



22 December 2020

# Farming Statistics – final crop areas, yields, livestock populations and agricultural workforce at 1 June 2020 United Kingdom

This release contains the final estimates for land use, crop areas, livestock populations, the agricultural workforce on agricultural holdings in the UK and the size of the UK cereals and oilseed rape harvest for 2020. These results replace those provisional results published on 08 October 2020.

# Agricultural land and arable crop areas

The total utilised agricultural area (UAA) in the UK has decreased by 1.5% to just under 17.3 million hectares. The area of total crops and permanent grassland have also seen decreases, whereas uncropped arable land has seen a 61% increase.

# **Crop yields and production**

Final results for 2020 show lower yields for cereal and oilseed crops when compared with the higher yields and above average production seen in 2019.

### Wheat

Wheat production in the UK decreased by 40%, from 16.2 million tonnes in 2019 to 9.7 million tonnes in 2020. The UK yield of 7.0 tonnes per hectare is lower than the five year average of 8.4 tonnes per hectare.

# **Barley**

Total barley production increased by 0.9%, from 8.0 million tonnes in 2019 to 8.1 million tonnes in 2020. The increase was largely due to an increase in the area of spring barley, which increased by 52%, from 710 thousand hectares in 2019 to 1.1 million hectares in 2020. Winter barley production decreased by 46% in 2020, while spring barley production increased by 38%.

#### **Oats**

The planted area of oats increased by 16% to 210 thousand hectares. The UK yield decreased by 17% to 4.9 tonnes per hectare. This resulted in an estimated production decrease of 4.1% to 1.0 million tonnes in 2020.

# Oilseed Rape

The final oilseed rape harvest has shown a decrease of 41% to just over 1.0 million tonnes in 2020. This was caused by a decrease of 28% in the planted area and a

decrease in total oilseed rape yield of 17%, from 3.3 tonnes per hectare in 2019 to 2.7 tonnes per hectare in 2020. This is below the five year average of 3.5 tonnes per hectare.

## **Horticultural crops**

In 2020 the total area of horticultural crops increased by 1.7% to 166 thousand hectares. Vegetables and salad for human consumption make up the majority (71%) of this area and increased by 3.2% to 118 thousand hectares in 2020.

#### Livestock

The total number of cattle and calves in the UK fell by 1.3% in 2020 to 9.6 million. The female breeding herd accounts for over a third of the total cattle and stands at 3.4 million head in 2020.

For pigs, the female breeding herd in 2020 saw a decrease of 2.7%, falling to 402 thousand. Fattening pigs saw very little change, remaining at just under 4.6 million head. The total number of pigs now stands at just over 5.0 million head, a decrease of 0.5%.

In 2020, the number of lambs in the UK fell by 1.1% to 16.5 million and the female breeding flock decreased by 4.2%. This led to a total UK sheep and lamb population of 32.7 million, a decrease of 2.6% compared to 2019.

Total poultry decreased by 2.7% to 182 million birds in 2020. This decrease was largely due to the 2.6% fall in broiler numbers (table chickens) to 118 million birds, which accounted for almost two thirds of the total.

## Agricultural workforce

The total number of people working on agricultural holdings in the UK in 2020 fell by 0.8% to 472 thousand.

# Key country level changes

Figure 1 shows how the UK percentage change for certain items compares to the country level changes. Although all countries are showing a decrease in wheat area, the decrease seen in the wheat area in England has driven the larger UK level change. This is due to the majority (91%) of wheat being grown in England.

Figure 1: Percentage changes between 2019 and 2020 by UK country

	UK % change	England % change	Scotland % change	N. Ireland % change	Wales % change
Wheat area	-23.6	-24.6	-13.0	-13.6	-7.9
Potatoes area	-1.1	-0.8	-0.7	-3.6	-19.6
Pigs	-0.5	-1.0	5.9	-1.0	16.4
Sheep	-2.6	-2.4	0.8	-1.3	-5.7
Cattle	-1.3	-2.1	-0.9	0.0	0.2

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# What you need to know about this release

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#### **National Statistics Status**

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

The continued designation of these statistics as National Statistics was confirmed in 2014 following a <u>full assessment</u> by the UK Statistics Authority against the <u>Code of Practice for Statistics</u>.

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

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

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Tel: 0845 601 3034

Email: info@statistics.gov.uk.

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# Section 1 - Detailed results

#### 1.1 Utilised agricultural area

The utilised agricultural area 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 2020 the total utilised agricultural area in the UK was just under 17.3 million hectares, covering 71% of the UK land area. Figure 2 shows that the total utilised agricultural area has remained between 17 and 18 million hectares since 2001.

Area (million hectares) 

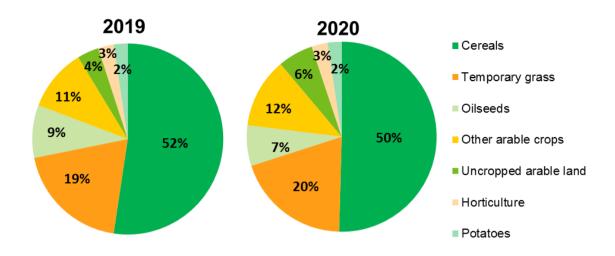
Figure 2 – Total utilised agricultural area at 1 June 2001 to 2020

#### 1.2 Croppable area

Croppable area consists of cereals, oilseed, potatoes, other arable crops, horticultural crops, uncropped arable land and temporary grass. In 2020, the croppable area fell by 1.8% to 6.0 million hectares. This represents over a third of the UK utilised agricultural area.

Figure 3 shows that on the whole the proportion of croppable land used for each purpose remained similar between 2019 and 2020, however some categories did see large value changes, see Table 1. The largest proportional change in area was uncropped arable land which increased by 61%, however it still only accounts for 6% of the total croppable area. Oilseeds saw the largest decrease of 24%.

Figure 3: Breakdown of croppable area at 1 June 2020 compared to 2019



#### 1.3 Cereals and oilseeds

Figure 4: Crop areas in the UK between 1985 and 2020

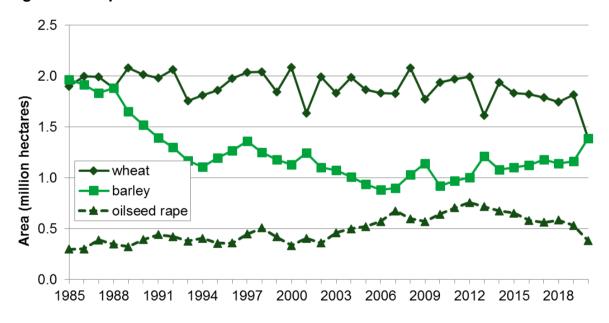


Figure 4 shows the area of the three most popular crops grown in the UK; wheat, barley and oilseed rape. Between 1985 and 2019 the wheat area has fluctuated between approximately 1.6 and 2.1 million hectares. Between 2019 and 2020 the area of wheat fell by 24% to 1.4 million hectares and this is the smallest area of wheat recorded since the 1970s. This decrease was mainly driven by the wet weather during the winter planting.

The area of winter sown barley decreased by 31% in 2020 to 312 thousand hectares compared to 453 thousand hectares in 2019. However, spring grown barley increased by 52% leading to a 19% increase in the total barley area, which now

stands at just under 1.4 million hectares. This is the largest area of barley since 1990. The oilseed rape area has increased over time from 269 thousand hectares in 1984, reaching a peak of 756 thousand hectares in 2012. However, oilseed rape was also affected by the wet weather at the end of 2019, resulting in the total area of oilseed rape falling by 28% to 380 thousand hectares in 2020.

As a whole, final results for 2020 show that yields for all cereal crops have decreased compared to last year. However, yields in 2019 were similar to, and in some cases exceeded, those seen during the peak harvest of 2015. The overall yield for total cereals is showing a 21% decrease from 7.9 tonnes per hectare in 2019 to 6.2 tonnes per hectare in 2020. Lower yields along with a 5.4% decrease in area resulted in a 26% decrease in total cereal production to 19.0 million tonnes.

As expected the yields for individual crops differ greatly, see Figure 5. The final UK wheat yield in 2020 is 7.0 tonnes per hectare. This is a decrease of 22% on the 2019 level and is below the five year average. The UK barley yield is below that seen in 2019, but is above the 2018 figure of 5.7 tonnes per hectare and now sits at 5.9 tonnes per hectare in 2020. Yields for oilseed rape show a decrease of 17% on the 2019 level of 3.3 tonnes per hectare to now stand at an estimated 2.7 tonnes per hectare, which is below the five year average of 3.5 tonnes per hectare.

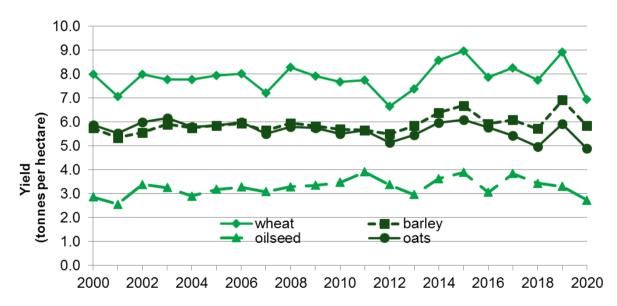


Figure 5: UK crop yields between 2000 and 2020

#### 1.4 Wheat

Wheat production in the UK decreased by 40%, from 16.2 million tonnes in 2019 to 9.7 million tonnes in 2020. The UK yield of 7.0 tonnes per hectare is lower than the five year average of 8.4 tonnes per hectare. The decreased yield combined with a 24% decrease in area led to the decreased production in 2020.

#### 1.5 Barley

The area of spring sown barley increased by 52% between 2019 and 2020 to 1.1 million hectares. This more than offset a 9.1% decrease in yield from 6.3 tonnes per

hectare in 2019 to 5.8 tonnes per hectare in 2020. The combined result was a 38% increase in spring barley production which stands at 6.2 million tonnes in 2020.

In contrast, winter barley production decreased by 46% to 1.9 million tonnes in 2020. This is the combined result of a 31% decrease in the winter barley area to 312 thousand hectares and a 22% decrease in yield to 6.2 tonnes per hectare.

The combined total yield for barley sits at 5.9 tonnes per hectare for 2020, below the five year average of 6.3 tonnes per hectare.

#### 1.6 Oats

The planted area of oats increased by 16% to 210 thousand hectares and the UK yield decreased by 17% to 4.9 tonnes per hectare. This resulted in a 4.1% decrease in production to 1.0 million tonnes in 2020 from 1.1 million tonnes in 2019.

The combined effect of changes in areas planted and the achieved yields can be seen in the production estimates in figure 6 and table 4.

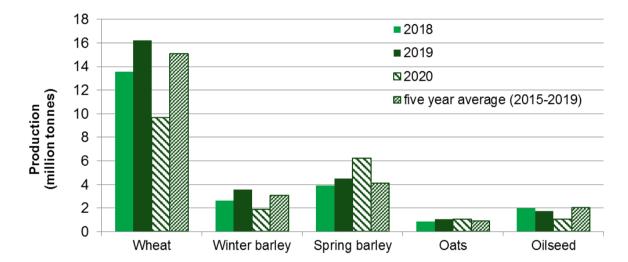


Figure 6: Estimates of crop production in the UK: 2018 to 2020

#### 1.7 Oilseed Rape

The oilseed rape harvest has shown a decrease of 41% to just over 1.0 million tonnes in 2020. This was caused by a decrease of 28% in the planted area and a decrease in total oilseed rape yield of 17%, from 3.3 tonnes per hectare in 2019 to 2.7 tonnes per hectare in 2020. This is below the five year average.

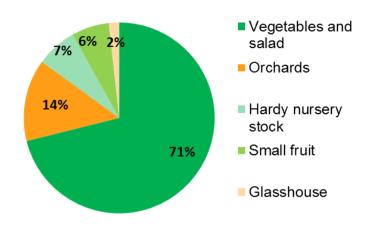
#### 1.8 Minor cereal crops

Grain production from the minor cereal crops (rye, mixed corn and triticale) comprises only 0.8% of the UK total cereal estimate and provisional estimates for the 2020 harvest of minor crops are not considered as reliable as the other surveyed crops as outlined in the methodology.

# 1.9 Horticultural crops

The total area of horticultural crops saw an increase of 1.7% between 2019 and 2020 and now stands at 166 thousand hectares.

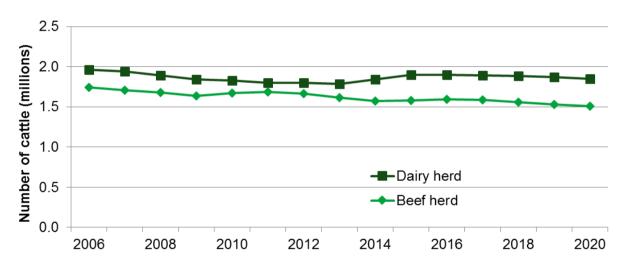
Figure 7: Breakdown of total horticultural area at 1 June 2020



The area of vegetables and salad for human consumption saw an increase of 3.2% between 2019 and 2020 and accounts for 71% of the total horticultural area (see Figure 7). Orchards and small fruit together account for a further 20% of the horticultural area with hardy nursery stock and glasshouse accounting for the remaining 7% and 2% respectively.

# 1.10 Cattle

Figure 8: Dairy and beef herd numbers at June 2006 to 2020



In 2020, the total number of cattle and calves in the UK is 9.6 million head. The breeding herd accounts for over a third of total cattle and fell by 1.2% to 3.4 million in 2020. The beef and dairy herds have remained largely unchanged in recent years at approximately 1.5 and 1.9 million animals respectively (Figure 8).

#### **1.11 Pigs**

The total number of pigs in the UK decreased by 0.5% in 2020 and now stands at just over 5.0 million animals. The female breeding herd decreased by 2.7% from 413 thousand animals in 2019 to 402 thousand in 2020.

#### 1.12 Sheep

In 2020, the number of lambs in the UK decreased by 1.1% to 16.5 million and the female breeding flock decreased by 4.2% to 15.4 million. This led to a total UK sheep and lamb population of 32.7 million, a decrease of 2.6% compared to 2019.

# 1.13 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

According to the data from 2019, the UK is the 6<sup>th</sup> largest cereal producer, the largest producer of sheep and the 3<sup>rd</sup> largest producer of cattle of the EU 28 Member States. Figures 9 to 11 on page 13 show the comparison of these activities across all Member States.

Figure 9: Cereal areas in 2019 by EU Member State

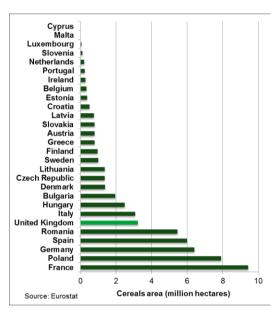
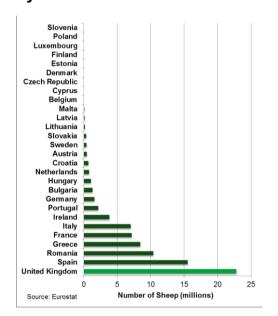
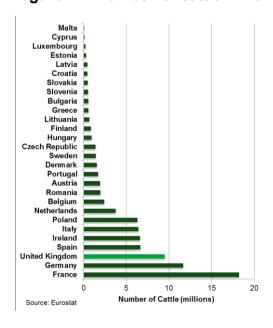


Figure 10: Number of sheep in 2019 by EU Member State



(data in figures 10 and 11 refer to December 2019, not June 2019)

Figure 11: Number of cattle in 2019 by EU Member State



#### 1.14 Results Tables

Table 1: Summary of land use on agricultural holdings on 1 June (thousand hectares)

	2018	2019	2020	% change 2020-19
Utilised agricultural area (a)	17,361	17,532	17,269	-1.5
Total agricultural area (including common rough grazing)	18,703	18,849	18,628	-1.2
Common rough grazing	1,195	1,197	1,194	-0.2
Total area on agricultural holdings	17,509	17,652	17,434	-1.2
Total croppable area	6,084	6,132	6,024	-1.8
Total crops	4,667	4,714	4,481	-4.9
Arable crops	4,502	4,551	4,314	-5.2
Cereals	3,106	3,211	3,038	-5.4
Oilseeds	609	547	415	-24.1
Potatoes	140	144	142	-1.1
Other arable crops	647	649	719	10.8
Horticultural crops	165	163	166	1.7
Uncropped arable land (b)	265	224	362	61.4
Temporary grass under 5 years old	1,152	1,193	1,181	-1.0
Permanent grassland (incl. rough grazing)	10,072	10,193	10,042	-1.5
Grass over 5 years old	6,178	6,207	6,118	-1.4
Sole right rough grazing (c)	3,895	3,986	3,924	-1.6
Other land on agricultural holdings	1,353	1,328	1,368	3.1
Woodland	1,016	1,033	1,065	3.1
Land used for outdoor pigs	10	10	10	-4.6
All other non-agricultural land	326	284	293	3.2

<sup>(</sup>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).

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

<sup>(</sup>c) Classified as mountains, hills, heathland or moorland.

Table 2: Area of arable crops on agricultural holdings on 1 June (Thousand hectares)

	2018	2019	2020	% change 2020-19
Total arable crops	4,502	4,551	4,314	-5.2
Cereals	3,106	3,211	3,038	-5.4
Wheat	1,748	1,816	1,387	-23.6
Barley	1,138	1,162	1,388	19.4
winter	387	453	312	-31.2
spring	751	710	1,076	51.6
Oats	171	182	210	15.7
Minor cereals (a)	49	51	53	3.8
Oilseed crops	609	547	415	-24.1
Oilseed rape	583	530	380	-28.3
winter	575	525	365	-30.4
spring	8	5	14	214.0
Linseed	25	15	33	115.4
Borage	2	2	3	38.1
Potatoes	140	144	142	-1.1
Other (non-horticultural) crops	647	649	719	10.8
Sugar beet (not for stockfeeding)	114	108	111	3.1
Field beans	155	137	181	32.4
Peas for harvesting dry	38	41	52	25.8
Maize (incl. fodder and grain maize)	221	228	228	0.0
Root crops, brassicas and fodder beet for stock feeding	45	56	65	17.1
Other crops for stockfeeding (b)	41	43	47	8.5
All other arable crops (c)	33	36	35	-3.7

<sup>(</sup>a) Minor cereals are a total of rye, mixed corn and triticale.
(b) Includes leguminous forage crops.

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

Table 3: Yield of cereals and oilseed rape on agricultural holdings (Tonnes per hectare)

	2016	2017	2018	2019	2020	% change 2020-19
Cereals <sup>(a)</sup>	7.0	7.2	6.8	7.9	6.2	-21.5
Wheat	7.9	8.3	7.8	8.9	7.0	-22.1
Barley	5.9	6.1	5.7	6.9	5.9	-15.5
winter	6.4	7.0	6.8	7.8	6.2	-21.6
spring	5.6	5.6	5.2	6.3	5.8	-9.1
Oats	5.8	5.4	5.0	5.9	4.9	-17.2
Minor cereals (b)	2.7	2.3	3.5	3.3	2.9	-10.3
Oilseed rape (c)	3.1	3.9	3.4	3.3	2.7	-17.4

<sup>(</sup>a) All cereal production estimates have been standardised to 14.5% moisture content.

Table 4: Production of cereals and oilseed rape on agricultural holdings (Thousand tonnes)

	2016	2017	2018	2019	2020	% change 2020-19
Cereals <sup>(a)</sup>	21,967	22,999	21,085	25,517	18,962	-25.7
Wheat	14,383	14,837	13,555	16,225	9,658	-40.5
Barley	6,655	7,169	6,510	8,048	8,117	0.9
winter	2,823	2,948	2,623	3,551	1,916	-46.0
spring	3,832	4,220	3,887	4,498	6,201	37.9
Oats	816	875	850	1,076	1,031	-4.1
Minor cereals (b)	110	119	169	168	157	-6.9
Oilseed rape(c)	1,775	2,167	2,012	1,752	1,038	-40.8

<sup>(</sup>a) All cereal production estimates have been standardised to 14.5% moisture content.

<sup>(</sup>b) Minor cereals are a total of rye, mixed corn and triticale.

<sup>(</sup>c) Oilseed rape production estimates have been standardised to 9% moisture content.

<sup>(</sup>b) Minor cereals are a total of rye, mixed corn and triticale.

<sup>(</sup>c) Oilseed rape production estimates have been standardised to 9% moisture content.

Table 5: Area of fruit and vegetables grown in the open on agricultural holdings on 1 June (Thousand hectares)

	2018	2019	2020	% change 2020-19
Total fruit and vegetables	150	149	152	1.8
Orchards (a)	23.9	23.6	23.1	-2.3
Small fruit (b) (c)	10.6	11.0	10.5	-3.7
Strawberries	3.0	2.9	2.7	-7.5
Other small fruit (incl. gooseberries & blackberries)	7.6	8.0	7.8	-2.3
Vegetables and salad for human consumption (b) (d)	116	115	118	3.2
Peas and beans	39	40	40	1.1
All other vegetables and salad	77	75	78	4.3

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

<sup>(</sup>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.

<sup>(</sup>c) Small fruit includes crops grown in Spanish tunnels.

<sup>(</sup>d) 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 6: Area of hardy nursery stock on agricultural holdings on 1 June (Thousand hectares)

	2018	2019	2020	% change 2020-19
Total hardy nursery stock, bulbs and flowers <sup>(a)</sup>	11.7	11.4	11.5	0.9
Hardy nursery stock	4.6	4.5	4.9	9.3
Bulbs and flowers grown in the open	6.7	6.6	6.3	-4.7

<sup>(</sup>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 7: Area of glasshouses and protected crops on agricultural holdings on 1 June (Hectares) (a) (b)

	2018	2019	2020	% change 2020-19
Total glasshouse area on 1 June (c)	2,867	2,825	2,911	3.0
Vegetables, salad and fruit (d)	2,225	2,217	2,312	4.3
Flowers, foliage and other plants (d)	465	476	450	-5.4
Not in use on 1 June	153	106	123	15.5

- (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 5).
- (c) 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.
- (d) In 2020 Northern Ireland did not run their usual vegetable survey alongside the June Census. This has resulted in smaller areas of crops being reported. Further information can be found in the methodology section for Northern Ireland.

Table 8: Cattle and calves on agricultural holdings on 1 June (Thousands) (a)

	2018	2019	2020	% change 2020-19
Total cattle and calves	9,891	9,739	9,615	-1.3
All female cattle	7,167	7,077	7,009	-1.0
Aged 2 years or more	4,149	4,078	3,994	-2.1
Total breeding herd	3,441	3,398	3,359	-1.2
- Beef herd	1,558	1,527	1,509	-1.2
- Dairy herd	1,883	1,871	1,850	-1.1
Other female cattle	708	680	635	-6.6
- Beef	378	387	369	-4.8
- Dairy	330	293	266	-9.0
Aged between 1 and 2 years	1,443	1,435	1,424	-0.8
- Beef	921	913	906	-0.8
- Dairy	522	522	518	-0.9
Less than 1 year	1,575	1,563	1,591	1.7
- Beef	1,032	1,027	1,040	1.3
- Dairy	543	537	551	2.6
All male cattle	2,723	2,662	2,606	-2.1
Aged 2 years or more	355	356	330	-7.1
Aged between 1 and 2 years	1,035	1,012	988	-2.4
Less than 1 year	1,333	1,294	1,288	-0.5

<sup>(</sup>a) These figures have been sourced from the Cattle Tracing System (CTS) in England, Wales and Scotland and the equivalent APHIS system in Northern Ireland.

Table 9: Pigs on agricultural holdings on 1 June (Thousands)

	2018	2019	2020	% change 2020-19
Total pigs	5,012	5,078	5,055	-0.5
Breeding pigs	504	509	502	-1.5
Female breeding herd	409	413	402	-2.7
Sows in pig	289	295	295	0.0
Gilts in pig	58	57	57	-0.5
Other sows (a) (b)	63	61	50	-18.1
Other breeding pigs	94	96	99	3.7
Boars being used for service	13	12	11	-6.0
Gilts intended for first time breeding	81	84	88	5.1
Fattening pigs (incl. barren sows)	4,509	4,569	4,553	-0.3

<sup>(</sup>a) Either being suckled or dry sows being kept for further breeding.

Table 10: Sheep and lambs on agricultural holdings on 1 June (Thousands)

	2018	2019	2020	% change 2020-19
Total sheep and lambs	33,781	33,580	32,697	-2.6
Female breeding flock	16,286	16,035	15,370	-4.2
Ewes intended for further breeding or for slaughter	13,572	13,440	12,817	-4.6
Ewes intended for first time breeding	2,714	2,595	2,552	-1.7
Other sheep and lambs	17,495	17,545	17,328	-1.2
Lambs under 1 years old	16,621	16,672	16,486	-1.1
Rams	407	412	393	-4.7
Other sheep 1 year and over	467	460	449	-2.4

<sup>(</sup>b) In 2020 Northern Ireland figures for other sows are included with sows in pig. For more information and contact details please see the Northern Ireland methodology section.

Table 11: Poultry on agricultural holdings on 1 June (Thousands) (a)

	2018 <sup>(b)</sup>	2019 <sup>(b)</sup>	2020	% change 2020-19
Total poultry	188,960	187,072	181,957	-2.7
Total breeding and laying fowl	53,703	54,732	53,544	-2.2
Hens and pullets laying eggs for eating	39,727	41,346	39,758	-3.8
Breeding flock	13,976	13,385	13,785	3.0
Table chickens (broilers)	124,384	121,590	118,388	-2.6
Other poultry	10,872	10,750	10,025	-6.7
Ducks	2,069	1,890	2,010	6.4
Geese	157	142	134	-5.2
Turkeys	4,124	3,942	3,695	-6.3
All other poultry	4,522	4,777	4,186	-12.4

<sup>(</sup>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 11a: Effects of revisions to poultry data for 2018 and 2019 (Thousands)

	2018 original UK data	2018 % change compared to revised data	2019 original UK data	2019 % change compared to revised data
Total poultry	188,442	0.3	186,982	0.0
Total breeding and laying fowl	53,623	0.1	54,732	0.0
Hens and pullets laying eggs for eating	39,852	-0.3	41,535	-0.5
Breeding flock	13,771	1.5	13,197	1.4
Table chickens (broilers)	123,946	0.4	121,500	0.1
Other poultry	10,872	0.0	10,750	0.0
Ducks	2,069	0.0	1,890	0.0
Geese	157	0.0	142	0.0
Turkeys	4,124	0.0	3,942	0.0
All other poultry	4,522	0.0	4,777	0.0

<sup>(</sup>b) Scotland have revised their poultry time series to reflect new information from a poultry data provider. More detail can be found in the Scotland methodology section. The scale of change can be seen in Table 11a below.

Table 12: All other livestock on agricultural holdings on 1 June (Thousands)

	2018	2019	2020	% change 2020-19
Total other livestock	418	429	416	-2.9
Goats	108	111	112	0.9
Farmed deer (b)	34	38	37	-1.4
Horses	250	250	235	-6.1
Any livestock not recorded elsewhere (a)	26	29	32	8.1
- of which alpacas	9	11	12	15.9
- of which llamas	2	2	1	-16.9

<sup>(</sup>a) Includes camelids, donkeys and mules.

Table 13: Number of people working on agricultural holdings on 1 June (Thousands)

	2018	2019	<b>2020</b> (b)	% change 2020-19
Total number of people working on agricultural holdings	477	476	472	-0.8
Farmers, partners, directors and spouses	296	299	301	0.5
Full time	145	144	147	2.0
Part time (a)	152	155	153	-0.9
Regular employees, salaried managers and casual workers	181	177	171	-2.9

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

<sup>(</sup>b) From 2020 Wales are no longer collecting data on Farmed deer

<sup>(</sup>b) In 2020 Northern Ireland modified the questions asked about Labour. Further information can be found in the methodology section for Northern Ireland.

# Section 2 – About these statistics

#### 2.1 Data uses and users

#### 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, and 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.

Results from the England June Survey of Agriculture and Horticulture also 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 on our web page.

#### 2.2 Other survey results and publications

Results from all the Defra farming surveys can be viewed on the <u>Defra website</u>. This also contains details of future publication dates.

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

## **England Publications**

• The June Survey of Agriculture will be run as a census of all farms in 2021, as such our publication schedule has yet to be finalised.

#### **UK Publications**

- October 2021: Farming Statistics provisional crop areas, yields, livestock populations at 1 June 2021 – United Kingdom.
- December 2021: Farming Statistics final crop areas, yields, livestock populations and agricultural workforce at 1 June 2021 – United Kingdom.

More detailed results from the June Survey can be found on our <u>web page</u>. This includes various time series of crop areas and livestock numbers dating back as early as 1866 and detailed geographical breakdowns of the results.

## 2.3 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 2020. 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. This year the survey was run entirely online to enable us to adapt to the limitations caused by the coronavirus outbreak.

It was not possible to run the planned Census in 2020 due to coronavirus limitations. To reduce the burden on farmers at a difficult and uncertain time the Census was postponed and a smaller scale June survey was run instead. Approximately 22 thousand 'commercial' holdings were asked to complete the survey in 2020 and the survey was classed as voluntary.

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 <u>table 14</u>. 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 14: June 2020 sample design

Stratum	Description	Sampling rate (%)	Population size
1	SLR < 0.5	8%	48,815
2	SLR >= 0.5 and < 1	8%	16,698
3	SLR >= 1 and < 2	21%	13,992
4	SLR >= 2 and < 3	45%	7,775
5	SLR >= 3 and < 5	59%	7,327
6	SLR >= 5	67%	7,733
10	SLR unknown	23%	5,666
All	All farms	21%	108,006

The results in this statistical release are based on responses from around 7,500 commercial holdings, representing a response rate of 36%. In addition to this, approximately 60,000 BPS responses have been used to help produce the best estimates possible.

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 nonresponders) 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 "survey notes and guidance"

Crop areas and cattle, sheep and pig populations from the England 2020 June Survey were published on 22 December 2020 and can be viewed on our web page

More details on the June Survey methodology can be found on the web site

#### Scotland

The June Agricultural Census is conducted annually by the Scottish Government's Rural and Environmental Science Analytical Services division (RESAS).

Data for the June census is collected from three main sources:

- i) **June Census Form:** In a normal Census year, RESAS go out to around 35,000 holdings and usually receive around 22,000 returns. This year, in light of the COVID-19 restrictions and to reduce the burden on farmers, RESAS initially conducted the census as a voluntary, online-only survey. The move to online-only reduced the sampling frame to around 18,000 holdings. As expected due to the voluntary nature of the survey, the response rate was lower than in previous years. Consequently, as restrictions lifted, RESAS sent paper Census forms to around 10,000 holdings in a targeted follow-up exercise designed to ensure as large a coverage of the key variables as possible whilst minimising the number of farms contacted. In total, around 11,300 census forms were returned.
- ii) **Single Application Form (SAF)**: Land data were extracted from the Single Application Form (SAF) database for around 22,800 holdings that are claiming under the Basic Payment Scheme (BPS). For SAF holdings we effectively receive 100 per cent response for all land items.
- iii) Cattle Tracing Scheme administrative source: All cattle data (including data on cattle breeds) were collected from the Cattle Tracing Scheme administrative source. Farmers are required by law to register any births, deaths and movements of their cattle to the British Cattle Movement service who maintain an online database. More information can be found online <a href="here">here</a>. By using this data source we effectively have 100 per cent coverage, even for those smaller holdings that were not selected for inclusion in the census.

Table 15 shows the coverage of 2020 returns compared to those in June 2019 for some of the key census variables. It can be seen that the use of SAF and CTS data means that the level of coverage for both cereals and cattle remains almost complete. For the categories captured mainly through the census form, the targeting of larger farms and key variables has meant that, while the number of holdings captured by the census is noticeably down on 2019, the coverage of animals remains comparatively high.

Table 15: Comparison of responses in June 2020 compared to June 2019

	Jun-19	Jun-19	Jun-20	Jun-20	2020 Response compared to	2020 Response compared
					2019	to 2019
	Holdings	Ha/Number	Holdings	Ha/Number	Holdings	Ha/Number
Cereals	7,673	427,302	7,405	423,781	97%	99%
Cattle	10,976	1,727,728	10,697	1,713,437	97%	99%
Sheep	9,228	4,723,355	5,264	3,549,172	57%	75%
Poultry	3,394	12,364,261	1,689	10,350,874	50%	84%
Pigs	605	244,785	342	231,993	57%	95%

# Amendments between provisional and final results:

Between the initial provisional results, published in early October, and final results published in December, RESAS undertook a data cleaning exercise. This data cleaning removed holdings where there was evidence to suggest they had stopped farming. This removed around 1,400 farms from the dataset and has had a small impact on the results for 2020. The methodology to identify these farms uses a live database and it was not possible to remove potentially inactive farms from past years in the time series.

In addition, the time series for poultry has been updated to reflect new information from a poultry provider that some poultry figures have been misreported in the past.

Final results for Scotland were published on 15<sup>th</sup> December 2020 by the Scottish Government Rural and Environment Science and Analytical Services (RESAS) division and are available here

Contact details - Saughton House (Q Spur), Broomhouse Drive, Edinburgh, EH11 3XD (telephone: email: <a href="mailto:agric.stats@gov.scot">agric.stats@gov.scot</a>)

#### **Wales**

The Welsh population currently stands at around 25,000 active holdings. In 2020 a total of 10,600 survey forms were sent out. Final results were based on a response rate of 47%. Final results for Wales were published by the Welsh Government on 17 December 2020 here.

For further details contact Agricultural & Rural Affairs Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: Cardiff 03000 255049). E-mail: stats.agric@gov.wales

#### Northern Ireland

The 2020 Northern Ireland Agricultural and Horticultural Survey had key methodological changes both in how the data was collected and processed.

A new farm census register was created which had an increased number of farms.

Due to COVID-19, a letter inviting farms to take part was issued to all farms and data collected online only for the first time. Some questions were simplified or removed to streamline the online collection experience and reduce the burden on farms. In particular questions on labour were modified compared to previous years. A small-scale vegetable Survey is usually run alongside the June Agricultural and Horticultural Survey to supplement the vegetable data. However this was not possible this year and as a result the Vegetable figures are lower than in previous years. Questions on pigs and poultry, normally gathered from the NI Annual Inventory of Pigs and Update of NI Bird Register, were added because the inventories were postponed until later in 2020.

Data for the cattle section was extracted from the APHIS cattle tracing database as in previous years.

Telephone support was provided for farmers who could not complete online and a focussed telephone follow-up of non-responding farms was carried out.

New estimation and imputation methods were used to create statistics for those who did not provide a return.

A total of 27,600 letters were issued and a final farm register of 25,800 created. Results are based on 12,500 completed questionnaires.

Final results will be published on 22nd December 2020 by the Department of Agriculture, Environment and Rural Affairs for Northern Ireland, Dundonald House, Belfast, BT4 3SB (telephone: Belfast (02890) 525450) and will be available <a href="here.">here.</a>

# 2.4 Methodology: Cereal and Oilseed Rape Production Survey England

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 2.134 farms (47% response rate) across the country (see Table 16).

Table 16: Provisional response rate for Cereal and Oilseed Rape Production Survey 2020 by region

English region	Number	Number of	Response
3	sampled	responses	rate (%)
North East	209	112	54%
North West and Merseyside	280	111	40%
Yorkshire and the Humber	676	305	45%
East Midlands	687	337	49%
West Midlands	552	209	38%
Eastern	841	429	51%
South East and London	485	260	54%
South West	768	371	48%
Total	4498	2134	47%

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.

#### Wales

No yield data were collected for Wales. The Welsh production figures have been estimated on a regional basis within Wales using the final regional results of the June 2020 Survey final results, along with the yields for the English regions bordering Wales. Final results for Wales were published on 17 December by the Welsh Government on their <a href="website">website</a>. For further details contact Agricultural Statistics, Welsh Government, Cathays Park, Cardiff, CF10 3NQ (telephone: 03000 252244).

#### Scotland

The 2020 estimates of production are based on final crop areas from the 2020 June Agricultural Census, along with crop yield estimates. The 2020 estimates of yield are based on a different methodology to previous years. In April 2020, it was announced in the RESAS Revised schedule of agricultural surveys and outputs that the Cereal Production Survey would be temporarily stopped for 2020. The final 2020 estimate is based on a similar method to the first estimate, using industry intelligence at the end of the harvest augmented with information about historic trends. Previous years of publications are available.

#### Northern Ireland

Land areas are final figures from the Farm Census 2020.

In 2020, due to COVID-19, the results from the cereal yield survey are delayed. Estimates of production and yield have been derived from the department's Agricultural Inspectors and are provisional NI figures.

Final cereal yield and production figures, based on the annual survey, will be published by DAERA in 2021.

# Minor crops

The England cereals and oilseed production survey collects the same elements for rye as it does for the main cereal crops. Mixed corn and triticale are included in the minor cereals estimates of yield and production in <u>tables 3</u> and <u>4</u>. Mixed corn and triticale estimates are not derived from survey returns. The proportionate change in English winter barley yield from 2019 to 2020 is applied to the 2020 estimate of mixed corn yield. Correspondingly the proportionate change in English wheat yield is applied to the 2020 estimate of triticale. The derived yields are applied to the areas of mixed corn and triticale that have been estimated from England June survey returns.

England survey forms were sent to 120 holdings that reported a rye area in their June survey return. Useable returns were received from 50 holdings; a response rate of 42% which is lower than the response rate of the survey as a whole of 47%.

Of these 50 returns, 27 reported some cereal production from their rye crop. In the remaining 23 holdings all the rye was harvested wholecrop. Based on this small sample an England estimate of yield and production for rye is included in the minor cereals category in this release. Not unexpectedly the confidence intervals around these estimates are much larger than the main cereal crops.

Scotland estimate areas for triticale, mixed corn and rye but do not estimate forecast yields due to the very small areas grown. Estimated England yields are applied.

Northern Ireland estimate areas for mixed corn and triticale but do not estimate forecast yields due to the very small areas grown. Estimated England yields are applied. Rye is not included.

Wales include the minor crops in their "other combinable cereals" category.

#### 2.5 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 2020 harvest, bought in grain and crops harvested as wholecrop for silage.

#### 2.6 Feedback

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

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

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