



# Farm Business Survey

2018-19

## Lowland Grazing Livestock Production in England



Mark Fogerty and Keith Robbins





ISBN: 978-1-9163332-0-8

RBR at Duchy  
Rural Business School  
Duchy College  
Stoke Climsland  
Callington  
Cornwall  
PL17 8PB

Phone 01579 372377

[www.ruralbusinessresearch.co.uk](http://www.ruralbusinessresearch.co.uk)

## **Acknowledgements**

Rural Business Research thanks sincerely all the farmers who have voluntarily provided records and information on which the annual Farm Business Survey, and this report, is based.

The basic information on which this report is based was collected on behalf of, and largely financed by, the Department for Environment, Food and Rural Affairs and is Crown Copyright.

The views expressed in this report are those of the authors and are not necessarily shared by other members of Rural Business Research or by Rural Business Research as a whole or by the Department for Environment, Food and Rural Affairs.

## **Foreword to the First Series**

This report is one of a series being produced based on the results of the Farm Business Survey (FBS) for England. The annual Farm Business Survey is the most comprehensive and independent survey of farm incomes and provides a definitive data source on the economic and physical performance of farm businesses in England. It is conducted by a Consortium comprising the Universities of Cambridge, Newcastle upon Tyne, Nottingham and Reading, and Askham Bryan, Duchy and Imperial Colleges. The Consortium is led by the University of Nottingham and its members work in partnership, using uniform and standard practices in reporting on their findings to ensure consistent data quality, accuracy and validity. The Survey is financed by Defra and the Consortium values greatly the input of their staff.

These detailed reports for various farm types and enterprises are in addition to the comprehensive Farm Business Survey Reports for Government Office Regions published at [www.farmbusinesssurvey.co.uk](http://www.farmbusinesssurvey.co.uk). The Consortium is seeking by these additional reports to ensure that timely and relevant information is available to farmers, consultants, advisers and other organisations and individuals interested in farming and land management. The analysis and publication of these reports uses data from farm businesses across England, with an individual member of the Consortium undertaking the research analysis. In line with the ethos of the Consortium, these reports present results in such a way as to ensure a significant element of continuity and consistency from one report to the other, whilst also ensuring that each report captures the contemporary issues of relevance to the sector of agriculture in England to which it relates.

We believe these reports will make a valuable and useful contribution to the farming industry and we commend them to you.

**Prof. Martin Seabrook**

(Chief Executive of the Consortium)

Spring 2007

## Foreword to the Fourteenth Series

Now in its fourteenth year of production, our series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)* has now arguably greater relevance to the farming and horticultural sectors in England than ever before. Following a general election in December 2019, the UK Government has now passed legislation through parliament which will result in the UK leaving the EU at the end of January 2020. A transition period will then follow, with the expectation that by the end of December 2020 the UK will have completed the transition phase of fully leaving the EU.

The new era will impact on many areas of activity in the UK; UK agriculture will witness and experience one of the largest transitions it has seen in decades. The new Agriculture Bill 2019-20 will be translated into policies and subsequently implemented, with an “Agricultural Transition” starting on the 1<sup>st</sup> January 2021 and being completed by 2028. During this agricultural transition, English agricultural and horticultural businesses will experience a phased decline in the Basic Payment Scheme support, that many businesses have received, while new opportunities for payments for public goods will be introduced and implemented, all against a backdrop of a need to reduce agriculture’s ‘carbon footprint’ and increase productivity performance. Alongside this change in emphasis, trade deals will be negotiated with the EU, the USA and other countries with which we currently, and intend to, trade with. This change in the UK’s agricultural policies and trading relationship will lead to both challenges and opportunities for business. Irrespective of the challenges and opportunities that lay ahead, most industry commentators note the need for businesses to adapt and to be fully aware of their costs and returns. We hope that RBR’s core focus on independent analysis of the economics of agricultural and horticultural sectors will continue to provide the industry with the data on enterprise and sectoral returns to aid business decision making.

For the 2018/19 year, average Farm Business Income (FBI), derived from our work on the Farm Business Survey (FBS), fell to £50,400 per business from £56,500 in 2017/18. The 2018/19 year relates to the 2018 harvest year, which witnessed an exceptionally cold spring “The Beast from the East” followed by one of the driest summers on record (almost in line with the 1976 drought). These weather impacts led to forage shortage and thus increased livestock feeds costs in the grazing sectors, and reduced cropping yields, albeit with an increase in crop prices. The dairy and grazing livestock sectors witnessed the largest percentage decreases in FBI, as they faced the higher costs of feed and lower prices for stock, particularly in the less favoured areas (LFAs).

As with our previous editions of these reports, available at [www.ruralbusinessresearch.co.uk](http://www.ruralbusinessresearch.co.uk), our core aim is to inform agricultural and horticultural businesses about the economics in their sector. This series of reports, and our work on the FBS more generally, would not be possible without the cooperation of the farmers and growers who participate in the FBS to ensure that the data we provide for policy making, and in our reports and free to use online data services at [www.farmbusinesssurvey.co.uk](http://www.farmbusinesssurvey.co.uk), is truly representative of the sectors. Our sincere thanks therefore go to the farmers and growers for their most valuable contribution.

**Professor Paul Wilson**

Chief Executive Officer, Rural Business Research  
January 2020

[www.ruralbusinessresearch.co.uk](http://www.ruralbusinessresearch.co.uk)

## Contents

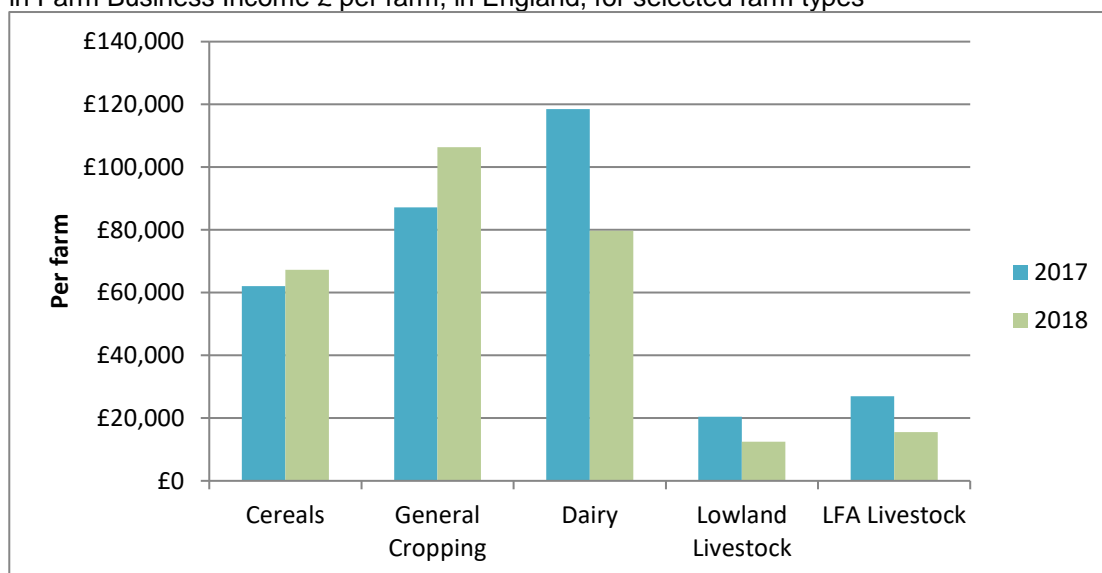
<b>Acknowledgements .....</b>	<b>3</b>
<b>Foreword to the First Series .....</b>	<b>3</b>
<b>Foreword to the Fourteenth Series .....</b>	<b>4</b>
<b>www.ruralbusinessresearch.co.uk.....</b>	<b>4</b>
<b>Contents.....</b>	<b>5</b>
<b>Key Findings of Lowland Grazing Livestock Production in England 2018-19 .....</b>	<b>7</b>
<b>Lowland Grazing Livestock Production in England 2018-19.....</b>	<b>9</b>
Figure 1 Trends in Farm Business Income £ per farm, in England, by farm type .....	10
Figure 2 Farm Business Income per hectare and per Annual Labour Unit, in England 2018-19, by Farm Type.....	10
Figure 3 Lowland Grazing Livestock farms in England - Average Farm Business Income by Cost Centre 2014-2018 .....	11
Figure 4 Indices of Producer and input Prices of Agricultural Products (United Kingdom) .....	11
<b>Lowland Grazing Livestock Production in 2018-19- detailed results .....</b>	<b>11</b>
Table 1: Income details, 2018-19 for All Farms, and by Performance Band .....	14
Table 2 Land Use, 2018-19 for All Farms, and by Performance Band .....	16
Table 3 Balance Sheet details, 2018-19 for All Farms, and by Performance Band .....	17
Table 4 Fund flow, 2018-19 for All Farms, and by Performance Band .....	18
Figure 5 Farm Business Income- Income bands, the percentage of farms in each band.....	19
Table 5 Farm Business Income by Performance Band, 2018-19, £ per hectare .....	19
Table 6 Farm Business Income for Non-organic and Organic farms, 2018-19.....	20
Table 7: Income details, 2018-19 for All Farms, and by size of business .....	21
Figure 6 Gross Margin and Farm Business Income per hectare by farm size, 2018-19.....	22
<b>The importance of the Basic Payment Scheme to the Lowland Livestock Grazing farms .....</b>	<b>22</b>
Table 8 Farm Business Income and Basic Payment Scheme, 2018-19 .....	22
<b>Farm Business Income by ‘Cost Centre’ .....</b>	<b>23</b>
Table 9 Farm Business Income by Cost Centre by Performance Band, 2018-19 .....	24
Figure 7 Farm Business Income and Unpaid labour per hectare by Cost Centre, by Performance Band, 2018-19 .....	24
Figure 8 Farm Business Income and Unpaid labour per farm by Cost Centre, by size of farm, 2018-19 .....	25
<b>Gross Margin data from the Lowland Grazing Livestock farms .....</b>	<b>26</b>
Table 10 Lowland Beef Cow Gross Margin data, 2018-19 .....	27
Figure 9 Gross Margin per head for Beef Cows, 2018-19 .....	28
Figure 10 Lowland Beef Cow Gross Margin, by Herd size, non-organic farms, 2018-19 .....	28
Table 11- Lowland Beef Rearing Enterprise Gross Margin data, 2018-19 .....	29
Figure 11 Gross margins per head of Cattle Rearing Systems, 2018-19 .....	30
Figure 12 Beef Bred Finished Cattle Gross Margin per Head & per Hectare, by herd size non-organic farms, 2018-19.....	30
Table 12 –Lowland Ewe Gross Margin data, 2018-19 .....	31
Figure 13: Lowland Ewe Gross Margin per Head. 2018-19 .....	32
Figure 14 Lowland Ewe Gross Margin per Head and Per Hectare by flock size. 2018-19 .....	32

Figure 15 Comparing gross margin per hectare for average non-organic producers 2014 to 2018 33

<b>Appendix 1 The Farm Business Survey (FBS)</b> .....	<b>34</b>
<b>General</b> .....	34
<b>Classification of survey farms by type of farming and size of business</b> .....	34
<b>Weighting Procedure</b> .....	35
<b>Definition of Terms</b> .....	35
<b>Balance Sheet Tables</b> .....	38
<b>Appendix 2 Reports in this series:</b> .....	<b>39</b>

## Key Findings of Lowland Grazing Livestock Production in England 2018-19

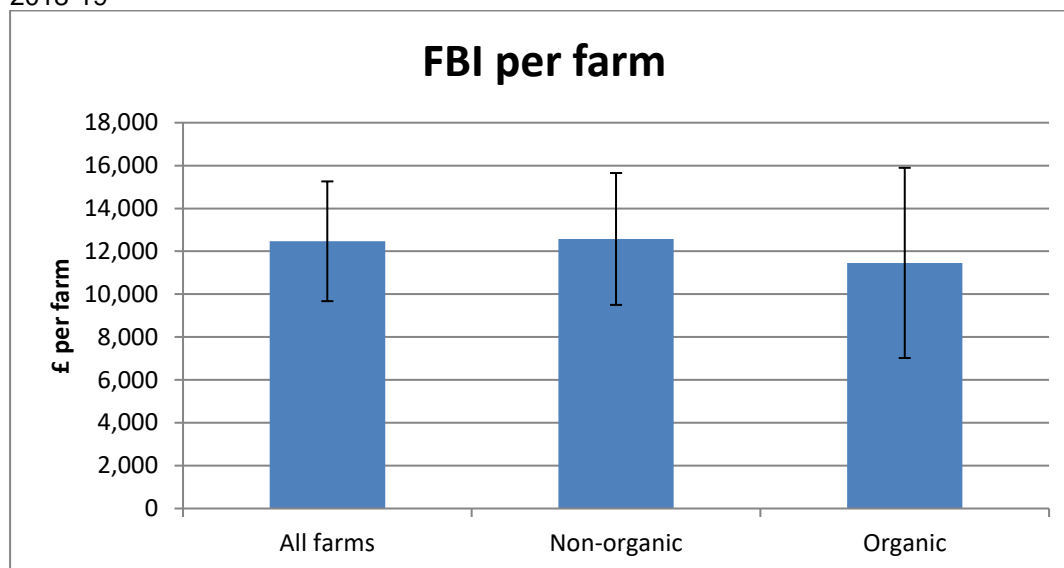
- Lowland Grazing Livestock farms account for about a quarter of commercial holdings in England. The majority, nearly three quarters, of these businesses are small or part-time. All other farm types are, on average, larger businesses.
- The average Farm Business Income (which closely resembles farm profit) for 2018-19 for the Lowland Grazing Livestock farms in England was £12,469 per farm, a decrease of £8,003 compared to the previous year, 78% of the average of the previous five years 2013/17.
- Within the Farm Business Income streams, the Basic Payment Scheme elements were very similar, a larger contribution from diversification but with agriculture having the largest decrease and less income from agri-environment sources.
- As compared to the other lowland land-based farm types in England, the Grazing Livestock farms produce the lowest incomes per farm, per hectare and per annual labour units. Trends in Farm Business Income £ per farm, in England, for selected farm types



- There is a wide range in the level of Farm Business Income per farm within the Lowland Grazing Livestock producers. In 2018-19, 32% had a negative income and 69% had an income of less than £20,000 which is close to the highest percentage in the last five years.
- Farm size is important, with the better performing businesses (based on the ratio of output/input) being much larger farms. The High Performance Band producers farmed over twice the area of the Low Performance producers and produced a higher Farm Business Income per hectare, £389 per hectare compared to a loss of £266 per hectare. This is a widening of the range, as compared to the previous year which is mainly due to the losses made by the Low performers.
- For the average Lowland Grazing Livestock farm in 2018-19 the value of unpaid labour used by the business was estimated to be £30,490 with private drawings coming to £22,416. Thus, these businesses are 'rewarding' themselves at 72% the appropriate market rate for their labour. For this year the Farm Business Income is £18,000 lower than the value of unpaid labour, thus not covering living expenses or representing any financial return on their capital invested in the business.
- This year's sub-sample of organic producers' farm, broadly have, a similar area to their non-organic contemporaries and their Farm Business Income was similar on a per hectare basis. The organic farms have more output from agri-environmental sources due to their eligibility for

extra organic aid, much lower variable costs and lower fixed costs. The Farm Business Income per farm for the organic producers is not statistically different than the non-organic farms.

Lowland Grazing Livestock farms- Farm Business Income per farm, by type of production. 2018-19



Sample sizes are small for some of these analyses and standard error bars have been included in the figures to indicate the accuracy of the estimate of the mean. Error bars are shown on 95% confidence intervals as a measure of the 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 error (se) multiplied by 1.96 to give the 95% confidence interval (95% CI)

- The Basic Payment Scheme is crucial to the level of income the Lowland Grazing Livestock farms achieve. Without the Basic Payment Scheme, the average Lowland Livestock Grazing farm, in England, for 2018-19 would be making a Farm Business Income loss of £5,459.
- From the gross margin analysis the premium (top third) producers, as ranked by gross margin per head, have gross margins 76% higher for the lowland beef cows and rearing cattle to sell as stores were 103% higher. Top third producers of finishing cattle have gross margins 90% higher than the average with lowland breeding ewes the top third producers are 60% better. This is a widening of the gap as compared to the previous year.
- Comparing the gross margin per hectare across the differing livestock enterprises on the Lowland Grazing Livestock farms, the beef bred cattle finishers have the highest margin followed by beef bred store cattle producers and the lowland breeding ewes. Beef cows produce the lowest gross margin per hectare. All gross margins were lower than the previous year.



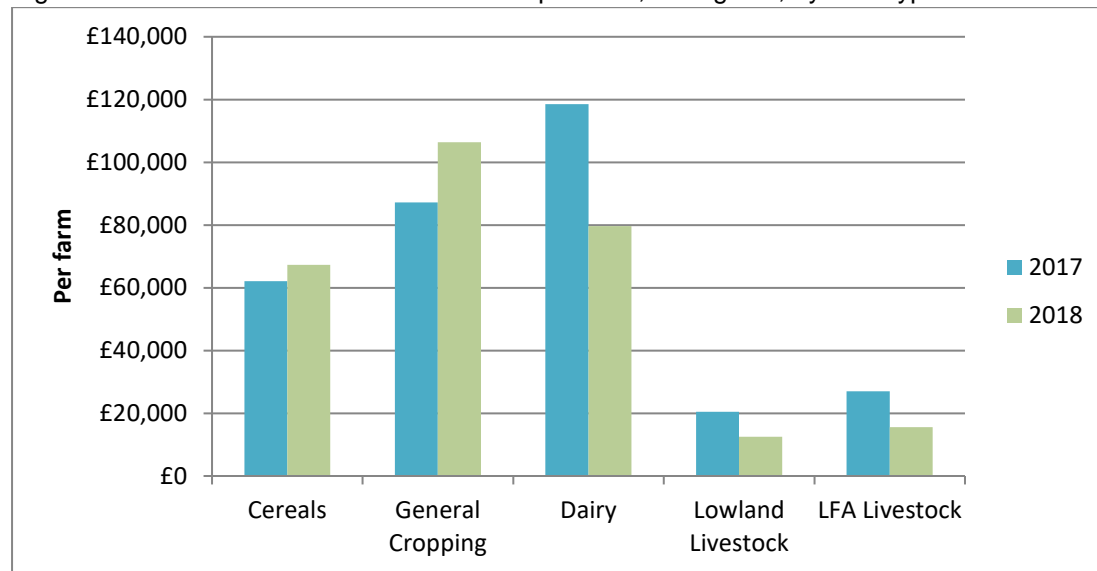
## Lowland Grazing Livestock Production in England 2018-19

- Of those farm businesses in England that are eligible for the Farm Business Survey 22% are classified as Lowland Grazing Livestock<sup>1</sup>. More than three quarters of lowland grazing livestock farms are classed as either part-time or small. Although similar to cereal farms, this is much higher than for dairy (13%) or general cropping (54%) farms.
- The Grazing Livestock businesses have the lowest Farm Business Income of the land based farm types in England (Figure 1).
- Lowland Grazing Livestock farms are the least profitable farm type in the English lowlands, on both a per hectare or per Annual Labour Unit basis (Figure 2).
- Over the last five years the Farm Business Income for Lowland Grazing Livestock businesses has been variable. The Farm Business Income for 2018-19 was 78% of the average for the previous five years. Farm Business Income is more variable than the finished prices of cattle and sheep would have suggested, indicating that the costs to the businesses, valuation changes to the livestock (which are part of the output) and other sources of output were more variable and all have a part to play in the level of income for these farms (Figure 3). Figure 3 also shows the average Farm Business Income broken down into the four cost centres, Agriculture, Agri-environment, Diversification and Basic Payment Scheme or its predecessor the Single Payment Scheme. It illustrates that the largest variation in income between years comes from the Agriculture cost centre which has not made a positive contribution in the last five years.
- A number of Indices of Prices of Agricultural Products (United Kingdom) are illustrated in Figure 4. This shows the changes in average annual prices for energy, fertiliser, animal feed and machinery; which have all seen changes since 2014. Animal feed costs, for example, increased by 13% in 2018 compared to the base year 2015. Fertiliser costs are now close to the level in 2015 but were lower by up to 18% in the 2016 period. Output prices from cattle and sheep have also seen large changes and volatility in the same period but, in general, are more stable than input prices.

---

<sup>1</sup> Grazing Livestock farms are classified as farms with more than two-thirds of their total Standard Output produced by cattle and sheep (excluding holdings classified as dairy). A farm is classified as "Lowland" if less than 50% of its total area is in the EC Less Favoured Area.

Figure 1 Trends in Farm Business Income £ per farm, in England, by farm type



Source: <http://www.farmbusinesssurvey.co.uk>

Figure 2 Farm Business Income per hectare and per Annual Labour Unit, in England 2018-19, by Farm Type

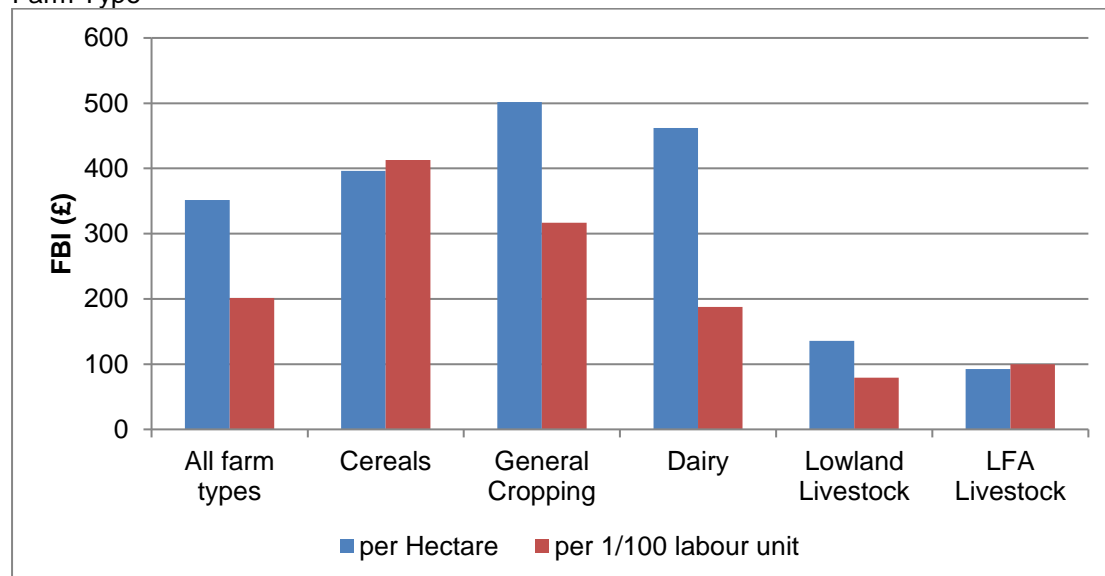
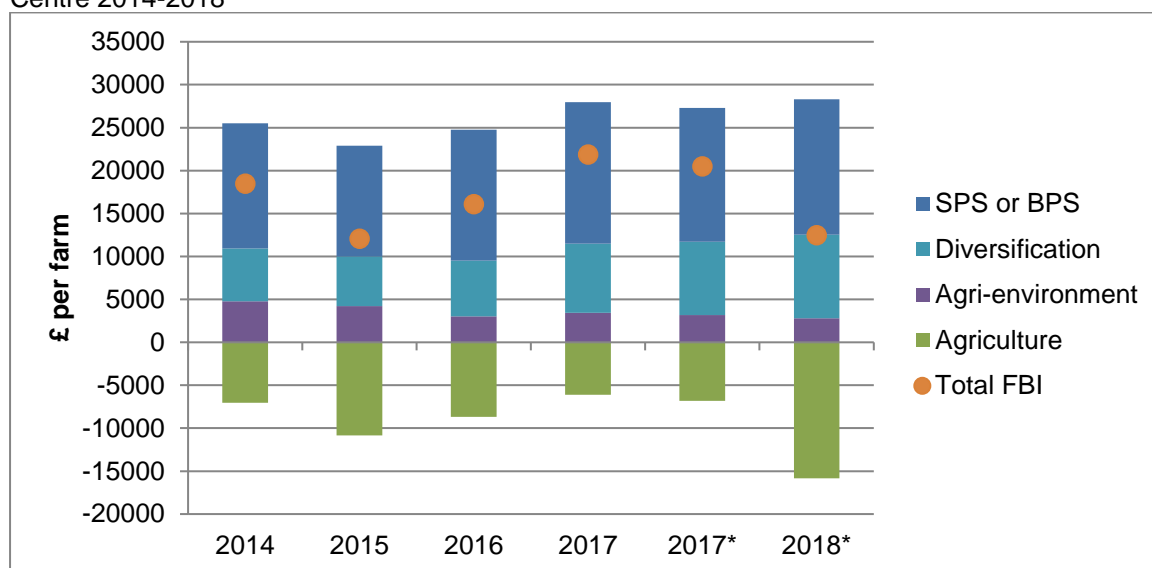
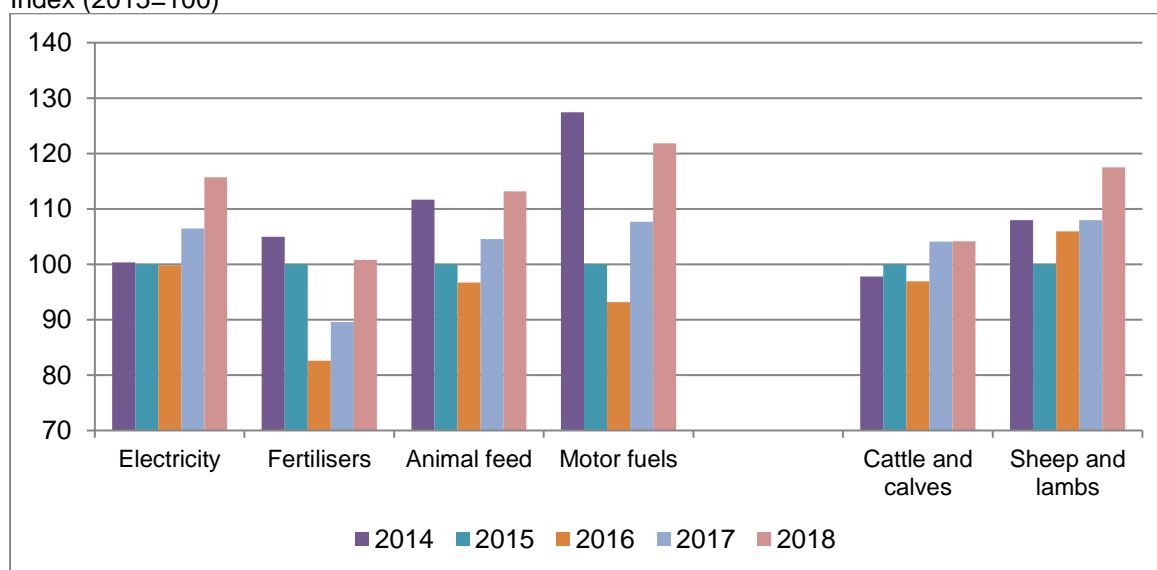


Figure 3 Lowland Grazing Livestock farms in England - Average Farm Business Income by Cost Centre 2014-2018<sup>2</sup>



\*See footnote 2

Figure 4 Indices of Producer and input Prices of Agricultural Products (United Kingdom) Index (2015=100)



Source: Defra

### Lowland Grazing Livestock Production in 2018-19 detailed results

- This report uses data extracted from the Farm Business Survey (FBS) for this important group of farms and includes data from 296 farms which has been 'weighted' to produce figures that represent the whole of the Lowland Grazing Livestock industry in England, excluding the smallest farms which are not included within the survey (see Appendix 1).

<sup>2</sup> From 2018/19, the classification of farms is based on 2013 standard output (SO) coefficients. 2017/18 results have been recalculated and presented in this report on 2013 SO coefficients to allow comparability between 2017/18 and 2018/19

- The results for the FBS farms for 2018-19 show a decrease in Farm Business Income per average farm from 2017-18 to £12,469, a reduction of £8,003. Basic Payment Scheme income was £202 higher and £1215 extra income from diversification but the largest fall in income came from 'agriculture' which was over £9,000 lower, the lowest for the last five years. The Net Farm Income was loss of £254 per farm, again a similar fall on the previous year's figure. (Table 1).
- The average Lowland Grazing Livestock farm was 60% owner occupied and the average area farmed was 91.8 hectares. Permanent grassland and rough grazing covers approaching three quarters of the area with temporary grassland and fodder crops another 15%. The stocking rate is low, emphasising the 'extensive' type of production adopted by this farm type, with only 1.1 Grazing Livestock Units per hectare. Cattle account for 72% of these livestock units (Table 2).
- The balance sheet for the average farm shows over £106,000 of liabilities with the majority of borrowing held by the banks, as loans or overdraft. Total assets for the business of £1,291,000 are dominated by the land and buildings which account for 89% of the total. (Table 3). The balance sheet ratios therefore indicate a strong financial position for these farms in terms of ratios of assets to liabilities, but with the low incomes earned, extra borrowing is still difficult to justify and then service.
- The relationship between trading profit generated, capital investment made, drawings taken by the farming family/families, and the funding of the trading business is summarised by the 'flow of funds' (Table 4). The trading net fund surplus from these farms is £29,572 after depreciation on buildings and machinery is added back to Farm Business Income and the increase in live and deadstock valuations is deducted. Close to £23,000 was spent on capital purchases. There was £12,000 net investment in land and property, whilst machinery investment was close to £11,000. The machinery pool on these farms was thus maintained, with re-investment being very close to the level of machinery depreciation charged to these businesses. This left a farm fund flow surplus of over £6,700. The private drawings from the farm were £22,400 offset by £9,400 of net transfer in of private funds, resulting in a £6,305 increase in the funding the majority coming from extra loans. The introduction of funds from private sources has been a feature of Lowland Grazing Livestock farms for a long period, where the low incomes have not been sufficient to allow for both re-investments in the business and private drawings to support the farming family.
- There is a large distribution of Farm Business Income per farm within the sample of farms, 32% of farms had a negative Farm Business Income in 2018-19, with 69% of farms making less than £20,000. Nine percent of businesses made over £50,000 (Figure 5).
- Farm performance is measured as the ratio of farm business output to farm business costs. An imputed value for unpaid manual labour, including that of the farmer and spouse is added to farm business costs. The value of paid managerial input is subtracted. The farms are ranked in descending order according to this ratio and allocated to quartiles with the top quartile (25 percent) representing the high performance band.<sup>3</sup> Farm size is important, with the better performing businesses being much larger farms and therefore able to spread their fixed costs over a larger area (Table 1). Farm Business Income per hectare still tends to be higher on the High performing farms (Table 5). Low performing farms tended to have lower levels of farm output per hectare. Substantial cost savings are made with fixed costs, where those of the highest performing group are 73% of the Medium performing group of producers. Lower costs are seen in all the fixed cost categories for the High performing group but the differences in the machinery costs have the largest impact. The highest performing group own

---

<sup>3</sup> Note that the farm weights are used to allocate farms to quartiles so the number of farms in a quartile will not necessarily be equivalent to a quarter of the sample.

57% of the area they farm whereas the low and medium performing group closer to 64% of the farmed area.

- The organic farms are broadly similar in size to their non-organic counterparts but the percentage of the land they own is slightly higher. Output from the organic farms is lower when compared to non-organic equivalents. However, there are important differences in how this output is achieved; organic farms tend to get more than their non-organic counterparts from agri-environment schemes and less from livestock and crops. For the organic producers the output from the agri-environment type schemes is more than three times higher than non-organic farms reflecting the extra support they receive from the various Stewardship schemes. With the lower 'farming' output, organic farms tend to have lower variable costs; being less than half the level of non-organic producers. The resulting total gross margin per farm for the organic farmers is lower than the non-organic level. Fixed costs for the organic farms are also lower than to the non-organic producers. Thus the Farm Business Income per farm for the organic producers is lower than that of their non-organic counterparts but similar per hectare, but not statistically significant (Table 6).
- Farm size can be described in terms of Standard Labour Requirement<sup>4</sup>. The average size of the Part-time farms is 52 hectares (128 acres), compared to the Very Large farms, which are seven times bigger in terms of land area (Table 7). The total area farmed by the business increases in relation to the Standard Labour Requirement and the proportion of tenanted land also increases with size, with Part-time farms renting 18% of their farmed area to Very Large farms renting 67% of the land they farm. In general, the gross margin per hectare decreases as the area farmed by the business increases. The Very Large farms have a gross margin close to two thirds of the level achieved by the Part-time businesses. The Farm Business Income per hectare shows no consistent trends on a per hectare basis, as illustrated in Figure 6. Small farms have the lowest Farm Business Income per hectare followed by the Very Large farms with Medium farms having the highest figures.

---

<sup>4</sup> Full details of the definitions relating to farm size are given in Appendix 1.

Table 1: Income details, 2018-19 for All Farms, and by Performance Band

Financial details, 2018/19	Average all farms	Performance		
		Low	Medium	High
Number of farms in group	296	46	158	92
Average farmed area (hectares)	91.8	54.6	92.7	126.4
Average % of owned total farmed area	60%	64%	60%	57%
	£ per farm			
<b>Output</b>				
Cattle	41,822	21,664	44,408	56,444
Sheep	16,318	2,537	20,713	21,148
Other livestock	397	237	462	426
Crops	6,692	311	8,011	10,338
Forage	4,602	3,218	4,812	5,540
Environmental schemes	3,288	1,115	2,929	6,119
Basic Payment Scheme	17,928	11,211	17,772	24,801
Rental income	5,952	2,790	6,727	7,520
Contract work	4,475	951	4,476	7,921
Renewable energy production	1,642	813	1,567	2,597
Miscellaneous output	12,150	2,475	11,840	22,220
<b>Total Farm Output</b>	<b>115,266</b>	<b>47,322</b>	<b>123,717</b>	<b>165,075</b>
<b>Variable costs</b>				
Concentrates	16,054	6,027	19,265	19,544
Purchased fodder	2,011	809	2,539	2,148
Veterinary and medicines	3,131	1,890	3,711	3,203
Other livestock costs	8,840	5,822	10,189	9,139
Seeds	1,177	538	1,234	1,691
Fertilisers	3,813	1,975	4,423	4,411
Crop protection	1,130	180	1,381	1,566
Other crop costs	909	585	754	1,531
<b>Total Variable Costs</b>	<b>37,066</b>	<b>17,826</b>	<b>43,495</b>	<b>43,232</b>
<b>Gross Margin</b>	<b>78,200</b>	<b>29,496</b>	<b>80,222</b>	<b>121,842</b>
<b>Fixed costs</b>				
Paid labour	6,785	1,612	8,987	7,512
Contract	6,768	5,110	7,162	7,613
Machinery repairs	5,365	4,125	5,563	6,188
Machinery fuel	4,974	3,102	5,366	6,032
Machinery depreciation	10,737	7,725	11,299	12,578
General costs	13,370	10,377	14,477	14,120
Property maintenance	4,867	3,233	5,474	5,271
Rent, hired in keep and bare land	6,058	3,774	6,894	6,647
Buildings depreciation	3,846	2,927	4,137	4,171
Interest	2,962	2,026	3,658	2,508
<b>Total Fixed Costs</b>	<b>65,731</b>	<b>44,011</b>	<b>73,016</b>	<b>72,641</b>
<b>FARM BUSINESS INCOME</b>	<b>12,469</b>	<b>-14,514</b>	<b>7,207</b>	<b>49,201</b>
All unpaid labour	30,490	30,131	33,091	25,726

Alternative Income Measures, 2018/2019					
			Performance		
		Average all farms	Low	Medium	High
Reconciliation between Net Farm Income and Farm Business Income					
	FARM BUSINESS INCOME	12,469	-14,514	7,207	49,201
Plus-	Directors remuneration	353	0	512	384
Less-	Net income from assets associated with the farm business	0	0	0	0
Plus-	Buildings and works depreciation	3,846	2,927	4,137	4,171
Plus-	Landlord type expenses	536	466	551	574
Plus-	Imputed rental income	263	261	250	292
Less-	Imputed rent and rental value	14,030	9,202	14,853	17,134
Plus-	Net Interest	2,931	2,010	3,631	2,453
Less-	Unpaid labour of partners	6,621	6,345	7,798	4,575
Equals-	NET FARM INCOME**	-254	-24,397	-6,363	35,368
** Excluding Breeding Livestock Stock Appreciation					

Table 2 Land Use, 2018-19 for All Farms, and by Performance Band

<b>Land Use and Indicators of Technical Efficiency, 2018/2019</b>				
		<b>Performance</b>		
	Average all farms	<b>Low</b>	<b>Medium</b>	<b>High</b>
Number of farms in group	296	46	158	92
Average farmed area (hectares)	91.8	54.6	92.7	126.4
Average proportion of owned total farmed area (%)	60%	64%	60%	57%
Land use				
Area of crops	5.9	0.5	7.2	8.6
Temporary grass	12.1	8.6	12.4	14.9
Permanent grass	59.7	42.6	59.6	76.5
Fodder crops	1.6	0.4	1.6	2.6
Rough grazing	4.9	0.6	2.2	14.3
Uncropped, fallow and turf	1.0	0.5	1.3	0.9
Forage hired in	6.7	1.5	8.3	8.6
Stocking				
Average number of dairy cows	0	0	0	1
Average number of beef cows	23	22	23	25
Average number of other cattle	87	64	90	105
Average number of ewes	147	31	181	195
Average number of other sheep	165	34	198	226
Grazing livestock units		GLUs per farm		
Dairy cows	0.4	0.2	0.4	0.7
Beef cows	11.6	10.9	11.7	12.3
Other cattle	52.8	39.8	53.3	64.5
Sheep	23.6	4.9	28.9	31.4
Other livestock	1.9	0.7	2.6	1.8
Total	90.4	56.4	97.0	110.7
GLUs per ha	1.06	1.05	1.15	0.95
GLUs per adjusted ha	1.08	1.04	1.17	0.96



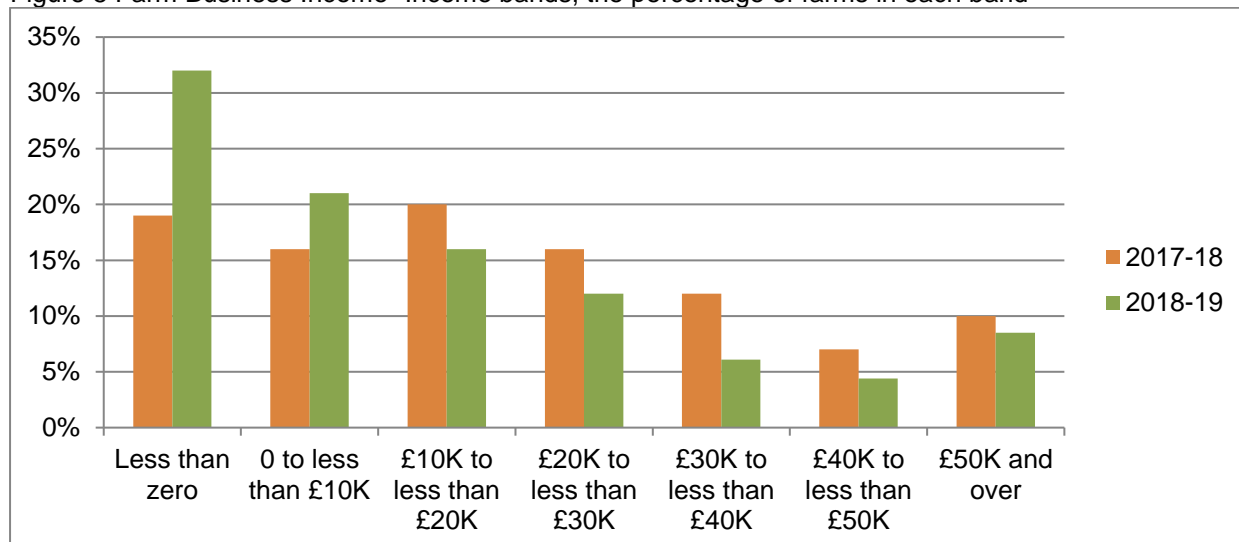
Table 3 Balance Sheet details, 2018-19 for All Farms, and by Performance Band

<b>Balance Sheet, 2018/2019</b>	<b>Performance</b>			
(end of year)	Average all farms	Low	Medium	High
Number of farms in group	296	46	158	92
Average farmed area (hectares)	91.8	54.6	92.7	126.4
Average proportion of owned total farmed area	60%	64%	60%	57%
	£ per farm			
End of year assets & liabilities				
Land & buildings	1,057,881	715,694	1,099,196	1,311,192
Milk quota	0	0	0	0
Basic Payment Scheme	17,957	11,298	17,980	24,421
Machinery	69,228	49,544	71,301	84,396
Tenant's other assets	184	174	136	287
Breeding livestock	42,277	30,474	45,365	47,741
<b>Total fixed assets</b>	<b>1,187,527</b>	<b>807,184</b>	<b>1,233,980</b>	<b>1,468,038</b>
Trading livestock	51,303	31,592	54,495	64,299
Crops	1,806	159	1,923	3,187
Forage and cultivations	5,883	3,501	6,841	6,328
Stores	6,410	4,313	6,883	7,529
Debtors and loans	10,029	5,329	8,793	17,056
Bank credit and cash	28,190	18,660	21,725	50,226
Other current assets	0	0	0	0
<b>Total current assets</b>	<b>103,622</b>	<b>63,554</b>	<b>100,660</b>	<b>148,624</b>
<b>Total assets</b>	<b>1,291,149</b>	<b>870,738</b>	<b>1,334,640</b>	<b>1,616,662</b>
Financed by				
AMC	20,682	1,774	26,515	27,697
Bank loans	38,320	31,954	47,006	27,461
Other long term	12,815	8,880	16,363	9,683
<b>Total long term</b>	<b>71,817</b>	<b>42,607</b>	<b>89,884</b>	<b>64,841</b>
HP and lease	6,910	4,037	7,947	7,680
Creditors	9,982	5,885	11,021	11,943
Bank overdraft	17,379	13,089	21,762	12,954
Other short term	285	815	109	114
<b>Total current liabilities</b>	<b>34,557</b>	<b>23,826</b>	<b>40,839</b>	<b>32,692</b>
<b>Total Liabilities</b>	<b>106,374</b>	<b>66,434</b>	<b>130,723</b>	<b>97,533</b>
<b>Net worth</b>	<b>1,184,775</b>	<b>804,304</b>	<b>1,203,917</b>	<b>1,519,129</b>
Balance sheet ratios-				
% Owner equity (net worth total assets)	92%	92%	90%	94%
% Fixed assets vs. total assets	92%	93%	92%	91%
Gearing (long-term loans total assets)	6%	5%	7%	4%
Total debt (external liabilities v.net worth)	9%	8%	11%	6%

Table 4 Fund flow, 2018-19 for All Farms, and by Performance Band

FUND FLOWS, 2018/2019	Performance			
	Average all farms	Low	Medium	High
Number of farms in group	296	46	158	92
Average farmed area (hectares)	91.8	54.6	92.7	126.4
Average proportion of owned total farmed area (%)	60%	64%	60%	57%
	£ per farm			
<b>Funds available from trading</b>				
Farm Business Income	12,469	-14,514	7,207	49,201
Buildings and works depreciation	3,846	2,927	4,137	4,171
Machinery depreciation	10,737	7,725	11,299	12,578
Change in valuation *	2,521	9,511	2,449	-4,173
Trading net fund flow surplus	29,572	5,649	25,091	61,778
<b>Funds used for farm investments</b>				
Net property and quota purchases	6,039	-5,433	12,429	4,688
Net landlord capital purchases	6,095	4,318	8,052	3,981
Net machinery and equipment purchases	10,729	7,082	10,916	13,926
Capital net fund flow	22,863	5,968	31,397	22,596
<b>Total farm fund flow surplus</b>	6,709	-319	-6,307	39,182
<b>Funds used for private expenditure</b>				
Private drawings	22,416	13,279	23,406	29,402
Net private funds introduced	9,402	17,639	11,539	-2,856
Private fund outflow	13,014	-4,360	11,867	32,258
<b>Total net fund flow surplus</b>	<b>-6,305</b>	<b>4,041</b>	<b>-18,173</b>	<b>6,924</b>
Increase in loans and deposits	6,793	1,403	16,001	-6,049
Increase in bank balance	1,231	11,829	-4,335	1,816
Increase in cash in hand	-9	2	1	-39
Increase in debtors	-2,343	-6,115	-1,881	436
Increase in creditors	-1,610	272	-4,043	1,338
<b>Net change in funding</b>	<b>6,305</b>	<b>-4,041</b>	<b>18,173</b>	<b>-6,924</b>
* An increase in valuation is represented as a negative, with funds being used to increase the live and deadstock valuation				

Figure 5 Farm Business Income- Income bands, the percentage of farms in each band<sup>5</sup>



Source- Farm Accounts in England, Defra

Table 5 Farm Business Income by Performance Band, 2018-19, £ per hectare

Performance	Low	Medium	High
Average farmed area (hectares)	54.6	92.7	126.4
Average % of owned total farmed area	64%	60%	57%
£ per hectare			
Livestock and crops	512	846	743
Agri- environment type schemes	20	32	48
Basic Payment Scheme	205	192	196
Other	129	265	318
<b>TOTAL FARM OUTPUT</b>	<b>866</b>	<b>1335</b>	<b>1305</b>
Variable costs			
Livestock specific costs	266	385	269
Crop specific costs	60	84	73
<b>TOTAL VARIABLE COSTS</b>	<b>326</b>	<b>469</b>	<b>342</b>
<b>TOTAL GROSS MARGIN</b>	<b>540</b>	<b>866</b>	<b>963</b>
Fixed costs			
Labour	30	97	59
Machinery	367	317	256
General farming costs	190	156	112
Land & Property	182	178	127
Interest paid	37	39	20
<b>TOTAL FIXED COSTS</b>	<b>806</b>	<b>787</b>	<b>574</b>
<b>FARM BUSINESS INCOME</b>	<b>-266</b>	<b>79</b>	<b>389</b>

<sup>5</sup> Some estimates are based on a sample of fewer than 15 businesses

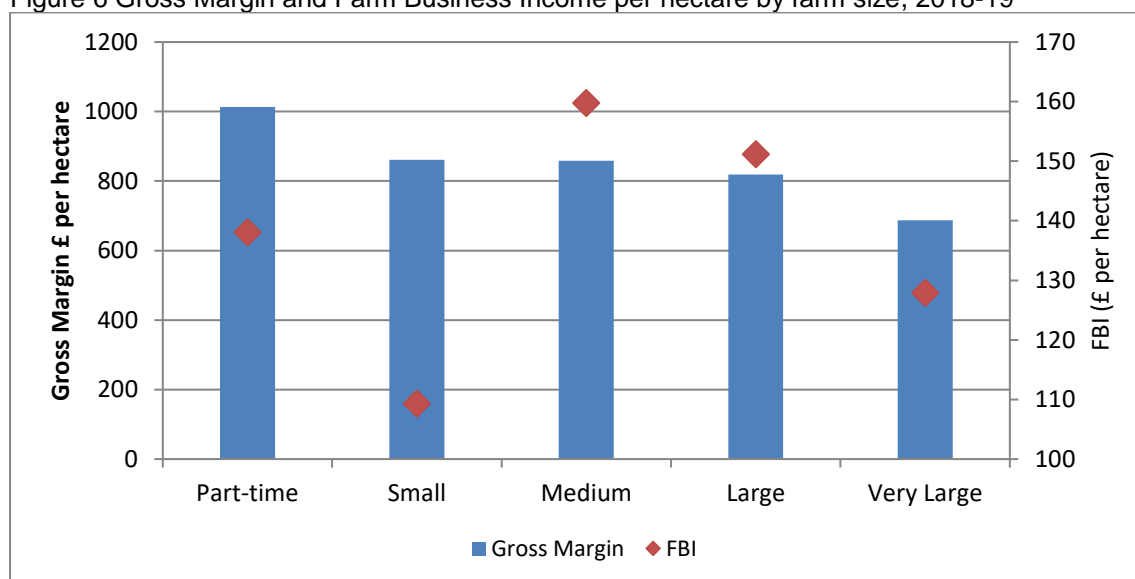
Table 6 Farm Business Income for Non-organic and Organic farms, 2018-19

Financial details, 2018/19	Type of Production	
	Non-organic	Organic
Number of farms in group	245	51
Average farmed area (hectares)	92.4	85.9
Average % of owned total farmed area	58%	74%
	£ per farm	
<b>Output</b>		
Cattle	43,387	27,252
Sheep	17,110	8,945
Other livestock	401	361
Crops	6,967	4,129
Forage	4,994	953
Environmental schemes	2,643	9,290
Basic Payment Scheme	17,899	18,194
Rental income	6,284	2,866
Contract work	4,858	912
Renewable energy production	1,294	4,876
Miscellaneous output	13,062	3,660
<b>Total Farm Output</b>	<b>118,900</b>	<b>81,437</b>
<b>Variable costs</b>		
Concentrates	17,432	3,227
Purchased fodder	2,058	1,578
Veterinary and medicines	3,251	2,017
Other livestock costs	9,126	6,180
Seeds	1,164	1,295
Fertilisers	4,174	454
Crop protection	1,244	70
Other crop costs	952	508
<b>Total Variable Costs</b>	<b>39,401</b>	<b>15,329</b>
<b>Gross Margin</b>	<b>79,499</b>	<b>66,108</b>
<b>Fixed costs</b>		
Paid labour	6,756	7,059
Contract	6,777	6,676
Machinery repairs	5,528	3,848
Machinery fuel	5,185	3,008
Machinery depreciation	10,917	9,061
General costs	13,615	11,089
Property maintenance	4,989	3,730
Rent, hired in keep and bare land	6,315	3,670
Buildings depreciation	3,869	3,627
Interest	2,971	2,880
<b>Total Fixed Costs</b>	<b>66,922</b>	<b>54,648</b>
<b>FARM BUSINESS INCOME</b>	<b>12,577</b>	<b>11,460</b>
All unpaid labour	30,866	26,991

Table 7: Income details, 2018-19 for All Farms, and by size of business

Financial details, 2018/19	Size of farm				
	Part-time	Small	Medium	Large	Very large
Number of farms in group	41	90	68	53	34
Average farmed area (hectares)	51.8	80.2	105.0	173.8	366.6
Average % of owned total farmed area	82%	62%	62%	47%	33%
<b>Output</b>					
Cattle	20,942	38,403	50,728	84,749	164,205
Sheep	2,075	10,324	25,842	46,942	113,447
Other livestock	154	375	364	32	3,468
Crops	759	4,372	8,886	21,456	42,417
Forage	4,637	4,625	4,602	6,865	3,311
Environmental schemes	2,004	3,190	2,549	6,455	13,457
Basic Payment Scheme	10,668	17,127	20,125	31,275	58,197
Rental income	5,931	4,497	5,672	10,254	12,613
Contract work	1,828	4,717	10,954	7,159	5,665
Renewable energy production	1,942	1,086	1,048	3,278	3,652
Miscellaneous output	15,138	12,511	6,787	4,896	15,422
<b>Total Farm Output</b>	<b>66,080</b>	<b>101,229</b>	<b>137,556</b>	<b>223,360</b>	<b>435,854</b>
<b>Variable costs</b>					
Concentrates	3,826	13,723	19,435	36,800	96,569
Purchased fodder	653	1,797	3,137	4,388	8,848
Veterinary and medicines	1,584	2,601	3,924	6,256	15,472
Other livestock costs	4,726	8,294	9,983	17,025	34,927
Seeds	480	1,049	1,453	2,745	4,990
Fertilisers	1,394	3,235	6,437	8,567	14,944
Crop protection	230	746	1,466	3,537	6,770
Other crop costs	701	736	1,555	1,782	1,587
<b>Total Variable Costs</b>	<b>13,594</b>	<b>32,182</b>	<b>47,390</b>	<b>81,100</b>	<b>184,108</b>
<b>Gross Margin</b>	<b>52,486</b>	<b>69,046</b>	<b>90,166</b>	<b>142,261</b>	<b>251,746</b>
<b>Fixed costs</b>					
Paid labour	3,543	6,132	5,480	13,320	37,147
Contract	5,890	6,150	6,625	10,958	15,151
Machinery repairs	3,990	4,911	6,774	8,951	13,407
Machinery fuel	2,943	4,239	7,160	9,553	16,400
Machinery depreciation	6,820	9,829	14,020	19,516	30,308
General costs	11,212	12,923	13,640	18,344	28,084
Property maintenance	3,838	4,840	5,611	7,103	12,196
Rent, hired in keep and bare land	2,521	5,812	6,670	14,055	25,248
Buildings depreciation	2,666	3,084	4,844	7,763	12,308
Interest	1,914	2,361	2,564	6,433	14,626
<b>Total Fixed Costs</b>	<b>45,337</b>	<b>60,281</b>	<b>73,387</b>	<b>115,996</b>	<b>204,873</b>
<b>FARM BUSINESS INCOME</b>	<b>7,149</b>	<b>8,766</b>	<b>16,778</b>	<b>26,265</b>	<b>46,873</b>
All unpaid labour	23,810	31,467	36,951	37,413	39,859

Figure 6 Gross Margin and Farm Business Income per hectare by farm size, 2018-19



### The importance of the Basic Payment Scheme to the Lowland Livestock Grazing farms

- With the low level of the Farm Business Income generated by the Lowland Grazing Livestock farms the importance of the Basic Payment Scheme (BPS) cannot be underestimated, as illustrated in Table 8. The Basic Payment Scheme per farm represents 16% of the Total Output for Lowland Livestock Grazing farms and more than the level of the total Farm Business Income. Without the Basic Payment Scheme, the average Lowland Livestock Grazing farm would be making a Farm Business Income loss of £5,459. None of the different size farms would be making a positive income and well below the level of their private drawings.
- Regarding the importance of the Basic Payment Scheme to the Lowland Grazing Livestock farms, the reality of farming without the majority of this support would look bleak and unlikely to be sustainable in the current structure even in a relatively good year for this farm type.

Table 8 Farm Business Income and Basic Payment Scheme, 2018-19

	All Farms	Part-time	Small	Medium	Large	Very Large
	£ per farm					
Farm Business Income	12,469	7,149	8,766	16,778	26,265	46,873
Basic Payment Scheme Income	17,928	10,668	17,127	20,125	31,275	58,197
Farm Business Income less BPS	-5,459	-3,519	-8,361	-3,347	-5,010	-11,324
Private drawings	22,416	17,706	19,834	25,862	33,413	46,067

## Farm Business Income by 'Cost Centre'<sup>6</sup>

- The majority of the Farm Business Income comes from the Basic Payment Scheme 'cost centre' - 126% of the total Farm Business Income figure for 'All farms'. (Table 9).
- The Farm Business Income from the Agri-environment cost centre is close to the average figure received per year since 2009, but is falling and is the lowest in the last five years. (Table 9).
- The Farm Business Income from the Diversification cost centre has been increasing from 2013 and in 2018 crop year was the highest in the last 10 years.
- The loss from the Agriculture cost centre is the highest in the last five years. Only in 2011 did the Agriculture Cost centre make a positive contribution to the total Farm Business Income. All other years there were losses and this averages, since 2014, more than £9,800 per year. (Table 9).
- The Agriculture cost centre accounts for most of the difference between the Farm Business Income per hectare of the three performance groups. Farm Business Income per hectare from 'Agriculture' increases with performance band with the Low performers making a loss of £475 per hectare, the Medium making a loss of £203 and the High performers making a loss of £1 per hectare. The Low performance band showed an extra loss per hectare of £148 with the Medium performers losing an extra £111 per hectare less and High performers decreasing by £75 per hectare compared to the previous year. (Figure 7).
- On Low and Medium Performing farms the contribution from the Agri-environmental and Diversification cost centres to total Farm Business Income is lower than that of the High performance band, with the Low performing group only a quarter the level of the High performing group. (Figure 7).
- The Farm Business Income generated by the Basic Payment Scheme cost centre is lowest for Low performing farms (£ per ha) with High performing farms receiving £21 more per hectare, and is £10 higher per hectare for Medium performing farms. (Figure 7).
- When considering the size of business the contribution from the 'Agriculture' cost centre is negative for each group with the largest loss on the Very Large farms, followed by all other sizes except the Medium farms. The Medium farms have the highest Farm Business Income per hectare income, with the lowest income per hectare on the Small farms (Figure 8).
- The value of unpaid labour used by the businesses is illustrated alongside the Farm Business Income by Cost centre (Figure 8). Only the Very Large farms have a Farm Business Income greater than the value of unpaid labour. The contribution from the Basic Payment Scheme cost centre ranges from 106% of the total Farm Business Income for Large farms, 107% for Medium farms, 111% for Very Large farms, 121% for Part-time farms and 171% for Small farms. This proportion is worse than the previous year where the range was from 65% to 84%.

---

<sup>6</sup> For these calculations, Casual labour and Contracting are considered variable costs rather than fixed costs as in our other tables, and interest is net rather than being shown as an income and a cost.

Table 9 Farm Business Income by Cost Centre by Performance Band, 2018-19

£ per farm	All farms	Low	Medium	High
Total Farm Business Income	12,469	-14,514	7,207	49,201
<i>Of which, by cost apportionment</i>				
Agriculture	-15,849	-25,959	-18,826	-107
Agri-environment and other payments	2,797	808	2,501	5,322
Diversification out of agriculture	9,743	1,968	7,766	21,232
Basic Payment Scheme	15,778	8,667	15,766	22,754

Figure 7 Farm Business Income and Unpaid labour per hectare by Cost Centre, by Performance Band, 2018-19

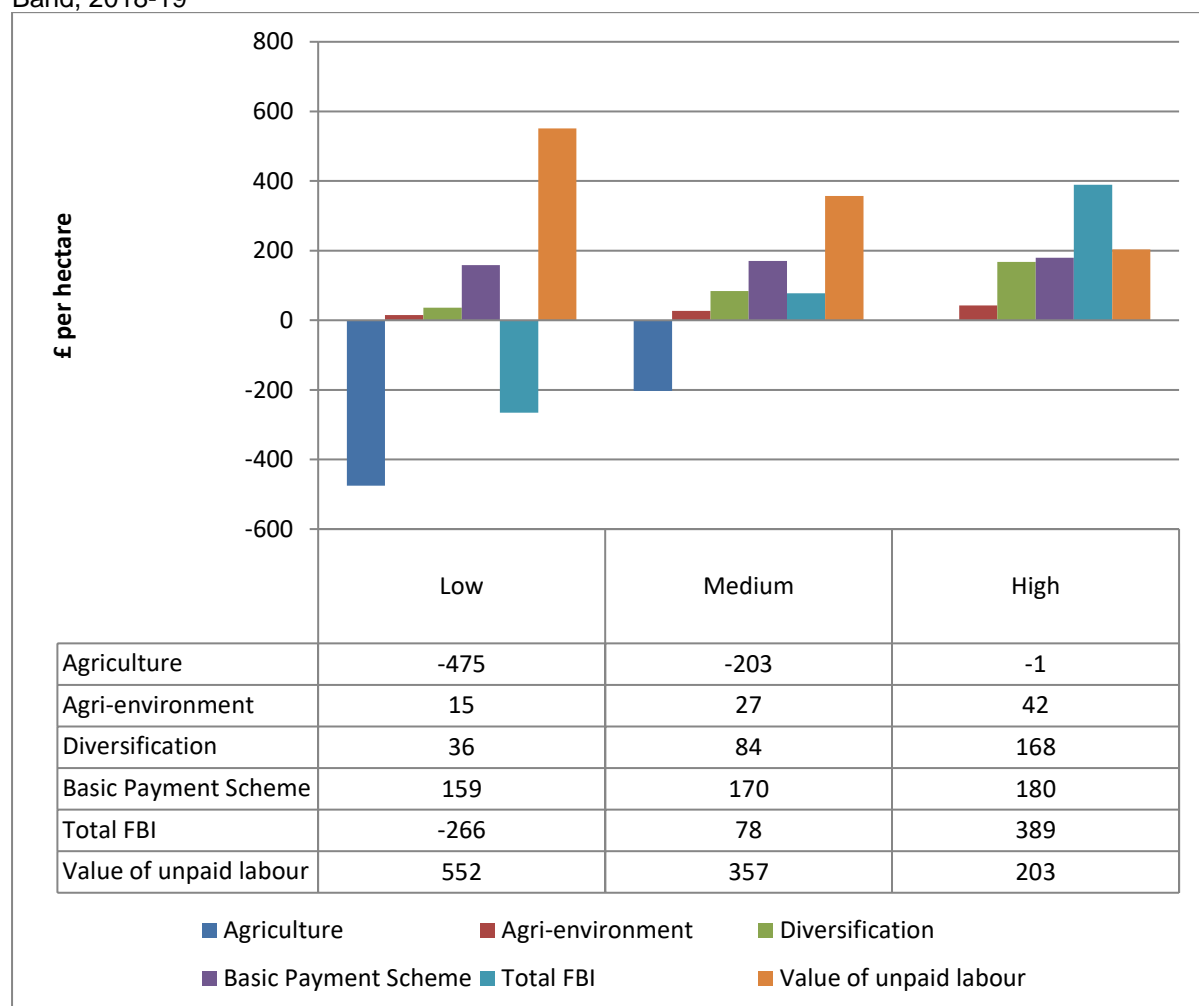
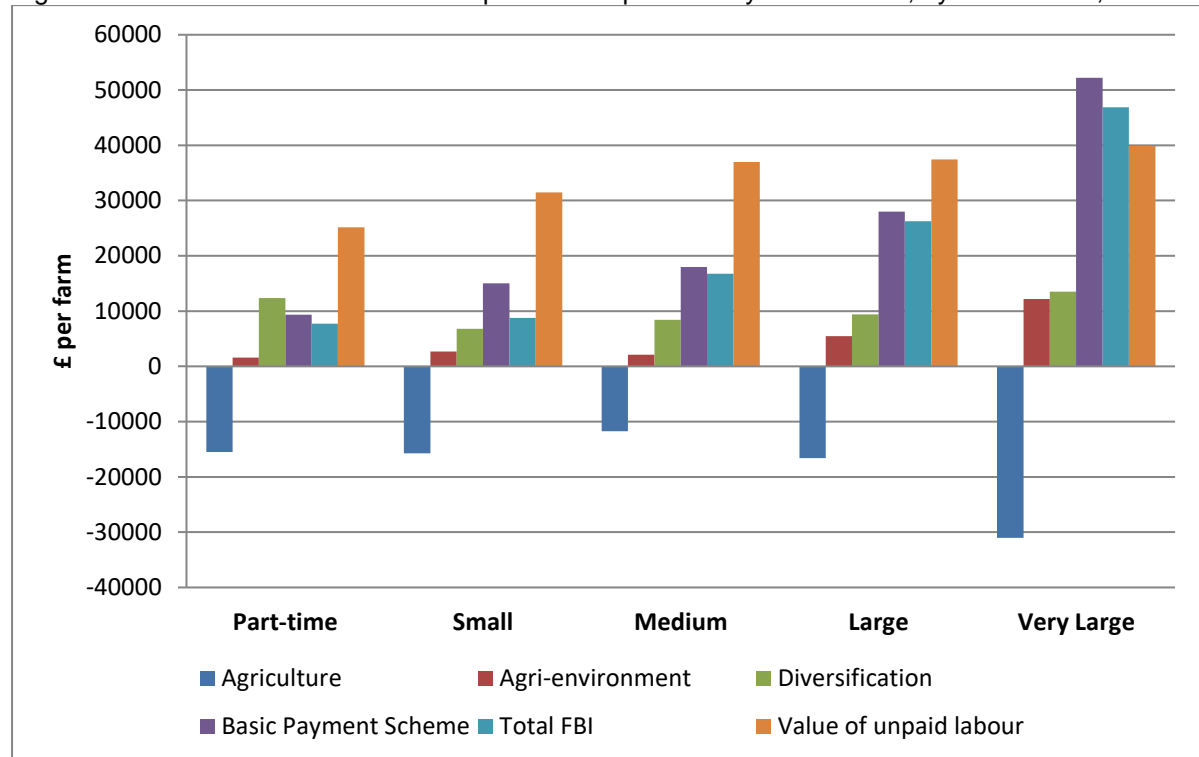




Figure 8 Farm Business Income and Unpaid labour per farm by Cost Centre, by size of farm, 2018-19



### Gross Margin data from the Lowland Grazing Livestock farms<sup>7</sup>

- Gross margin per beef cow is higher for the organic producers as compared to non-organic producers, but with lower stocking rates the gross margin per hectare for the organic producers is similar to the non-organic producers. The Top Third producers' gross margins per cow are more than 75% higher than that of the average, with the majority of the difference due to higher output, but also lower variable costs. (Table 10)
- The gross margin per beef cow has remained relatively stable over the last five years for non-organic producers but is slightly more variable for Organic producers. For 2018-19 the gross margin per beef cow is lower than the previous year and also below the five year average (Figure 9)
- The gross margin per cow and per hectare tends to increase with the scale of the enterprise, except for the smallest herds which have similar gross margin per head to the largest herds but at lower stocking rates. Care is needed to interpret the data due to small sample sizes (Figure 10).
- The beef rearing gross margin data for 'beef bred' store cattle and finished cattle are summarized in Table 11 and Figure 11. Both systems produce a broadly similar gross margin per head, both on average and at the premium level. On a per hectare basis the finishers have higher stocking rates so achieved higher gross margins. Gross margins for beef rearing systems have fluctuated over the last five years but the average for 2018-19 is between 12-30% lower than the level of the average for the previous five years.
- For the beef bred finishing cattle systems, the lower variable costs per head for the organic producers (£223) alongside lower output (£113) than average, leaves the average non-organic beef bred finisher with the lower gross margin per head. The higher stocking rate compensates for the lower gross margin per head leaving similar gross margin per hectare (See Table 11).
- The gross margins from the cattle rearing systems show the top third group of producers having margins per head double those achieved by the average. On a per hectare basis a similar increase can also be seen for both the premium beef finishers and store cattle producers. As with most of the gross margins from these farms the Top third producers have higher output with similar or lower variable costs.
- The output per head from the Beef Bred Finished Cattle producers is highest for the smallest and largest herds but the variable costs are highest for the largest herds, particularly concentrate feeds, but the resulting gross margins are not consistent (Figure 12)<sup>8</sup>. The herds with less than 50 head have the highest gross margin per head and all the other herds have similar levels. The stocking rate is greatest for the largest herds and broadly increased with scale of system.
- The gross margin per ewe for the lowland ewes for the non-organic producers is similar to the organic producers. The stocking rates for both types of production are low, 5.5 ewes per

---

<sup>7</sup> A number of the farms within the sample are able to calculate gross margins for their enterprises. Enterprises with small numbers of farms have not been included. Where the sample sizes allow, top third group figures (weighted total population) are also produced. Sample sizes are small for some of these analyses and standard error bars have been included in the figures to indicate the accuracy of the estimate of the mean. Error bars are shown on 95% confidence intervals as a measure of the 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 error (se) multiplied by 1.96 to give the 95% confidence interval (95% CI)

<sup>8</sup> The number of data points for each herd size group is low (less than 25 in each case) so differences between groups should be treated with some caution.

hectare or lower which is about half the stocking rate of Dairy farms. As compared to the previous year the gross margin per ewe from both non-organic and organic lowland sheep flocks was more than 8% lower (Table 12 and Figure 13).

- The gross margin achieved for the lowland ewes either per head or per hectare show no statistical differences due to the large variations in performance in any size group (Figure 14).
- Gross margins per hectare from all the main livestock enterprises are the lowest for the last five years. Comparing the average gross margin per hectare across the differing livestock enterprises (Figure 15) - the cattle rearing enterprises (either store or finishing beef systems) have higher margin per hectare than the breeders, beef cows having the lowest gross margin per hectare but of a similar level to breeding ewes. This has been the same for the last five years

Table 10 Lowland Beef Cow Gross Margin data, 2018-19

Gross margins per cow, per LU and per hectare				2018/19
(Weighted average performance)		Average		Top Third*
		Non-organic	Organic	Non-organic
Number of farms in group		147	36	49
Cows per herd		36	35	34
Stocking rate:	LU/ha	1.1	0.9	1.0
	ha/LU	0.9	1.1	1.0
		£ per cow		
Output -	calf output	501.4	509.6	571.4
	depreciation	-66.1	-70.1	-35.7
ENTERPRISE OUTPUT (excl. BLSA)		435.2	439.5	535.7
Concentrates		49.6	22.9	36.6
Coarse fodder		16.9	20.5	12.1
Veterinary and medicines		35.2	22.4	31.0
Other livestock costs		77.8	73.2	57.6
Forage †		53.2	17.9	42.1
TOTAL VARIABLE COSTS ‡		232.7	156.8	179.3
GROSS MARGIN per cow (excl. BLSA)		202.6	282.6	356.4
GROSS MARGIN per LU (excl. BLSA)		203	287	348
GROSS MARGIN per hectare (excl. BLSA)		220	268	372
Concentrates per £100 output		11	5	7
Averages - previous year				
Stocking rate:	LU/ha	1.11	0.88	1.09
Gross Margin: £/cow		264.6	317.4	412.6
Gross Margin: £/ha		293	279	450
* Top Third of Weighted Population				
† Forage includes seeds, fertilisers, sprays and other crop costs				
‡ Restricted to concentrates, coarse fodder, veterinary and medicines, other livestock costs and forage.				

\* Top third selected by level of gross margin per cow

Figure 9 Gross Margin per head for Beef Cows, 2018-19<sup>9</sup>

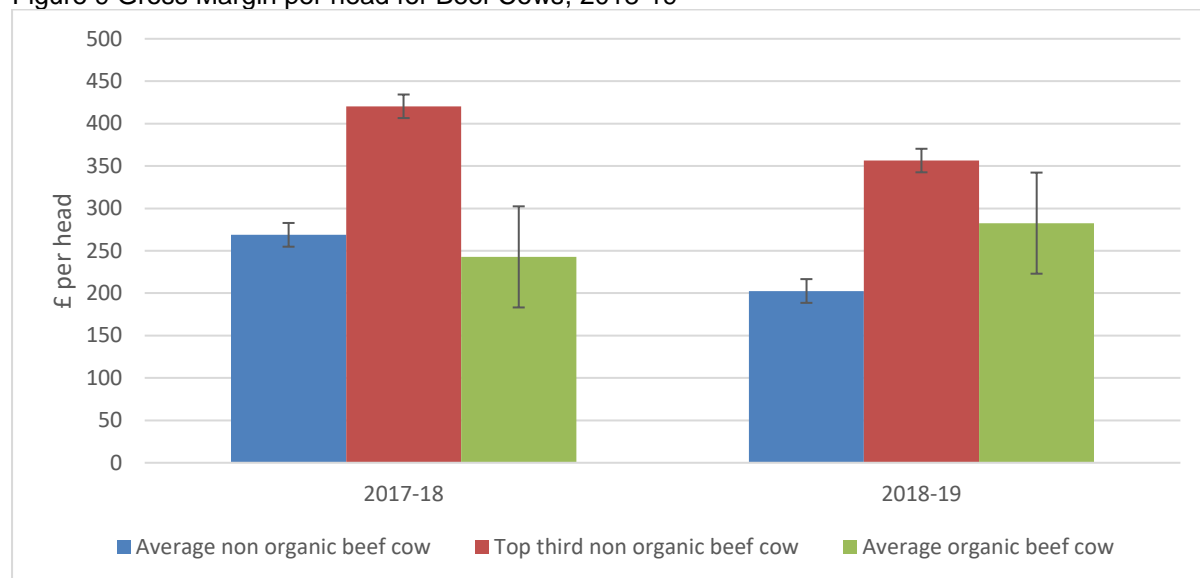
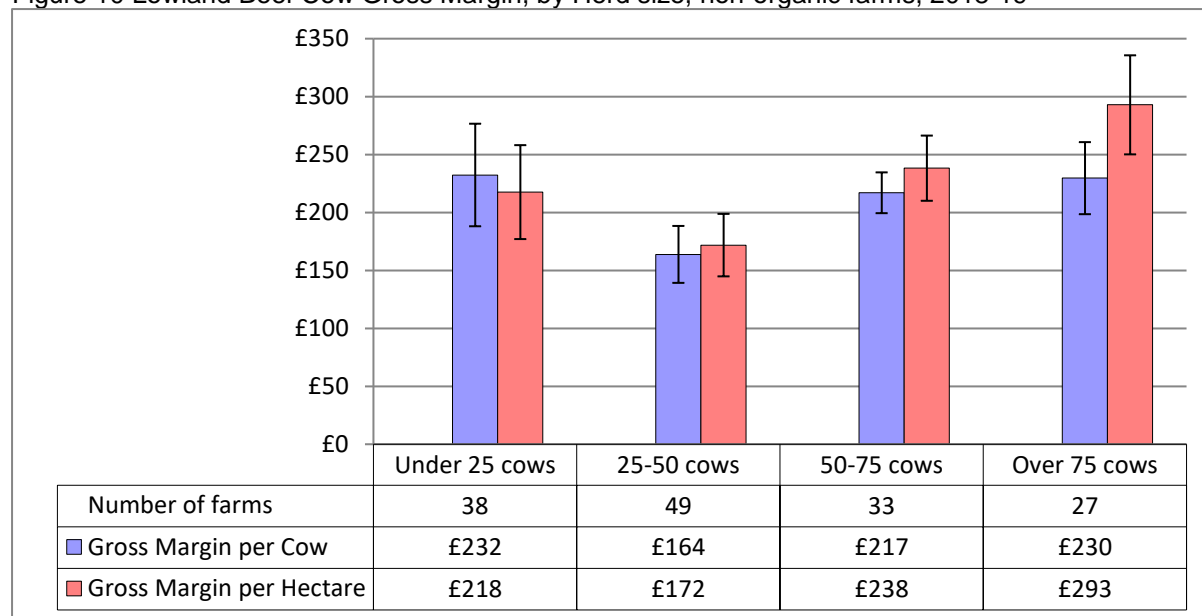


Figure 10 Lowland Beef Cow Gross Margin, by Herd size, non-organic farms, 2018-19



<sup>9</sup> The 2017-18 year has been recalculated on the 2013 Standard Output basis

Table 11- Lowland Beef Rearing Enterprise Gross Margin data, 2018-19

Gross margins per head, per LU and per hectare							
(Weighted average performance)		Beef bred store cattle			Beef bred finished cattle		
		Average		Top third*	Average		Top third*
		Non-organic	Organic	Non-organic	Non-organic	Organic	Non-organic
Number of farms in group		63	15	21	82	22	27
Cattle per herd		46	43	39	102	55	79
Average finished animal sale price - £/head					1214	1235	1258
Stocking rate:	LU/ha	1.06	0.82	0.85	1.37	0.92	1.37
	ha/LU	0.95	1.22	1.18	0.73	1.09	0.73
		£ per head					
OUTPUT		392.9	249.5	581.5	533.8	421.1	648.9
Concentrates		91.2	20.0	86.3	214.8	38.1	190.4
Coarse fodder		10.0	6.0	11.0	22.4	13.1	6.7
Veterinary and medicines		18.1	8.3	17.3	15.3	8.9	15.7
Other livestock costs		68.3	55.7	74.6	74.5	61.3	73.7
Forage †		29.0	7.1	34.7	33.4	15.9	32.8
TOTAL VARIABLE COSTS ‡		216.5	97.0	224.0	360.4	137.3	319.3
GROSS MARGIN per head		176.3	152.4	357.5	173.4	283.8	329.6
GROSS MARGIN per LU		305	255	600	303	447	551
GROSS MARGIN per hectare		323	210	509	415	409	753
Concentrates per £100 output		23	8	15	40	9	29
Averages - previous year							
Stocking rate:	LU/ha	1.23	0.82	1.08	1.28	0.84	1.26
Gross Margin: £/head		245.9	267.4	446.0	251.3	367.0	399.8
Gross Margin: £/ha		547	372	873	545	477	858
Average finished sale price- £ /head					1195	1214	1095
* Top Third of Weighted Population							
† Forage includes seeds, fertilisers, sprays and other crop costs							
‡ Restricted to concentrates, coarse fodder, veterinary and medicines, other livestock costs and forage.							

\* Top third selected by level of gross margin per head

Figure 11 Gross margins per head of Cattle Rearing Systems, 2018-19<sup>10</sup>

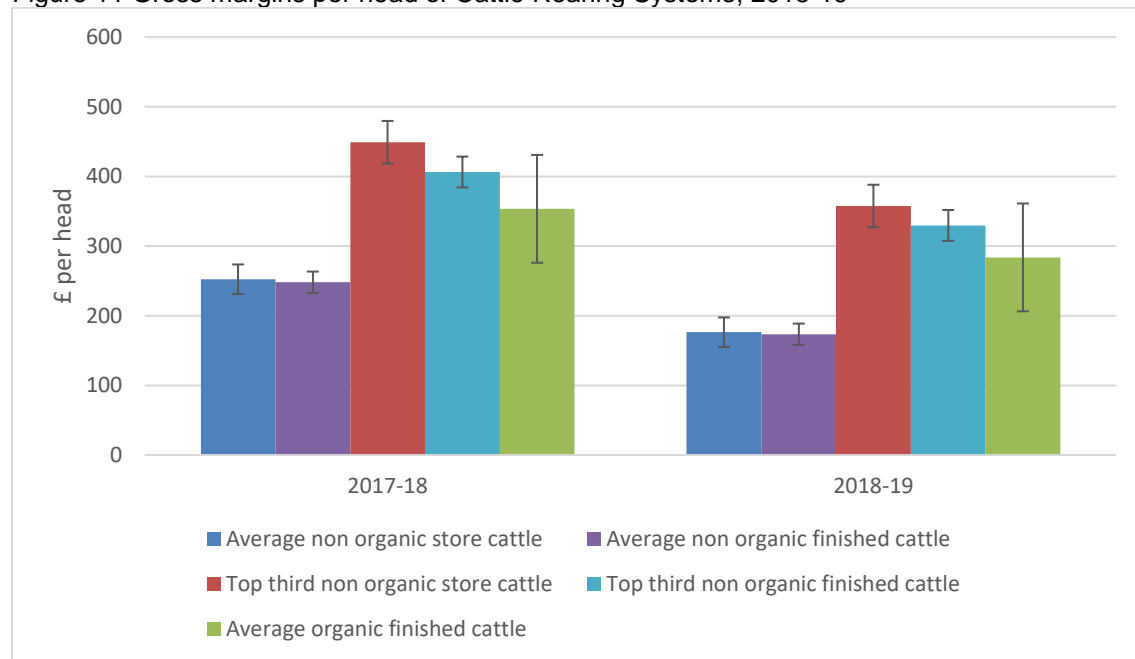
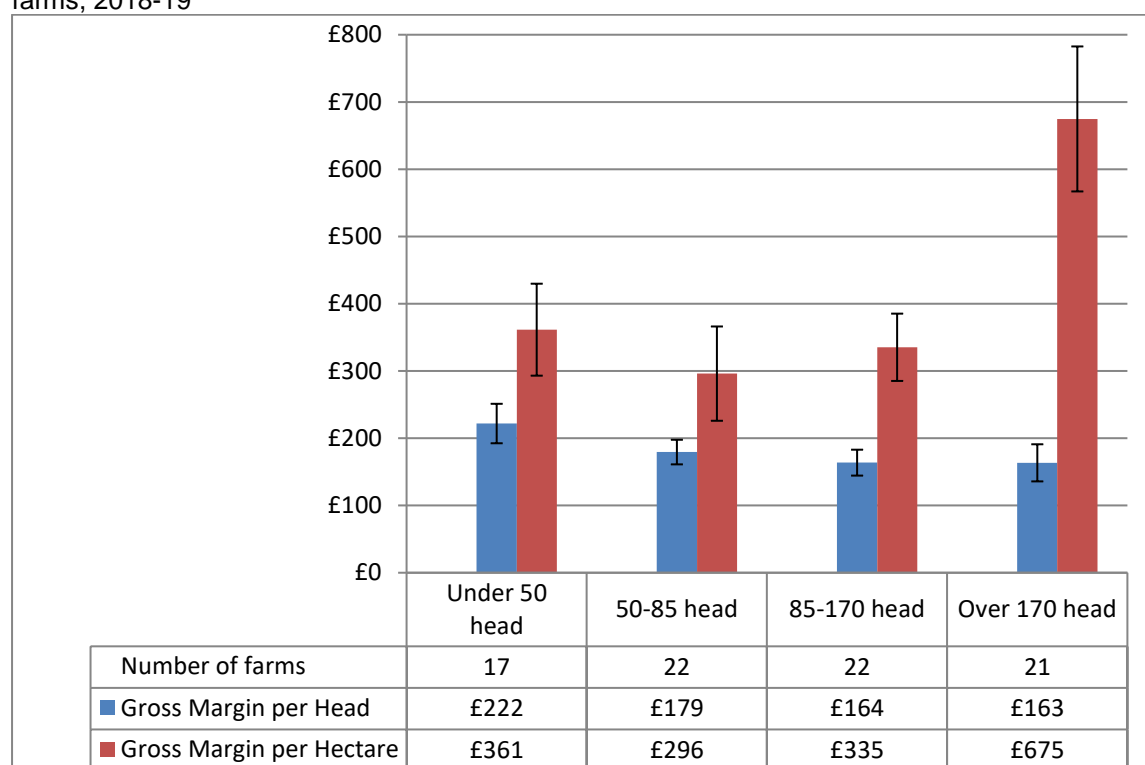


Figure 12 Beef Bred Finished Cattle Gross Margin per Head & per Hectare, by herd size non-organic farms, 2018-19



<sup>10</sup> The 2017-18 year has been recalculated on the 2013 Standard Output basis

Table 12 –Lowland Ewe Gross Margin data, 2018-19

Gross margins per ewe and per hectare				2018/19
(Weighted average performance)		Average		Top Third*
		Non-organic	Organic	Non-organic
Number of flocks		113	23	38
Ewes per flock		363	222	304
Average lamb sale price - £/lamb		84.4	86.1	87.4
Stocking rate - ewes per hectare		5.5	4.8	7.5
		£ per head		
Output -	lambs	118.6	102.8	156.3
	wool	1.9	2.8	1.9
	depreciation	-12.2	-11.7	-10.7
ENTERPRISE OUTPUT (excl. BLSA)		108.3	94.0	147.5
Concentrates		24.5	7.4	28.1
Coarse fodder		2.1	3.3	2.7
Veterinary and medicines		7.4	8.8	7.5
Other livestock costs		13.2	13.0	14.4
Forage †		6.8	4.8	7.9
TOTAL VARIABLE COSTS ‡		54.0	37.3	60.5
GROSS MARGIN per ewe (excl. BLSA)		54.3	56.7	87.0
GROSS MARGIN per LU (excl.BLSA)		347	362	565
GROSS MARGIN per hectare (excl. BLSA)		299	273	657
Concentrates per £100 of output		23	8	19
Averages - previous year				
Stocking rate:	ewes/ hectare	5.3	4.8	7.1
Gross Margin: £/ewe		64.0	61.8	87.2
Gross Margin: £/ha		336	300	623
Average finished sale price- £ /head		82.2	80.6	85.2
* Top Third of Weighted Population				
† Forage includes seeds, fertilisers, sprays and other crop costs				
‡ Restricted to concentrates, coarse fodder, veterinary and medicines, other livestock costs and forage.				

\*Top third selected by gross margin per ewe

Figure 13: Lowland Ewe Gross Margin per Head. 2018-19<sup>11</sup>

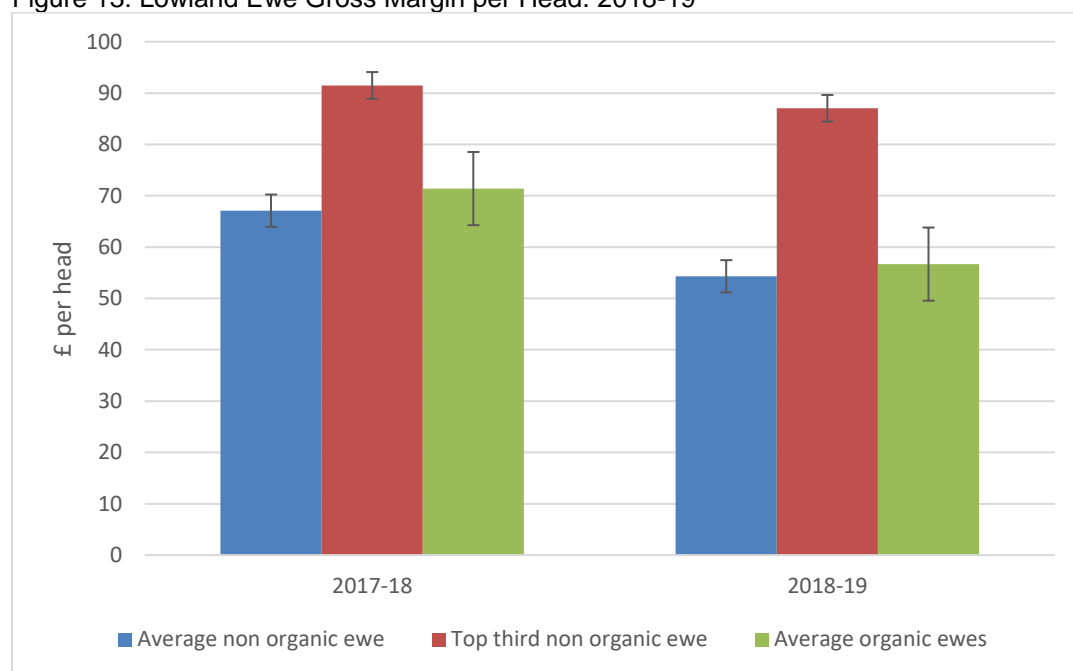
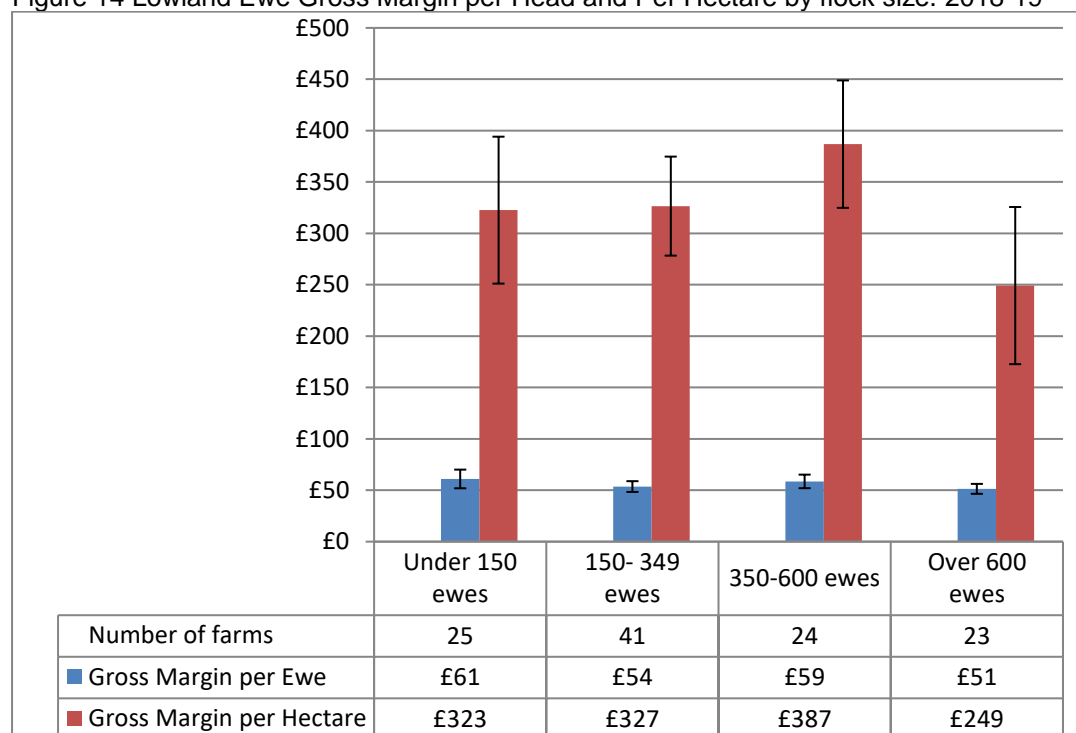


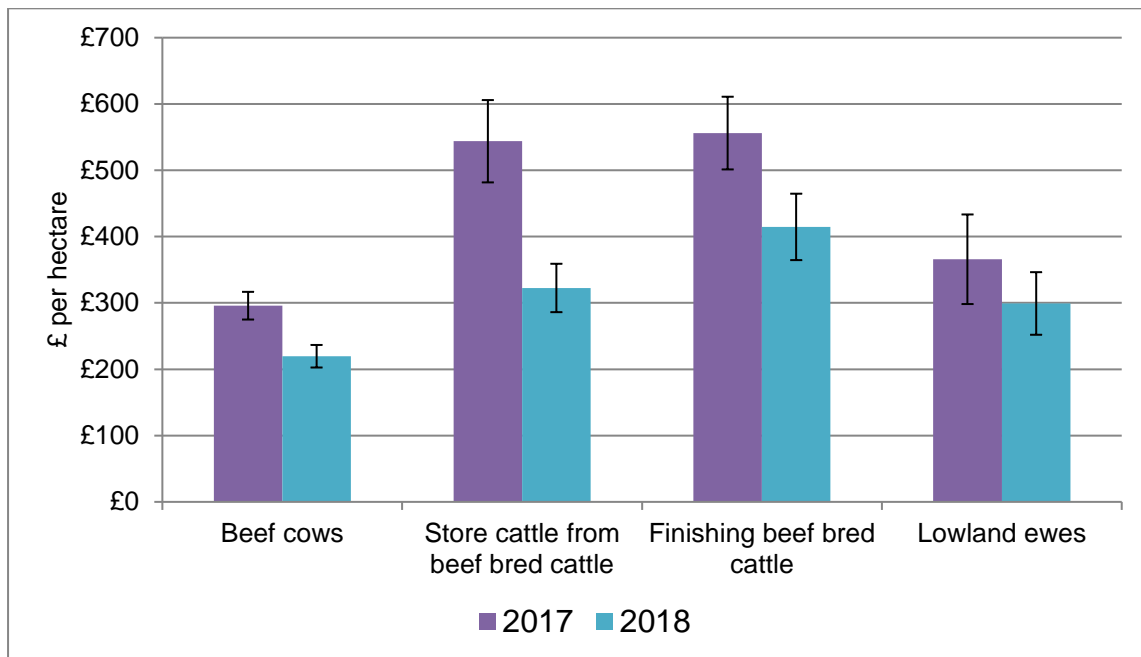
Figure 14 Lowland Ewe Gross Margin per Head and Per Hectare by flock size. 2018-19



<sup>11</sup> The 2017-18 year has been recalculated on the 2013 Standard Output basis



Figure 15 Comparing gross margin per hectare for average non-organic producers 2017 and 2018



## Appendix 1 The Farm Business Survey (FBS)

### General

The FBS sample covers businesses with an economic Standard Output of 25,000 Euros and above. Practically all of the sampled accounts close within the four months from the end of December to the end of the following April with concentrations at the close of the calendar year and towards the end of March and early April. About 75 per cent of the accounts close during these two peak periods. Thus the results relate, on average, to March - February years.

### Classification of survey farms by type of farming and size of business

A revised classification of farm types was introduced in 2010/11 based on Standard Outputs, which caused changes to the distribution of farms by farm type. Further details of the revised classification and its effect on the FBS sample may be found at:

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

The lower size threshold for the Farm Business Survey was also changed from 0.5 Standard Labour Requirements (in annual full-time equivalents) to a standard output of 25,000 Euros. Therefore, the results published here relate to farms for which the total standard output from cropping and stocking activities is at least 25,000 Euros.

The Standard Labour Requirement (SLR) of a farm represents the normal labour requirement, in Full Time Equivalents, for all the enterprises on a farm under typical conditions. The SLR for a farm is calculated from standard coefficients applied to each enterprise on the farm. The standard coefficients represent the input of labour required per head of livestock or per hectare of crops for enterprises of average size and performance.

Farms in the sample are grouped by type of farm based on the EC system of classification defined by Commission Decision 1242/2008 (with minor modifications to adapt it to United Kingdom conditions) and Standard Outputs per hectare of crop area and per head of livestock estimated over the period 2008-2012.

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 crops, this will be the main product (e.g. wheat, barley, peas) plus any by-product that is sold, for example straw. For livestock it will be the value of the main product (milk, eggs, lamb, pork) plus the value of any secondary product (calf, wool) minus the cost of replacement. Up until 2010, standard gross margins were used for the classification of farms. The difference between standard outputs and standard gross margins is that no variable costs are deducted in the derivation of standard outputs. Each farm is assigned a total SO by aggregating the SOs for its agricultural enterprises. The farm is classified into a 'particular' type of farming by evaluating the proportion of its total SO deriving from different enterprises.

From 2018/19, the classification of farms is based on 2013 standard output (SO) coefficients. 2017/18 results have been recalculated and presented in this report on 2013 SO coefficients to allow comparability between 2017/18 and 2018/19. The results published here are therefore not directly comparable with those published in reports in earlier years which are based on previous SO coefficients. Results for 2017/18 based on the previous SO coefficients can be found at:

<https://www.ruralbusinessresearch.co.uk/archive-publications/>

The characteristics of each farm type are summarised as follows:-

**Cereals-** Farms on which cereals, oilseeds, peas and beans harvested dry account for over two-thirds of their total SO (holdings with more than two-thirds of their total SO in set-aside are excluded from the survey results).

**General cropping-** Farms with over two-thirds of their total SO in arable crops (including field scale vegetables) or a mixture of arable and horticultural crops; and holdings where arable crops account for more than one-third of total SO and no other grouping accounts for more than one-third.

**Dairy-Farms** where the dairy enterprise, including followers, accounts for over two-thirds of their total SO.

**LFA grazing livestock-Farms** with more than two-thirds of their total SO in cattle and sheep except holdings classified as dairy. A farm is classified as in the LFA if 50% or more of its total area is in the EC Less Favoured Area (both Disadvantaged and Severely Disadvantaged).

**Lowland grazing livestock-farms** with more than two-thirds of their total SO in cattle and sheep except holdings classified as dairy. A farm is classified as "lowland" if less than 50% of its total area is in the EC Less Favoured Area.

**Horticulture-** Holdings on which fruit (including vineyards), hardy nursery stock, glasshouse flowers and vegetables, market garden scale vegetables, outdoor bulbs and flowers, and mushrooms account for more than two thirds of their total SO

**Specialist pigs-** Farms on which pigs account for over two-thirds of their total SO.

**Specialist poultry -Farms** on which poultry account for over two-thirds of their total SO.

**Mixed farms-** Farms where crops account for one-third, but less than two-thirds of total SO and livestock accounts for one-third, but less than two-thirds of total SO. It also includes holdings with mixtures of cattle and sheep and pigs and poultry and holdings where one or other of these groups is dominant, but does not account for more than two-thirds of the total SO.

Farm business size in the United Kingdom is measured in Standard Labour Requirements (SLR) expressed in terms of full-time equivalents. Five size groups are defined for this report:

- Part-time (less than 1 SLR)
- Small (greater than or equal to 1 less than 2 SLR's)
- Medium (greater than or equal to 2 less than 3 SLR's)
- Large (greater than or equal to 3 less than 5) SLR's
- Very Large (greater than or equal to 5 SLR's)

Farms are allocated to performance bands according to total farm output divided by total farm costs. The farms are then ranked and allocated to groups representing 25, 50 and 25 percentiles; equivalent to low, medium and high performance bands.

### Weighting Procedure

All results in this report are weighted so as to provide estimates for the population. The weights are based on the ratio of numbers of businesses in the population (as given by the June Survey) and in the sample within each farm type and size group. These weights are then further refined by a calibration process using information from sources other than the Census (mostly administrative data). For more information on the FBS weighting procedure and other statistical issues, please see:

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

### Definition of Terms

**Utilised agricultural area** is the crop area, including fodder, set-aside land, temporary and permanent grass and rough grazing in sole occupation (but not shared rough grazing) i.e. the agricultural area of the farm. It includes bare land and forage let out for less than one year.

**Total area of farm** is the utilised agricultural area plus woodland and other areas of the farm not used for agriculture (e.g. buildings, roads, water, and household gardens).

**Total tillage** comprises the utilised agricultural area, plus bare land and forage hired in from others in the accounting period, minus temporary and permanent grass and rough grazing in sole occupation (but not shared rough grazing).

**Total area farmed** comprises the total area of the farm minus woodlands and buildings, etc. plus net land hired in.

**Adjusted utilised agricultural area** comprises the utilised agricultural area with rough grazing in sole occupation converted to a permanent pasture equivalent.

**Stocking** figures are the average annual level of stocking based on estimated average livestock numbers on the farm for the year, including fractions for livestock on the farm for less than a year.

**Total livestock units** are used as an approximate measure of stocking intensity and are based on the estimated energy requirements of different species and ages of livestock. . A summary of the main livestock units is shown below

Dairy cows	1.00 LU	Beef Cows	0.75 LU	Heifers in calf	0.80 LU
Cattle over 2 years	0.80 LU	Cattle 1-2 years	0.65 LU	Cattle 0-12 months	0.34 LU
Bulls	0.75 LU	Lowland Ewes	0.10 LU	Upland Ewes	0.08 LU
Hill Ewes	0.06 LU	Store lambs	0.04 LU	Rams	0.08 LU

**Annual labour units (ALU)** are the estimated number of full time worker equivalents of persons working on the holding during the year. Part-time workers are converted to full-time equivalents in proportion to their actual working time related to that of a full-time worker. One ALU represents one person employed for 2,200 hours.

**Enterprise output** is the main measure of individual crop and livestock output. It comprises:

- (a) **Cash crop enterprise output**, which is the total value of cash crops produced by the farm (other than losses in the field and in store) including *direct crop subsidies* due. It includes crops used for feed and seed by the farm business and those consumed in the farmhouse and by farm labour. Crop enterprise output is calculated on a "harvest year" as distinct from an "accounting year" basis; that is, it refers only to those crops (with the exception of certain horticultural crops) wholly or partly harvested during the accounting year and excludes any crop carried over from the previous year. Thus valuation changes (between the previous and current crops) are not relevant and the total harvested yield of the crop is valued at market prices (plus any subsidies). However, any difference between the opening valuation of any stocks of previous crops and their ultimate disposal value (sales, used on farm and any end-year stocks) is included in total farm output and net farm income.
- (b) **By-products, forage and cultivations**, which cover the value of output of the by-products of agricultural activity, sales of fodder, valuation changes for fodder and cultivations. It also covers revenue from the letting of bare land or forage on a short-term lease.
- (c) **Livestock enterprise output** comprises the total sales of livestock and livestock products, part of the valuation change (see below), produce consumed in the farmhouse and by labour and the value of milk and milk products fed on the farm (excluding direct suckling) adjusted for debtors at the beginning and end of the year and transfers between enterprises; less purchases of livestock and livestock products from outside the farm business. Stock appreciation for breeding livestock (cattle, sheep and pigs) has been excluded from individual livestock enterprise outputs. However, changes in the numbers of breeding livestock between the opening and closing valuation and the total valuation change of trading livestock are included. Unlike crop enterprise output, livestock enterprise output is calculated on an accounting year basis.
- (d). **Rental Income** comprises the renting-out of farm cottages and other buildings, where these are inseparable from the main farm account
- (e) **Contract work** includes returns from the use of farm resources for hire work
- (f) **Miscellaneous output includes** returns from recreational activities, added value activities, the private share of the rental of the farmhouse and the value of any farm labour or other inputs used for producing capital assets for the farm.

**Total farm output** is the sum of crop and livestock enterprise output, income from the agri-environment schemes, Basic payment scheme and miscellaneous output, and the adjustment for previous years' crops. It excludes breeding livestock stock appreciation.

**Inputs** comprise payments and the estimated value of non-cash inputs, including home-grown feed and seed, adjusted for changes in stocks and creditors between the beginning and end of the year. The appropriate share of any input not used entirely by the farm business is deducted.

#### **Total variable costs**

These are taken to be costs of feed, veterinary fees and medicines, other livestock costs, seeds, fertilisers, crop protection and other crop costs.

**Concentrate feed** includes (a) bought compounds and grains, sugar beet pulp, proteins, milk powder, animal and plant proteins, additives, minerals and vitamins; and (b) home produced cereals, beans, peas, milk and milk products, valued at the average ex-farm price.

**Purchased Fodder** includes purchased bulk feeds such as potatoes, vegetable residues, wet brewers' grains, hay and feed straw, and agistment. It does not include forage produced on the holding. Payments for grass keep and bare land are shown with land charges.

**Veterinary fees and medicines** consist of veterinary fees and the cost of all medicines.

**Other livestock costs** includes all expenditure relating directly to livestock production such as freeze branding, AI fees, milk tests, breed society fees, dairy and other detergents, packing materials, bedding straw, show expenses, processing and marketing charges, disposal of casualties, etc. and other livestock costs not separately identified.

**Seeds** This comprises expenditure on purchased seeds, plants and trees adjusted for changes in stocks. Home-grown seed from the previous crop is included and charged at estimated market price: any seeds from current crops and sown for a succeeding crop are excluded, but are included in the closing valuation of the crop and hence in enterprise output. This enables the value of homegrown seed used in the production of the current crop to be identified.

**Fertilizers** This includes lime, fertilisers and other manures, and is adjusted for changes in stock. Fertilisers sown for next year's crops are treated as if they were still in store and are included in the closing valuation.

**Crop protection** This includes costs of pre-emergent sprays, fungicides, herbicides, dusts and insecticides and other crop sprays.

**Other crop costs** includes all expenditure relating directly to crop production such as packing materials, baler cord, soil analyses, crop competition costs, polythene (for tunnels), all storage and market preparation costs, purchase of standing crops, marketing charges, soil sterilisation, etc. It also includes the cost of renting bare land (for growing cash crops) for less than one year.

### **Total fixed costs**

These are the costs of labour, machinery, contract work, land and buildings, other general farming costs and depreciation.

**Labour (excluding farmer and spouse)** costs include all work in connection with the normal running of the holding including field work, livestock husbandry, market preparation, maintenance, transport and other related operations. They exclude work to produce fixed assets (construction or repairs of buildings and machinery, etc.), domestic work and business travel/professional meetings, etc. 'Unpaid' labour is valued at the appropriate rate for the work actually done. The value of the manual labour of the farmer and spouse is not charged as an input in calculating net farm income.

**Contract costs** These costs include expenditure on work carried out by agricultural contractors, including the costs of materials employed, such as fertilisers, unless these can be allocated to the specific heading. Costs of hiring machines to be used by the farm's own labour are also included. Expenditure on contract labour is only included here if it is associated with the hiring of a machine. Otherwise it is entered under (casual) labour.

**Machinery costs** relate to all machinery and equipment items, which originally cost more than £500, including the farm share of road vehicles. Depreciation is calculated on a replacement cost basis (broadly equivalent to 15% of current replacement costs). Repairs are recorded net of insurance receipts.

**Land expenses** include tenant-type repairs and land upkeep costs as Property repairs, the actual rents paid by tenant farmers and drainage rates where incurred. Payments for grass keep and bare land are also included. For land and buildings owned a 'rental value' is included based on similar payments made by tenants in similar circumstances.

**General overheads** include the farm share of electricity, heating fuel, water, insurance (including labour and buildings insurance) and professional fees. Bank charges secretarial costs, consultancy fees and other sundry costs (such as subscriptions, telephone, postage, stationery, etc.) are included in Other general costs.

**Net Farm Income (NFI)** is intended as a consistent measure of the profitability of tenant-type farming which allows farms of different business organisation, tenure and indebtedness to be compared. It represents the return to the farmer and spouse alone for their manual and managerial labour and on the tenant-type capital invested in the farm business.

To represent the return to farmer and spouse alone, a notional deduction is made for any unpaid labour provided by non-principal partners and directors, their spouses and by others; this unpaid labour is valued at average local market rates for manual agricultural work.

To confine the measure to the tenant-type activities and assets of the business, an imputed rent is deducted for owner-occupied land and buildings and for landlord-type improvements made by the tenant. No deduction is made for interest payments on any farming loans, overdrafts or mortgages; interest earned on financial assets is also excluded.

Because of these two restrictions, NFI is not a proxy for farm business income; other measures, such as Net Profit and Family Farm Income should be used instead. Nor is it a proxy for farm household

income both because NFI does not accurately represent the farmer and spouse share of the business and because it takes no account of any income from off-farm sources.

**Breeding livestock stock appreciation** represents the change in market prices of breeding cattle, sheep and pigs between the opening and closing valuations.

**Farm business income (FBI)** for sole traders and partnerships represents the financial return to all unpaid labour (farmers and spouses, non-principal partners and directors and their spouses and family workers) and on all their capital invested in the farm business, including land and buildings. It is defined as Total Farm Output (TFO) plus profit / loss on sale of assets minus cost (C): where TFO is defined as the sum of output from: crop enterprises, adjustment for disposal of previous crops, livestock enterprises, separable non-agricultural diversification, Basic farm payment, agri-environmental payments, other grants and subsidies, miscellaneous receipts; C is defined as variable costs plus fixed costs. Note that prior to 2008/09 directors remuneration was not deducted in the calculation of farm business income. For corporate businesses it represents the financial return on the shareholders capital invested in the farm business. It is used when assessing the impact of new policies or regulations on the individual farm business. Although Farm Business Income is equivalent to financial Net Profit, in practice they are likely to differ because Net Profit is derived from financial accounting principles whereas Farm Business Income is derived from management accounting principles. For example in financial accounting output stocks are usually valued at cost of production, whereas in management accounting they are usually valued at market price. In financial accounting depreciation is usually calculated at historic cost whereas in management accounting it is often calculated at replacement cost.

**Farm corporate income** represents the return on own capital invested in the farm business, to risk and to entrepreneurship. It is derived by deducting unpaid labour, both manual and managerial, from Farm Business Profit. This allows the profitability of sole traders and partnerships to be compared directly with that of other companies. Currently we are able to deduct an estimate of unpaid manual labour but not of unpaid managerial labour and so the data are only approximate. However, we plan to undertake a research project to produce a method for deriving an estimate of unpaid managerial labour, so that we can produce better data for this measure in future.

**Farm investment income** represents the return on **all** capital invested in the farm business **whether borrowed or not**, to risk and to entrepreneurship. It is a general measure of the profitability of farming as an activity rather than of a particular business.

It is derived by adding net interest payments to Farm Corporate Income. Since currently the data for Farm Corporate income are only approximate, so too are the data for Farm Investment Income.

### Balance Sheet Tables

**Total fixed assets** include milk and livestock quotas, as well as land, buildings, breeding livestock, and machinery and equipment. For tenanted farmers, assets can include farm buildings, cottages, quotas, etc., where these are owned by the occupier.

**Bank term loans** and **other long and medium term loans** are loans which exceed 12 months.

**Net Worth** represents the residual claim or interest of the owner in the business. It is the balance sheet value of assets available to the owner of the business after all other claims against these assets have been met.

**Appendix 2 Reports in this series:**

Reports in this series:

Crop Production in England

Dairy Farming in England

Hill Farming in England

Horticulture Production in England

Lowland Grazing Livestock Production in England

Organic Farming in England

Pig Production in England

Poultry Production in England

Details available at [www.ruralbusinessresearch.co.uk](http://www.ruralbusinessresearch.co.uk)





ISBN: 978-1-9163332-0-8

RBR at Duchy  
Rural Business School  
Duchy College  
Stoke Climsland  
Callington  
Cornwall  
PL17 8PB

Phone 01579 372377  
Fax 01579 372292

[www.ruralbusinessresearch.co.uk](http://www.ruralbusinessresearch.co.uk)