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Farm Business Income by type of farm in England, 2015/16

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

This release provides survey results of Farm Business Income for 2015/16 covering the **2015 harvest** and including the 2015 Basic Payment (which is included within total farm output and therefore contributes to Farm Business Income). These results replace the forecast estimates published on 28 January 2016. All figures are for March/February years. A time series showing this and other measures of income can be found here.

A more detailed analysis of the results will be published on 15 December 2016 in Farm Accounts in England see https://www.gov.uk/government/collections/farm-business-survey. Forecasts of income by farm type for the year ending February 2017 and covering the 2016 harvest will be published in February 2017.

Key results

- In 2015/16, average Farm Business Income fell across all farm types except general cropping, horticulture and grazing livestock farms in the Less Favoured Area (LFA).
- On cereal farms, lower prices for key commodities such as wheat, barley and oilseed rape drove the fall in incomes. On general cropping farms these price falls were mitigated by improved yields and prices for potatoes.
- On dairy farms, the lower average income reflects the full impact of lower milk prices which started to fall in March 2014. The average farmgate milk price was 25% lower in 2015/16 compared to the previous 12 months.
- On lowland grazing livestock farms, lower incomes were driven by a reduced output from cattle and sheep. On LFA grazing livestock farms higher output from cattle together with an increase in the Basic Payment driven by higher payment rates for moorland and SDA land compared to the Single Payment, led to a higher average income.
- On specialist pig farms, increased throughput was offset by higher costs and lower prices for pig meat. Average incomes on specialist poultry farms fell due to a reduced output for both eggs and poultry meat.
- Across all farm types the Basic Payment was around 5 percent lower than the Single Payment of 2014/15 due to a change in the exchange rate. Estimates have been made for some farms where full payment details are not yet available.

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SUMMARY BY FARM TYPE



£35,600



Cereals. Total crop output was around 6 percent lower, driven by lower cereal prices as a result of plentiful global supplies, declining demand and a stronger pound. Variable and fixed costs were broadly unchanged.



£62,900



General cropping. Lower output for wheat, oilseed rape and sugar beet was largely offset by increases from barley, pulses and potatoes. Total costs fell slightly. Income from agri-environment and diversified activities increased.



£35,100



Horticulture .Although output from agriculture fell, input costs, particularly fixed costs, were substantially lower. The net contribution of diversified activities to farm business income also increased.



£22,000



Pigs Despite lower prices output from pigs was only marginally reduced as throughput was higher. Increased costs, associated with this increase in production led to a net fall in average incomes.



Poultry A fall in output, driven by a reduction in the volume of eggs and lower poultry meat prices was only partially offset by a reduction in costs. *These changes should be treated with caution due to the small sample size*.



£42,300



Dairy Lower output driven by a fall in milk prices was partially offset by higher volumes of milk produced. Both variable and fixed costs were also lower, particularly purchased feed and forage.



£12,000



Grazing livestock (lowland) a lower output from cattle, sheep and cropping enterprises, driven primarily by a fall in the closing valuation, was only partially offset by lower input costs.



£19,100



Grazing livestock (LFA) Farm business output was higher driven by an increase in the Basic Payment and output from beef. Costs were slightly lower.



£17,900



Mixed Lower agricultural output was offset by an increase from diversified activities. A fall in variable costs, particularly feed and fertiliser was more than offset by higher fixed costs.

Cereals ■2014/15 General cropping 2015/16 Dairy LFA Grazing Livestock Lowland Grazing Livestock **Poultry** Mixed Horticulture All farms -£50,000 £0 £50,000 £100,000 £150,000 £200,000 £250,000 Average Farm Business Income (£ per farm)

Figure 1: Average farm business income (£'s) by farm type, with 95% confidence intervals, England 2014/15 and 2015/16

The 95% confidence limits are shown as ranges around the averages. For more guidance on how to interpret these results, please see *Accuracy and reliability of results* in the Technical Note at the end of this Notice.

Detailed results

On **cereal farms**, average Farm Business Income fell by 21 percent in 2015/16 to £35,600 (Table 1). Despite higher yields for cereals, pulses and oilseed rape, total crop output was around 6 percent lower. This was driven by lower prices as a result of plentiful global supplies, declining demand and a stronger pound. Crop variable costs were broadly unchanged with lower fertiliser costs being offset by small increases in seeds, crop protection and other crop costs. Agricultural fixed costs fell by around 2 percent largely due to lower fuel and machinery running costs. These were partially offset by higher bank charges and professional fees together with an increase in net interest payments.

Average incomes on **general cropping farms** were 21 percent higher in 2015/16 at £62,900 (Table 1). This increase was partially driven by an 8 percent increase in farmed area for this farm type. Agricultural output per farm fell slightly but the associated agricultural costs were considerably lower meaning that for the agriculture cost centre these farms, on average, broke even. Lower output for wheat, oilseed rape and sugar beet was partially offset by increases from barley, pulses and potatoes; the latter increasing by 30 percent. Variable costs were lower across all categories but particularly so for seed and fertiliser. Of the fixed costs, machinery (running costs and depreciation charges) saw the most significant falls, these being partially offset by higher interest charges, rent and depreciation of buildings. The average Basic Payment was unchanged compared to the Single Payment of the previous year, reflecting the larger farm area; on a per hectare basis the Basic Payment was 7 percent lower than the Single Payment. There was an increase in the net contribution from agri-environment and diversified activities to farm business income.

On **dairy farms**, average Farm Business Income fell by around half to £42,300 (Table 1). This was almost entirely due to a reduced milk output driven by a 25 percent fall in average price but partially offset by a higher volume. This is a greater price fall than the 21 percent seen across the UK for the same period based on national milk price statistics. The average

yield per cow increased by 6 percent to 8,200 litres whilst average herd size was broadly unchanged compared to 2014/15. Agricultural costs (both fixed and variable) were also lower, the most significant of these being a 20 percent reduction in purchased feed and fodder which generally account for more than half of variable costs on these farms. Of the fixed costs, lower machinery depreciation and running costs were the most significant. Average output from beef enterprises was also lower despite firmer prices for store and finished cattle for most of the year. This was due to a fall in the closing valuation which for some farms will have coincided with a dip in cattle prices. The average Basic Payment was 12 percent lower than the Single Payment of the previous year.

Table 1: Average Farm Business Income per farm (£/farm)

Average fari	m business	income per	farm ((£/farm)	ĺ
	-				-

Farm Type	2010/11 ^(a)	2011/12	2012/13	2012/13 ^(b)	2013/14	2014/15	2015/16	Annual % Change 2015/16 / 2014/15
At current prices								
Cereals	84,100	93,700	68,200	67,700	49,500	45,000	35,600	-21%
General cropping	110,200	100,500	91,500	89,200	67,600	52,000	62,900	21%
Dairy	65,800	86,600	51,200	52,600	87,800	83,800	42,300	-49%
Grazing livestock (Lowland)	21,300	32,000	16,300	16,100	15,100	18,500	12,000	-35%
Grazing livestock (LFA)	21,800	29,200	19,700	18,700	14,500	14,600	19,100	30%
Specialist pigs	44,300	38,100	40,900	41,700	65,200	49,400	22,000 (d)	-56%
Specialist poultry	72,700	46,400	94,200	90,200	157,200	126,800	106,800 (d)	-16%
Mixed	50,300	74,100	38,100	37,300	29,500	21,600	17,900	-17%
Horticulture	48,400	52,800	30,100	25,800	33,900	31,500	35,100	11%
All types	57,000	66,200	46,600	44,900	43,100	39,600	31,400	-21%
In real terms at 2015/16 price	es ^(c)							
Cereals	90,700	99,000	71,000	70,500	50,600	45,200	35,600	-21%
General cropping	118,800	106,200	95,300	92,800	69,100	52,200	62,900	20%
Dairy	70,900	91,500	53,300	54,700	89,700	84,200	42,300	-50%
Grazing livestock (Lowland)	23,000	33,800	16,900	16,800	15,400	18,600	12,000	-35%
Grazing livestock (LFA)	23,500	30,900	20,500	19,500	14,800	14,700	19,100	30%
Specialist pigs	47,700	40,300	42,600	43,400	66,600	49,700	22,000 (d)	-56%
Specialist poultry	78,300	49,000	98,000	93,900	160,500	127,500	106,800 (d)	-16%
Mixed	54,200	78,300	39,700	38,800	30,100	21,700	17,900	-18%
Horticulture	52,200	55,800	31,400	26,900	34,600	31,700	35,100	11%
All types	61,400	70,000	48,500	46,700	44,000	39,800	31,400	-21%

Years ending in end-February

Average incomes fell by 35 percent on **lowland grazing livestock farms** to £12,000 (table 1). This is the lowest average income for this farm type since 2006/07. A fall in the closing valuation for cattle almost entirely accounted for a reduced output for beef enterprises. Output from sheep enterprises also fell as average prices for fat and store lambs as well as cull ewes, were lower than the previous year. These lower prices were due to plentiful domestic supplies of sheep meat whilst demand remained relatively stable. Crop output was also lower driven primarily by a fall in closing value for forage stocks and cultivations. A reduction in both fixed and variable agricultural costs was insufficient to offset the fall in output meaning that the net contribution of agricultural activities to farm business income fell to minus £10,900 (table 2). The contribution from each of the other cost centres (agri-

^(a) Farm typology based on 2007 standard output coefficients

⁽b) Farm typology based on 2010 standard output coefficients

⁽c) Uses GDP deflator

⁽d) The sample sizes for specialist pig and poultry farms are relatively small. There has been one very influential poultry farm in the sample since 2012/13. If this is excluded from the results, average income on poultry farms was £76,000 in 2012/13, £99,800 in 2013/14, £83,600 in 2014/15 and £56,300 per farm in 2015/16 a fall of 33 percent.

environment activities, diversification and the Basic Payment) was also lower, driving average incomes down further.

For grazing livestock farms in the **less favoured area** (LFA), farm business output was slightly higher due to a moderate increase in output from both agricultural and agrienvironment activities together with a 14 percent increase in the average Basic Payment, the latter being driven by the higher payment rate for land in the SDA. Higher output from the beef enterprise was only partially offset by lower output from the sheep flock. These increases combined with very slightly lower costs led to a 30 percent increase in average farm incomes to £19,100 (table 1).

For both these farm types the difference between the livestock opening and closing valuations can have a considerable impact on incomes. In 2014/15, closing valuations for the sheep flock were higher than opening valuations, thus increasing the enterprise output. This was reversed in 2015/16 as fat lamb, store and ewe prices were lower than the year before, thus reducing the valuation across the year and decreasing enterprise output.

Average incomes on **mixed farms** fell by 17 percent between 2014/15 and 2015/16 to £17,900 (Table 1). Total farm business output was unchanged as a lower agricultural output was offset by an increase from diversified activities, particularly rental income. A fall in variable costs, driven by lower feed and fertiliser costs was more than cancelled out by higher fixed costs (labour, general farming and land and property costs) causing average incomes to fall. The average Basic Payment was around 13 percent less than the Single Payment in 2014/15.

On **horticulture farms**, average incomes increased by 11 percent to £35,100. Although output from agriculture fell, input costs, particularly fixed costs, were substantially lower. The most notable of these was regular labour; although there was a partial transfer of this cost to casual labour. The net contribution of diversified activities to farm business income increased to £12,600 (table 2). This was driven by a reduction in associated costs which more than offset the lower output from this cost centre.

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

On **specialist pig farms**, average Farm Business Income fell by 56 percent in 2015/16 to £22,000 per farm (Table 1). Total farm business output was higher driven by an increase from the cropping enterprises and the Basic Payment as a result of a larger farm area. Pig enterprise output was similar to the previous year as higher throughput offset lower prices for store and finished pigs. These changes to output resulted in considerably higher variable and fixed costs, particularly purchased feed, contract charges, labour, machinery depreciation and general farming costs. There are two particularly influential farms in the sample driving the wider confidence intervals. However, removing these farms from the results has little overall impact on Farm Business Income.

For **specialist poultry farms**, average incomes fell by 16 percent compared to 2014/15 as output from both the egg and broiler enterprises fell. The average price for eggs increased by 5 percent on these farms but throughput was lower. This is in contrast to the trends seen in UK statistics that show a fall in egg prices but an increase in production over the same period. Output from poultry meat also fell as lower prices were partially offset by an increased throughput. Input costs were lower, particularly feed and other livestock costs.

Note that these changes should be treated with caution because of the small sample. Removing a particularly influential farm from the results suggests that the average income would have fallen by 33 percent between 2014/15 and 2015/16 from £83,600 to £56,300.

For more information about the weighting and reliability of results please see the annex and technical note at the end of this release.

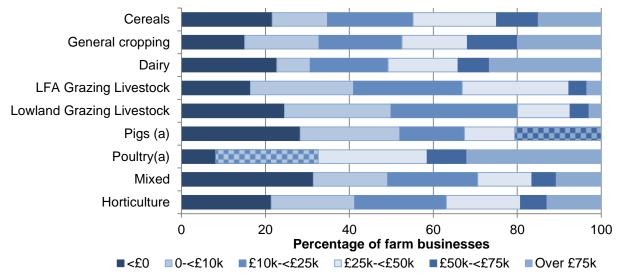


Figure 2: Distribution of Farm Business Income by farm type, 2015/16^(a)

(a) Some groups combined due to low sample numbers

The average values mask the considerable variability in incomes at the farm level both between and within farm types (Figure 2). Over a fifth of cereal, dairy, pig, lowland grazing livestock, mixed and horticulture farms failed to make a profit in 2015/16 and around 70 percent of mixed and grazing livestock farms generated incomes below £25,000. Around a quarter of dairy farms and almost a third of specialist poultry farms had an income of more than £75,000.

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 2015/16 data on 15 December 2016 and published here.

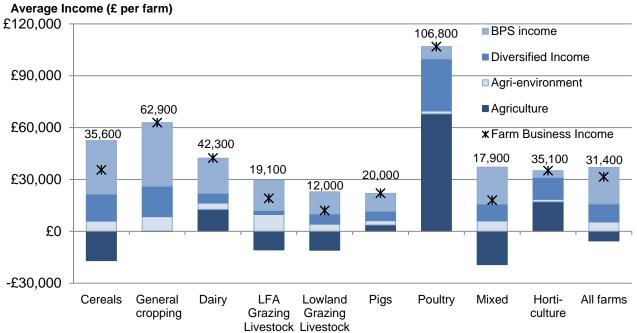
Farm Business Income can be broken down by cost centre (Figure 3) to illustrate the relative contribution to average total Farm Business Income (shown as text at the top of each column). The underlying data can be found in Table 2 in the annex to this Notice. Further information about the methodology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

In 2015/16, the Basic Payment, which replaced the Single Payment, continued to account for a substantial proportion of average Farm Business Income for all farm types apart from horticulture, specialist pig and poultry farms. Across all farm types, the average Basic Payment received was around £23,500, five percent lower than the previous year reflecting the stronger pound against the euro when the conversion rate

was set in September 2015. Note that estimates have been made for farms that were yet to be paid.

On average, dairy, pig, specialist poultry and horticulture farms generated a positive return from farming activities in 2015/16 whilst on general cropping farms they broke even. On LFA grazing livestock farms income from agri-environmental activities is particularly important, contributing just under £10,000 per farm to the average Farm Business Income. These activities are of less significance for the other farm types, particularly the intensive livestock and horticulture sectors.

Figure 3: Farm Business Income by Cost Centre¹ 2015/16



¹ Data represent 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.

Annex

Table 2 provides the data used in Figure 3 in the main body of this release.

Table 2 Farm Business Income by Farm Type and Cost Centre (£/farm)²

Farm Type	Agriculture	Agri- environment payments	Diversified income	Basic Payment Scheme	Farm business income
Cereals	-16,900	6,000	15,600	30,900	35,600
General cropping	100	8,400	17,600	36,700	62,900
Dairy	12,700	3,700	5,500	20,300	42,300
Grazing livestock (Lowland)	-10,900	4,200	5,800	12,900	12,000
Grazing livestock (LFA)	-10,700	9,800	2,300	17,700	19,100
Specialist pigs	3,700	2,500	5,300	10,400	22,000
Specialist poultry	68,000	1,600	30,100	7,100	106,800
Mixed	-19,200	6,000	9,800	21,400	17,900
Horticulture	17,100	1,400	12,600	3,900	35,100
All types	-5,500	5,500	10,300	21,100	31,400

² Figures may not add to totals due to rounding

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

Revisions

TABLE 3 Revisions to Farm Business Income by Type of Farm in England

Average farm business income per farm (£/farm)

	201	5/16	95%	Change	
Farm Type	January 2016	October 2016	Confidence	•	
	Forecast	Outturn	Limits		
At current prices					
Cereals	34,000	35,600	+/- 6,900	1,600	
General cropping	43,000	62,900	+/- 17,000	19,900	
Dairy	46,500	42,300	+/- 11,400	-4,200	
Grazing livestock (Lowland)	20,000	12,000	+/- 3,700	-8,000	
Grazing livestock (LFA)	21,500	19,100	+/- 3,400	-2,400	
Specialist pigs	26,500	22,000	+/- 22,200	-4,500	
Specialist poultry	145,000	106,800	+/- 97,900	-38,200	
Mixed	22,500	17,900	+/- 5,900	-4,600	

Forecasts of Farm Business Income for 2015/16 were published in January 2016. These forecasts were based on information available in early January 2016 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 2014/15.

The outturns published here are based on actual survey results from the Farm Business Survey 2015/16. These suggest lower than forecasted incomes for lowland grazing livestock, mixed and specialist poultry farms. On lowland grazing livestock farms output fell further than expected due to a fall in cattle enterprise output rather than the small increase predicted. There was also a fall in the closing value of crop by-products, forage and cultivations which had not been anticipated. On mixed farms, fixed costs increased rather than an expected fall meaning that average incomes were lower than the previous year rather than unchanged as forecast. On specialist poultry farms, egg production and poultry meat prices were considerably lower than forecast. Note that the sample size is relatively small for specialist poultry farms and to a lesser extent for specialist pigs so the results are subject to considerable variability (see page 3). On general cropping farms average incomes were higher than forecast. Output from potatoes (yield and price) was underestimated meaning that the fall in crop output was less than expected.

User engagement

As part of our ongoing commitment to compliance with the Code of Practice for Official Statistics (http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html), 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 Charles Mbakwe at fbs.queries@defra.gsi.gov.uk.

Technical Note

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 2015, this accounted for approximately 56,500 farm businesses. In 2015 the sample was reduced from1900 to 1800 farm businesses. 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.

¹ Further information on calibration weighting can be found in the 'Statistical Issues' document here

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

Farm type classification

From 2012/13, the classification of farms is based on 2010 standard output coefficients. The results published here are therefore not directly comparable with those published in earlier years. Results for 2012/13 are shown using 2010 and 2007 standard outputs to aid comparability. Please see the explanatory document on our web site for further details of these changes.

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.

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 farms 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.

https://www.gov.uk/guidance/farm-business-survey-technical-notes-and-guidance

 Confidence limits for specialist pig and poultry farms are affected by the relatively small samples and a huge range in scale of production. Figure 1 shows the presence of farms at opposite ends of the income scale.

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.

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