. English results for 2011 and 2012 are also based on commercial holdings only.

The data are subject to rigorous validation checks which identify inconsistencies within the data or large year-on-year changes. Any records that have not been cleaned by the results production stage are excluded from the analysis.

Population totals are estimated for each question on the survey to account for the non-sampled and non-responding holdings. This survey uses the technique known as ratio raising, in which the trend between the sample data and base data (previous year's data) is calculated for each stratum. The calculated ratio is then applied to the previous year's population data to give England level estimates. For holdings where we do not have base data (new holdings or long-term non-responders) the sample estimates are raised according to the inverse sampling fraction.

Cattle results are sourced from the Cattle Tracing System (CTS). The data include returns from all holdings with cattle so are not subject to survey error. More information on the use of this administrative data can be found on the "About Farming Statistics" web page via the UK Bovine Registers link:

<https://www.gov.uk/structure-of-the-agricultural-industry-survey-notes-and-guidance>.

Final crop areas and cattle, sheep and pig populations from the England 2013 June Survey were published on 19 September 2013 and can be viewed on our website via the following link:

<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/structure-of-the-agricultural-industry>.

More details on the June Survey methodology can be found at:

<https://www.gov.uk/structure-of-the-agricultural-industry-survey-notes-and-guidance>.

Scotland

Data collection

The June Agricultural Census is conducted annually by the Scottish Government's Rural & Environment Science & Analytical Services (RESAS). Data for the June Census is collected from three sources:

- Land data extracted from the Single Application Form (SAF) database for around 24,400 holdings that are claiming Single Farm Payment (SFP). These data are accurate as farmers can face penalties for supplying incorrect data. A cut-down survey form is sent to 19,700 of these holdings so that additional data on livestock and labour can be collected.
- The remaining 11,700 holdings that needed to be surveyed in 2013 were sent a full census form covering land, livestock and labour.

There are around 52,700 agricultural holdings in Scotland. In 2013 a total of 32,400 holdings were surveyed with either a full or cut-down form. Results in this release are based on the 20,600 census forms that were returned and the information collated via the SAF database. Cattle data from the 2013 census has been obtained through the Cattle Tracing System (CTS), an administrative data source held by the British Cattle Movement Service (BCMS) which records cattle movements across Great Britain.

Table 14 gives a breakdown for forms returned for each category of holding. In terms of area, returns were received for 93 per cent of land-use data (shaded grey), 100 per cent of cattle data, and 70 per cent of other data (the final column in the table).

Table 14. Survey responses by category

	number	selected ^(a)	returns ^(b)	area	selected ^(a)	returns ^(b)
Large/SAF	18 289	18 172	13 181	4 742 227	4 719 342	3 622 408
Large/ non-SAF						
full	6 385	5 753	3 065	448 475	385 281	219 493
part		272	137		28 183	7 109
Small/SAF	6 109	1 571	1 211	199 699	46 128	32 146
Small/ non-SAF						
full	21 933	5 620	2 987	213 607	42 597	24 339
part		72	36		3 083	2 427
Total	52 716	31 460	20 617	5 604 008	5 224 614	3 907 923

(a) For large holdings the numbers selected are slightly lower than the total number eventually identified due to annual changes in the list of holdings.

(b) The return numbers quoted here relate to the number of survey forms received. For SAF holdings this masks the fact that we effectively receive 100 per cent response for all land items. Cattle data, from the CTS database, is also effectively 100 per cent complete. Response rates based on these figures therefore relate to other livestock and employment data.

Final results for Scotland were published on 09 October 2013 by the Scottish Government Rural and Environment Research and Analysis Directorate and are available at:

<http://www.scotland.gov.uk/Topics/Statistics/Browse/Agriculture-Fisheries/PubFinalResultsJuneCensus>.

Contact details - Saughton House (Q Spur), Broomhouse Drive, Edinburgh, EH11 3XD (telephone: 0300 244 9709, email: agric.stats@scotland.gsi.gov.uk).

Wales

The Welsh population currently stands at around 41,000 holdings. In 2013 a total of 18,200 survey forms were sent out. Final results were based on a response rate of 63.5%. Final results for Wales were published by the Welsh Government on 28 November 2013 at: www.wales.gov.uk/statistics-and-research

For further details contact Agricultural & Rural Affairs Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: Cardiff (02920) 825082).

Northern Ireland

In 2013 the Northern Ireland Agricultural and Horticultural Survey was conducted as a sample survey. A total of 19,700 forms were issued with final results based on 13,300 returned forms. Data for the cattle section is a complete census as it is extracted from the APHIS cattle tracing database. Data for the pig and poultry sections are extracted from the Northern Ireland Annual Inventory of Pigs and Northern Ireland Bird Register Update respectively. Final results were published on 28th November 2013 by the Department of Agriculture and Rural Development for Northern Ireland, Dundonald House, Belfast, BT4 3SB (tel: (02890) 525450) and are available on the internet at: www.dardni.gov.uk/statistical-bulletins.

Methodology: Cereal and Oilseed Rape Production Survey

England

Cereals and Oilseed Rape yield and production estimates

Results are based on provisional results from the Cereal and Oilseed Rape Production Survey, a representative sample of cereal and oilseed rape growers across English regions and farm sizes. These final results are based on responses from 2,879 farms (82% response rate) across the country (see table 15).

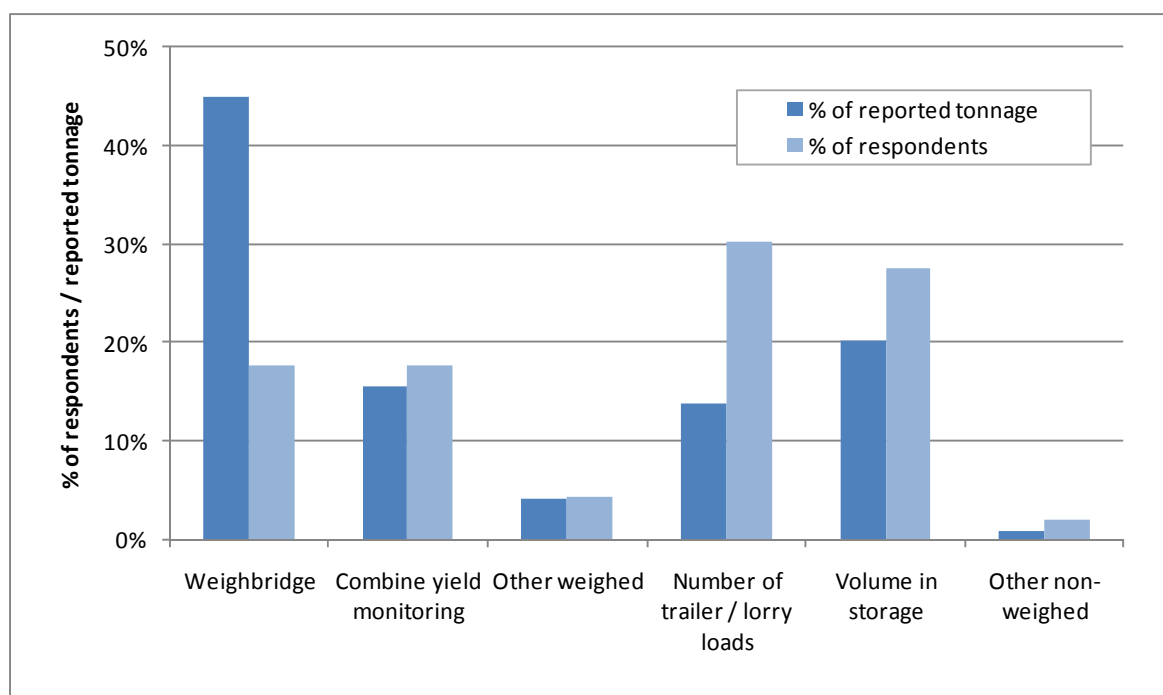
Table 15: Response rate for Cereal and Oilseed Rape Production Survey 2013 by region

English region	Number sampled	Number of responses	Response rate (%)
North East	160	127	79
North West and Merseyside	249	194	78
Yorkshire and the Humber	527	436	83
East Midlands	460	365	79
West Midlands	242	183	76
Eastern	894	754	84
South East and London	388	322	83
South West	594	498	84
Total	3 514	2 879	82

The Cereal and Oilseed Rape Production Survey gathers data on production tonnages and moisture content for the various cereal and oilseed rape crops and seeks confirmation of the planted areas for these crops gathered from the June Survey of Agriculture and Horticulture. All moisture contents are standardised to ensure production estimates are comparable. Cereal production estimates are standardised to 14.5% moisture content and oilseed rape to 9% moisture content, with production tonnages being adjusted accordingly. These data are then used to calculate regional yield estimates for each crop type. Yield estimates are applied to regional June crop areas to derive England production estimates for each of the cereal and oilseed rape crops.

In 2013 an extra question was added to the Cereal and Oilseed Rape production survey to establish the most common methods used for estimating production tonnage. The results of this question are presented in figure 13 below. Results are based on the 2,800 holdings that responded to the question. Where percentages are given for production tonnage, these are based on the actual tonnages provided by the respondents and not the final imputed total tonnage for England.

Figure 13: Main method used on farm to estimate reported production tonnage



Wales

No yield data were collected for Wales. The Welsh production figures have been estimated on a regional basis within Wales using the results of their June 2013 Survey along with the yields for the English regions bordering Wales.

Scotland

The 2013 estimates of production are based on final crop areas from the 2013 June Survey of Agriculture and Horticulture, along with crop yield estimates from Scottish Government Agricultural Staff, supplemented by discussions with industry experts and trade organisations.

Northern Ireland

Areas are based on final estimates from the 2013 June Survey of Agriculture and Horticulture. Yield figures are derived from an annual survey of cereal farms in NI. Farms are selected from the census population using a stratified random method. DARD (Department of Agriculture and Rural Development for Northern Ireland) Farm account officers complete a cereal survey questionnaire with each farm selected. The information is collated with mean yields calculated for each cereal type. Cereal yields are then combined with the respective cereal areas from the latest census to derive production figures.

Data notes

The cereal production (tonnage) figures include tail corn, cereals still to be harvested for grain, grain to be crimped and cereals intended for seed production. The figures exclude crops which have become unfit for harvesting, carry over stocks from the 2012 harvest, bought in grain and crops harvested as wholecrop for silage.