



16 December 2020

Farm Business Income by type of farm, England, 2019/20

Data on farm business 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 widely used by the industry for benchmarking and are provided to the EU as part of the Farm Accountancy Data Network (FADN).

This release provides survey results of Farm Business Income for 2019/20 covering the **2019 harvest** and including the 2019 Basic Payment (which is included within total farm output and therefore contributes to Farm Business Income). These results replace the forecast estimates published on 27 February 2020. All figures are for March/February years. A time series showing this and other measures of income can be found on the GOV.UK website.

Key results

- In 2019/20, average Farm Business Income was lower for cereal, general cropping, lowland grazing livestock, mixed and horticulture farms.
- While more favourable weather conditions compared to 2018 produced higher yields for many crops, a combination of lower prices for key commodities such as wheat and barley, together with increased input costs led to income on cereal and general cropping farms falling by 7 percent and 21 percent respectively.
- On dairy farms, average income increased by 6 percent, with increases in milk production and revenue from other cattle enterprises offsetting lower average milk prices.
- On lowland grazing livestock farms, lower incomes were driven by reduced output from both cattle (reflecting lower prices and numbers) and sheep. For LFA grazing livestock farms a reduction in costs, particularly feed, and increased output for sheep led to a 47 percent increase in average income.
- On specialist pig farms, income increased with a fall in throughput offset by input cost reductions and higher pig meat prices. Average incomes on specialist poultry farms rose due to a higher egg output, reduced costs and increased income from diversified activities offsetting lower output from poultry meat.
- The average Basic Payment across all farm types was £27,800, which was little change compared to 2018. This reflects the very similar Euro / Sterling exchange rates in the September of each year when the payment rates are determined.

Contents

what you need to know about this release	3
Contact details	3
National Statistics Status	3
Key words	3
Section 1 Farm Business Income by farm type	4
1.1 Summary graphic: Farm Business Income by farm type	4
1.2 Detailed results of Farm Business Income by farm type	5
Section 2 Background information	12
2.1 Data used in Figure 1.3 of this statistical release.	12
2.2 Availability of results	12
2.3 Revisions	12
2.5 User engagement	13
Section 3 Technical note	
3.1 Survey coverage and weighting	14
3.2 Farm type classification	14
3.3 Farm Business Income	14
3.4 Accuracy and reliability of the results	15

What you need to know about this release

Contact details

Responsible statistician: Alison Wray

Email: fbsqueries@defra.gov.uk

Telephone: 0208 026 6119

National Statistics Status

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

These statistics last underwent a full assessment [Assessment Report 271 Statistics on Agriculture] against the Code of Practice for Statistics in 2014. Since the last review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics across the FBS.

For general enquiries about National Statistics, contact the National Statistics Public Enquiry Service:

Tel: 0845 601 3034

Email: info@statistics.gov.uk.

You can find National Statistics on the internet on the Gov.uk website.

Key words

Farm type: the farm type classification indicates the predominant activity on the farm.

Farm Business Income: for non-corporate businesses, Farm Business Income represents the financial return to all unpaid labour (farmers and 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.

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. 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, accurately describes its composition and is intuitively recognisable to users as a measure of farm income.

Section 1 Farm Business Income by farm type

1.1 Summary graphic: Farm Business Income by farm type

SUMMARY BY FARM TYPE



Cereals Increases to variable and fixed costs only partially offset by a rise in crop output, driven by increased areas and yields for some crops, although prices generally lower. Diversified income and the Basic Payment both saw small percentage increases.



General cropping Agricultural output fell with lower prices and reduced crop areas offsetting generally higher yields. Costs increased slightly. Output from agrienvironment activities and diversification both rose, while reduced Basic Payment reflected smaller average farm size.



Dairy Increases in output from milk (driven by a rise in production) and other cattle while costs changed little overall, a fall in variable costs (primarily feed) was offset by a rise in fixed costs.



Grazing livestock (lowland) Lower average cattle prices contributed to a fall in agricultural output which decreased costs failed to offset. Diversified output also fell, particularly food processing and retailing.



Grazing livestock (LFA) Agricultural output virtually unchanged on 2018/19 while input costs fell, largely driven by reduced costs for purchased feed and fodder. Agrienvironment payments, an important source of income for this type of farm, increased.



Mixed Increases from agri-environment payments and diversification activities failed to offset lower output from both crops and livestock. Costs were virtually unchanged compared to the previous year.



Horticulture Input costs rose, particularly seed, other crop costs and casual labour. Agricultural output increased, but to a lesser extent than costs. Diversified output, an importance source of revenue on these farms, increased.



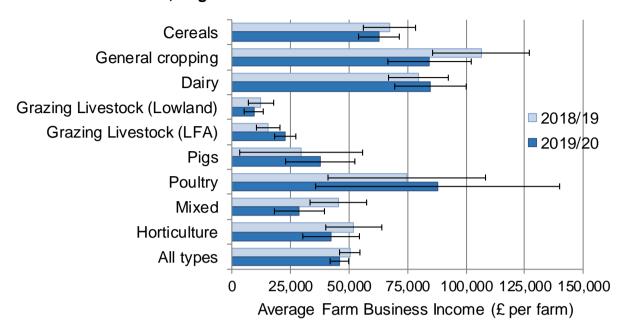
Pigs Lower input costs (particularly for feed) more than offset a fall in pig output where, although prices were higher, there was lower throughput and a reduced closing valuation due to a fall in pig numbers. Crop output rose while output from diversification activities fell.



Poultry A decrease in output from birds for poultry meat was offset by an increase to egg output and a substantial fall in costs, notably feed, veterinary fees, medicines and other livestock costs. Output from diversification activities also rose

1.2 Detailed results of Farm Business Income by farm type

Figure 1.1 Average Farm Business Income (£ per farm) by farm type, with 95% confidence intervals, England 2018/19 and 2019/20



On **cereal farms**, average Farm Business Income decreased by 7 percent in 2019/20 to £62,800 (Table 1.1). This was primarily driven by an increase in agricultural costs; variable costs rose by 14 percent, with increases particularly to fertilisers and crop protection, while fixed costs went up by 7 percent. Higher costs were partially offset by a 7 percent rise in crop output. Average crop areas increased for wheat, barley, pulses and sugar beet. Growing conditions were also generally more favourable than 2018 leading to higher yields, while prices (which started the period strongly before gradually falling) tended to be lower. Overall, cereal farms achieved a positive return on their agricultural activities of just £780 (Figure 1.3) compared to £10,200 in 2018/19. Income from diversified activities, particularly renting out buildings, continued to be a major source of income, and rose by 8 percent. The Basic Payment increased by 5 percent accounting for just under two thirds of total Farm Business Income on this type of farm.



On **general cropping farms** average income fell by just over a fifth to £84,400 (Table 1.1) with a decrease in agricultural output the main driver. As with cereal farms, plentiful supplies following a more successful harvest contributed to lower prices which offset higher yields.

Oilseed rape was an exception with prices remaining firm but yield and area decreased reflecting pest issues, particularly Cabbage stem flea beetle. Other crops, such as wheat, pulses and sugar beet also saw reductions in average area. Agricultural costs rose by 1 percent overall compared to 2018/19 with increases in variable costs (notably other crop costs and casual labour) mitigated by a fall in fixed

costs of 5 percent. On average there was a positive return of £16,000 from the agricultural cost centre (Figure 1.3) compared to £38,900 in 2018/19. Output from agri-environment activities rose by nearly 50 percent while the average Basic Payment fell by 4 percent to £43,400, partially influenced by a slightly smaller average farm area.

Average Farm Business Income on **dairy farms** increased by 6 percent to £84,800 (Table 1.1) in 2019/20. Within the agriculture cost centre production rose by 2 percent (reflecting a rise in average dairy cow numbers rather than yield) although the average milk price was 29.7 pence per litre, a 2 percent fall on the previous year. It is important to note that there is a wide variation in milk prices with some farmers receiving considerably more or less than the average. Revenue from other cattle enterprises, important to many dairy farms, increased by 4 percent. Variable costs fell by 2 percent, most notably for feed reflecting lower cereal and straw prices and, for some, a greater quantity of home grown grass and silage compared to 2018. These decreases were offset by a rise in fixed costs, particularly machinery depreciation, rent and general farming costs. Income from diversification activities fell by around a fifth while the average Basic Payment was little changed on 2018/19. On dairy farms income from agrienvironment activities rose by about a quarter to £4,100.

Table 1.1 Average Farm Business Income per farm at current prices (£/farm) (a)

Farm Type	2017/18	2018/19	2019/20	% change 2018/19 to 2019/20
At current prices				
Cereals	62,100	67,300	62,800	-7%
General cropping	87,200	106,400	84,400	-21%
Dairy	118,500	79,700	84,800	6%
Grazing livestock (Lowland)	20,500	12,500	9,400	-25%
Grazing livestock (LFA)	27,000	15,500	22,800	47%
Specialist pigs(b)	29,800	29,600	37,700	27%
Specialist poultry(b)	94,800	74,700	87,900	18%
Mixed	43,400	45,500	28,900	-36%
Horticulture	46,700	52,100	42,400	-19%
All types	54,100	50,400	46,000	-9%

⁽a) Rounded to the nearest 100, years ending at end of February.

⁽b) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation. Individual farms can also have a large influence on the results, for more details see individual farm type commentaries.

Table 1.2 Average Farm Business Income per farm in real terms ^(a) at 2019/20 prices (£/farm) ^(b)

Farm Type	2017/18 ^(d)	2018/19	2019/20	% change 2018/19 to 2019/20
In real terms at 2019/20 prices ^(a)				
Cereals	65,100	69,000	62,800	-9%
General cropping	91,400	109,000	84,400	-23%
Dairy	124,200	81,600	84,800	4%
Grazing livestock (Lowland)	21,500	12,800	9,400	-27%
Grazing livestock (LFA)	28,300	15,900	22,800	43%
Specialist pigs(c)	31,200	30,300	37,700	24%
Specialist poultry(c)	99,400	76,500	87,900	15%
Mixed	45,500	46,600	28,900	-38%
Horticulture	48,900	53,400	42,400	-21%
All types	56,700	51,600	46,000	-11%

⁽a) Uses GDP deflator.

On **lowland grazing livestock farms** average income fell by a quarter in 2019/20 to £9,400 (Table 1.1), which is the lowest average income for this farm type since 2006/07. Cattle output, a main revenue source, was a major contributing factor, falling by 10 percent as a result of lower prices for both fat and store cattle (reflecting plentiful supplies) and a decrease in average cattle numbers per farm. Output from sheep and crop enterprises also fell by 8 and 13 percent respectively. Reductions in both fixed and variable agricultural costs were insufficient to offset the drop in output; overall, the contribution to Farm

Business Income from agricultural activities on this type of farm fell to minus £16,300. The average Basic Payment was virtually unchanged on 2018/19 while income from agri-environment schemes increase by 41 percent. Income from diversified activities reduced by 19 percent, primarily due to decreases in food processing and retailing.

For **LFA grazing livestock farms** average income was £22,800, an increase of nearly 50 percent compared to 2018/19. Input costs fell by 5 percent largely driven by substantially reduced costs for purchased feed and fodder. As on lowland farms, output from cattle enterprises fell, but sheep output increased by 7 percent with higher average prices for breeding ewes and hoggs, an important source of income on these farms, a key factor. Output from crop

⁽b) Rounded to the nearest 100, years ending at end of February.

⁽c) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation. Individual farms can also have a large influence on the results, for more details see individual farm type commentaries.

enterprises also rose. These factors combined resulted in the overall agricultural output remaining virtually unchanged compared to 2018/19, though income from agricultural activities remained negative. Income from agri-environment schemes increased by 9 percent and accounted for half of Farm Business Income on this farm type while the average Basic Payment rose by 6 percent.

Average Farm Business Income on **mixed farms** decreased by 36 percent in 2019/20 to £28,900 (Table 1.1). These type of farms reflect the enterprises found in the other more specialised farm types. A 5 percent fall in total farm business output was driven by lower output from both crops and livestock. Unlike most other farm types both variable and fixed costs saw little change compared to 2018/19. Output from agri-environment activities rose by 54 percent while the Basic Payment remained similar to 2018/19. Diversification output rose, with a particular increase in revenue from renting out buildings. On average mixed farms failed to generate a positive return on their farming activities in 2019/20 (Figure 1.3), with increased losses compared to 2018/19.

For horticulture farms average Farm Business Income fell by 19 percent between 2018/19 and 2019/20 to £42,400. Agricultural costs increased by nearly a third. Variable costs rose by 45 percent, notably for seed, other crop costs and casual labour, while increases to machinery running costs and general farming costs were factors in an 11 percent rise to fixed costs. These increases were only partly mitigated by a rise in agricultural output of 21 percent, the result of higher output from glasshouse and outdoor flowers, nursery stock, soft fruit and top fruit. Income from diversified activities, an important source of revenue for horticulture farms (Figure 1.3), increased by 42 percent with food processing and retailing activities accounting for most of the rise.

The FBS sample for both specialist pigs and specialist poultry farms are relatively small, meaning that individual farms can have a large influence on the results.

For **specialist pig farms** average income increased by just over a quarter to £37,700 (Table 1.1). Whilst pig prices firmed throughout 2019 against a backdrop of African Swine Fever in China and elsewhere, a combination of reduced throughput and a fall in the closing valuation (due to numbers lower than at the beginning of the year) resulted in a decrease in pig output of 7 percent. This was more than offset by a reduction in both fixed and variable costs, particularly feed, machinery, labour and land costs. For those pig farms who also grew crops, there was an increase in crop enterprise output of 7 percent. Overall there was an average positive return of £15,000 from the agricultural cost centre (Figure 1.3) compared to minus £1,000 in 2018/19. Income from diversification activities fell, while there were small increases to both agrienvironment payments and the Basic Payment.

Note that these changes should be treated with caution because of the small sample size and the wide confidence intervals. In 2018/19, the average income for specialist pig farms was influenced by a small number of new farms joining the survey, which were not part of the sample in 2019/20. Contract rearers are also well represented in the FBS sample. Business models for contract rearing operations are varied and these type of farms may not be impacted by price variations to the same extent as non contract rearing farms.

At £87,900 the average income of **specialist poultry farms** was 18 percent higher than in 2018/19 (Table 1.1). Output from eggs rose by 60 percent compared to 2018/19 driven by an increase in quantity rather than price (which fell). In terms of quantity, this is in line with the trend seen in UK statistics for production, but not for price where UK statistics show a small increase. At the same time there was a drop in output from birds for poultry meat, which fell by nearly a quarter. Combined, these factors meant agricultural output decreased by 6 percent, but this was more than offset by a substantial fall in costs. Both variable and fixed costs went down, particularly for feed, veterinary fees, medicines and other livestock costs (partially reflecting lower numbers) and also for machinery and rent. Diversified output rose by 18 percent with marked increases for rental income, food processing and retailing and tourism.

Note that these changes for specialist poultry farms should be treated with caution because of the small sample size and the range of enterprises covered by this farm type. For example, there are farms producing broilers, turkeys, ducks and geese and for laying flocks the systems cover organic and conventional free range enterprises as well as enriched cages. In 2019/20, there was also a particularly influential poultry farm in the sample. Reweighting this farm so it only represents itself in the results would reduce average Farm Business Income for specialist poultry farms to £67,900. For more information on weighting see Section 3.1

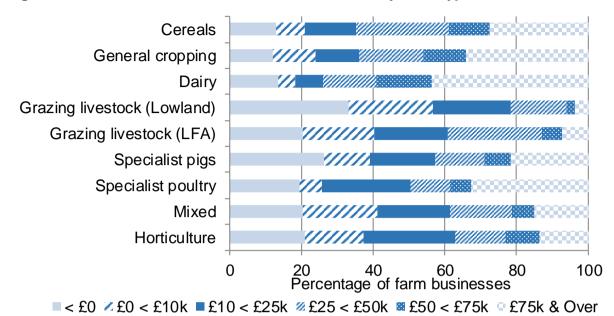


Figure 1.2 Distribution of Farm Business Income by farm type (a), 2019/20

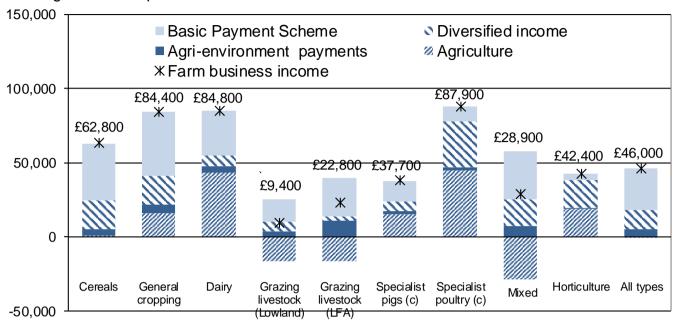
(a) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation.

The average values mask the considerable variability in incomes at the farm level, both between and within farm types (Figure 1.2). In 2019/20, at least 12 percent of each farm type failed to make a profit and this figures is much larger for some types such as lowland grazing livestock (33 percent). At 44 percent of farms, dairy had the largest proportion of farms with an income of more than £75,000, while lowland grazing livestock had the lowest proportion at 4 percent of farms. The variation in incomes within farm type reflects different production costs between farms which are influenced by a number of factors such as size, location, soil type etc.

More detailed analysis of farm incomes based on farm performance is provided in Farm Accounts in England. This will be updated with 2019/20 data in February/March 2021 and published on the GOV.UK website

Figure 1.3 Farm Business Income (a) by Cost Centre (b) 2019/20

Average income £ per farm



- (a) Rounded to the nearest hundred.
- (b) The data shown are the averages across all farms in the sample including those that do not have any income within some of the cost centres. The resulting Farm Business Income is shown by the star and in text at the top of each column.
- (c) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation. Individual farms can also have a large influence on the results, for more details see individual farm type commentaries.

Farm Business Income can be broken down by cost centre (Figure 1.3) to illustrate the relative contribution to average total Farm Business Income (shown as text at the top of each column). The underlying data can be found in Table 2.1 in Section 2 of this statistical release. Further information about the methodology adopted for allocating costs across cost centres can be found in Appendix 3 of Farm Accounts in England.

In 2019/20, the Basic Payment accounted for a substantial proportion of average Farm Business Income for all farm types apart from horticulture and poultry farms. Across all farm types, the average Basic Payment received was approximately £27,800; virtually no change on the previous year. This reflects the minimal change seen in the Euro / Sterling exchange rates between September 2018 and 2019 when the exchange rates for these payments were determined.

On average, cereal, general cropping, dairy, specialist pig, specialist poultry and horticulture farms generated a positive return from farming activities in 2019/20.

Section 2 Background information

2.1 Data used in Figure 1.3 of this statistical release.

Table 2.1 Farm Business Income by Farm Type and Cost Centre (£ per farm) (a)

Farm Type	Agriculture	Agri- environment payments	Diversified income	Basic Payment Scheme	Farm business income
Cereals	800	4,400	19,600	38,100	62,800
General cropping	16,100	5,900	19,000	43,400	84,400
Dairy	43,200	4,100	7,400	30,100	84,800
Grazing livestock (Lowland)	-16,300	3,900	5,900	15,800	9,400
Grazing livestock (LFA)	-16,600	11,300	2,600	25,500	22,800
Specialist pigs (b)	15,000	2,600	6,600	13,500	37,700
Specialist poultry (b)	44,900	2,000	30,700	10,300	87,900
Mixed	-29,000	7,000	18,200	32,700	28,900
Horticulture	18,600	1,000	18,800	4,000	42,400
All types	-100	5,300	13,000	27,800	46,000

- (a) Figures may not appear to add to totals due to rounding
- (b) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation.

2.2 Availability of results

All Defra statistical notices can be viewed on the Gov.UK site at: https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics.

Results from the Farm Business Survey including time series in spreadsheet format can be found at:

https://www.gov.uk/government/collections/farm-business-survey

2.3 Revisions

Forecasts of Farm Business Income for 2019/20 were published in February 2020. These forecasts were based on information available in early February 2020 for prices, animal populations, marketings, crop areas, yields and input costs and were intended as a broad indication of how incomes for each farm type were expected to move compared with 2018/19.

The outturns published here are based on actual survey results from the Farm Business Survey 2019/20. For cereals, general cropping, dairy, grazing livestock LFA and specialist poultry the forecasts were within the confidence intervals of the survey outturns.

The average income for lowland grazing livestock farms was lower than predicted. This was largely due to an over estimation of the value of output from both cattle and sheep and, to a lesser extent, crops. Similarly, for specialist pig farms income was lower than expected due to an overestimation of output from pigs. On mixed farms, average income was lower than forecast as a result of an over estimation of crop output (6 percent) and livestock output (3 percent), while input costs were under estimated.

Table 2.3 Revisions to Farm Business Income by Type of Farm in England

Average farm business income per farm (£/farm) at current prices

	Forecast: February	Outturn: December	95% Confidence	
Farm Type	2020	2020 ^(a)	Limits	Change
At current prices				
Cereals	57,000	62,800	+/- 8,708	5,800
General cropping	99,000	84,400	+/- 17,798	-14,600
Dairy	80,000	84,800	+/- 15,269	4,800
Grazing livestock (Lowland)	19,000	9,400	+/- 4,077	-9,600
Grazing livestock (LFA)	22,000	22,800	+/- 4,535	800
Specialist pigs (b)	58,000	37,700	+/- 14,794	-20,300
Specialist poultry (b)	67,000	87,900	+/- 52,102	20,900
Mixed	48,000	28,900	+/- 10,675	-19,100

⁽a) Rounded to the nearest hundred.

2.5 User engagement

As part of our ongoing commitment to compliance with the <u>Code of Practice for Official Statistics</u> we wish to strengthen our engagement with users of these statistics and better understand the use made of them and the types of decisions that they inform. Consequently, we invite users to make contact to advise us of the use they do, or might, make of these statistics, and what their wishes are in terms of engagement. Feedback on this statistical release and enquiries about these statistics are also welcome.

Please contact Alison Wray at fbs.queries@defra.gov.uk.

⁽b) The sample sizes for specialist pig and poultry farms are relatively small with average incomes subject to greater variation.

Section 3 Technical note

3.1 Survey coverage and weighting

The Farm Business Survey (FBS) is an annual survey providing information on the financial position and physical and economic performance of commercial farm businesses in England. It covers all types of farming in all regions of the country and includes owner-occupied, tenanted and mixed tenure farms. The FBS only includes farm businesses with a Standard Output of at least €25,000, based on activity recorded in the previous June Survey of Agriculture and Horticulture. In 2019, this accounted for approximately 56,521 farm businesses. In 2016 the sample was reduced from 1800 to 1750 farm businesses. In 2019/20 the sample was slightly smaller as a result of Covid-19 restrictions on data collection. Data are collected by face to face interviews with farmers, conducted by highly trained researchers.

Each record is given a weight to make the sample representative of the population. Initial weights are applied to the FBS records based on the inverse sampling fraction. These weights are then adjusted by calibrating certain totals to match published totals from other surveys¹ so that they can be used to produce unbiased estimators of a number of different target variables. More detailed information about the Farm Business Survey and the data collected can be found at: https://www.gov.uk/farm-business-survey-technical-notes-and-guidance

3.2 Farm type classification

From 2018/19, the classification of farms is based on 2013 standard output coefficients. 2017/18 results have been recalculated and presented in this release to allow comparability between 2017/18 and 2018/19. The results published here are therefore not directly comparable with those published in earlier years which are based on previous standard output coefficients.

3.3 Farm Business Income

For non-corporate businesses, Farm Business Income represents the financial return to all unpaid labour (farmers and 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.

¹ Further information on calibration weighting can be found in the 'Statistical Issues' document here https://www.gov.uk/guidance/farm-business-survey-technical-notes-and-guidance

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. 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, accurately describes its composition and is intuitively recognisable to users as a measure of farm income.

3.4 Accuracy and reliability of the results

In common with other statistical surveys, the published estimates of income from the Farm Business Survey are subject to sampling error, as we are not measuring the whole population.

We show error bars based on 95% confidence intervals for mean Farm Business Income as a measure of uncertainty that may apply to the estimated means. These signify that we are 95% confident that this range contains the true value. They are calculated as the standard errors multiplied by 1.96 to give the 95% confidence interval.

- The smaller range of possible values that could apply to grazing livestock, dairy, cereal and mixed farm types reflects relatively large sample sizes and the relative homogeneity of these sectors in terms of the range of income levels across the farms in each of these types.
- The range of values that could apply to general cropping and horticulture farm
 types reflect a more diverse range of agricultural activities, e.g. general cropping
 is made up of arable crop and field scale vegetable producers, while horticulture
 includes specialist fruit producers, hardy nursery stock and fruit and vegetables
 grown in glasshouses. As a result these sectors are less homogeneous in terms
 of income levels.
- Confidence limits for specialist pig and poultry farms are affected by the relatively small samples and a huge range in scale of production.

For the Farm Business Survey, the confidence limits shown are appropriate for comparing groups within the same year only; they should not be used for comparing with previous years since they do not allow for the fact that many of the same farms will have contributed to the Farm Business Survey in both years.

Standard errors (and therefore confidence intervals) only give an indication of the sampling error. They do not reflect any other sources of survey errors, such as non-response bias.

© Crown copyright 2020. You may re-use this information free of charge under the terms of the Open Government Licence v.3. To view this licence visit www.nationalarchives.gov.uk/doc/open-government-licence/version/3/