

17 March 2022
SFR 84/2022

Farm incomes in Wales, 2020-21

Average farm business income in Wales 2020-21, and change since 2019-20 (at current prices)



Dairy farms: Average income has varied greatly over the past eight years. After the high of 2017-18, income has returned to a moderate level but still notably higher than the low period between 2015-16 and 2016-17.



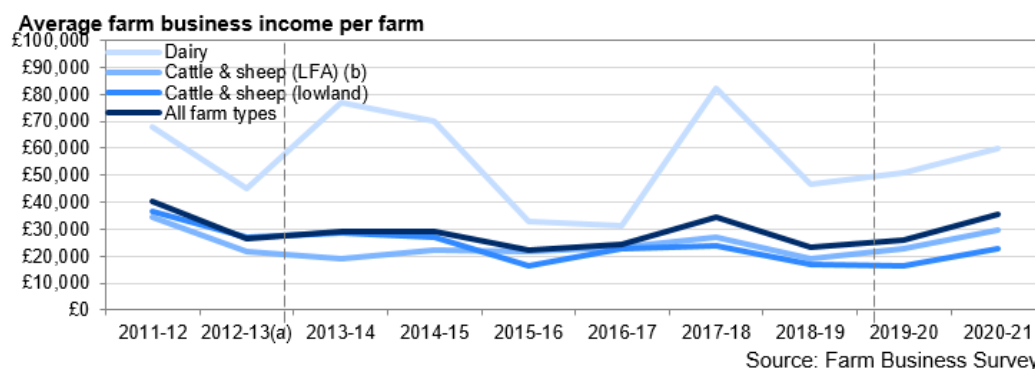
Cattle and sheep LFA (Less Favoured Areas) farms: After a low in 2018-19 average income increased for the second consecutive year for 2020-21 and is the highest since 2011-12 (These farms are looked at in more detail below).



Cattle and sheep (lowland) farms: Following a two year decrease since 2017-18, average income in 2020-21 saw a notable increase, returning to a similar level to 2016-17.

It is important to see latest farm incomes in the context of longer term trends in farm incomes and market conditions. Farm incomes are the small difference between total output and total input, so can be volatile across years. Small changes in output or input (such as movements in input costs) can result in large percentage changes in farm income.

Chart 1: Average farm business income in Wales, 2011-12 to 2020-21



(a) The vertical dashed lines indicate when Standard Output coefficients were updated. This had an effect on both the survey population and classification of farms (see [Notes](#) for further details).
(b) LFA denotes Less Favoured Area (see [Notes](#) for further details).

About this release

Figures are presented on farm incomes in Wales for 2020-21 i.e. up to March 2021 which was during the coronavirus (COVID-19) pandemic and data should be considered in this context. Data collection was impacted by COVID-19 which has led to a delay in publication. See [Key Quality Information](#) for details.

The farm incomes data used in this statistical release are derived from the annual Farm Business Survey (FBS) with a sample of 539 businesses across Wales from a population of approximately 9,700 farms. The sample for the FBS is drawn from those farm businesses in Wales with a Standard Output (SO) of at least €25,000, and excludes specialists in horticulture, poultry and pigs. Further information on the survey sample can be found under [Key Quality information](#).

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Importance of measuring farm incomes

Although agriculture makes a relatively small contribution to GDP¹, around half of the food consumed in the UK is sourced from UK agriculture, with the rest imported into the UK from abroad². Agriculture also has important impacts on the natural environment, with over 80% of land in Wales used for agricultural purposes³. Farm incomes show some volatility from year to year, influenced by prevailing agricultural (including weather related) and market conditions. There is also wide variation in farm incomes for individual farms, including for farms of the same type. Farm incomes provide an important measure of farm profitability and, in conjunction with other measures from the farm accounts, can inform on the performance and viability of farm businesses.

(1) Agriculture, forestry and fishing together account for around 0.6% of UK GDP (source: [Office for National Statistics](#)).

(2) Source: [Food statistics pocketbook](#), Defra.

(3) Source: [June agricultural survey](#), Welsh Government

Farm income measures

For non-corporate businesses, **farm business income** represents the financial return to all unpaid workers (farmers, spouses, non-principal partners and their spouses, and family workers) and on all their capital invested in the farm business (including land and buildings). For corporate businesses, it represents the financial return on the shareholders capital invested in the farm business. Farm business income includes some 'notional' items, such as depreciation of farm assets (e.g. machinery) and changes in the value of breeding livestock.

In essence, farm business income is the same as **net profit**, which as a standard financial accounting measure of income, is used widely within and outside agriculture. However, using the term farm business income rather than net profit:

- gives an indication of the measure's farm management accounting rather than financial accounting origins, and accurately describes its composition;
- is intuitively recognisable to users as a measure of farm income.

Importantly, farm business income does not include other sources of household income from outside the farm business (such as other employment of the farmer or spouse outside of the farm).

Farm business income is the headline measure of farm incomes in Wales. Data for other measures of income (**net farm income** and **cash income**) is published in a spreadsheet alongside this release on the Welsh Government [farm income statistics page](#).

Impact of COVID-19

The data covers the period from March 2020 up to March 2021, the first year of the COVID-19 pandemic during which farm businesses in Wales were greatly impacted. The closure of the food service and hospitality sector affected both the red meat and dairy sectors by severely disrupting the supply chain. In addition, the limited access to labour and the continued drop in HGV drivers to transport goods such as milk added to pandemic related challenges faced by farmers during this time. It is difficult to determine, using data at the level in this release, the real impacts of the COVID-19 pandemic on Welsh farm businesses, particularly the impact on specific smaller groups of farms. The data point to a largely positive picture compared to the previous year (2019-20). This should be considered in the context of the above issues. The impact of those issues may vary from sector to sector and from farm to farm within a sector.

Similar to 2019-20, the data sample for 2020-21 was slightly reduced (539 instead of 550 farms) as a result of COVID-19 restrictions on data collection, please see [Quality Information](#) for more details. Data are collected by face to face interviews with farmers, conducted by highly trained accountants which was not always feasible during the pandemic restrictions.

Farm business income

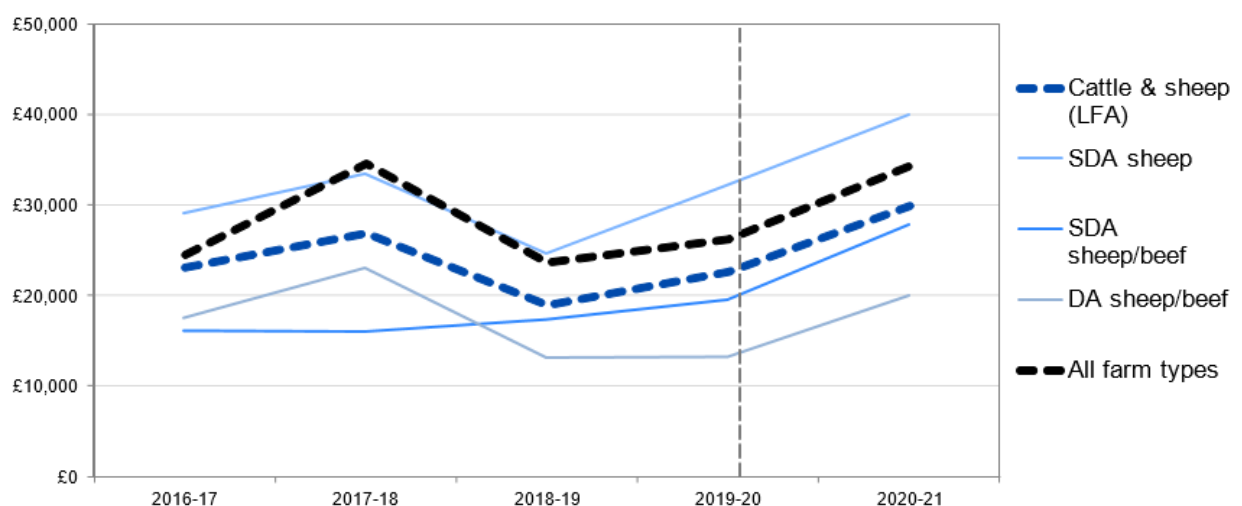
This section shows trends in average farm business income by farm type, and how incomes vary around these averages. This is more evident when looking at LFA farms in more detail.

Farms in Less Favoured Areas (LFA) are defined according to criteria related to the quality of land, and cover the mountainous and hill farming areas. Within the LFA are the Severely Disadvantaged Areas (SDA) and the Disadvantaged Areas (DA). In Wales there are sufficient farms to show SDA sheep specialist, SDA mixed cattle and sheep and DA cattle and sheep farms separately. This may not be the case in other parts of the UK. The SDA are more environmentally challenging areas and largely upland in character, and the DA less so. These areas influence the type of farming with LFA farms predominantly cattle & sheep whereas land other than LFA - defined as Lowland – is where dairy and crop farms are in the main.

See [Notes](#) section for more detail on how farms are classified into these farm types.

Chart 2: Average LFA farm business income in Wales, 2016-17 to 2020-21 (at current prices)

Average farm business income per farm (£)



Source: Farm Business Survey

Chart 2 shows that there are considerable differences within LFA farms but all have seen an increase in farm business income in 2020-21 compared to the previous year. SDA sheep farms have shown the greatest increase in income since 2018-19, from £24,600 in 2018-19 to £40,000 in 2020-21 (an increase of 63%), and have had an average income higher than that for 'All farms' since 2018-19.

[Table 1](#) below shows the variation in average income for all farm types over the last five years due to a number of factors described in more detail below. The latest year on year change should be viewed in light of this varying trend.

Table 1: Average farm business income by farm type in Wales, 2016-17 to 2020-21

Average farm business income per farm						£ per farm
						% change (2019-20 to 2020-21)
Farm type	2016-17	2017-18	2018-19	2019-20	2020-21	
At current prices						
Cattle & sheep (LFA)	23,100	26,900	18,900	22,600	29,900	32%
SDA sheep	29,100	33,400	24,600	32,200	40,000	24%
SDA sheep/beef	16,000	15,900	17,300	19,500	27,700	42%
DA sheep/beef	17,500	23,000	13,100	13,200	19,900	50%
Lowland sheep/beef	22,700	24,000	17,100	16,600	22,900	38%
Dairy	31,300	82,400	46,600	50,700	60,200	19%
Others	28,300	30,200	31,500	26,100	41,400	59%
All farm types	24,500	34,600	23,600	26,200	34,300	31%
In real terms at 2020-21 prices (a)						
Cattle & sheep (LFA)	25,700	29,500	20,300	23,800	29,900	26%
SDA sheep	32,400	36,600	26,500	33,900	40,000	18%
SDA sheep/beef	17,800	17,500	18,500	20,500	27,700	35%
DA sheep/beef	19,500	25,200	14,100	13,900	19,900	43%
Lowland sheep/beef	25,400	26,300	18,300	17,500	22,900	31%
Dairy	34,900	90,300	50,100	53,400	60,200	13%
Others	31,600	33,100	33,800	27,400	41,400	51%
All farm types	27,300	37,900	25,300	27,600	34,300	24%

Source: Farm Business Survey

(a) GDP deflators are used here to uprate figures for 2019-20 (and earlier) to 2020-21 prices.

Average farm business income in 2020-21, by farm type

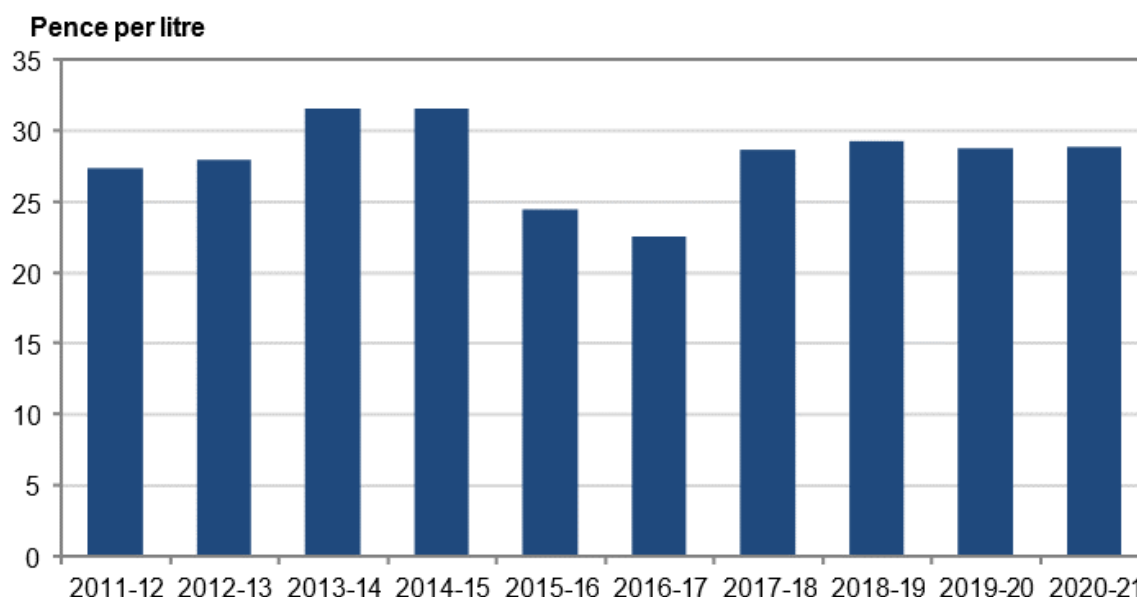
Now we will examine the key differences in average income for the different farms types.

Dairy farms

- The average farm business income has increased for the second year in a row by 19% at current prices in 2020-21 (or 13% in real terms) to £60,200 per farm following a fall in 2018-19. However, despite this increase, levels haven't returned to the high of 2017-18.
- Average income has varied greatly over the past eight years and a key factor is farm gate milk prices which directly effects income on dairy farms. Following a seven-year low reached in June 2016, the average milk price increased in the following years, maintaining a steady rate and the latest year (2020-21) saw another modest increase reaching levels similar to 2013. Looking at the data at a farm level there has been a wide variation in milk price paid to farmers in Wales.
- The increase in income amongst dairy farms can be partly explained by a modest increase in milk production, an average increase of 87,300 litres (8%) in 2020-21 (1,240,000 litres) compared to 2019-20 (1,150,000 litres).

Farm gate milk price: the price paid by dairy processors to farms for their milk. After milk leaves the farm it will go for processing before being sold to retailers.

Chart 3: Annual UK average farm gate milk prices, 2011-12 to 2020-21



Source: UK milk price statistics at current prices (published by Defra)

Chart 3 shows the volatility of the average farm gate milk price over the past ten years. Over this period, the average price in Wales was between 1 and 3 pence per litre lower than the UK price with a gap of 1.4 pence per litre in 2020-21.

Cattle & sheep (LFA) farms

- Average farm business income rose by 32% at current prices (or 26% in real terms) to £29,900 per farm from the previous year.
- There was an increase in average farm output (up 6% in 2020-21 compared to 2019-20) whilst farm business costs remained at a similar level to 2019-20 which had seen a notable decrease (particularly for feed costs) compared to earlier years. These factors combined resulted in an increase in the average income.

SDA sheep, SDA sheep / beef, DA sheep / beef farms

- In looking at the type of farms that make up LFA farms, the higher average income of SDA sheep farms becomes apparent.
- Average income for SDA sheep farms has risen for the second year in a row by 24% for 2020-21 at current prices (or 18% in real terms). It now stands at £40,000 and is the highest for several years.
- Average income for SDA sheep / beef farms has also risen by 42% at current prices (or 35% in real terms) to £27,700 and is also the highest for several years.
- Average income for DA sheep / beef farms however has risen at the highest rate of 50% at current prices (or 43% in real terms) to £19,900, the highest since 2017-18.

Cattle and sheep (lowland) farms

- Average farm business income increased by 38% at current prices (or 31% in real terms) to £22,900 per farm. This is the highest level of average income since 2017-18.
- The most significant effect on lowland farms was the 9% decrease in average farm business costs in 2020-21 compared to 2019-20 which offset a modest fall in output (2% decrease in 2020-21 compared to 2019-20).

All farm types

- Average farm business income for the combined 'all farm types' rose by 31% at current prices (or 24% in real terms) to £34,300 per farm from the previous year. This was partly explained by the 7% increase in average farm business output overall in 2020-21 compared to 2019-20.

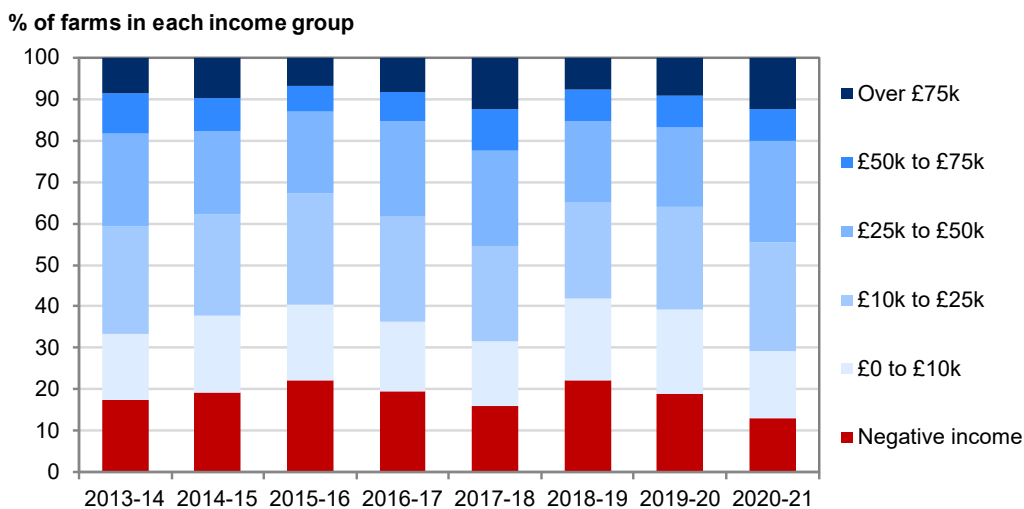
Variation in farm business income

The average values shown in [Chart 1](#), [Chart 2](#) and [Table 1](#) mask the considerable variation in incomes at the level of individual farms, both between and within farm types. One way of looking at the variation in incomes is to consider different income groups. Chart 4 below shows farms grouped by the level of their farm business income in the past seven years, and also by farm type for 2020-21.

The level of income on a farm can be influenced by a range of physical, social and economic factors. The skill and business acumen of the farmer will play a role. The level of income will also depend on production costs and the circumstances of the farm (for example, the location, land quality, economic size of the farm, and types of activity undertaken). Incomes will also be affected by where a farm is in its business cycle. For example, a farm that has just invested to expand or improve may have a temporary low income until the benefits start to accrue.

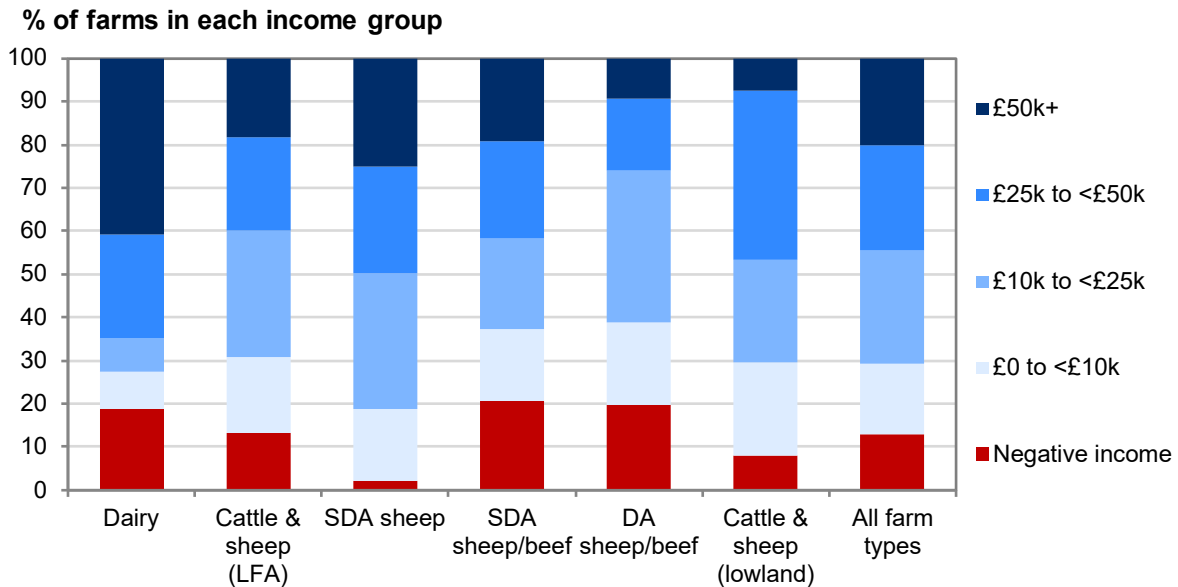
Farm income average values mask considerable variation in incomes at the farm level. Variation exists both between and within farm types, with farm-level factors influencing variations in production and costs.

Chart 4: Variation in farm business income in Wales, 2012-13 to 2020-21



- [Chart 4](#) highlights the level of variation around the average farm business income.
- Over the seven years shown, there are a significant share of farms in each income size band. 2018-19 along with 2015-16 has the highest share of farms making a loss (22%). The proportion of farms with income of at least £50,000 was at its highest in 2020-21 (12.5%) with 2017-18 following very closely behind (12.4%). This shows the volatility of the farming sector and the effect of prices at a national level.

Chart 5: Variation in farm business income in Wales by farm type, 2020-21



Source: Farm Business Survey

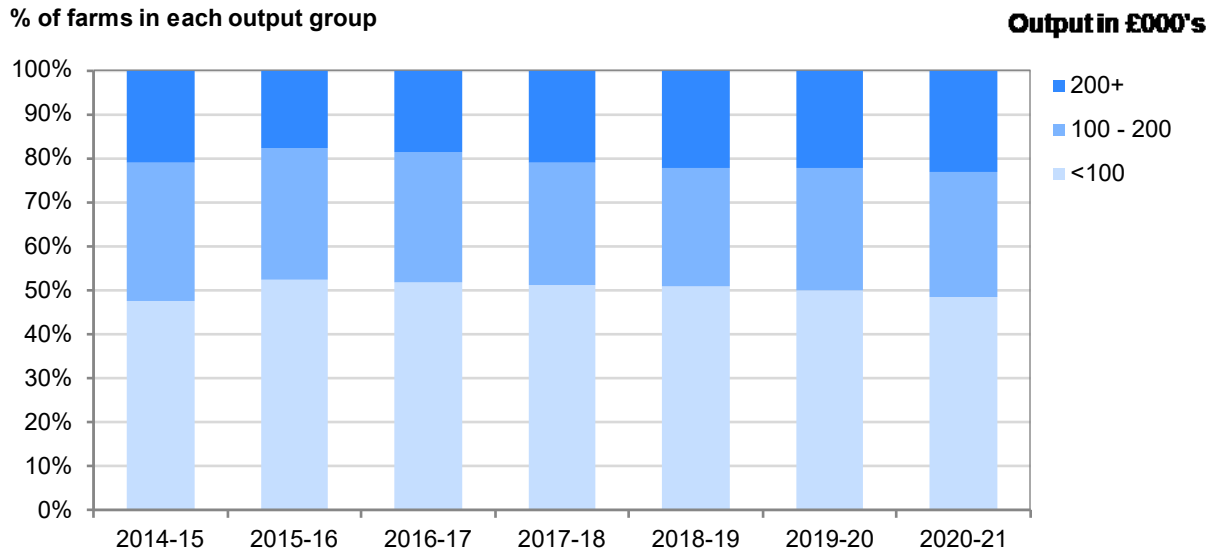
- Chart 5 highlights that a higher share of Dairy farms continue to have income in the largest band which can be attributed to the large proportion of dairy farms in a higher farm business output group compared to other farm types. See [Chart 7](#) below.
- Also evident is the variance across LFA farms making a loss, with SDA sheep farms having the fewest and SDA sheep / beef (closely followed by DA sheep / beef) having the most across all farm types. However, there are still dairy farms making a loss and cattle and sheep farms making large profits.
- An important feature from Chart 5 is that all farm types have farms in each of the bands.
- Relative farm business income and more detailed breakdowns including average output, costs and income for farm businesses can be viewed in the additional [data tables](#) published alongside this release.

Variation in farm business output

It is also useful to consider variation in farm business output.

Chart 6 below shows that there is wide variation between farms in their level of farm business output and that the share of farms remains fairly consistent across all seven years. In 2020-21, 49% of farms had a farm business output of less than £100k, while 23% of farms had a farm business output of £200k or greater.

Chart 6: Variation in farm business output in Wales for all farm types, 2014-15 to 2020-21 (at current prices)



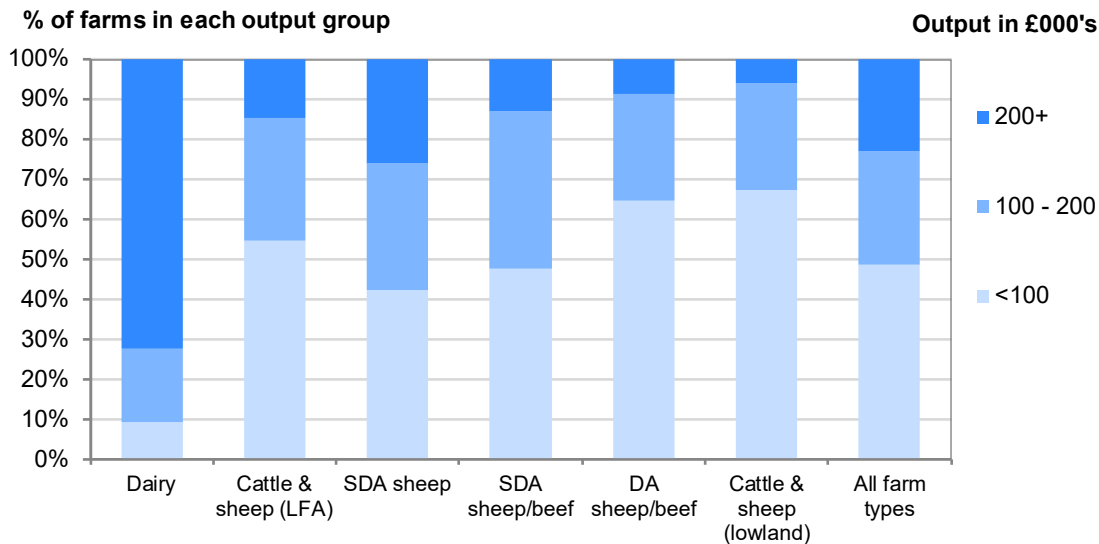
Source: Farm Business Survey

NB. FBS excludes micro farms and specialists in horticulture, poultry and pigs

[Chart 7](#) shows that in 2020-21, only 9% of dairy farms in the sample had a farm business output of less than £100k, while the equivalent values were 55% and 67% for cattle & sheep farms (LFA and lowland respectively). Further variance can be seen within LFA farms, with 42% and 65% the values for SDA Sheep and DA Sheep & Beef resp.

In terms of farms that had a business output of £200k or more, 72% of dairy farms were in this category of output while only 6% of lowland cattle and sheep farms did. 14% of LFA farms had this level of output with 26% and 9% the values for SDA Sheep and DA Sheep & Beef respectively.

Chart 7: Variation in farm business output in Wales by farm type, 2020-21

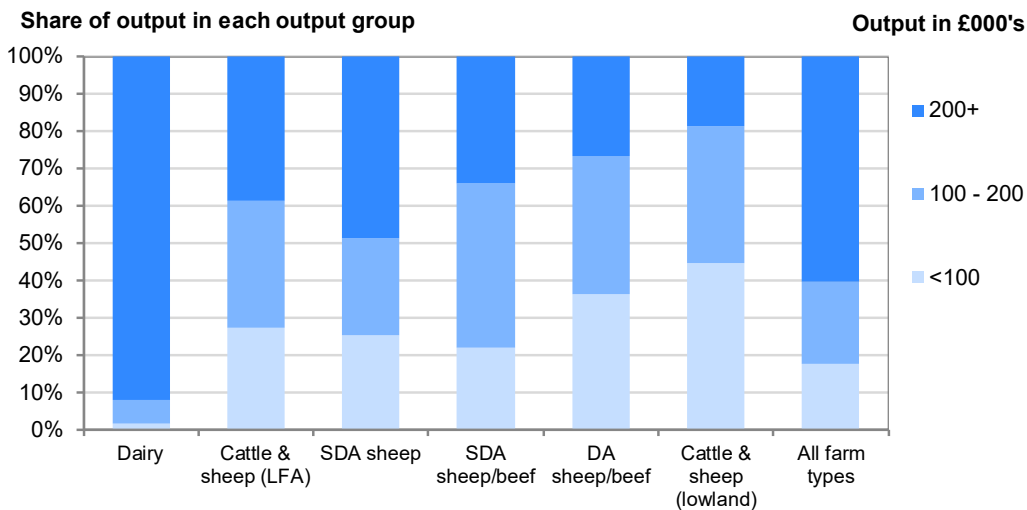


Source: Farm Business Survey

NB. FBS excludes micro farms and specialists in horticulture, poultry and pigs

However, when looking at the share of output within each output band as shown in Chart 8, 60% of output is from farms in the output sizeband £200,000 or higher for all farm types. Dairy farms in this sizeband contribute significantly with 92% of their total output. As with the Farm Business Income figures (Chart 5) all farms types have farms in each of the bands.

Chart 8: Variation in farm business output in Wales by farm type, 2020-21

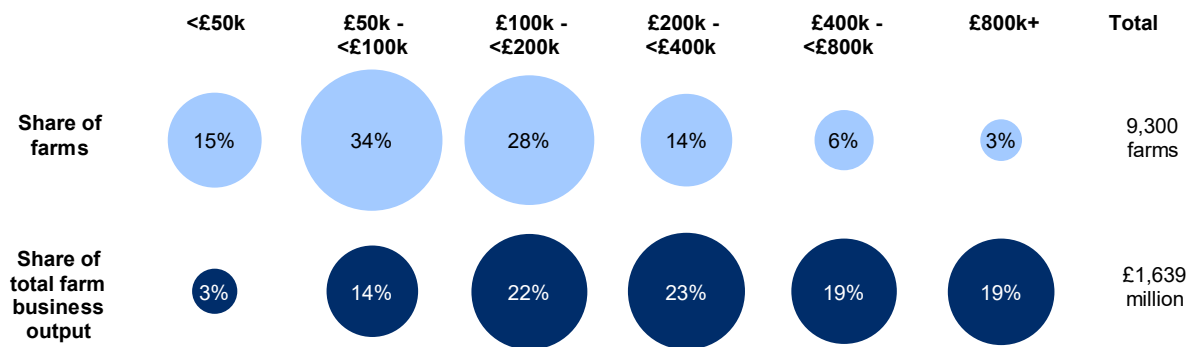


Source: Farm Business Survey

NB. FBS excludes micro farms and specialists in horticulture, poultry and pigs

Chart 9 below shows in more detail how farms of different economic sizes contribute differing amounts towards total farm business output in Wales.

Chart 9: Contribution of farms in each output group in Wales, 2020-21



Source: Farm Business Survey

NB. FBS excludes micro farms and specialists in horticulture, poultry and pigs

- The Farm Business Survey excludes farms with less than €25,000 Standard Output. Thus the total number of farms is around 10,000 rather than the full total of 24,500.
- Farms with an output of at Least £400,000 accounts for 9% of the farms and 37% of the output.
- In contrast farms with an output of under £100,000 account for just under half the farms (49%) and 18% of the output.
- Farms with an output between £100,000 and £400,000 account for 43% of the farms and 45% of the output.

Glossary and notes

Farm gate price: the price received by producers (farms) for their agricultural products. Once these agricultural products leave the farm, they may go for secondary processing. For instance, after milk leaves the farm, it will go for processing before being sold to retailers.

Less Favoured Area (LFA): This classification was established in 1975 as a means to provide support to mountainous and hill farming areas. Within the LFA are the Severely Disadvantaged Areas (SDA) and the Disadvantaged Areas (DA). The SDA are more environmentally challenging areas and largely upland in character. The map below shows the LFA, SDA and DA in the United Kingdom then Table 2 shows values and percentages for these areas by UK country.

Seriously / Disadvantaged Area (S/DA): Of farms classified as LFA, those whose LFA land is wholly or mainly (50% or more) in the Severely Disadvantaged Area (SDA) are classified as SDA; those whose LFA land is wholly or mainly (more than 50%) in the Disadvantaged Area (DA) are classified as DA.

Accounting years: The figures for 2020-21 presented in this release cover the accounting years ending between 31st December 2019 and 31st March 2020 and as such reflect farming conditions between January 2019 and March 2020.

Average farm incomes: When the term 'average' is used to describe farm income (and other) measures in this release, this means that the mean (not median or mode) has been taken of the weighted farm data.

Table 2: Less Favoured Areas in the United Kingdom

Farm type	Wales	England	Scotland	Northern Ireland	UK
Area (million hectares)					
Severely Disadvantaged Area (SDA)	1.2	1.6	6.8	0.6	10.1
Disadvantaged Area (DA)	0.5	0.6	0.1	0.4	1.6
Less Favoured Area (LFA) = SDA + DA	1.6	2.2	6.9	0.9	11.7
Lowland	0.4	10.8	1.0	0.5	12.7
All land	2.1	13.0	7.9	1.4	24.4
% of all land					
Severely Disadvantaged Area (SDA)	56%	12%	86%	41%	42%
Disadvantaged Area (DA)	23%	5%	2%	26%	6%
Less Favoured Area (LFA) = SDA + DA	79%	17%	88%	67%	48%
Lowland	21%	83%	12%	33%	52%
All land	100%	100%	100%	100%	100%

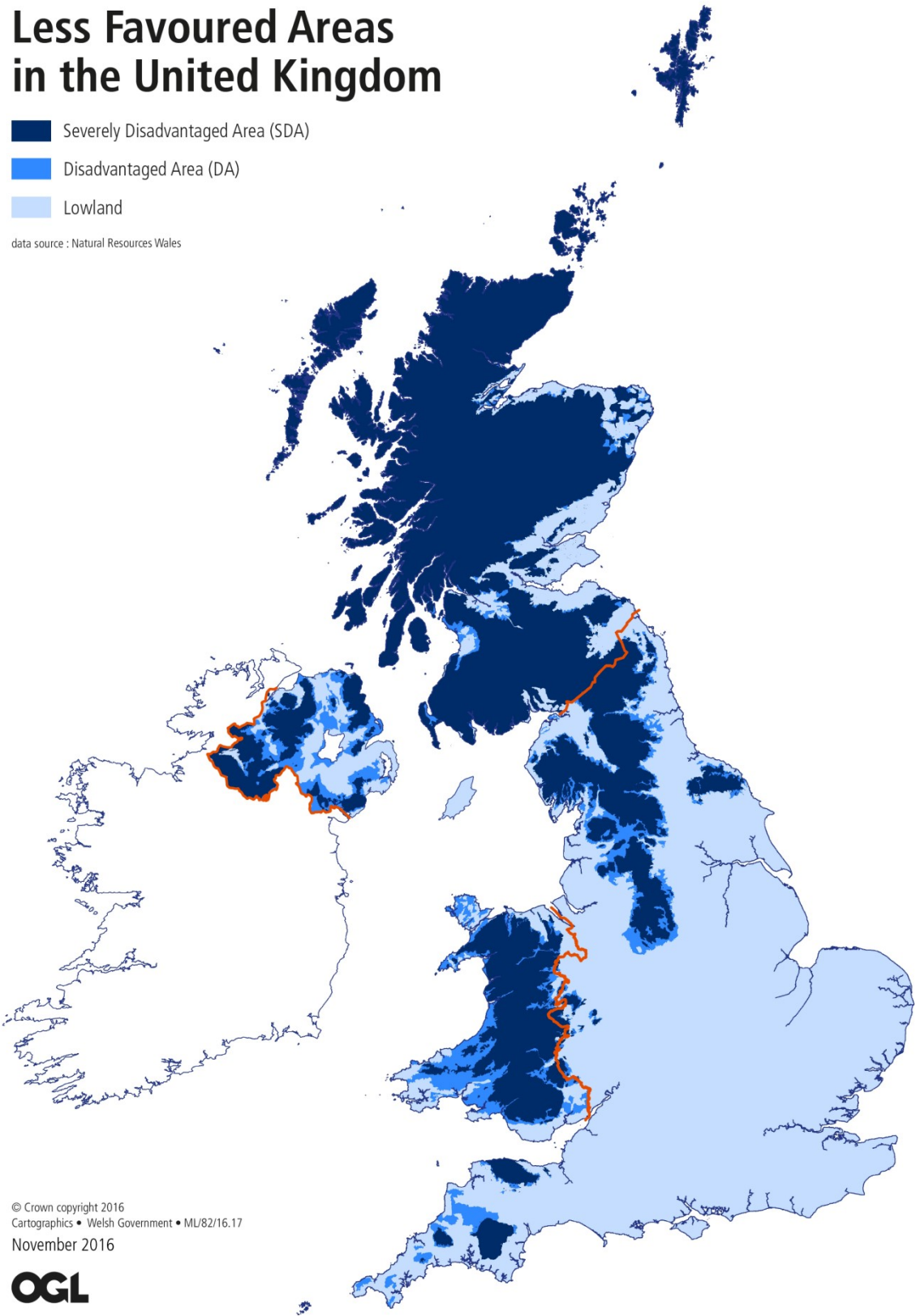
Source: Land, Nature and Forestry Division, Welsh Government

Map 1: Less favoured area in the United Kingdom

Less Favoured Areas in the United Kingdom

- Severely Disadvantaged Area (SDA)
- Disadvantaged Area (DA)
- Lowland

data source : Natural Resources Wales



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Current prices and in real terms (2020-21 prices)

To show the effect of inflation, some results in this release at current prices (such as averages for farm business income in Table 1) have been uprated using GDP deflators to also show prices in real terms. The GDP deflator data used here is available from the [Office for National Statistics website](#).

Disclosure control

To protect the confidentiality of farms who take part in the Farm Business Survey, results for a category are not shown if they rely on data for fewer than 5 farms (or no farms) from the sample.

Rounding

Farm income values shown in this release have been rounded to the nearest hundred pounds, therefore rounded values may not add up to totals. Calculations (such as percentage or actual change) have been made on unrounded values.

Methodology for apportioning components of income and output

There are four components of farming businesses which are of particular interest (also known as 'cost centres'): agriculture, basic / single farm payment, agri-environment payments and diversification. In practice, it is difficult to separate out costs (and therefore identify income, or profit) for these components. Therefore a [methodology](#) was developed to allocate variable and fixed costs to these four components of the business. The methodology to allocate costs involves a degree of **estimation** so results should be **interpreted with caution**.

Farm type classification and Standard Outputs (SO)

The Standard Output (SO) is a financial measure used to classify farm type. Standard outputs measure the total value of output of any one enterprise - per head for livestock and per hectare for crops. For livestock it is the value of the main product (milk, eggs, lamb, pork) plus the value of any secondary product (calf, wool) minus the cost of replacement. For crops, this is the main product (e.g. wheat, barley, peas) plus any by-product that is sold, for example straw. In other words, the SO of an agricultural product is the average monetary value of the agricultural output per unit at farm gate prices.

The [classification of farm 'types'](#) within the UK and EU is based on the calculation and use of SO coefficients for individual farm enterprises. The characteristics of farm types included in this release can be summarised as follows:

Dairy: Farms on which dairy cows account for more than two-thirds of the total SO.

Cattle and sheep: Farms which do not qualify as dairy farms but have more than two-thirds of their total SO from grazing livestock (cattle and sheep). They are divided into the following:

- **Cattle and sheep (LFA):** More than 50% of the land farmed is in the LFA.
- **Cattle and sheep (lowland):** Less than 50% of the land farmed is in the LFA.

SO coefficients have been updated within all Member States and are used to classify farms from 2013 onwards. As the threshold for inclusion within the Farm Business Survey in Wales is a

minimum €25,000 of standard output, changes to standard output coefficients will have an effect on both the survey population as well as the classification of farms.

Within EU member states, SO coefficients are updated periodically. In the UK these are calculated for each NUTS1 region so Wales is calculated as one region. Averages are taken over a period of a number of years to reduce the impact of annual price fluctuations; those previously in use are averaged over the period 2005-2009 (referred to as 2007 SOs). Standard Outputs were recalculated for the period 2008-2012 (referred to as 2010 SOs) and have now been recalculated for 2018-19 onwards (referred to as 2013 SOs).

In [Chart 1](#) and [Chart 2](#) at the top of this release, data for 2012-13 until 2017-18 is based on 2010 SOs, while data for 2018-19 onwards is based on 2013 SOs. Due to this change in methodology, some caution should be exercised when making any comparisons of data for 2018-19 onwards to earlier data.

Users and uses of data on farm incomes

Data on farm incomes are used to monitor and evaluate government and EU policies and to inform wider research into the economic performance, productivity and competitiveness of the agricultural industry. The data are provided to the EU as part of the Farm Accountancy Data Network (FADN) and are widely used by the agriculture industry for benchmarking (comparing the performance of similar types of farms).

If the above paragraph does not accurately describe how you use the data, please contact us at stats.agric@gov.wales.

Key quality information

The farm incomes data used in this statistical release are derived from the annual Farm Business Survey (FBS). The survey is conducted on behalf of the Welsh Government by the Institute of Biological, Environmental and Rural Sciences (IBERS) at Aberystwyth University. The FBS collects detailed physical and financial information from approximately 550 farm businesses across Wales and covers all types of Welsh livestock farm. However, it should be noted that the disruption to the data collection as stated above resulted in a slightly smaller representative sample for the latest year (2020-21) of 539 farm businesses and 501 farm businesses in the previous year (2019-20) (compared to 550 in earlier, pre-pandemic years). Highly trained researchers collect the data by visiting farms and requesting information from farmers. Only those farm types where there are more than 20 representative holdings in the survey sample are reported in this statistical release.

Statistics produced from the same data by IBERS may differ in some respects from those in this statistical release. The differences arise largely from:

- **Weighting:** the statistics in this release are weighted to be representative of the population (farm businesses with a Standard Output of at least €25,000). However, the statistics produced by IBERS are unweighted so are only representative of the farms included in the sample.

- **Inter-year identical sample:** Some of the statistics published by IBERS are for an inter-year identical sample (farms included in the sample for two years in a row). Not every farm is included in the sample for two years in a row. Therefore the inter-year identical sample includes a smaller number of farms for each year, so the results for this group of farms may differ.

The sample for the Farm Business Survey is predominantly drawn from those farm businesses in Wales with a Standard Output (SO) of at least €25,000, based on activity recorded in the previous June Survey of Agriculture and Horticulture. The results reported here will not therefore be representative of very small and part-time holdings. Information on the survey sample, the survey population and percentage of the survey population sampled (by farm type and size) is shown in [Table 3](#).

Table 3: Survey sample, survey population and percentage of survey population sampled, by farm type and size (a) (b) (c)

Farm type	Spare time / part time	Small	Medium	Large	Very large	All farm sizes
Survey sample (a) (b)						
Dairy	1	8	23	28	56	116
Cattle & sheep (LFA)	36	94	86	77	41	334
Cattle & sheep (lowland)	7	19	10	16	1	53
Other farm types (d)	10	7	5	10	4	36
All farm types	54	128	124	131	102	539
Survey population (farms with > €25,000 Standard Output) (a) (c)						
Dairy	32	198	281	286	596	1,393
Cattle & sheep (LFA)	1,209	1,903	1,156	1,165	728	6,161
Cattle & sheep (lowland)	222	603	144	183	11	1,163
Other farm types (d)	287	126	61	75	36	585
All farm types	1,750	2,830	1,642	1,709	1,371	9,302
% of survey population sampled						
Dairy	3.2	4.0	8.2	9.8	9.4	8.3
Cattle & sheep (LFA)	3.0	4.9	7.4	6.6	5.6	5.4
Cattle & sheep (lowland)	3.2	3.2	6.9	8.8	0.0	4.6
Other farm types (d)	3.5	5.6	8.2	13.4	11.0	6.2
All farm types	3.1	4.5	7.6	7.7	7.4	5.8

Sources: Farm Business Survey, June Survey of Agriculture and Horticulture

- (a) The survey sample and survey population both exclude a small number of farms which have a standard output of at least €25,000 but no agricultural activity. This small number of farms would have been categorised under the general cropping farm type.
- (b) The survey sample shown is for the 2020-21 Farm Business Survey.
- (c) The survey population (for 2020-21 Farm Business Survey) was from the 2019 June Survey of Agriculture and Horticulture.
- (d) Other farm types includes cereals, general cropping, and mixed farms.

Each farm in the survey is given a weight to make the sample representative of the population. The weights are calculated using the 'inverse sampling fraction' method and use data on the number of farms by type and size from the previous June Survey of Agriculture and Horticulture.

Farm income measures exhibit some degree of volatility across years, influenced by prevailing market conditions. As all the measures of farm income include an element relating to profits, these measures in the agricultural sector are therefore more volatile than measures in other sectors (which are defined purely in terms of income from wages).

The effect of the COVID-19 pandemic

The period April 2020 to March 2021 to which this release relates to the period during the COVID-19 pandemic (the first lockdown started on 23rd March 2020) and therefore, figures should be considered against the impact that the COVID-19 pandemic may have had.

The COVID-19 pandemic, as with many other surveys during 2020, seriously disrupted the collection of data which resulted in significantly delayed analysis and publication of results. For reference, some of the issues were:

- Method of collection has to be adjusted several times following risk assessments and according to government guidelines – this varied between electronic information, collection of files from site, and collection of information direct from respondent in separate farm office.
- There were difficulties working out an efficient collecting schedule where farmers in the same area may not be available on the same day, which resulted in more travel.
- There were minor issues with access to accounting software systems.
- Collection had to be extended past the usual end month of September which had a knock on to other tasks such as publications and recruiting.

In light of the delays, it has been decided to publish the key results before the end of the current financial year (March 2022) with further detailed analyses to follow in the coming months, according to users' requirements.

It has been another testing year for many and certainly for the data collection team at IBERS. Welsh Government would like to express gratitude to the farmers who were flexible, accommodating and undeterred from participating in the FBS. In the same vein, the significant effort of the IBERS team above and beyond that of a 'normal' FBS year for the second year in order to achieve the sample should be recognised.

Strengths and limitations of the Farm Business Survey

We strongly recommend that users of these statistics understand these strengths and limitations of the Farm Business Survey, in order to make appropriate use of any results from the survey.

Strengths

- The Farm Business Survey collects a broad range of detailed physical and financial information about farms in Wales. This allows a wide range of analyses to be conducted.
- The survey is representative of the main types of livestock farm seen in Wales (dairy, cattle and sheep).
- The Farm Business Survey has been carried out in Wales for many years. Therefore there are many years of data in which to monitor any structural changes in the farming industry, and fluctuations in farm incomes between years.
- Usually, between 90% and 95% of farms remain in the survey sample from one year to the next. This allows analysis across years of the survey for identical samples.

Limitations

- Given the need to control costs of the survey and the difficulty of recruiting farms, the sample for the Farm Business Survey is limited to 550 farms per year in Wales. This represents around 5% to 6% of the survey population each year. This is a relatively small sample for the purposes of analysis. Average results per farm can be produced, but for any analysis produced there are always wide variations around average, which raises a number of issues:
 - With the wide variation in size of farms, on some occasions, considering the share of farms may not be the best approach. In general, a relatively small number of large farms contribute most of the agricultural production in Wales. It can often make sense to look at share of production or output, rather than share of farms, which can provide an extra complication when analysing results.
 - There is often more than one factor which can explain the variation between farms, and this usually includes farm size. It is often not possible (due to low sample size in some categories) to analyse data for more than one variable at a time, which can limit the usefulness of any analysis.
 - With the wide variation in size of farms, very large farms in the sample can have a large effect on averages; particularly when estimates for a category are based on a small number of responses.
- Farm business income considers the farm as a 'business unit'. Farm business income does not include **other sources of household income** from outside the farm business (such as other employment of the farmer or spouse outside of the farm). Therefore a wider range of data would need to be considered in order to take a view on the economic welfare of farm households. The last detailed study to be carried out in Wales on farm household incomes was the [2010 survey of farming households in Wales](#) by the Wales Rural Observatory.
- There are a number of important aspects of farm businesses that the Farm Business Survey cannot inform on. These aspects will mainly be the quality of land on the farm, the farmer's aims and objectives for the farm business, and the skill of the farmer.
- The Farm Business Survey predominantly includes farms with at least €25,000 standard output, and is not intended to be representative of **small, part time and spare time** farms (below this standard output threshold). Any users who are interested in data for small, part time and spare time farms should be aware of this point. It is worth noting that when considering the farm types included in the Farm Business Survey, the survey population (around 10,000 farms each year) represents 93% of total standard output. Meanwhile, around 13,000 farms each year in these farm types but with less than €25,000 standard output (which are not surveyed) account for the other 7% of standard output.
- Although the Farm Business Survey is representative of main livestock farm types in Wales, it is not as representative of some of the smaller agricultural sectors in Wales. The survey includes small numbers of **cereal** and **general cropping** farms, but not enough to be able to publish results for this particular farm type. **Specialist poultry** and **specialist pig** farms are not surveyed, as there are very few farms from which to survey and obtain reliable results.

Although cereal, general cropping, poultry and pig farms are relatively small sectors individually, when grouped together these farm types make up 18% of total standard output for farms in Wales (when considering farms with a standard output of at least €25,000). This is a notable portion of the population which is not very well (or not) represented in the Farm Business Survey.

- As with any sample survey, results from Farm Business Survey will have a degree of **sampling error** because only part of the population is being used to estimate the value of a variable. The sampling error is the difference between the estimate derived from a sample survey and the 'true' value that would result if a census of the whole population were taken under the same conditions. Different samples will yield differing estimates for the same observation variable.
- **Non-sampling error** includes coverage error, non-response error, response error, processing error, estimation error and analysis error.
 - Any coverage errors in the Farm Business Survey will mainly be due to imperfections in the sampling frame – the June Survey of agriculture and horticulture. The June survey is used for sampling in the Farm Business Survey and also weighting of survey responses up to the survey population. The main limitations of the June agricultural survey can be read on the Welsh Government [June agricultural survey page](#). In summary, maintaining an up to date register of farms is an issue, as are falling response rates (to government surveys in general). Dairy and beef cattle data is derived from the Cattle Tracing System (an administrative source) which is generally of good quality for the information that it holds, although it does not hold complete information on intended purposes for particular animals.
 - Coverage of particular sectors in the sampling frame can be difficult. For example there are currently difficulties recruiting small dairy farms, in light of the current market conditions in the dairy sector.
 - Minimising response (measurement) errors is the strongest area of quality management for the Farm Business Survey. Processing errors are regarded as low-risk because of the self-checking nature of much of the farm management account and the high proportion of farms for which between-year checks can be applied.
 - Although the Farm Business Survey is designed to impose as little burden as possible on participating farmers, it is seeking commercial and sensitive data which some farmers might find intrusive. In order to persuade farmers to take part, participating farmers receive a set of accounts for their farm and benchmarking results against other farms (where possible). However, the refusal rate is relatively high; of those farmers who are in scope, around 80 – 85% of those who are approached choose not to take part in the survey.
- The potential population of non-respondents may have quite different characteristics from the potential population of respondents. This could lead to bias in the estimates of the full

population. Attempts are made to deal with this by recruiting new farms from a randomised list of farms of different types.

Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators (“national indicators”) that must be applied for the purpose of measuring progress towards the achievement of the wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. Under section 10(8) of the Well-being of Future Generations Act, where the Welsh Ministers revise the national indicators, they must as soon as reasonably practicable (a) publish the indicators as revised and (b) lay a copy of them before the Senedd. These national indicators were laid before the Senedd in 2021. The indicators laid on 14 December 2021 replace the set laid on 16 March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the [Well-being of Wales report](#).

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

Useful links

Unweighted results for Wales: Annual statistical results and the annual farm incomes booklet are published by [Aberystwyth University](#) covering many years. It should be noted that these results are based on unweighted data, so they only represent the sample, and not the whole population of farms. In particular, the farm incomes booklet includes:

- The profit and loss account, and a summarised balance sheet for a variety of farm types.
- Gross margin data for eight different types of farm enterprise.
- Production costs for four different types of farm output.

Welsh agriculture: More detailed statistics or other statistics about agriculture in Wales can be found below on the Welsh Government [farming statistics pages](#).

England: The Department for Environment, Food and Rural Affairs (DEFRA) publish a variety of analyses from the [FBS for England](#). DEFRA published comparable results on farm business income by type of farm in England for 2020-21, on 9 November 2021, and published (the more detailed) farm accounts in England in 2020-21 on 11 January 2022.

Technical notes: DEFRA publish [technical information, notes and guidance](#) for the Farm Business Survey for both England and Wales.

FarmBusinessSurvey.co.uk: Rural Business Research (RBR) - a consortium of six University Research Centres - carries out the Farm Business Survey in England on behalf of DEFRA. RBR publish a variety of data from the [Farm Business Survey](#) for England and Wales.

Scotland: The Scottish Government publish annual estimates of [Farm Business Income](#).

Northern Ireland: The Department of Agriculture, Environment and Rural Affairs (DAERA) in Northern Ireland publish annual estimates of [Farm Business Income](#).

UK: DEFRA publish farm income statistics for the UK and countries of the UK in the "[Agriculture in the UK](#)" publication (Chapter 3).

EU: Farm incomes data from UK countries are provided to the EU as part of the Farm Accountancy Data Network (FADN) and feed into the [Farm income statistics](#) for EU member states.

Further details

The document is available at: <https://gov.wales/farm-incomes>

Next update

The provisional publication date for the statistical release 'Farm incomes in Wales, 2021-22' is March 2023.

We want your feedback

We welcome any feedback on any aspect of these statistics, which can be provided by email to stats.agric@gov.wales.

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