

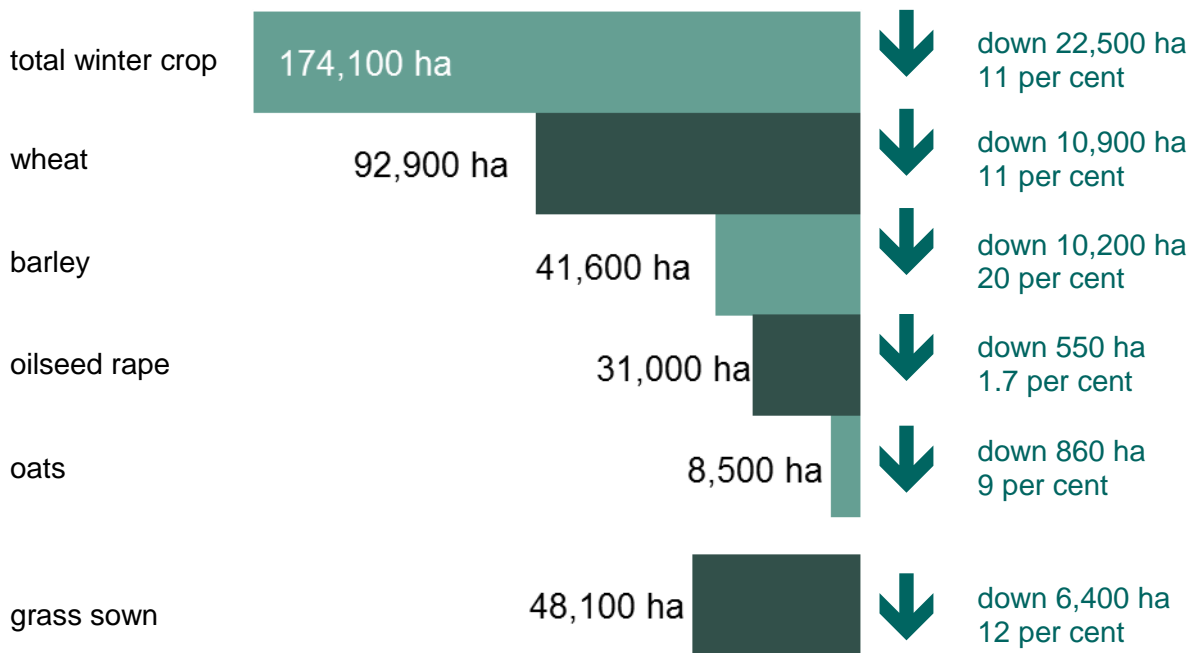
AGRICULTURE, ENVIRONMENT AND MARINE

Results from the 2017 December Agricultural Survey

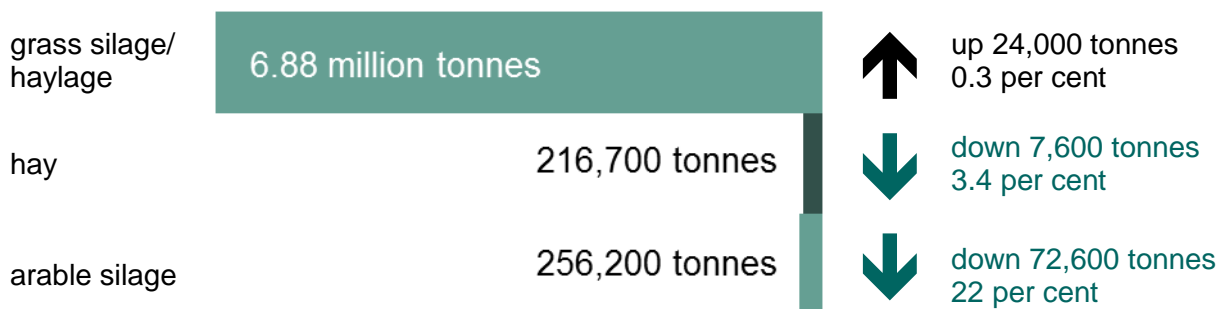
14th March 2018

1. Main Findings

The areas planted in December 2017 decreased compared to the previous year, with barley down 20 per cent and wheat down 11 per cent. The area planted as winter barley was the lowest since the 1970s. [source: Table 1](#)



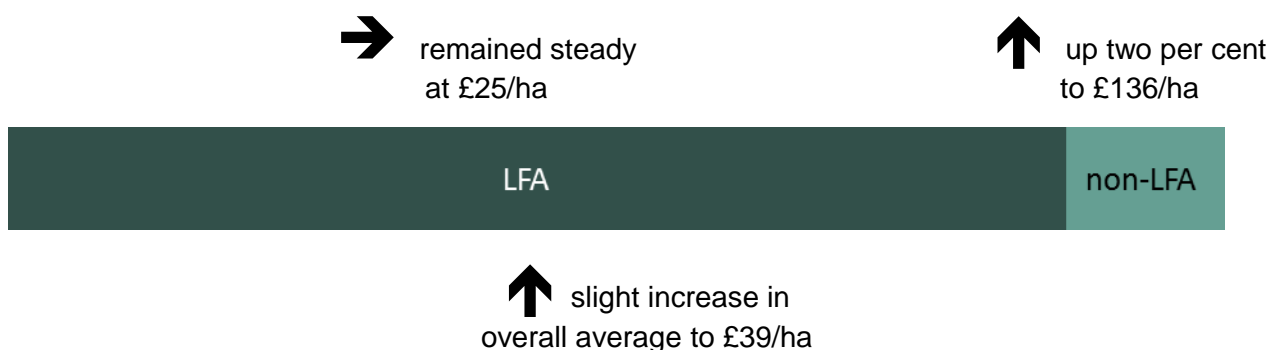
Production of hay and arable silage fell in 2017, with grass silage production relatively unchanged. [source: Table 1](#)



The number of cattle, sheep, pigs and poultry all fell slightly compared to December 2016. [source Tables 2-5](#)

Category	Count	Change	Comparison to June
cattle	1.69 million	down 17,700 (1.0 per cent)	smaller decrease than in June
....beef cows	415,500	down 5,400 (1.3 per cent)	larger decrease than in June
....dairy cows	175,200	up 560 (0.3 per cent)	decrease in June
sheep	4.91 million	down 137,200 (3 per cent)	increase in June
pigs	345,100	down 22,600 (6 per cent)	larger decrease than in June
poultry	14.31 million	down 112,200 (0.8 per cent)	increase in June

Overall, average rents remained steady, with negligible change for LFA land and an estimated two per cent increase in non-LFA land. [source: Table 8](#)



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2. Introduction

This publication contains results from the 2017 December Agricultural Survey, covering winter-sown crops, hay and silage production, livestock and machinery. Also included in the survey is information on the cost of renting agricultural land, and this year we have merged the previously separate publication of these results into this document.

This publication provides commentary and graphics on the latest annual changes, and trends over the past ten years, together with comparisons with June Census results.

Unlike the June Census, which collects results covering all agricultural holdings in Scotland, the results of the December Survey are derived from a representative sample of larger agricultural holdings only, involving about 14,700 holdings, and do not cover smaller agricultural holdings at all. These smaller agricultural holdings are generally those of less than one hectare in size, and in the June 2017 census accounted for only six per cent of agricultural land.

The results in this publication have, however, been scaled up to include an estimate for the smaller holdings (except where stated, see section 11.4), in order that full comparison can be made with data from the June Agricultural Census.

For the third year, the December survey was merged with the Sheep and Goat Annual Inventory (SGAI). The Inventory goes to all sheep and goat keepers, and so any keepers not included in the December Survey sample were required to complete a separate form covering sheep and goat numbers. Therefore, in addition to sheep and goat data collected through December Survey forms, an additional 10,800 holdings were asked about sheep and goat data only, meaning sheep numbers are now fully representative. As usual, the cattle data are also obtained from the British Cattle Movement Service, giving a fully representative figure.

The surveys were again available online. This year, all those who had previously completed information online, either for a December survey or the June census, were sent email notification of the survey, rather than a paper form. However, if the online form was not initially completed, a paper form was sent as a reminder. Of those returning the December Survey or the Sheep and Goat Inventory, 7,650, or 44 per cent completed it online, compared with 33 per cent last year.

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3. Winter crops

Year-on-year comparisons between 2016 and 2017 December Survey results show:

- A decrease in the area of **winter crops**, of 22,500 hectares (11 per cent) to 174,100 hectares. The figure is nine per cent lower than the ten-year average of 191,800 hectares.
- A decrease in winter **wheat** of 10,900 hectares (11 per cent) to 92,900 hectares. The figure is six per cent lower than the ten-year average of 98,900 hectares.
- A decrease in winter **barley** of 10,200 hectares (20 per cent) to 41,600 hectares. The figure is 20 per cent lower than the ten-year average of 51,800 hectares.
- A decrease in winter **oats** of 860 hectares (nine per cent) to 8,500 hectares. The figure is 11 per cent higher than the ten-year average of 7,700 hectares.
- A decrease in winter **oilseed rape** of 550 hectares (1.7 per cent) to 31,000 hectares. The figure is seven per cent lower than the ten-year average of 33,400 hectares.

The area of winter crops sown is greatly affected by the weather and is likely to be made up by increased spring planting.

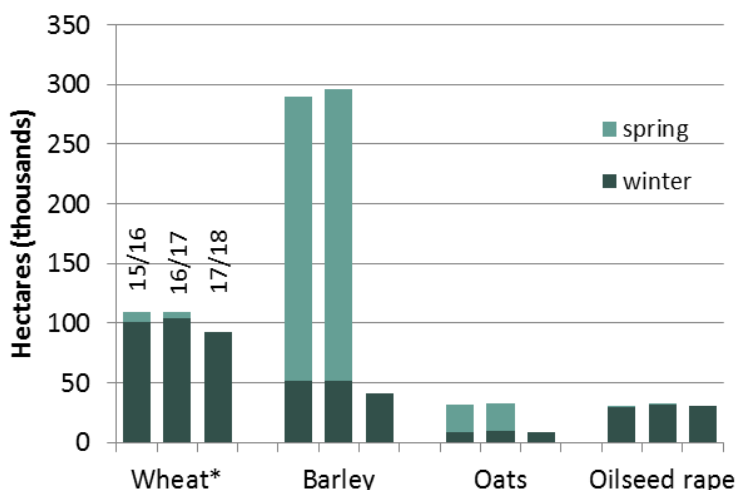
3.1 Winter or Spring?

Chart 1 illustrates winter and spring crop areas from the 2015/16 and 2016/17 growing years, together with the latest December 2017 data.

Spring varieties are prominent for barley and oats, with winter varieties prominent for wheat and oilseed rape.

Chart 1: Winter and Spring Crops

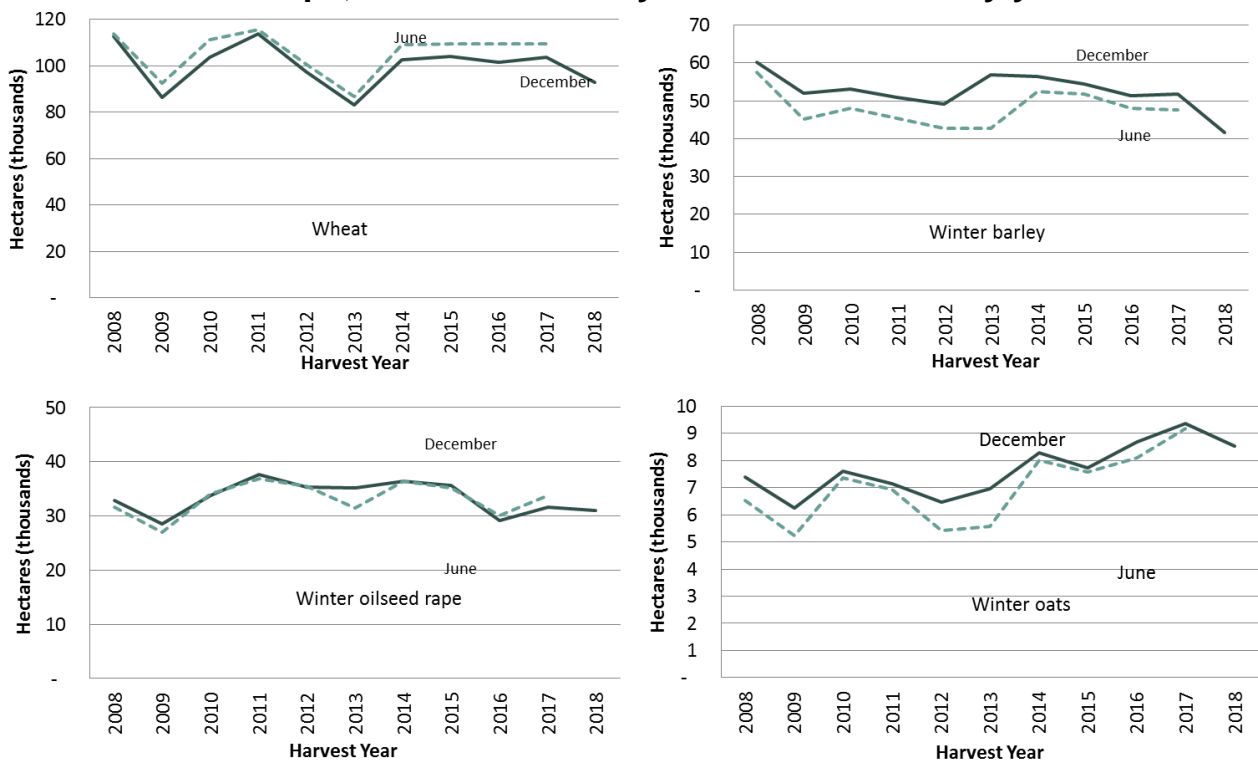
For each crop the chart shows the values at June 2016, June 2017, and then December 2017. The spring-planting values for the latest year are not yet known



The December Survey only provides the first indication of trends of winter sown crops. More comprehensive results are produced from the June Census in the following year.

Chart 2 shows trends in winter crops reported in the December Survey and the following June Census over the past ten years. Results are presented against the year of harvest, so for example the 2016 December Survey results are presented against June Census results from 2017.

Chart 2: Winter crops, December Survey and June Census by year of harvest



Final wheat figures are generally slightly higher than December figures due to small areas of spring wheat, or winter wheat sown after the start of December. Among other crops, the June figures for winter crops are often lower than those reported in December. This is likely to be due to poor weather conditions resulting in failed winter crops which are then re-sown as spring crops.

4. Hay and silage

Chart 3 shows the production of silage/haylage, hay and arable silage between 2007 and 2017. These results also include estimates for hay and grass silage/haylage production on minor agricultural holdings.

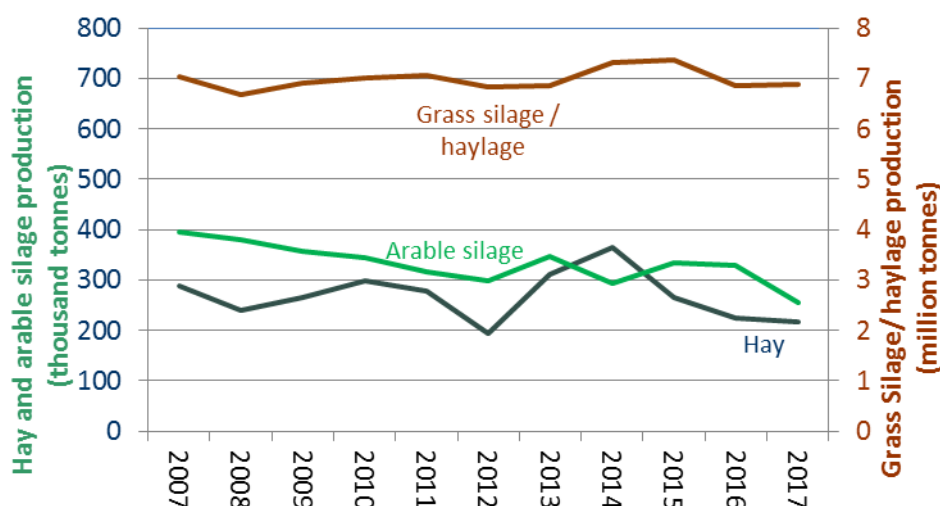
Year-on-year comparisons between 2016 and 2017 show:

- The estimated **grass silage/haylage** production remained similar at 6.9 million tonnes (up 0.3 per cent). The tonnage is 1.4 per cent lower than the ten year average of 7.0 million tonnes.
- A decrease in **arable silage** production of 72,600 tonnes (22 per cent) to 256,000 tonnes. The tonnage is 21 per cent lower than the ten year average of 326,000 tonnes.
- A decrease in the production of **hay** of 8,000 tonnes (three per cent) to 217,000 tonnes. The tonnage is 18 per cent lower than the ten year average of 265,000 tonnes.

4.1 Production

In terms of total tonnage, grass silage/haylage accounted for 94 per cent of production in 2017, with arable silage three per cent and hay three per cent. However, this does not take into account dry matter and nutrient content, which is higher per tonne in hay and arable silage.

Chart 3: Production of hay, silage/haylage and arable silage¹, 2007 to 2017



Longer term trends show that the production of grass silage/haylage has remained fairly steady over the past ten years. Arable silage production decreased between 2006 and 2012, but has fluctuated around 325,000 tonnes since, until this year. The hay figures show very strong weather effects, with a very low figure in 2012, and tonnages almost as low in the last two years.

¹ Data on arable silage excludes holdings of less than one hectare which account for approximately 0.03% of arable land

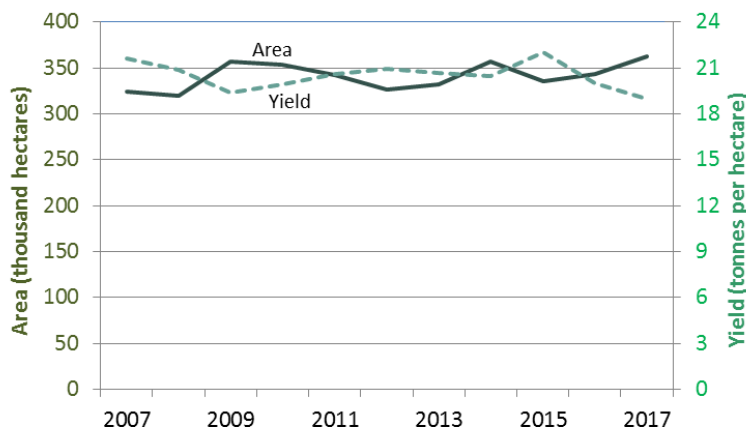
4.2 Silage

The production of silage is dependent on both the areas of grass cut and the yields per hectare. Chart 4 shows trends for areas and yields of grass cut since 2007. In 2017 the total area cut increased by 18,900 hectares (six per cent) to 362,000 hectares (shown on the left-hand axis). A reduction in the yield (down from 20 to 19 tonnes per hectare, shown on the right-hand axis) led to a similar level of production of grass silage/haylage (up 24,000 tonnes, 0.3 per cent) at 6.9 million tonnes).

For silage and haylage production, several cuts of grass can be taken

from the same area in a single year. The yields reported here correspond to total production, which incorporates all cuts of grass taken from the corresponding area. In 2017, the total area of grass reported on the December Survey for the production of hay, silage and haylage was 398,000 hectares. This represents 30 per cent of the 1.33 million hectares of grass area reported on all holdings in the 2017 June Census.

Chart 4: Area of grass cut for silage/haylage and yields 2007 to 2017

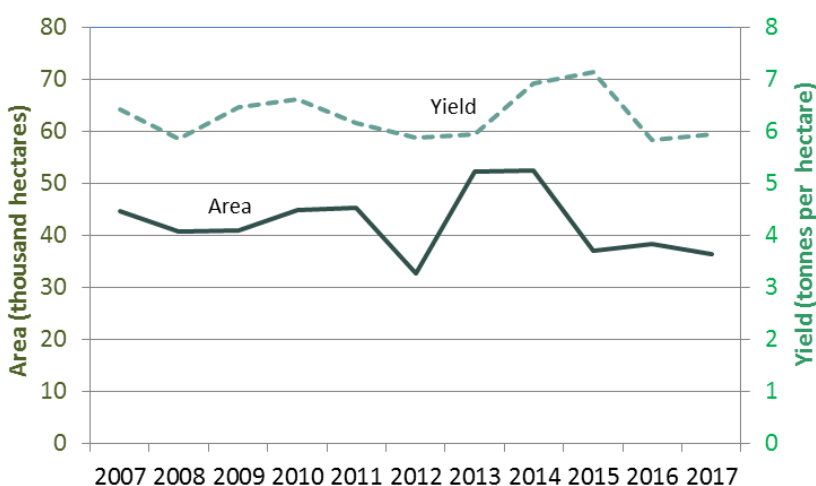


4.3 Hay

Chart 5 illustrates how the area of grass cut for hay has varied. After two years in 2013 and 2014 with relatively high areas grown, the area has been just under 40,000 hectares.

Hay yields have fluctuated between six and seven tonnes per hectare over the past ten years. 2017 saw a relatively low yield of 6.0 tonnes per hectare, similar to 2016.

Chart 5: Area of grass cut for hay and yields 2007 to 2017



4.4 Arable Silage

Separate information on the area of arable silage is not collected on the December Survey, so it is not possible to produce a corresponding analysis of areas and yields. Production of arable silage will be determined by a range of factors. These include the areas of arable crops, which are collected on the June Census, but also decisions by farmers on how much of this crop to use for arable silage. This in turn may be determined by the quality of these arable crops, with poorer crops generally being used for animal feed, including arable silage.

4.5 Grass sown

Data for the area of grass sown are only available for larger holdings (generally at least one hectare), and results exclude smaller holdings which, in June 2016, accounted for approximately four per cent of the total area of grassland (temporary and permanent grass).

The area of grass sown on larger holdings in the last ten years has ranged between 41,000 and 60,000 hectares. In 2017 there was a drop from 2016 of 6,400 hectares (12 per cent) to 48,100 hectares. The total area sown at 1st December 2017 equates to three per cent of the total grass area on larger holdings at 1st June 2017 (1.83 million hectares). Of the total sown, 16,700 hectares was under-sown to cereal or other crops (grass and cereals grown together allowing grass to establish ready for autumn grazing whilst still giving a useful yield of grain) and 31,400 hectares was directly sown or reseeded.

5. Cattle

Year-on-year comparisons between 2016 and 2017 show:

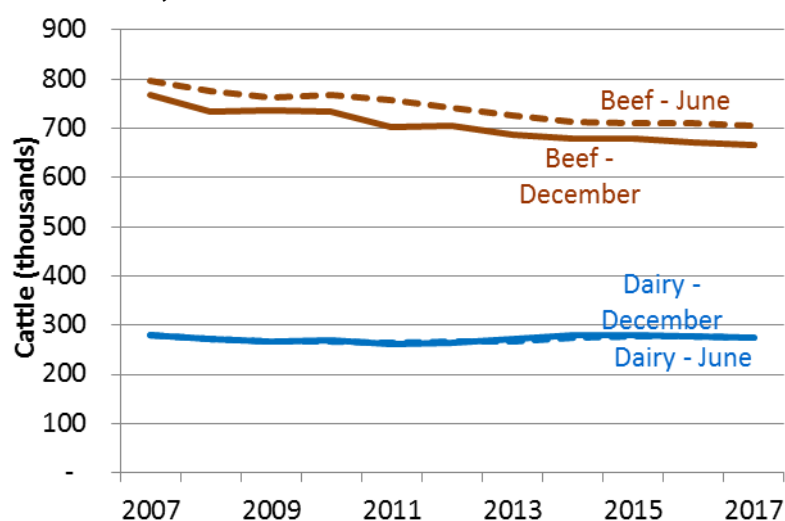
- A decrease in **total** cattle of 17,700 (1.0 per cent) to 1.69 million – similar to the decrease reported between June Census results. The figure is three per cent lower than the ten year average of 1.76 million.
- A decrease in the number of **beef** cows² of 5,400 (1.3 per cent) to 415,500 – again, similar to the 0.9 per cent drop reported in the June Census. The figure is five per cent lower than the ten year average of 435,300.
- A small increase in the number of **dairy** cows³, up 560 or 0.3 per cent to 175,200. There was a 0.4 per cent decrease in the June Census results. The figure is three per cent higher than the ten year average of 170,600.

It is likely that short-term decisions regarding when to slaughter livestock, which may depend more on weather conditions and shorter-term price variations, are responsible for changes in beef numbers.

The tentative recovery in milk prices may have led to the slight increase in dairy numbers.

Chart 6 gives a comparison of trends over the past ten years for the numbers of beef and dairy cattle⁴ from the December Survey and June Census. It shows that numbers vary little between December and June, though a greater seasonality is evident among beef cattle numbers.

Chart 6: Beef and Dairy cattle, June and December, 2007 to 2017



² This refers to female beef cattle aged two years and over, with offspring.

³ This refers to female dairy cattle aged two years and over, with offspring.

⁴ This chart includes all cattle aged one year and over.

6. Sheep

From 2015, the collection of sheep data from the December Survey was combined with that for the Sheep and Goat Annual Inventory (SGAI). This causes two issues for the data which mean that comparisons with previous years should be made with caution:

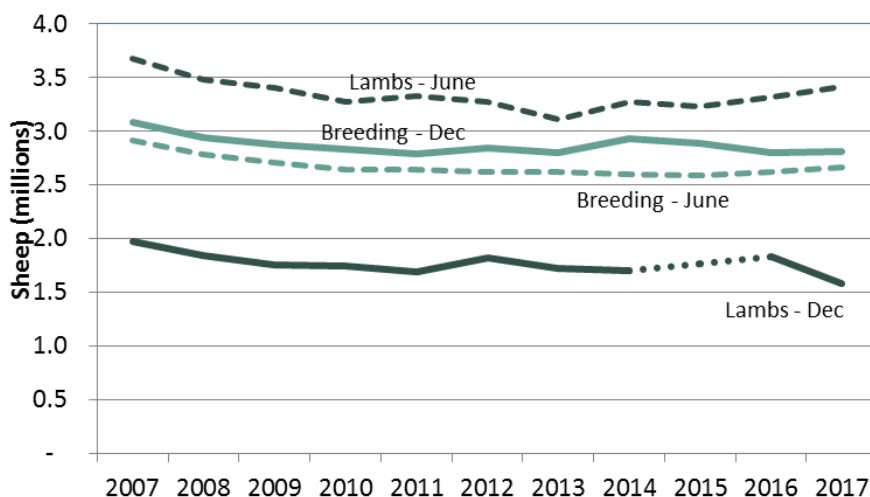
- A different set of categories, meeting the minimum requirements of both surveys, means a break in the time series for the detailed data. While the categories were chosen so that four broad groupings remained comparable, it is clear from the results that this change has unreliably affected these data. This does not however affect the total.
- The slightly wider coverage of the SGAI resulted in an increase in the total number of sheep recorded.

While the total obtained from the 2015 survey was considered reliable, there appeared to have been some confusion around the categories. Attempts were made to clarify definitions in both 2016 and 2017, with the resulting data looking more in line with previous years.

In 2017, there were

- 4.91 million sheep on holdings in Scotland. This was a reduction of 2.7 per cent and 0.6 per cent above the ten year average of 4.88 million.
- 1.58 million lambs, 14 per cent down on last year. This was seven per cent less than the average number between 2008 and 2017 of 1.70 million
- 2.94 million ewes and lambs used for breeding in 2017/18. This was similar to the average number between 2008 and 2017 of 2.96 million

Chart 7: Lambs and breeding flock numbers, June and December, 2007 to 2017



The reported breakdown of sheep numbers, particularly those for lambs, was considered unreliable in 2015.

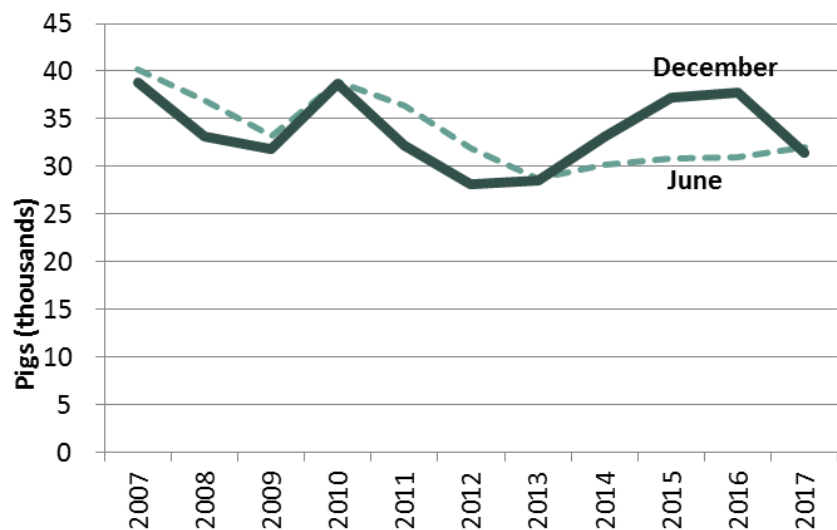
7. Pigs

Year-on-year comparisons between 2016 and 2017 December Survey results show:

- A drop in the **total** number of pigs of 22,600 (six per cent), down to 345,100. This was larger than the 1.3 per cent annual increase reported in the 2017 June Census results. The figure is three per cent below the ten year average of 354,800.
- A reduction in **breeding** pigs of 6,400 (17 per cent) to 31,400 – contrasting with the eight per cent annual increase reported in the 2017 June Census. The figure is six per cent lower than the ten year average of 33,200.

Chart 8 shows trends over the past ten years for breeding pigs from the December Survey and June Census. After several years of decline, breeding pig figures in June have been increasing slowly. The drop in this December's figure brings it more in line with the June figure.

Chart 8: Breeding pigs, June and December 2007 to 2017



8. Poultry

Year-on-year comparisons between 2016 and 2017 December Survey results show:

- A slight fall in the **total** number of poultry of 112,000 (0.8 per cent) to 14.3 million – compared to the 1.3 per cent annual increase reported in the 2017 June Census results. The December figure is three per cent higher than the ten year average of 13.9 million.
- A fall in the number of **broilers** of 347,000 (five per cent) to 6.3 million – in line with the four per cent fall reported in the 2017 June Census results. The figure is 12 per cent lower than the ten year average of 7.2 million.
- An increase in birds for **laying** eggs for eating of 136,000 (two per cent), with the number of layers rising to 6.6 million – compared with an eight per cent increase in the 2017 June Census results. The figure is 22 per cent higher than the ten year average of 5.4 million.
- An increase in **breeding** birds of 122,000 (11 per cent), with the number rising to 1.3 million – compared to a three per cent drop reported in the 2017 June Census results. The figure is eight per cent higher than the ten year average of 1.2 million.

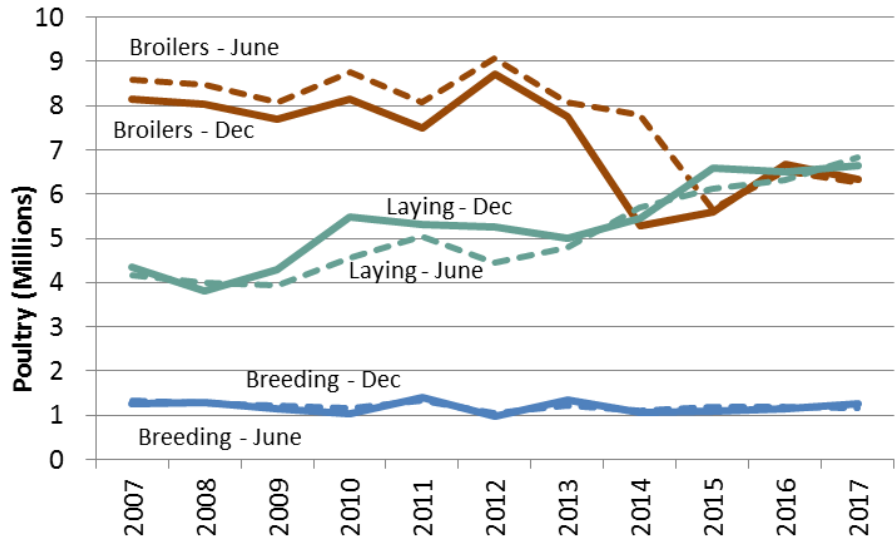
In the longer term, layer numbers have been increasing, with layers outnumbering broilers. (Contrast this with 2008 when there were 8.0 million broilers to 3.8 million layers). These changes have also been reflected in the income figures published in January, with the value of eggs being greater than for poultry meat.

Chart 9 shows trends over the past ten years from the December Survey and June Census for broilers (used for meat production), laying fowls (used for egg production) and breeding birds (used to produce broiler and layer chicks). It should be noted that there is some inherent variability in the annual poultry data, which can be affected by short-term operational factors.

For some years, the chart shows large differences in the number of broilers and layers between June and December. This variability can occur if large poultry units reduce the number of birds on their holdings over the survey date, for operational reasons such as the cleaning of premises. Also the poultry production cycle is very short compared to other livestock, which provides producers with the flexibility required to change production levels in response to market conditions.

Over the past ten years total poultry numbers have fluctuated around 14 million. However since 2013 there has been a drop in the number of broilers, and an increase in the number of poultry for laying eggs.

Chart 9: Poultry, June and December 2007 to 2017



Broilers fluctuated around 8 million until 2013, since when broiler numbers have fallen to around 6 million. There were 6.3 million broilers in December 2017.

The figures for laying fowls had been steady at about four million until 2009, before increasing steadily to between six and seven million. Over the ten year period the December Survey results show an increase of 2.3 million (53 per cent).

The trends in the annual number of breeding birds have been fairly constant with the December Survey and June Census both averaging about 1.2 million birds over the ten year period.

9. Machinery

Information on machinery is only collected through the December Survey (of larger holdings only, generally greater than one hectare) and not the June Census. This means that we have been unable to scale figures up for smaller holdings, as we do not have a proxy measure to use from the June Census. The results published here relate therefore only to the larger holdings.

In the past, and with the exception of tractors and transport vehicles, machinery data were divided into two sets of categories, so that different categories were collected in odd and even years. From December 2015, all categories of data are now collected, but are not collected in as much detail as previously. Figures on milking parlours are also added for the first time in 2015.

These changes have been made with the aim of producing more consistent annual data, however it appears to have affected comparison with previous years' data for all machinery and transport categories. This is possibly because in previous years, in the absence of all categories, respondents may have put some of their machinery in the category that best fitted.

Changes in the number of holdings classified as large enough to be covered by the December Survey will also have affected the amount of machinery included in the survey.

In December 2017, on the 26,300 larger holdings in Scotland, there were 40,500 wheeled tractors and 21,500 transport vehicles.

When considering trends in machinery, it is also worth noting that there has been a real terms increase in the value of agricultural contract work being carried out over the past ten years (about 27 per cent, unpublished background data used in '[Total Income from Farming Estimates for Scotland, 2015 to 2017⁵](#)'). If it is the case that there are more holdings using contractors and their machinery to carry out certain work, it is possible that this may have led to a decrease in some of the machinery categories observed in the survey results.

⁵ www.gov.scot/stats/bulletins/01261

10. Tenancy data

10.1 Rents paid – ranges

Chart 10 shows the range of rents paid in different sub-regions. The number of returns in some areas are quite small but they suggest that Na h-Eileanan Siar and Shetland have the lowest rates, even after crofts are excluded from the analysis, explained by their remoteness and quality of land. Highland showed a wider spread of values. Orkney showed much higher rents than elsewhere in the North West region, more in line with those in the North East, reflecting the fact that location alone does not drive prices.

The South West contained the next lowest group of rents, although with rents in Argyll & Bute being more in line with those in the North West.

Rents in the North East and South East were then generally higher, with Fife and Lothian having the highest rents, with half of those sampled paying over £120 per hectare.

Chart 10: Range of rents paid per hectare, by sub-region, 2017/18

Bars show 90 per cent, upper quartile, median, lower quartile and 10 per cent values. The figure below the label shows approximate number of leases for which data were returned. Excludes crofts and seasonal lets. [source: Table 9](#)

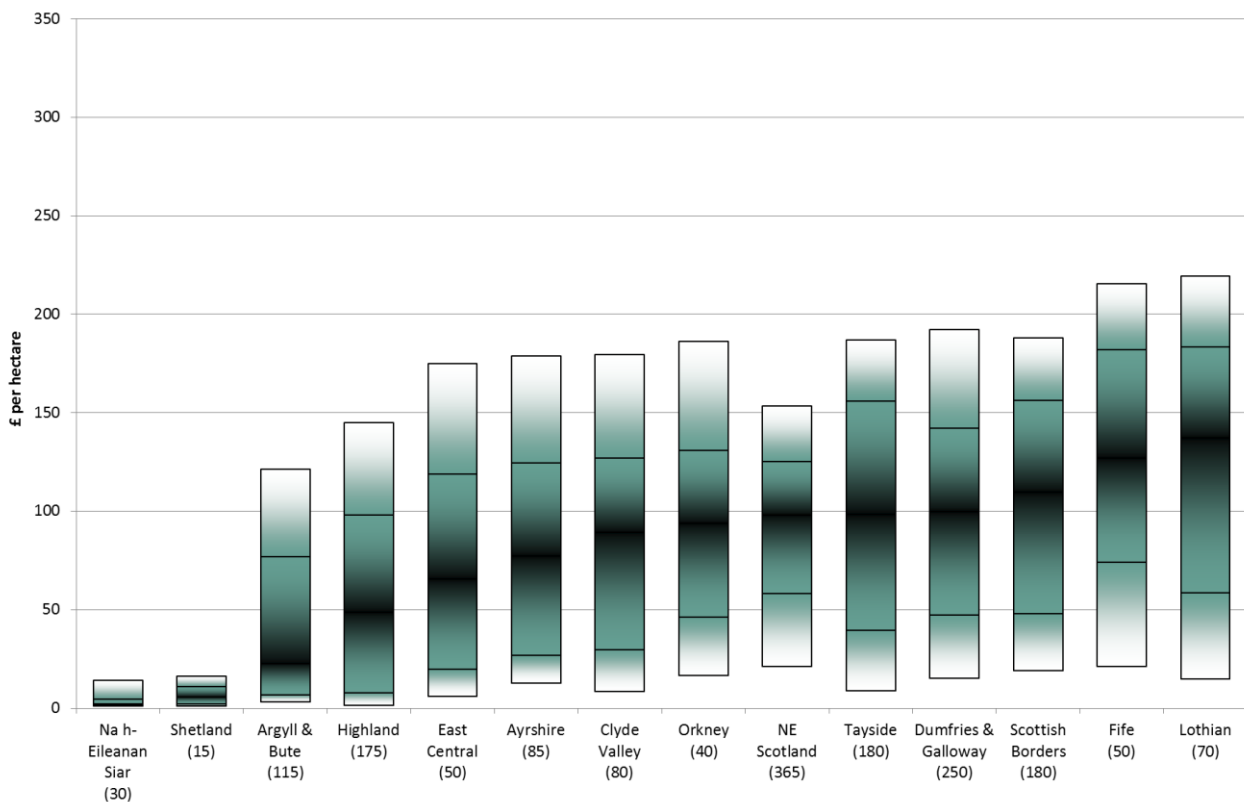
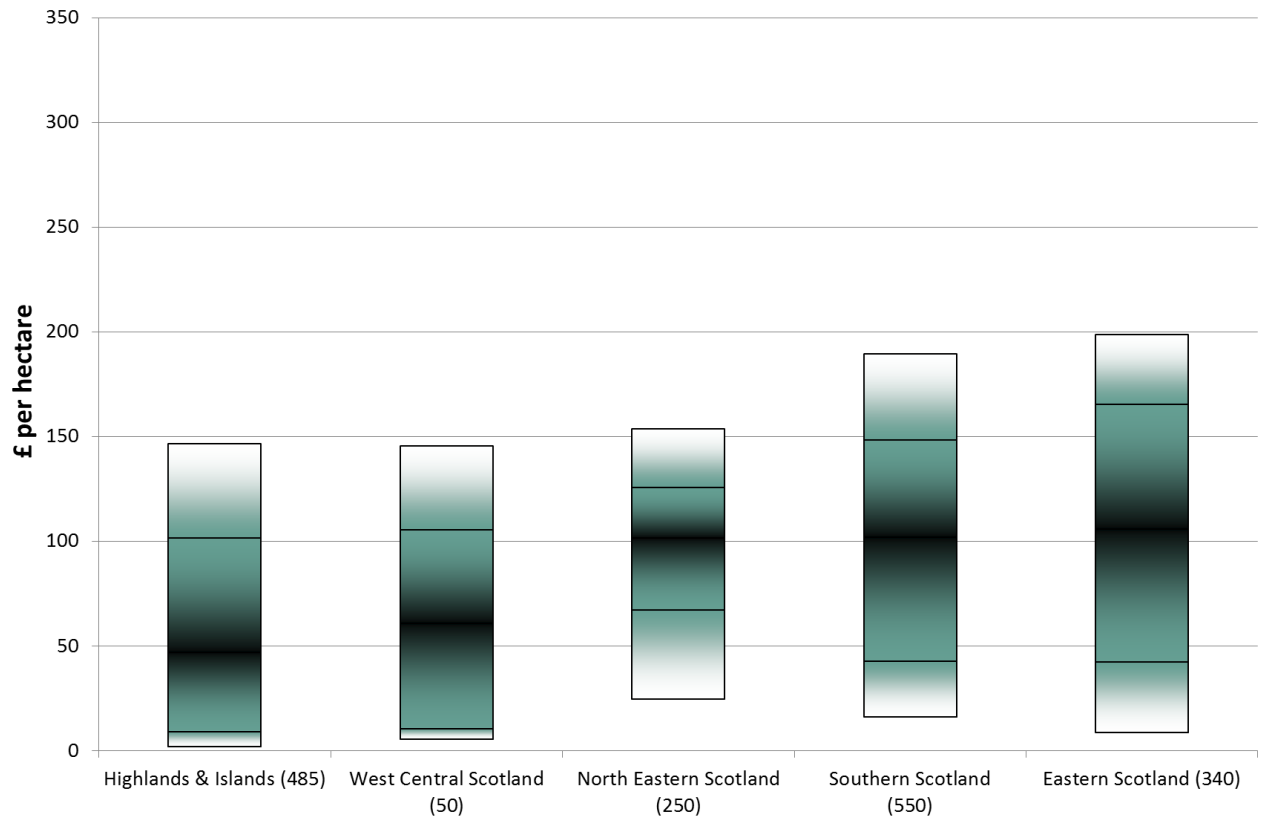


Chart 11 (on the same scale as chart 10 for comparability) shows the rents paid, by the new NUTS2⁶, excluding crofts and seasonal lets. Rents for West Central Scotland appear almost as low as those for the Highlands and Islands, due to low rents in Argyll and Bute. There is little difference between the other three regions, which all have medians at just over £100 per hectare.

Chart 11: Range of rents paid per hectare, by NUTS2 regions, excluding crofts and seasonal lets, 2017/18

Bars show 90 per cent, upper quartile, median, lower quartile and 10 per cent values. The figure below the label shows approximate number of leases for which data were returned.

source: Table 9



⁶ these were changed in 2018 from four regions to five, see <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:02003R1059-20180118&qid=1519136585935>

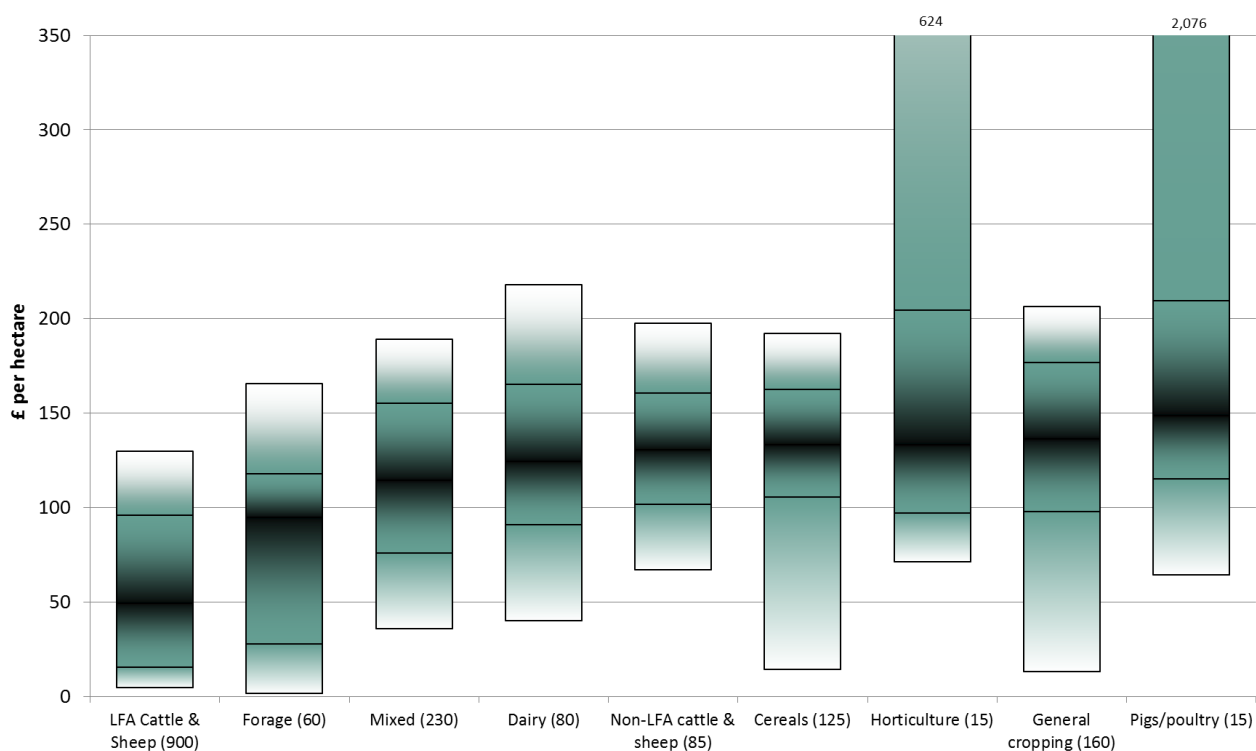
Chart 12 (on the same scale as previous charts for comparability), shows the rents paid by farm-type⁷, also excluding crofts and seasonal lets.

Farm-type is, to a certain extent, determined by the quality of land, and so it would be understandable if some differences appeared between categories in this chart. However, there is little difference between farm types, with the exception of LFA cattle & sheep and forage farms showing predictably lower rents, and the rents for pigs & poultry and horticulture extending much higher. The larger values of rent per hectare in these latter categories generally relate to rents of a few thousand pounds for quite small areas, presumably with sheds and glasshouses.

Chart 12: Range of rents paid per hectare, by farm-type, excluding crofts and seasonal lets, 2017/18

Bars show 90 per cent, upper quartile, median, lower quartile and 10 per cent values. The figure below the label shows approximate number of leases for which data were returned.

source: Table 9

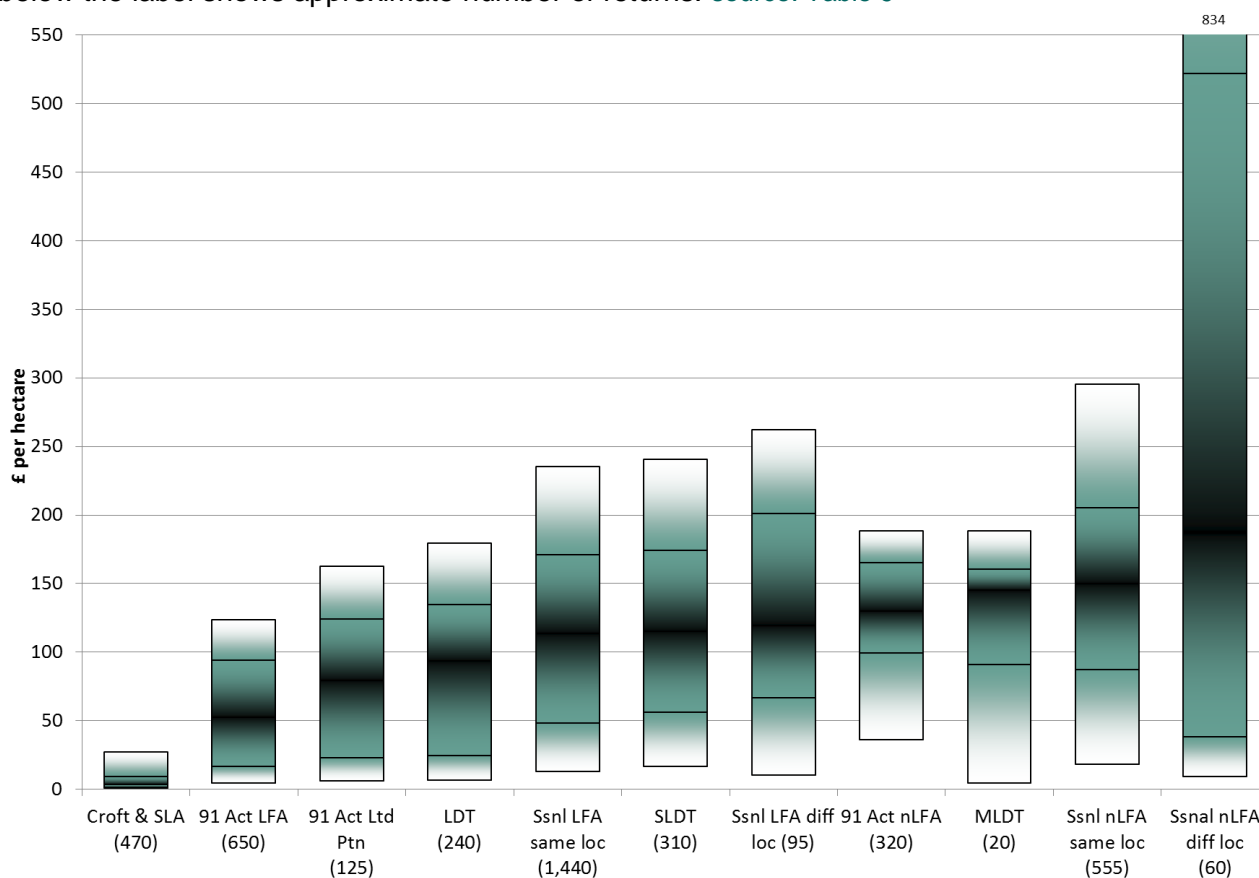


⁷ Most crofts were LFA cattle & sheep, or LFA other. See chart 13 for croft rents.

Chart 13 (on the same scale as previous charts for comparability) shows the range of rents by type of tenancy, with seasonal lets split between LFA and non-LFA and whether on a recurring location, and traditional 91 Act tenancies split by LFA and non-LFA. The chart shows the low rents on crofts and the few returns from Small Landholders Act (SLA) tenancies. This was followed by 91 Act tenancies on LFA land, and then Partnerships and LDTs. There is little difference in the other arrangements, though with less variation in non-LFA 91 Act tenancies. Non-LFA seasonal lets on a new location had the highest median value, and a considerably larger range, with a quarter of those responding over £800 per hectare.

Chart 13: Range of rents paid per hectare, by tenancy-type, 2017/18

Bars show 90 per cent, upper quartile, median, lower quartile and 10 per cent values. The figure below the label shows approximate number of returns. [source: Table 9](#)



SLA	Small Landholder Act
91 Act LFA	91 Act tenancy on LFA land
91 Act Ltd Ptn	91 Act Limited Partnership
LDT	Limited Duration Tenancy
Ssnl LFA same loc	Seasonal let on LFA land, on a recurring location
SLDT	Short Limited Duration Tenancy
Ssnl LFA diff loc	Seasonal let on LFA land, not on a recurring location
91 Act nLFA	91 Act tenancy not on LFA land
MLDT	Modern Limited Duration Tenancy
Ssnl nLFA same loc	Seasonal let, not on LFA land, on a recurring location
Ssnal nLFA diff loc	Seasonal let, not on LFA land, not on a recurring location

10.2 Rents paid – overall average per hectare

As detailed in section 10.1, in the above analyses, rent per hectare for a tenancy covering a large area of land is treated equally to one covering a small area, and results from different farm-types are not weighted to make data for each farm-type representative of their size in the industry.

However, in order to estimate the overall cost of rent for the estimate of Total Income from Farming, the data have been weighted accordingly to produce a total rent figure. This results in an estimated overall average (including crofts but excluding seasonal lets and rents paid in kind) of £39 per hectare, £25 per hectare for LFA and £136 for non-LFA, with a figure of £52 million for the total amount of rent paid.

10.3 Historical trend

Chart 14 shows the trend in estimated average rent per hectare from 1998 to 2017.

In estimating the average rent per hectare, survey data have been weighted-up so that, for example, the importance given in the calculation to the rent of LFA cereal holdings is in proportion to the actual area of tenancies on LFA cereal holdings in the census. This means that the calculation would not be affected by having too few or too many of a certain type of farm in our survey responses. However, due to the comparatively high non-response rate for this question, there are still some strata where values are based on best estimates or, for previous years, rolling averages.

The chart shows that

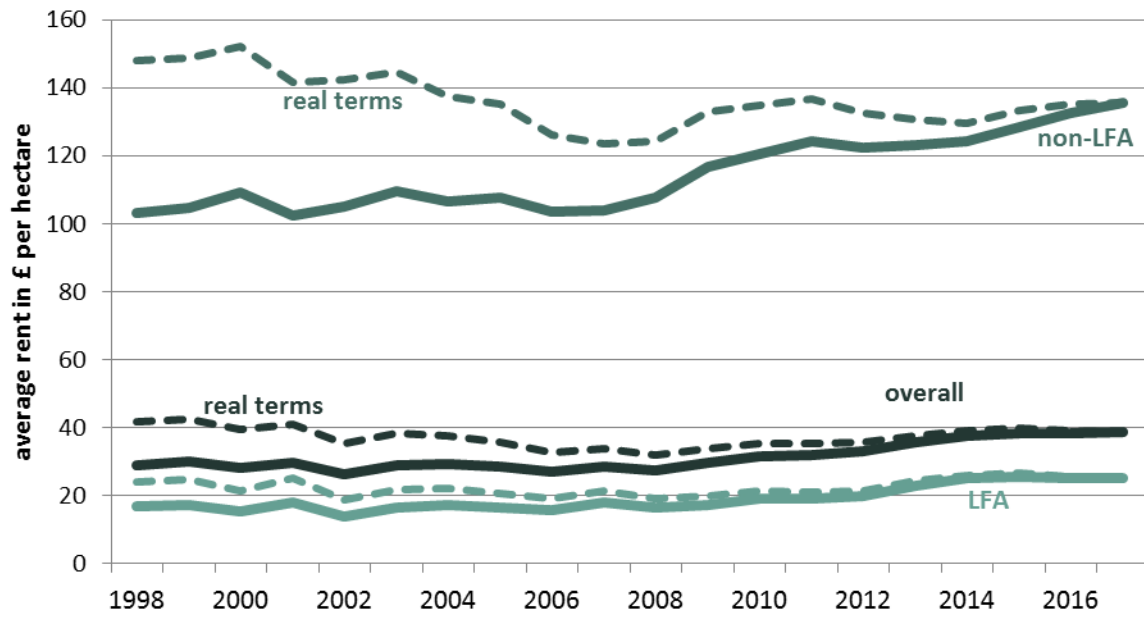
- between 1998 and 2008 there was very little change in the overall average rent paid per hectare, and hence a reduction in real terms, once inflation is taken into account.
- since 2008 there has been an above-inflation increase in rent (41 per cent or 22 per cent after accounting for inflation), particularly on LFA land which has risen 53 per cent (32 per cent in real terms).

These result in rents currently been at a similar level to 2000, once inflation is taken into account.

In recent years there have been a reduction in the area of land rented under long-term rental arrangements, and an increase in shorter-term limited duration tenancies. These arrangements are often more expensive, and this has driven up the overall average cost of renting.

It should also be noted that most rents are not reviewed each year; for example, 1991 Act tenancies can be reviewed no more than every three years. Hence the overall average increase comprises those with no increase this year and those with increases above the average.

Chart 14: Average rent per hectare, 1998 to 2017 [source: Table 8](#)



11. Notes

11.1 Background

This publication contains results for the December Agricultural Survey for 2017 and includes trends for the last ten years where available. Where appropriate, comparisons have been made between results of the December Survey and the June Agricultural Census.

11.2 Uses of the information

The December survey is conducted for a range of purposes. The statistics help the government to form, monitor and evaluate policy, and to assess the economic well-being of the agricultural sector.

Most of the data collected is required by the Statistical Office of the European Communities, specifically Council Regulation No 1165/2008 which sets out requirements for provision of cattle, pig, sheep and goat statistics in both May/June and November/December. It defines the category, age or weight of livestock for which statistics are to be provided and specifies the provision of quarter-year or half-year production forecasts. There is also a separate EC Regulation covering the provision of winter crops. This information is collated by Defra (Department for Environment, Food and Rural Affairs) for submission at member state (UK) level.

December Survey results are not as widely used as results from the June Census as the survey only covers larger holdings, generally of at least one hectare, whereas the June Census is representative of all agricultural holdings in Scotland. However, December results supply supplementary information not available through the June census on rent values, machinery, winter livestock levels and grass sown as well as detail on hay and silage production.

Some examples detailing how the December Survey data are or have been used are:

- Estimates of Total Income From Farming (TIFF), which are used to measure the value of agricultural productivity in Scotland. The December Survey, which gives approximately end-year livestock numbers, are more useful for the calculation of calendar-year production. For example, although the June Census records the number of lambs present in summer each year, it does not (on its own) give an indication of the volumes of finished sheep and lambs that are being processed within the calendar year. The rents reported in the December Survey for each category are grossed up to the total areas reported in the census, to calculate the total amount of rent paid.
- It is also useful to monitor livestock maintained for the next breeding season and winter crops in December so that the farming industry can better understand what to plan for in the coming year.

- The data on machinery that is collected on the December Survey is also used to help estimate some of the input costs incurred within Scottish agriculture (for example, machinery repairs, depreciation, fuel and asset worth).
- The information on rents is used to monitor the cost of land rental in different categories of land.

Results from the December survey are available to the public as follows:

This statistical publication is available for download from the Scottish Government website along with previous releases of December Survey results:

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFinalResulsDecCensus

Headline results for TIFF (mentioned above) are published each January. These can be accessed as follows:

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/ResultsTIFFFI

Economic Report on Scottish Agriculture (ERSA) is a compendium publication containing detailed statistics on Scottish agriculture, combining further information from Total Income From Farming (TIFF – see above for more details), Farm Accounts analysis (income and expenditure statistics by different farm types) and additional statistics/analysis from the June census.

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubEconomicReport

11.3 Methodology – Data collection

Since 2015, the December Survey has incorporated collection of data for the Sheep and Goat Annual Inventory (SGAI). This involves 14,700 December Survey forms requesting data on land, livestock and machinery data (including questions on sheep and goats) in addition to 10,800 holdings requesting only sheep and goat information. Holdings completing December Survey forms were selected using stratified random sampling where the sampling frame comprised of a list of all the larger (generally over one hectare) holdings in Scotland stratified by farm size and region as measured through the 2017 June Census. This spread is intended to ensure a good representation across the country and by farm size. Optimal allocation was used to calculate the sample size required in each strata in order to maximise precision of results. Following this, a random sample is selected from each strata. The sample was topped up with holdings which were included in the previous December survey (2016) but didn't respond.

The results are based on information returned from approximately 8,900 holdings, providing a response rate of 60 per cent for the December Survey. There were also 8,600 returns from holdings receiving the SGAI form only, providing a response rate of 79 per cent.

Since 2015, respondents have been able to complete their December Survey (and SGA) online. In 2015 there were 2,200 online responses, which increased in 2016 to 6,100, and to 7,600 in 2017, accounting for 44 per cent of all survey returns.

Among the respondents, 2,910 holdings reported renting-in land in 4,540 leases (including seasonal lets). About 400 tenancies paid entirely or partly 'in kind' were reported, which have been excluded from the analysis. The following shows the approximate number of returns with non-seasonal rented land, by stratum, received in the 2017 survey. The random nature of the sampling within strata resulted in between 40 (Orkney) and 350 (North East Scotland) tenancies arrangements per sub-region.

	0-<50ha	50-<200ha	200-<500ha	500-<1000ha	1000ha+
North East	119	172	45	5	8
North West	479	109	38	15	20
South East	142	183	90	34	18
South West	179	220	80	54	43

11.4 Methodology – Non-response

In Scotland there are around 51,100 agricultural holdings registered with the Scottish Government. We use these register details to maintain a full holding-level data set of Scottish agriculture for statistical purposes. This provides us with virtually complete coverage of agricultural activity in Scotland. However, please note that:

- we very rarely conduct a full census of holdings as this would place an unnecessary burden on farmers;
- for the selected holdings that are surveyed, not all farmers return data to us;
- where we have gaps in our holding level data set, we maintain records by producing estimates.

The December Survey is representative of larger holdings (generally over one hectare in size around), of which there were 26,300 at June 2017. Estimates are produced for those holdings which were (a) large enough but not sampled, (b) surveyed but did not provide a response, and, for some variables, (c) smaller holdings.

Two stages of estimation are undertaken to calculate the December results where holdings are not included in the sample, or do not return data:

- (i) For items collected both in the June Census and December Survey (livestock items and winter crops), a trending technique is applied to estimate the current year December values. The holdings are divided into strata using farm size and region. Where holdings have reported for both surveys, the total change between June and

December for holdings within individual stratum are calculated. These rates of change are then applied to June Census results.

From 2013, the trending methodology was refined to provide improved estimates to account for the fact that holdings often report farming a particular crop or livestock in either the December Survey or June Census only. The previous method will have partially suppressed these trends. A time series for all items has been provided back to 2008, calculated using the new methodology. For years prior to 2008, the previous estimates have been adjusted by the percentage difference between the old and new methodologies.

(ii) For items only collected in December, such as machinery, arable silage production and grass sown, data in each strata are simply scaled up proportionally to account for non-response/inclusion in order to calculate estimates for all of those larger holdings within the scope of the survey. Note that the number of holdings classified as larger holdings will change from year to year, which will affect the scaled up figure. We are unable to scale figures up for smaller holdings for these items as we do not have a proxy measure to use from the June Census. However, for hay and grass silage/haylage this is possible, based on proportions of grass grown recorded in the June Census.

11.5 Methodology – Rents

Average rental value is calculated by weighting the survey data using farm-type and size, and land-type. The sample is not originally stratified by farm-type, however the following table shows the breakdown of land-area used in calculations. It is clear that the overall average rate is heavily dependent on the rental value of LFA cattle & sheep farms.

Prior to 2013, calculations were based on the much smaller Tenanted Land Survey (see the previous versions of this publication⁸), with values often built up from five-year averages or best estimates for those farm-types with only small representation within the sample.

	Area of rented land in 1,000 hectares									
	LFA					non-LFA				
	0-<50ha	50-<200ha	200-<500ha	500-<1000ha	1000ha+	0-<50ha	50-<200ha	200-<500ha	500-<1000ha	1000ha+
Cereals	1.0	3.2	1.6	1.4	-	3.8	21.2	10.0	2.1	2.9
Gen Cropping	0.7	2.0	1.6	-	-	2.3	21.1	19.1	1.2	4.3
Horticulture	0.6	0.2	-	-	-	0.4	1.5	1.0	-	-
Pigs and poultry	0.6	0.3	-	-	-	0.2	0.4	0.5	-	-
Dairy	0.8	9.2	2.1	-	1.4	0.4	3.1	3.1	-	-
Cattle & Sheep	54.7	106.3	142.7	170.4	528.0	3.9	10.9	3.2	1.8	6.7
Mixed	3.3	9.4	10.2	5.8	3.2	2.1	15.9	13.8	3.4	1.2
Forage/other	31.7	17.1	13.4	10.0	34.2	2.7	3.0	0.5	-	-

⁸ www.gov.scot/stats/bulletins/01096

For 2013 onwards, farm-type, including the LFA/non-LFA split, and size band were again used to stratify the data. The larger dataset means that average rents based on a single year can be used for a greater number of cells within the stratification, with a best estimate provided for others. Results for previous years are then often revised using rolling averages. However, all of the strata covering the largest amounts of rent have useable one-year data.

11.6 Collection of Cattle Data through the Cattle Tracing System

Statistical data on cattle populations have historically been collected through the June Census and December Survey in Scotland. In order to reduce the burden on survey respondents' data for the December Survey has been obtained through the Cattle Tracing System (CTS), an administrative data source held by the British Cattle Movement Service (BCMS) which holds records of cattle numbers and movements across Great Britain. These were used for the first time in Scotland in the publication of results from the 2013 June Agricultural Census.

11.7 Collection of Sheep and Goat Data through the Annual Sheep and Goat Inventory

In order to reduce the burden on survey respondents, data collection for the December Survey and the Sheep and Goat Annual Inventory (SGAI) were merged for the first time in 2015. A section requesting sheep and goat data was incorporated into the December Survey form, while shorter forms asking just about sheep and goats were used for remaining businesses understood to keep sheep. Use of SGA I data allows for a more complete data collection and eliminates the need for separate data collections.

11.8 Data Quality

Data undergo several validation processes as follows; (i) checking for any obvious errors on the paper census forms upon receipt, (ii) auto-checking and identifying any internal inconsistencies once loaded onto the initial database, (iii) auto-checking for any sudden changes in comparison with previous annual returns and other holdings, (iv) assessing any trends or switches in item areas or quantities that look unreasonable.

If necessary, farmers are contacted to ensure data are correct. Additional quality assurance is provided at the later stages by utilising expert knowledge within the Scottish Government and the agriculture industry. The opportunity to complete the December Survey and SGA I form online was made available for the first time in 2015, incorporating in-form validation in order to minimise errors in completion.

11.9 Main sources of bias and other error

The December Survey will be subject to **measurement bias** since we are reliant on farmers completing the form accurately. Ideally livestock counts should be undertaken to ascertain precise numbers of animals but, given time constraints,

exact numbers of livestock are likely to be estimated. This bias will impact particularly on sub categories of livestock (e.g. weight categories for pigs or ages of cattle) rather than the total population for a livestock type. Other categories likely to be estimated by farmers include the tonnage of hay and silage produced in the year.

Guidance notes detailing what to include on the form are supplied to avoid farmers misreporting information. With regards to livestock, we require farmers to report those animals located on the holding that are either owned by the farmer or animals that are owned by someone else but are held under formal contract. It has been noted that animals are sometimes double counted in situations where animals are held under contract with both the owner of the livestock and the farmer looking after the livestock reporting the animals. To avoid this double counting we have added specific guidance on the form itself in attempt to avoid this **reporting bias**.

The survey may also be subject to an element of **non-response bias** with farmers on certain farm types being more likely to respond to the survey than others. This means that we need use older information to estimate values for farm types less likely to supply us with current information.

A stratified random sample, grouped by farm size and region, is used to select holdings for the December survey. Individual strata are sampled to different extents. However, in estimating the results we weight by strata in order to produce a full dataset and to counteract the effects of some strata being sampled to a greater degree than others. This helps to address any **sampling bias** that is inherent in the sample design.

11.10 Survey burden

In December 2011, a representative sample of around 110 farmers participated in a telephone survey in order to calculate the burden of participating in the December survey. It was not considered beneficial to repeat this survey each year, however we do have updated figures for hourly rates⁹ which we can apply to the time data from the 2011 survey. These give a total compliance cost for the December Survey **of £60,300**. It should however be noted that since the 2011 survey there have been several changes, namely the removal of the requirement to report cattle data on the form, reducing the burden for approximately 5,700 holdings, but added information on tenancy for approximately 4,300 holdings¹⁰.

Please refer to the December 2011 publication¹¹ for details on how this figure was calculated and the range of times reported.

⁹ Annual Survey of Hours and Earnings (2016 provisional) – full-time median gross hourly pay in Scotland.

¹⁰ Data from these holdings will be published in 'Tenanted Agricultural Land in Scotland, 2015/16' scheduled for release in April 2016.

¹¹ <http://www.gov.scot/Publications/2012/03/7513>

11.11 Other publications

The next large agricultural survey is the June Census of agricultural holdings. This is a larger exercise which surveys around 33,000 holdings with results scheduled for publication in October 2018. Results for the 2018 December survey will be released in Spring 2019.

Results from all Scottish Government agricultural surveys can be accessed here:

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/Publications

Results from previous June Censuses can be accessed here:

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFinalResultsJuneCensus

Publications relating to cereal and oilseed rape production can be accessed here:

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubCerealHarvest

Agricultural Facts and Figures pocketbook. This provides a useful summary of the key statistics in the Scottish agriculture and food sector in a convenient pocketbook format.

www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFactsFigures

Appendix of tables

Table 1 Crops and grass area, hay and silage production, 2007 to 2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	% Change between 2016 & 2017
Crops and grass sown by 1 December												
(hectares) ⁽¹⁾												
Wheat	112,602	86,270	103,627	113,852	97,396	82,947	102,570	103,905	101,519	103,855	92,936	-10.5%
Barley	60,182	52,034	53,174	50,929	49,222	56,977	56,411	54,353	51,368	51,804	41,636	-19.6%
Oats	7,401	6,242	7,593	7,146	6,459	6,957	8,272	7,721	8,667	9,370	8,511	-9.2%
Oilseed rape	32,810	28,536	33,737	37,622	35,304	35,146	36,328	35,580	29,206	31,556	31,006	-1.7%
Total winter crops	212,995	173,081	198,132	209,550	188,382	182,027	203,581	201,559	190,760	196,585	174,089	-11.4%
Grass sown ⁽¹⁾	46,440	40,812	57,761	58,586	47,060	45,576	60,329	54,119	50,584	54,503	48,076	-11.8%
Grass cut (hectares)												
For hay	44,770	40,783	41,029	44,851	45,351	32,768	52,238	52,531	37,026	38,421	36,389	-5.3%
For silage / haylage	324,674	319,553	356,279	353,018	342,443	326,148	332,069	357,375	334,893	343,009	361,937	5.5%
Production (tonnes) ⁽²⁾												
Hay	287,661	239,107	265,490	297,440	279,225	193,084	311,055	363,689	264,671	224,262	216,694	-3.4%
Grass silage / haylage	7,026,086	6,675,729	6,917,005	7,022,007	7,057,747	6,824,878	6,864,937	7,320,429	7,370,147	6,853,340	6,877,316	0.3%
Arable silage ⁽²⁾	396,353	379,041	356,545	343,923	316,520	298,938	346,561	294,507	334,745	328,876	256,237	-22.1%
Yields (tonnes/hectare)												
Hay	6.4	5.9	6.5	6.6	6.2	5.9	6.0	6.9	7.1	5.8	6.0	2.0%
For silage / haylage	21.6	20.9	19.4	19.9	20.6	20.9	20.7	20.5	22.0	20.0	19.0	-4.9%
Number of main holdings ³	26,063	25,272	26,188	26,545	23,943	24,373	24,693	21,807	23,323	23,240	26,267	13.0%
Agricultural area on main holdings ³	5,317,550	5,297,565	5,328,898	5,344,808	5,326,948	5,273,855	5,326,792	5,246,086	5,227,446	5,226,033	5,391,964	3.2%

(1) Grass sown excludes minor holdings, which account for approximately 4% of total grassland

(2) Arable silage excludes minor holdings, which account for approximately 0.8% of crops

(3) Figures for grass sown and arable silage are based on estimates for all main holdings, the numbers of which change from year to year.

Table 2 Number of cattle, 2007 to 2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	% Change between 2016 & 2017
Female Dairy Cattle												
Aged 1-2	47,001	46,590	49,312	50,839	51,255	53,652	55,864	56,071	57,068	59,436	56,175	-5.5%
Aged 2 years and over - with offspring	182,764	174,539	169,836	167,753	162,112	162,605	167,386	174,458	177,262	174,676	175,240	0.3%
Aged 2 years and over - without offspring	50,999	49,484	48,684	49,443	48,547	48,113	47,311	49,034	44,327	42,771	42,261	-1.2%
Total	280,764	270,613	267,832	268,035	261,914	264,370	270,561	279,563	278,657	276,883	273,676	-1.2%
Female Beef Cattle												
Aged 1-2	215,415	207,710	202,174	192,822	182,636	190,377	184,958	182,685	186,419	180,878	182,320	0.8%
Aged 2 years and over - with offspring	471,440	448,508	451,634	459,701	449,607	431,422	428,504	422,923	424,507	420,917	415,544	-1.3%
Aged 2 years and over - without offspring	80,420	78,914	81,717	82,516	71,489	83,765	72,817	72,565	68,957	69,661	68,468	-1.7%
Total	767,275	735,132	735,525	735,039	703,732	705,564	686,279	678,173	679,883	671,456	666,332	-0.8%
Male Cattle												
Aged 1-2	212,637	209,026	205,268	197,404	188,584	189,788	190,483	182,149	185,633	179,136	174,003	-2.9%
Aged 2 years and over	55,787	53,457	56,525	53,873	47,579	49,502	54,183	55,894	51,842	49,627	48,992	-1.3%
Total	268,424	262,483	261,793	251,277	236,163	239,290	244,666	238,043	237,475	228,763	222,995	-2.5%
Calves												
Female dairy cattle under 1	48,440	50,421	52,167	52,440	55,005	56,999	56,583	58,948	60,599	57,713	54,924	-4.8%
Female beef cattle under 1	246,857	237,414	226,464	229,106	231,681	223,804	213,856	218,248	218,546	220,548	221,988	0.7%
Male cattle under 1	274,505	269,502	265,548	269,186	269,056	265,415	252,694	257,957	260,937	256,792	254,496	-0.9%
Total	569,802	557,337	544,179	550,732	555,742	546,218	523,133	535,153	540,082	535,053	531,408	-0.7%
Total cattle	1,886,265	1,825,565	1,809,329	1,805,083	1,757,551	1,755,442	1,724,639	1,730,932	1,736,097	1,712,155	1,694,411	-1.0%

Table 3 Number of sheep, 2007 to 2017

	2007	2008	2009	2010	2011	2012	2013	2014	change in data collection			% Change between 2016 & 2017
									2015	2016	2017	
Sheep 1 year old or over												
Ewes kept for breeding	3,087,769	2,938,365	2,880,901	2,831,403	2,791,010	2,847,481	2,796,462	2,930,534	2,883,076	2,797,741	2,814,771	1%
Other sheep	261,071	238,290	210,530	216,511	210,971	236,120	242,600	208,884	724,943	416,224	511,171	23%
Total	3,348,840	3,176,655	3,091,431	3,047,914	3,001,981	3,083,601	3,039,062	3,139,418	3,608,019	3,213,965	3,325,942	3%
Sheep under 1 year old												
Lambs put to ram	94,821	77,286	100,538	101,481	109,357	91,496	85,670	108,599	127,946	116,527	125,242	7%
Lambs not put to ram	1,883,396	1,761,153	1,652,160	1,645,203	1,577,481	1,733,373	1,638,973	1,593,396	1,223,638	1,713,018	1,455,162	-15%
Total	1,978,217	1,838,439	1,752,698	1,746,684	1,686,838	1,824,869	1,724,643	1,701,995	1,351,584	1,829,545	1,580,404	-14%
Total sheep	5,327,057	5,015,094	4,844,129	4,794,598	4,688,819	4,908,470	4,763,705	4,841,413	4,959,603	5,043,510	4,906,346	-2.7%
Goats									5,437	3,632	5,095	40.3%

(1) From 2015, the collection of sheep data incorporated that via the Sheep and Goat Annual Inventory. This also resulted in a change in the sheep categories, and increased the number of holdings included within the survey. From 2016, the sheep categories were made more similar to years prior to 2015. However, comparisons with previous years should be made with caution.

Table 4 Number of pigs, 2007 to 2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	% Change between 2016 & 2017
Breeding herd												
Sows in pig	27,923	23,476	23,001	27,048	22,378	17,874	18,408	21,172	26,502	26,789	19,766	-26.2%
Gilts in pig	4,460	4,053	3,893	5,299	4,438	4,588	4,863	5,850	6,615	6,017	6,404	6.4%
Other sows for breeding	6,420	5,650	4,872	6,315	5,346	5,661	5,226	6,178	4,160	4,992	5,193	4.0%
Total	38,804	33,179	31,766	38,662	32,162	28,123	28,497	33,200	37,277	37,798	31,363	-17.0%
Barren sows for fattening	1,032	517	526	540	603	731	569	408	605	816	984	20.6%
Gilts 50kg and over, not in pig but expected to be used for breeding	4,117	4,114	4,227	5,112	5,063	5,149	5,906	5,503	6,891	4,905	4,805	-2.0%
Boars being used for service	1,360	1,194	1,248	1,524	1,307	1,150	1,201	1,018	961	964	898	-6.8%
All other pigs												
110kg liveweight and over	4,724	4,722	6,375	6,181	3,506	3,456	3,003	4,822	6,243	4,696	5,904	25.7%
80kg and under 110kg liveweight	64,038	50,746	69,803	66,895	61,656	52,283	42,217	47,680	49,471	51,385	46,085	-10.3%
50kg and under 80kg liveweight	98,842	78,629	85,187	91,385	85,145	70,684	59,089	63,074	63,239	68,834	60,456	-12.2%
20kg and under 50kg liveweight	109,592	102,615	99,926	100,134	96,019	83,623	78,442	72,988	75,133	88,699	80,825	-8.9%
Under 20kg liveweight	119,119	106,386	90,867	105,696	90,832	78,892	74,544	93,441	91,171	109,702	113,829	3.8%
Total	396,316	343,098	352,158	370,291	337,158	288,938	257,295	282,005	285,257	323,316	307,099	-5.0%
Total pigs	441,629	382,102	389,925	416,129	376,293	324,091	293,468	322,134	330,991	367,799	345,149	-6.2%

Table 5 Number of poultry, 2007 to 2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	% Change between 2016 & 2017
Fowls for producing eggs for eating												
Pullets & hens in the laying flock:												
- Hens in first laying season	3,187,669	3,021,831	3,083,474	3,819,339	3,952,681	3,813,267	3,571,694	4,455,178	4,769,148	4,846,722	5,427,749	12.0%
- Moulded hens	44,671	39,100	46,110	44,040	41,682	42,227	43,511	43,516	43,244	45,288	43,721	-3.5%
Pullets being reared for laying	1,114,577	759,142	1,149,717	1,605,772	1,330,404	1,412,285	1,385,991	967,221	1,785,675	1,616,152	1,172,965	-27.4%
Total	4,346,917	3,820,073	4,279,301	5,469,151	5,324,767	5,267,779	5,001,196	5,465,915	6,598,067	6,508,162	6,644,435	2.1%
Fowls for breeding												
Breeding hens	1,154,501	1,165,922	1,026,827	924,492	1,263,033	878,033	1,215,233	937,916	963,433	1,019,624	1,148,637	12.7%
Cocks	109,842	123,630	108,861	101,351	143,496	94,324	136,513	123,376	127,043	126,939	119,781	-5.6%
Total	1,264,343	1,289,552	1,135,688	1,025,843	1,406,529	972,357	1,351,746	1,061,292	1,090,476	1,146,563	1,268,418	10.6%
Broilers and other table birds	8,139,412	8,027,373	7,698,459	8,146,495	7,483,899	8,725,482	7,740,664	5,295,250	5,605,893	6,674,880	6,328,168	-5.2%
Other Poultry (e.g. turkeys, ducks, geese)	34,541	46,931	58,168	57,192	72,450	92,020	93,773	88,474	120,824	89,295	65,664	-26.5%
Total poultry	13,785,214	13,183,929	13,171,616	14,698,681	14,287,645	15,057,638	14,187,379	11,910,931	13,415,260	14,418,900	14,306,685	-0.8%

Table 6 Number of tractors and other transport on main holdings, December 2007 to 2017 ^{(1) (2)}

	detailed transport questions asked in alternate years								summary questions asked		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tracklaying tractors (Caterpillars)	number 465	number 759	number 654	number 803	number 604	number 579	number 706	number 561	number 729	number 841	number 1,039
Wheeled tractors:											
under 35 hp	2,313	2,415	2,230	2,442	2,102	2,258	2,179	2,277	2,353	2,485	2,442
35 to under 55 hp	7,044	6,813	6,847	6,789	6,145	6,371	6,129	5,799	6,203	5,544	5,569
55 to under 80 hp	10,237	10,000	9,160	8,852	8,125	7,580	7,323	7,060	7,250	7,384	7,095
80 to under 108 hp	13,325	13,202	13,229	12,935	12,154	12,120	11,569	11,158	11,497	11,406	11,721
108 to under 134 hp	5,753	5,986	6,287	6,585	6,694	6,873	6,817	7,192	6,798	7,213	7,375
134 to Under 201hp	3,077	3,477	3,809	4,126	4,465	4,797	5,179	5,380	5,951	5,931	6,285
201hp and over	236	280	435	461	539	684	812	896	941	1,104	1,401
Total wheeled tractors	41,749	41,893	41,562	41,729	39,685	39,999	39,196	38,866	40,052	39,963	40,487
4-Wheel drive tractors	22,660	26,091	26,661	27,557	25,895	26,438	26,374	26,792	26,984	27,629	28,256
Transport²	22,221	21,758	23,246	22,967	24,278	23,802	24,196	27,687	19,909	20,666	21,517
Number of main holdings ¹	26,063	25,272	26,188	26,545	23,943	24,373	24,693	21,807	23,323	23,240	26,267
Agricultural area on main holdings ¹	5,317,550	5,297,565	5,328,898	5,344,808	5,326,948	5,273,855	5,326,792	5,246,086	5,227,446	5,226,033	5,391,964

: Information not available

(1) Figures for tractors and transport are based on estimates for all main holdings only, the numbers of which change from year to year.

(2) From 2015, only summary transport data was collected (as opposed to data for individual sub-categories). Comparisons with previous years should be made with caution.

See section 9 of the publication for more information.

Table 7 Machinery, 2007 to 2017 ⁽¹⁾⁽²⁾

	detailed questions asked in alternate years								summary questions asked		
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	number	number	number	number	number	number	number	number	number	number	number
Cultivation	49,105	47,808	47,439	46,714	45,824	45,006	43,694	41,052	38,411	39,621	40,786
Planting and Fertiliser Distribution	30,842	29,941	29,796	29,468	28,915	28,254	27,348	25,471	23,594	23,393	24,014
Field crop or fruit sprayers	4,398	4,228	4,261	4,293	4,362	4,431	4,136	3,841	4,653	4,530	4,607
Combine harvesters	4,438	4,358	4,256	4,153	4,182	4,210	4,047	3,884	3,813	3,811	3,997
Harvesting	45,859	44,669	43,932	43,575	42,912	41,398	39,931	33,770	27,609	28,999	29,510
Load handling and Transporting	58,610	58,154	57,917	57,713	57,612	56,472	54,970	47,673	40,376	40,453	42,138
Drying and storage	4,739	4,684	4,525	4,365	4,254	4,142	4,012	3,882	3,391	3,434	3,705
Mounted hedge cutters	833	838	843	877	910	994	1,077	1,129	1,181	1,134	1,191
Drainage and ditching equipment	3,627	3,556	3,675	3,794	3,759	3,723	3,652	3,580	4,372	4,404	4,478
Feed mills, feed mixers and combined	3,358	3,200	3,196	3,192	3,108	3,023	2,895	2,767	3,367	3,533	3,728
Milking parlours	:	:	:	:	:	:	:	:	987	956	942
Cattle weighing crushes	2,442	2,379	2,315	2,403	2,491	2,411	2,331	2,575	2,818	3,229	3,215
Stand-by generators	5,309	5,371	5,404	5,436	5,298	5,160	5,077	4,993	5,636	5,921	5,700
Number of main holdings ¹	26,063	25,272	26,188	26,545	23,943	24,373	24,693	21,807	23,323	23,240	26,267
Agricultural area on main holdings ¹	5,317,550	5,297,565	5,328,898	5,344,808	5,326,948	5,273,855	5,326,792	5,246,086	5,227,446	5,226,033	5,391,964

(1) Figures for tractors and transport are based on estimates for all main holdings only, the numbers of which change from year to year.

(2) From 2015, only summary machinery data was collected (as opposed to data for individual sub-categories). Comparisons with previous years should be made with caution.

See section 9 of the publication for more information.

: not available - question on milking parlours introduced in 2015

Table 8: Average rent per hectare for full tenancies, including crofts, 1998/99 to 2017/18

	Actual prices			Real terms		
	LFA	Non-LFA	Total	LFA	Non-LFA	Total
1998	17	103	29	24	148	42
1999	17	105	30	25	149	43
2000	15	109	28	21	152	39
2001	18	102	30	25	141	41
2002	14	105	26	19	142	35
2003	16	110	29	22	145	38
2004	17	107	29	22	137	38
2005	16	108	28	21	135	36
2006	16	103	27	19	126	33
2007	18	104	29	21	124	34
2008	16	108	27	19	124	32
2009	17	117	30	20	133	34
2010	19	120	31	21	135	35
2011	19	124	32	21	137	35
2012	20	122	33	21	132	36
2013	23	123	36	24	131	38
2014	25	124	38	26	129	39
2015	26	128	38	27	133	40
2016	25	133	38	25	135	39
2017	25	136	39	25	136	39

Table 9: Median, quartile and decile rents by category, 2017/18

	10%	lower quartile	median	upper quartile	90%	sample size
Sub-region						
Shetland	1	2	6	11	16	15
Orkney	17	46	94	131	186	40
Na h-Eileanan Siar	1	1	2	4	14	30
Highland	1	8	49	98	145	175
NE Scotland	21	58	98	125	153	365
Tayside	9	39	98	156	187	180
Fife	21	74	127	182	215	50
Lothian	15	58	137	183	219	65
Scottish Borders	19	48	109	156	188	180
East Central	6	20	65	119	175	50
Argyll & Bute	3	7	22	77	121	115
Clyde Valley	8	30	89	127	179	80
Ayrshire	13	27	77	124	179	85
Dumfries & Galloway	15	47	100	142	192	250
NUTS2 regions						
Eastern Scotland	8	42	106	165	198	340
Highlands and Islands	2	9	47	101	146	485
North Eastern Scotland	24	67	101	125	153	250
Southern Scotland	16	42	102	148	189	550
West Central Scotland	5	10	61	105	145	50
Farm type						
Cereal	14	105	133	162	192	125
General Cropping	13	98	136	177	207	160
Horticulture	71	97	133	204	624	15
Pigs and poultry	64	115	149	209	2076	15
Dairy	40	91	124	165	218	80
Cattle and Sheep (LFA)	4	15	49	96	130	900
Cattle and Sheep (non-LFA)	67	102	131	161	197	85
Mixed	36	76	114	155	189	225
Forage/other	2	28	95	118	165	60
Rental type						
Crofting/ Small Landholders Act	1	1	3	9	27	470
91 Act LFA	4	16	52	94	123	650
91 Act non LFA	36	99	130	165	188	325
91 Act Ltd Partnership	6	23	79	124	162	125
Short Limited Duration Tenancy (SLDT)	17	56	115	174	241	310
Limited Duration Tenancy (LDT)	6	24	93	134	179	240
Modern Limited Duration Tenancy (MLDT)	4	91	145	160	188	15
Seasonal LFA on same location	13	48	114	171	235	1,440
Seasonal LFA on different location	10	67	119	201	262	95
Seasonal non-LFA on same location	18	87	150	205	295	455
Seasonal non-LFA on different location	9	38	187	522	834	60

A National Statistics publication for Scotland

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