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Farm Business Survey

2021-22

Lowland Grazing Livestock Production in England

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RBR

independent research, data and analysis

Rural Business Research

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Readers should be aware that Defra have not reviewed this report nor have they cross-checked the figures with those from their publications. The structure and content are based on the 2021 reports which Defra have previously approved. Any errors or omissions are the responsibility of the author(s) and not of Defra.

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. 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 Seventeenth and Final Series

Welcome to this seventeenth and final series of reports on the economics of agriculture and horticulture in England produced from *Rural Business Research (RBR).* Over the last seventeen years, RBR, our leading academic consortium comprising the Universities of Cambridge, Newcastle, Nottingham and Reading, and Askham Bryan and Duchy Colleges has, as detailed in Professor Seabrook's first foreword in this series, set out through these reports to "*make a valuable and useful contribution to the farming industry*". Reflecting on these series of reports, and the research and analysis that lies behind them, I am confident that we have both achieved and surpassed these initial aims, as evidenced through their longevity in production and loyalty of readership.

This final series draws on the 2021/22 financial year for farmers and growers, and covers the 2021 harvest year. Over this financial year, average Farm Business Income (FBI), derived from our work on the Defra-funded Farm Business Survey (FBS), increased to £86,100 per business, representing an increase of 66% on 2020/21. In percentage increase terms, General Cropping, Lowland Grazing Livestock and Mixed farm types saw FBI increase of 117, 85 and 84% respectively. At the top end of these average incomes per farm business, General Cropping, Dairy and Specialist Poultry received average FBIs in the order of £140,000. In contrast and borne out by the structural change we are witnessing in the pig sector, average FBI returns to Specialists Pig farms decreased by 75%, leaving an average FBI of only £11,800. The challenges and opportunities currently facing farmers and growers are many and varied, ranging from supply reductions and increased demand driving up commodity prices, to major shortages or greatly inflated prices of key inputs such as feed, fuel and fertiliser, to the ongoing challenges of attracting labour to our industry.

Of course, at the same time, for many farmers and growers the reduction, and the eventual loss, of the Basic Payment is now becoming a dawning realisation. Many businesses, on the back of strong FBI performances, will be well placed to adapt. However, for others, and in particular grazing livestock businesses, this payment reduction and eventual loss will be a hard pill to swallow. As we approach the mid-point years of the "2021-2027 Agricultural Transition" evidencing the economics of agricultural and horticultural businesses will grow in importance. Policy makers will rightly continue to draw on the FBS as the most authoritative evidence base of the changing fortunes of agriculture and horticulture. At the heart of this evidence base, across England over the last 86 years, has been the Universities and Colleges that have supported the methodological development of the FBS with Defra, working alongside colleagues in Wales and Scotland in a partnership approach, to deliver the Gold Standard of data quality upon which we have all become reliant. It is therefore with a heavy heart that, following the outcome of a recent open tender for this work, I announce that our specialist consortium will no longer be delivering this important work in the future. The FBS in England is of crucial importance to the farming industry and I wish it well in its new future under Promar International's delivery, and hope that RBR's collective 86 years of expertise and input serves as a strong basis for its continued success.

As I draw this seventeenth and final series to a close, I do so by thanking Defra for funding this vital work over the years, and to the thousands of farmers and growers who have, over nearly nine decades, freely shared their information, farm business data and time with us for the benefit of the industry. I also thank most of all both current and former colleagues from the universities and colleges who have worked on the FBS and who may continue to do so; it is their professionalism and dedication that has delivered every year, frequently against the backdrop of enormous challenge, and it has been the greatest of professional privileges to have led this team over the last 16 years.

Professor Paul Wilson
Chief Executive Officer, Rural Business Research
December 2022

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Key Findings of Lowland Grazing Livestock Production in England 2021-22

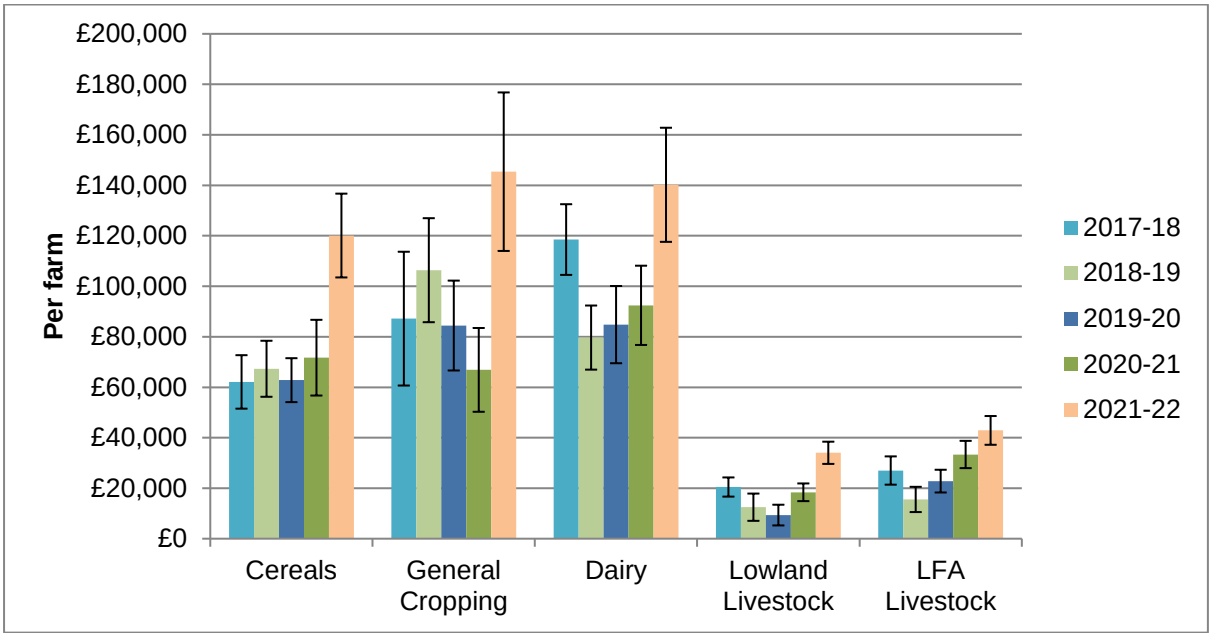
- Lowland Grazing Livestock farms account for about a quarter of commercial holdings in England. The majority, nearly three quarters, of these businesses are small or part-time. All other farm types are, on average, larger businesses.

- The average Farm Business Income (which closely resembles farm profit) for 2021-22 for the Lowland Grazing Livestock farms in England was £34,027 per farm, an increase of £15,640 as compared to the previous year and the highest for two decades.

- Within the Farm Business Income streams, the Agricultural element had the largest improvement with the other three elements broadly similar to the previous year but increasing.

- As compared to the other lowland land-based farm types in England, the Grazing Livestock farms produce the lowest incomes per farm and per hectare

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



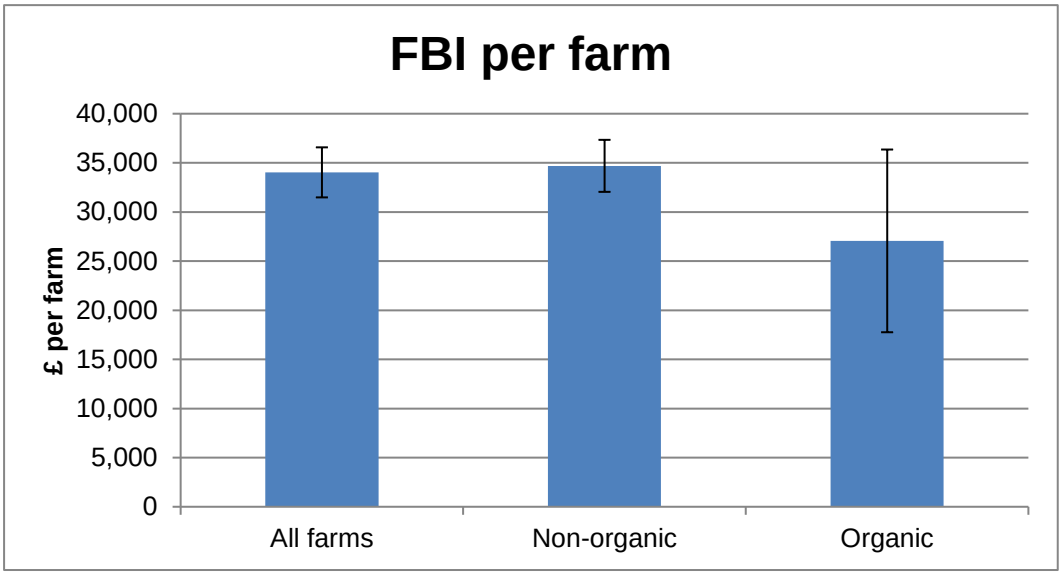
Source: [Farm Business Income by type of farm in England 2021/22 - GOV.UK (www.gov.uk)]

- Farm size is important, with the better performing businesses (based on the ratio of output/input) being much larger farms. The Low Performance Band producers farmed less than half the area of the High Performance producers and produced a lower Farm Business Income per hectare, a loss of £17 per hectare compared to an income of £554 per hectare for the High Performers.

- For the average Lowland Grazing Livestock farm in 2021-22 the value of unpaid labour used by the business was estimated to be £31,925 with private drawings coming to £23,424. Thus, these businesses are 'rewarding' themselves at 73% the appropriate market rate for their labour. For this year the Farm Business Income is £2,100 higher than the private drawings, thus representing a small financial return on their capital invested in the business.

- This year's sub-sample of organic producers' farm, broadly, a similar area to their non-organic contemporaries, farming 92% of the land 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. 2021-22



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 2021-22 would be making a Farm Business Income of £16,273.

- From the gross margin analysis the premium (top third) producers, as ranked by gross margin per head, have gross margins 58% higher for the lowland beef cows and rearing cattle to sell as stores were 46% higher. Top third producers of finishing cattle have gross margins 64% higher than the average with lowland breeding ewes the top third producers are 46% better.

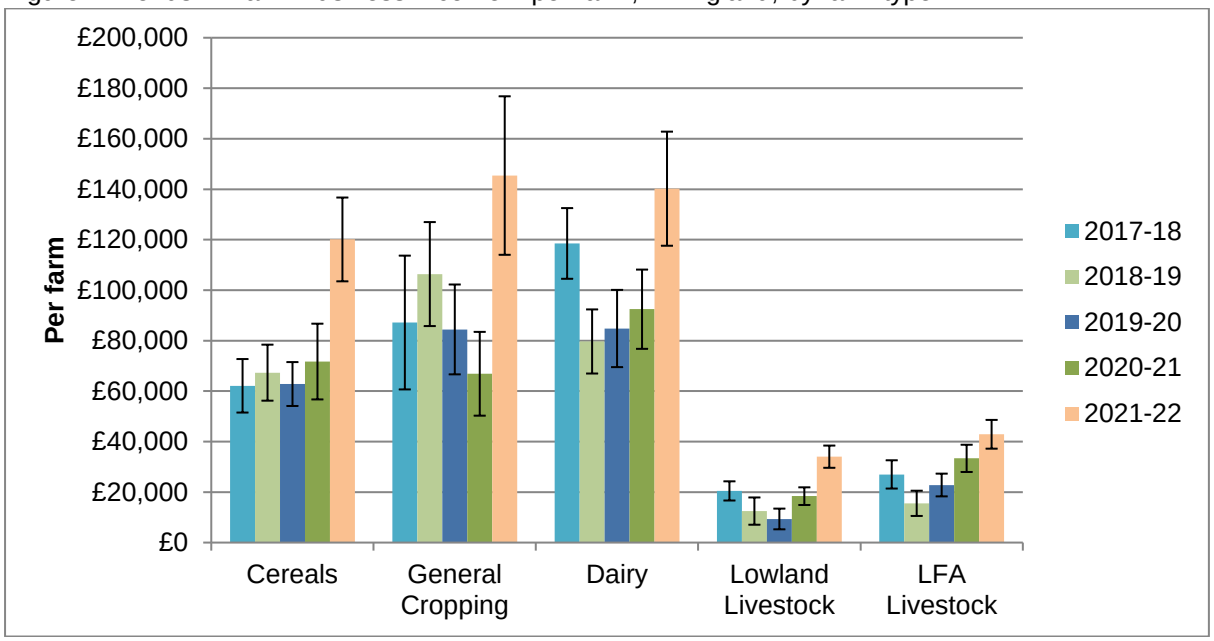
- Comparing the gross margin per hectare across the differing livestock enterprises on the Lowland Grazing Livestock farms, the beef bred finishing cattle producers have the highest margin followed by beef bred store cattle and the lowland breeding ewes. Beef cows produce the lowest gross margin per hectare. This relative ranking has not changed significantly in a number of years.

Lowland Grazing Livestock Production in England 2021-22

- It is important to note that all surveys are subject to sampling error as they are not measuring the whole population, the Farm Business Survey (FBS) is no exception. It is common practice to publish 95% confidence intervals and error bars alongside any published estimated figures to give the reader an indication of the size of the sampling error. These signify that we are 95% confident that this range contains the true value. For simplicity within these reports, the confidence intervals have not always been published. Readers should be aware that the figures calculated from the FBS data have a level of uncertainty around them and that all figures are estimates. Generally, the smaller the sample size the greater the sampling error and the less confidence we have in the estimates. For details on the FBS confidence intervals, please refer to Defra FBS publications https://www.gov.uk/government/collections/farm-business-survey
- Of those farm businesses in England that are eligible for the Farm Business Survey about a fifth are classified as Lowland Grazing Livestock[1] with more than three quarters classed as either part-time or small.
- 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 a per hectare basis (Figure 2).
- From 2017 to 2019 there was a decline in the Farm Business Income for Lowland Grazing Livestock businesses but there has been a recovery in the last two years and 2021 is the highest income for more than a decade. 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. It illustrates that the largest variation in income between years comes from the Agriculture cost centre, which until this year, has not made a positive contribution for a considerable time.
- 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 volatility since 2017. Output prices from cattle and sheep have also seen changes and volatility in the same period. The 2021 year indicated increases in all the illustrated costs and output.

[1] 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 Less Favoured Area.

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



Source: Farm Business Income by type of farm in England 2021/22 - GOV.UK (www.gov.uk)

Figure 2 Farm Business Income per hectare in England 2021-22, by Farm Type

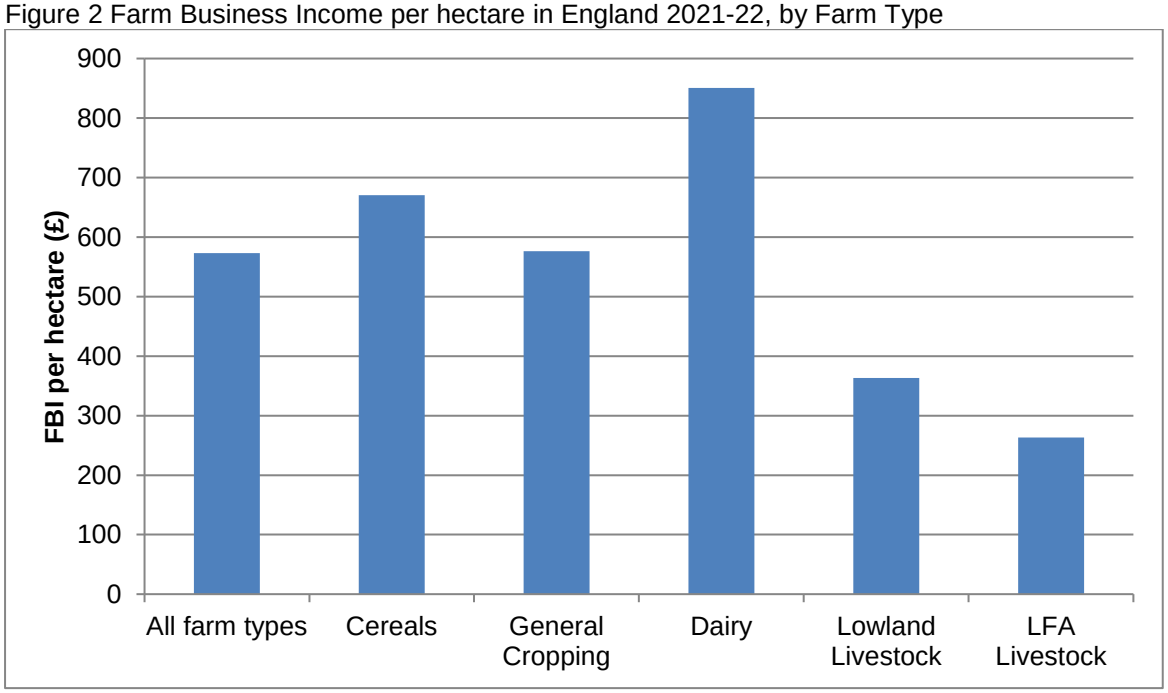


Figure 3 Lowland Grazing Livestock farms in England - Average Farm Business Income by Cost Centre 2017-2021 crop years

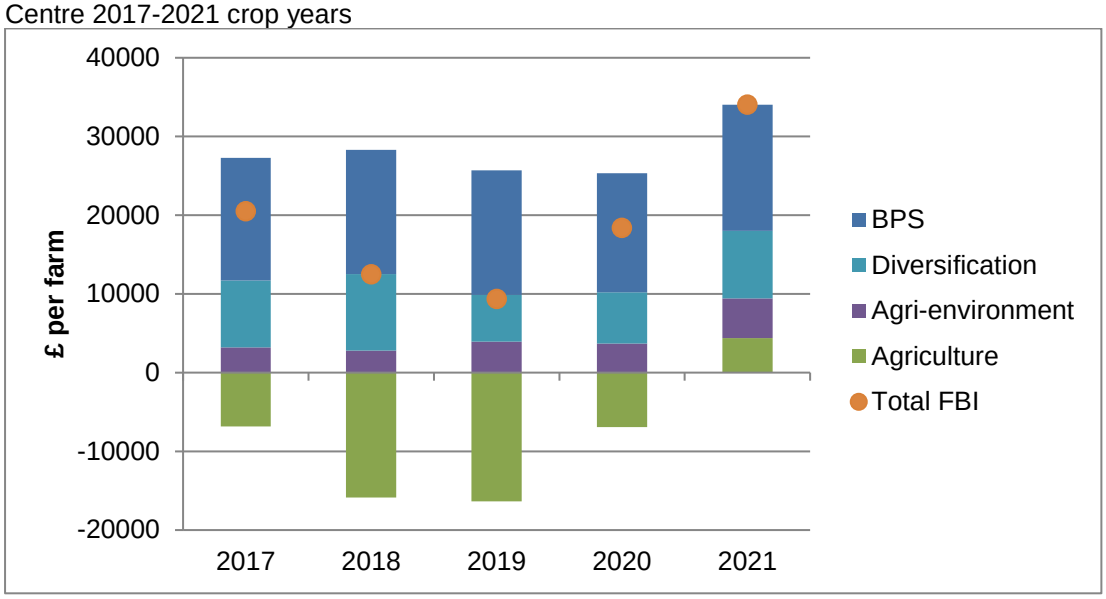
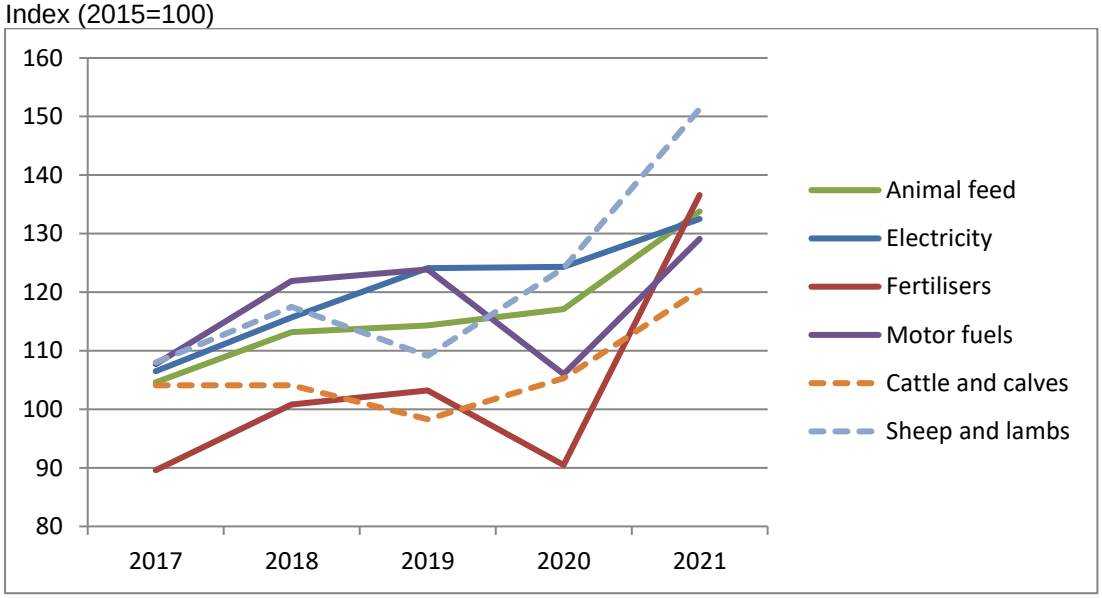


Figure 4 Indices of Producer and input Prices of Agricultural Products (United Kingdom) Index (2015=100)



Source: Defra, API

Lowland Grazing Livestock Production in 2021-22 detailed results

- This report uses data extracted from the Farm Business Survey (FBS) for this important group of farms and includes data from 280 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).
- The results for the FBS farms for 2021-22 show an increase in Farm Business Income per average farm from 2020-21 to £34,027, an uplift of £15,640. Basic Payment Scheme income was £822 higher and £2,094 more income from diversification. The Agri-environmental income stream increased by £1,317 but the largest increase in income came from 'agriculture' which was over £11,307 higher and the best for at least a decade. The Net Farm Income £23,159 per farm, again a similar increase on the previous year's figure. (Table 1).

- The average Lowland Grazing Livestock farm was 55% owner occupied and the average area farmed was 93.7 hectares. Permanent grassland and rough grazing covers 70% of the area with temporary grassland and fodder crops another 17%. The stocking rate is low, emphasising the 'extensive' type of production adopted by this farm type, with only 1.0 Grazing Livestock Units per hectare. Cattle account for 68% of these livestock units (Table 2).
- The balance sheet for the average farm shows over £111,000 of liabilities with the majority of borrowing held by the banks, as loans or overdraft. Total assets for the business of £1,339,000 are dominated by the land and buildings which account for 81% 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 £41,603 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 £32,000 was spent on capital purchases. There was £8,000 net investment in land and property, whilst machinery investment was close to £15,000. The machinery pool on these farms was more than maintained, with re-investment being £6,500 more than the level of machinery depreciation charged to these businesses. This left a farm fund flow surplus of over £9,800. The private drawings from the farm were £23,000 offset by £5,000 of net transfer in of private funds, resulting in a £8,500 deficit, reflected in a decrease in net bank balances. 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. This year these introductions were lower than normal, a reflection of better profitability this year.
- 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.[2] 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. Variable costs are reflective of the output achieved and broadly similar across all performance levels but substantial cost savings are made with fixed costs. 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 organic farms are 8% smaller than their non-organic counterparts but the percentage of the land they own is 29% 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 renewable energy production but less from livestock and crops. For the organic producers the output from the agri-environment type schemes is more than twice the 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; 39% the level of non-organic producers. The resulting total gross margin per

[2] 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.

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 per farm and per hectare, but the difference is not statistically significant (Table 6).

- Farm size can be described in terms of Standard Labour Requirement[3]. The average size of the Part-time farms is 48 hectares (118 acres), compared to the Very Large farms, which are close to nine times larger 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 29% of their farmed area to Very Large farms renting 79% of the land they farm. As a trend the gross margin per hectare is similar across size of business but with the Very Large having lower per hectare gross margin. On a per hectare basis the Very Large farms have a gross margin of 70% the level achieved by the Part-time businesses. In general the fixed costs per hectare reduce with scale of business.

[3] Full details of the definitions relating to farm size are given in Appendix 1.

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

Financial details, 2021/22		**Performance Level**		
	Average all farms	**Low**	**Medium**	**High**
Number of farms in group	280	50	134	96
Average farmed area (hectares)	93.7	59.3	82.9	149.1
Average % of owned total farmed area	55%	58%	60%	49%
	£ per farm			
Output				
Cattle	48,974	25,458	45,870	78,235
Sheep	25,524	9,233	23,428	45,684
Other livestock	1,143	353	1,934	341
Crops	8,003	665	6,495	18,208
Forage	5,680	2,496	6,745	6,685
Environmental schemes	6,070	2,514	4,471	12,744
Basic Payment Scheme	17,754	11,087	16,666	26,462
Rental income	6,378	2,476	5,776	11,405
Contract work	5,260	2,312	6,291	6,100
Renewable energy production	1,810	986	1,188	3,857
Miscellaneous output	10,756	2,047	14,372	12,101
Total Farm Output	137,351	59,627	133,236	221,822
Variable costs				
Concentrates	15,687	6,041	15,969	24,592
Purchased fodder	1,848	1,211	1,724	2,721
Veterinary and medicines	3,408	1,899	3,421	4,863
Other livestock costs	8,310	5,023	8,451	11,252
Seeds	1,379	406	1,297	2,498
Fertilisers	4,183	1,802	4,152	6,582
Crop protection	1,160	315	1,095	2,116
Other crop costs	932	541	1,064	1,052
Total Variable Costs	36,907	17,238	37,175	55,678
Gross Margin	100,444	42,390	96,061	166,144
Fixed costs				
Paid labour	5,728	2,410	5,801	8,839
Contract	6,752	4,202	6,979	8,800
Machinery repairs	5,745	3,652	6,173	6,946
Machinery fuel	4,934	2,848	5,305	6,243
Machinery depreciation	8,909	5,594	8,662	12,654
General costs	14,654	11,248	15,260	16,790
Property maintenance	5,703	3,683	6,294	6,510
Rent, hired in keep and bare land	6,718	4,025	7,036	8,727
Buildings depreciation	4,607	2,912	5,093	5,303
Interest	2,666	2,761	2,511	2,882
Total Fixed Costs	66,416	43,334	69,114	83,693
FARM BUSINESS INCOME	**34,027**	**-945**	**26,947**	**82,451**
All unpaid labour	31,925	33,529	31,973	30,256
Equals - FARM CORPORATE INCOME	2,103	-34,474	-5,026	52,195
Plus - Net Interest	2,591	2,756	2,456	2,697
Equals - FARM INVESTMENT INCOME	4,693	-31,718	-2,570	54,892

Alternative Income Measures, 2021/22					
			Performance Level		
		Average all farms	Low	Medium	High
Reconciliation between Net Farm Income and Farm Business Income					
	FARM BUSINESS INCOME	34,027	-945	26,947	82,451
Plus-	Directors remuneration	338	0	668	11
Less-	Net income from assets associated with the farm business	0	0	0	0
Plus-	Buildings and works depreciation	4,607	2,912	5,093	5,303
Plus-	Landlord type expenses	789	392	1,075	609
Plus-	Imputed rental income	503	522	484	522
Less-	Imputed rent and rental value	13,996	9,095	13,793	19,211
Plus-	Net Interest	2,591	2,756	2,456	2,697
Less-	Unpaid labour of partners	5,699	7,043	5,556	4,666
Equals-	NET FARM INCOME**	23,159	-10,501	17,374	67,716
** Excluding Breeding Livestock Stock Appreciation					

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

Land Use and Indicators of Technical Efficiency, 2021/22				
		Performance Level		
	Average all farms	**Low**	**Medium**	**High**
Number of farms in group	280	50	134	96
Average farmed area (hectares)	93.7	59.3	82.9	149.1
Average proportion of owned total farmed area (%)	55%	58%	60%	49%
Land use				
Area of crops	5.3	0.7	4.3	12.1
Temporary grass	13.4	6.0	11.8	24.0
Permanent grass	63.0	45.2	54.1	98.2
Fodder crops	2.2	0.5	2.4	3.2
Rough grazing	2.5	1.3	3.0	2.7
Uncropped, fallow and turf	1.0	0.9	0.9	1.3
Forage hired in	6.3	4.8	6.4	7.6
Stocking				
Average number of dairy cows	0	0	0	1
Average number of beef cows	21	19	21	24
Average number of other cattle	77	50	75	109
Average number of ewes	161	69	151	274
Average number of other sheep	172	66	153	313
Grazing livestock units	GLUs per farm			
Dairy cows	0.4	0.0	0.1	1.2
Beef cows	10.6	9.6	10.3	12.2
Other cattle	45.7	31.5	43.5	63.8
Sheep	25.5	10.6	23.5	44.2
Other livestock	1.8	0.9	2.5	1.5
Total	84.0	52.6	79.9	123.0
GLUs per ha	0.96	0.91	1.03	0.91
GLUs per adjusted ha	0.97	0.91	1.06	0.91

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

Balance Sheet, 2021/22		**Performance Level**		
(end of year)	Average all farms	**Low**	**Medium**	**High**
Number of farms in group	280	50	134	96
Average farmed area (hectares)	93.7	59.3	82.9	149.1
Average proportion of owned total farmed area	55%	58%	60%	49%
	£ per farm			
End of year assets & liabilities				
Land & buildings	1,078,801	791,315	1,045,180	1,427,899
Milk quota	0	0	0	0
Basic Payment Scheme	16,765	10,465	15,944	24,582
Machinery	81,421	52,359	78,366	116,026
Tenant's other assets	195	52	274	177
Breeding livestock	49,050	33,956	46,139	69,662
Total fixed assets	**1,226,231**	**888,146**	**1,185,902**	**1,638,347**
Trading livestock	50,521	30,194	44,591	82,282
Crops	2,885	104	2,524	6,333
Forage and cultivations	6,912	4,095	7,339	8,827
Stores	7,124	4,248	7,149	9,898
Debtors and loans	12,438	6,335	12,789	17,728
Bank credit and cash	33,200	17,875	28,270	58,057
Other current assets	0	0	0	0
Total current assets	**113,081**	**62,851**	**102,663**	**183,125**
Total assets	**1,339,312**	**950,997**	**1,288,565**	**1,821,472**
Financed by				
AMC	25,531	17,826	16,101	51,873
Bank loans	35,319	26,391	41,578	31,614
Other long term	16,959	19,932	16,835	14,290
Total long term	**77,809**	**64,148**	**74,515**	**97,778**
HP and lease	6,809	2,423	6,956	10,819
Creditors	12,094	7,086	14,634	11,951
Bank overdraft	13,833	11,947	14,551	14,254
Other short term	618	959	653	215
Total current liabilities	**33,354**	**22,415**	**36,793**	**37,239**
Total Liabilities	**111,163**	**86,563**	**111,308**	**135,016**
Net worth	**1,228,149**	**864,434**	**1,177,257**	**1,686,455**
Balance sheet ratios-				
% Owner equity (net worth v.total assets)	92%	91%	91%	93%
% Fixed assets vs. total assets	92%	93%	92%	90%
Gearing (long-term loans v.total assets)	6%	7%	6%	5%
Total debt (external liabilities v.net worth)	9%	10%	9%	8%

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

FUND FLOWS, 2021/22		**Performance Level**		
	Average all farms	**Low**	**Medium**	**High**
Number of farms in group	280	50	134	96
Average farmed area (hectares)	93.7	59.3	82.9	149.1
Average proportion of owned total farmed area (%)	55%	58%	60%	49%
	£ per farm			
Funds available from trading				
Farm Business Income	34,027	-945	26,947	82,451
Buildings and works depreciation	4,607	2,912	5,093	5,303
Machinery depreciation	8,909	5,594	8,662	12,654
Change in valuation *	-5,940	699	-5,086	-14,159
Trading net fund flow surplus	41,603	8,259	35,616	86,249
Funds used for farm investments				
Net property and quota purchases	8,027	33,916	-1,612	1,819
Net landlord capital purchases	8,344	1,654	12,143	7,343
Net machinery and equipment purchases	15,406	9,489	13,466	25,079
Capital net fund flow	31,777	45,060	23,997	34,240
Total farm fund flow surplus	9,825	-36,800	11,619	52,008
Funds used for private expenditure				
Private drawings	23,424	12,046	22,955	35,523
Net private funds introduced	5,034	36,728	6,628	-29,245
Private fund outflow	18,390	-24,682	16,327	64,768
Total net fund flow surplus	**-8,565**	**-12,118**	**-4,708**	**-12,760**
Increase in loans and deposits	836	9,944	1,281	-8,989
Increase in bank balance	-7,492	-1,398	-2,528	-23,359
Increase in cash in hand	1	-8	5	4
Increase in debtors	1,684	897	2,140	1,548
Increase in creditors	1,922	1,665	3,043	-58
Net change in funding	**8,565**	**12,118**	**4,708**	**12,760**

* An increase in valuation is represented as a negative, with funds being used to increase the live and deadstock valuation

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

Performance Level	Low	Medium	High
Number of farms in group	50	134	96
Average farmed area (hectares)	59.3	82.9	149.1
Average % of owned total farmed area	58%	60%	49%
	£ per hectare		
Livestock and crops	645	1019	1001
Agri- environment type schemes	42	54	85
Basic Payment Scheme	187	201	178
Other	132	333	224
TOTAL FARM OUTPUT	1006	1607	1488
Variable costs			
Livestock specific costs	239	357	291
Crop specific costs	52	92	82
TOTAL VARIABLE COSTS	291	449	373
TOTAL GROSS MARGIN	715	1158	1115
Fixed costs			
Labour	41	70	59
Machinery	275	327	232
General farming costs	190	184	113
Land & Property	179	222	138
Interest paid	47	30	19
TOTAL FIXED COSTS	732	833	561
FARM BUSINESS INCOME	-17	325	554

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

Financial details, 2021/22	Type of Production	
	Non organic	Organic
Number of farms in group	244	36
Average farmed area (hectares)	94.4	86.5
Average % of owned total farmed area	53%	82%
	£ per farm	
Output		
Cattle	50,458	33,409
Sheep	26,521	15,070
Other livestock	1,168	880
Crops	8,474	3,068
Forage	6,050	1,801
Environmental schemes	5,528	11,747
Basic Payment Scheme	17,744	17,857
Rental income	6,526	4,819
Contract work	5,705	593
Renewable energy production	1,366	6,459
Miscellaneous output	11,404	3,956
Total Farm Output	140,945	99,660
Variable costs		
Concentrates	16,826	3,748
Purchased fodder	1,926	1,030
Veterinary and medicines	3,507	2,370
Other livestock costs	8,553	5,756
Seeds	1,402	1,135
Fertilisers	4,545	387
Crop protection	1,268	24
Other crop costs	939	854
Total Variable Costs	38,968	15,303
Gross Margin	101,978	84,356
Fixed costs		
Paid labour	5,774	5,242
Contract	6,886	5,341
Machinery repairs	5,864	4,494
Machinery fuel	5,104	3,156
Machinery depreciation	8,939	8,588
General costs	14,887	12,219
Property maintenance	5,638	6,394
Rent, hired in keep and bare land	7,066	3,070
Buildings depreciation	4,470	6,041
Interest	2,657	2,756
Total Fixed Costs	67,285	57,301
FARM BUSINESS INCOME	**34,692**	**27,055**
All unpaid labour	32,087	30,229
Equals - FARM CORPORATE INCOME	2,606	-3,174
Plus - Net Interest	2,576	2,747
Equals - FARM INVESTMENT INCOME	5,181	-426

Table 7: Income details, by size of business

Financial details, 2021/22	Size of Business				
	Part-time	Small	Medium	Large	Very Large
Number of farms in group	56	86	62	39	37
Average farmed area (hectares)	48.1	86.6	113.6	169.2	409.6
Average % of owned total farmed area	71%	69%	50%	52%	21%
	£ per farm				
Output					
Cattle	24,632	46,189	67,797	108,690	148,282
Sheep	4,847	15,816	45,138	72,142	159,326
Other livestock	354	255	1,106	0	17,822
Crops	1,745	4,773	16,157	21,198	45,537
Forage	4,681	7,072	6,117	6,549	2,894
Environmental schemes	3,349	5,930	8,129	8,451	24,092
Basic Payment Scheme	10,249	17,713	22,138	30,737	56,955
Rental income	4,446	8,531	6,092	8,985	6,586
Contract work	2,910	5,794	9,999	8,806	4,292
Renewable energy production	2,160	1,774	1,024	1,148	2,132
Miscellaneous output	8,070	13,244	15,029	5,483	17,050
Total Farm Output	67,443	127,091	198,726	272,188	484,967
Variable costs					
Concentrates	5,115	12,613	22,593	42,737	74,030
Purchased fodder	615	1,595	3,019	4,223	8,240
Veterinary and medicines	1,317	2,662	4,873	7,052	18,834
Other livestock costs	3,667	7,362	11,883	17,879	33,692
Seeds	638	1,203	1,917	2,934	5,656
Fertilisers	1,705	3,688	6,670	9,779	14,982
Crop protection	356	740	2,003	2,893	6,568
Other crop costs	588	906	1,139	1,666	2,618
Total Variable Costs	14,002	30,769	54,098	89,162	164,621
Gross Margin	53,441	96,322	144,627	183,026	320,346
Fixed costs					
Paid labour	1,704	4,521	9,183	12,011	33,166
Contract	4,175	6,110	8,067	12,181	23,492
Machinery repairs	3,319	5,792	7,922	10,645	14,351
Machinery fuel	2,508	4,617	8,096	9,494	13,785
Machinery depreciation	5,530	8,677	11,422	16,884	22,465
General costs	10,586	16,109	17,580	18,555	29,462
Property maintenance	3,540	6,654	7,854	8,077	9,928
Rent, hired in keep and bare land	2,820	5,773	10,770	12,046	30,954
Buildings depreciation	2,614	6,248	4,641	6,803	8,918
Interest	1,675	2,807	2,628	4,291	8,849
Total Fixed Costs	38,472	67,307	88,163	110,987	195,370
FARM BUSINESS INCOME	**14,969**	**29,015**	**56,465**	**72,039**	**124,976**
All unpaid labour	24,374	35,111	40,444	42,969	39,356
Equals - FARM CORPORATE INCOME	-9,406	-6,096	16,021	29,070	85,620
Plus - Net Interest	1,664	2,694	2,610	4,288	8,062
Equals - FARM INVESTMENT INCOME	-7,741	-3,402	18,631	33,358	93,683

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) is very important, as illustrated in Table 8. The Basic Payment Scheme per farm represents 13% of the Total Output for Lowland Livestock Grazing farms and half 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 of £16,273. Only businesses Medium or larger have a FBI above 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 challenging and unlikely to be sustainable in the current structure even in a relatively very good year for this farm type.

Table 8 Farm Business Income and Basic Payment Scheme, 2021-22

	All Farms	Part-time	Small	Medium	Large	Very Large
	£ per farm					
Farm Business Income	34,027	14,969	29,015	56,465	72,039	124,976
Basic Payment Scheme Income	17,754	10,249	17,713	22,138	30,737	56,955
Farm Business Income less BPS	16,273	4,720	11,302	34,327	41,302	68,021
Private drawings	23,424	17,018	22,950	30,102	34,758	50,605

Farm Business Income by 'Cost Centre'[4]

- The majority of the Farm Business Income comes from the Basic Payment Scheme 'cost centre' - 66% of the total Farm Business Income figure for 'All farms'. (Table 9).
- The Farm Business Income from the Agri-environment cost centre has been relatively steady since 2015 at £3,500, but is slightly higher this year at £5,032. (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, but for the 2019 crop year this fell by nearly £3,800 with a small recovery in 2020 crop year but in 2021 was higher again at £8,582

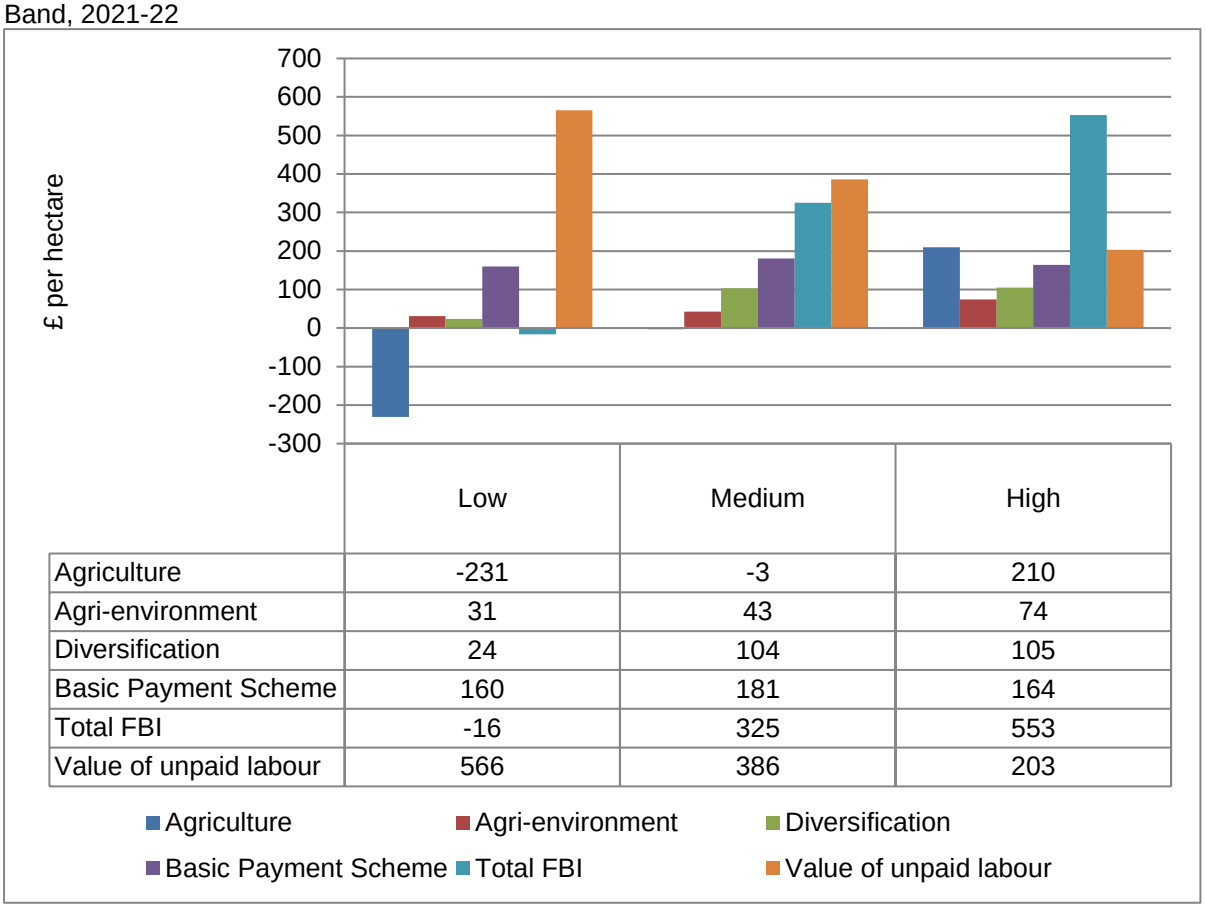
[4] For these calculations, Casual labour and Contracting are considered variable costs rather than fixed costs as in our other tables, and interest is net rather than being shown as an income and a cost.

- For most years the Agriculture cost centre registers a loss but in 2021 an income of £4,379 was seen. Within the last two decades the only other occurrence of a positive income for the Agriculture Cost centre was in 2011 (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 £231 per hectare, the Medium making a loss of £3 and the High performers making £210 per hectare. As compared to the previous year, the Low performance band showed a reduction in loss per hectare of £150 with the Medium performers gaining an extra £107 per hectare and High performers increasing by £120 per hectare compared to the previous year. (Figure 5).
- 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 £18 more per hectare, and £35 higher per hectare for Medium performing farms. (Figure 5).
- When considering the size of business, the contribution from the 'Agriculture' cost centre is negative for Part-time and Small farms. For Medium, Large and Very Large farms 'Agriculture' makes a positive contribution. The Medium sized farms have the highest Farm Business Income per hectare income, with the lowest income per hectare on the Part-time farms (Figure 6).
- The value of unpaid labour used by the businesses is illustrated alongside the Farm Business Income by Cost centre (Figure 6). The Medium, Large and Very Large farms have a Farm Business Income greater than the value of unpaid labour for those businesses.
- The contribution from the Basic Payment Scheme cost centre ranges from 35% of the total Farm Business Income for Medium farms, 39% for Large farms, 42% for Very Large farms, 55% for Small farms and 61% for Part-time farms.

Table 9 Farm Business Income by Cost Centre by Performance Band, 2021-22

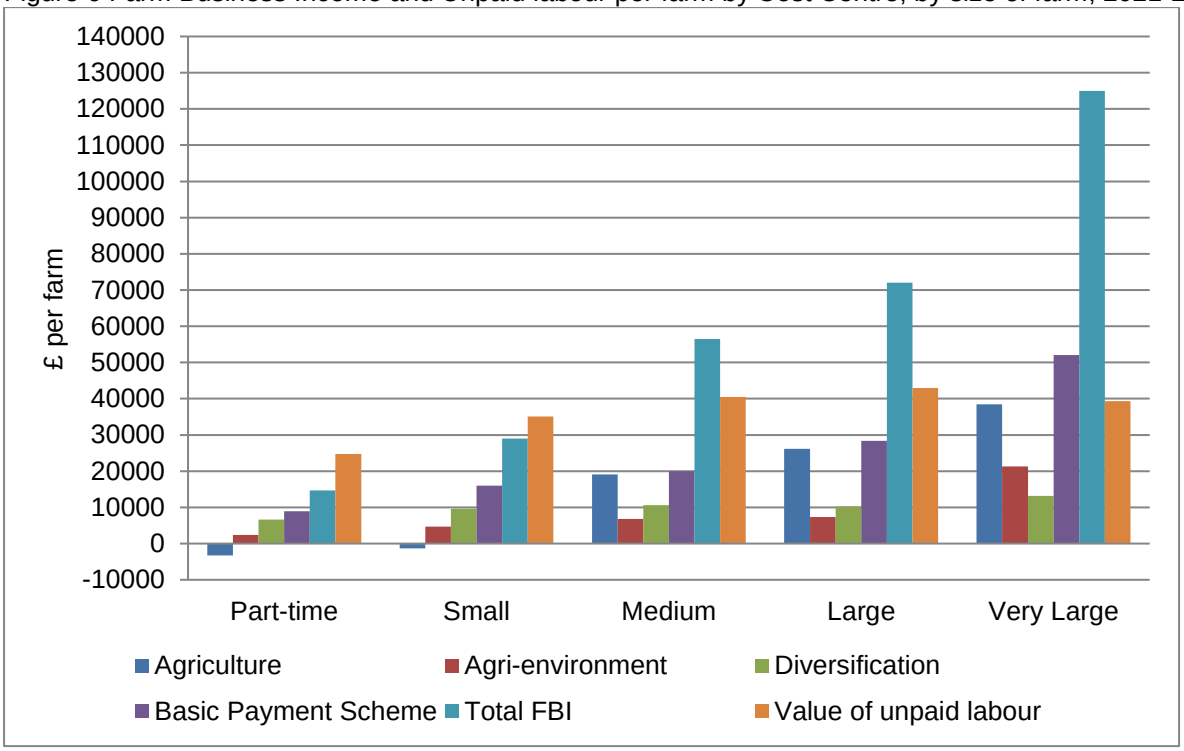
£ per farm	All farms	Low	Medium	High
Total Farm Business Income	34,027	-945	26,947	82,451
Of which, by cost apportionment				
Agriculture	4,379	-13,684	-223	31,272
Agri-environment and other payments	5,032	1,844	3,572	11,067
Diversification out of agriculture	8,583	1,411	8,584	15,620
Basic Payment Scheme	16,033	9,484	15,013	24,492

Figure 5 Farm Business Income and Unpaid labour per hectare by Cost Centre, by Performance Band, 2021-22



	Low	Medium	High
Agriculture	-231	-3	210
Agri-environment	31	43	74
Diversification	24	104	105
Basic Payment Scheme	160	181	164
Total FBI	-16	325	553
Value of unpaid labour	566	386	203

Figure 6 Farm Business Income and Unpaid labour per farm by Cost Centre, by size of farm, 2021-22



Gross Margin data from the Lowland Grazing Livestock farms[5]

- Gross margin per beef cow is slightly 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 to the non-organic producers. The Top Third producers' gross margins per cow are 58% higher than that of the average, with the difference due to both higher output and lower variable costs, particularly feed. (Table 10)
- For non-organic producers the gross margin per beef cow declined each year from 2017-18 until 2019-20 but recovered in 2020-21 with another marginal improvement in 2021-22. Over the same period the gross margin per cow is slightly more variable for Organic producers but with similar trends for the last three years. (Figure 7)
- The gross margin per cow and per hectare shows little differences due to the scale of the enterprise but with the mid-sized group showing lower gross margin. Care is needed to interpret the data due to small sample sizes (Figure 8).
- The beef rearing gross margin data for 'beef bred' store cattle and finished cattle are summarized in Table 11 and Figure 9. Both systems produce a broadly similar gross margin per head, both on average and at the premium level but in favour of the finishing systems in 2021-22. The gross margins for beef rearing systems have followed a similar trend to the beef cows with declining margins in the last three years but a recovering in 2020-21 and further increases in 2021-22.
- For the beef bred finishing cattle systems organic producers have the lower variable costs per head (£147 against £371) alongside lower output (£519 against £694) but the resulting gross margin per head is higher than non-organic producers. The average non-organic beef bred finisher has higher stocking rate which compensates for the lower gross margin per head and leaves a higher gross margin per hectare than the organic producers (See Table 11).
- The gross margins from the cattle rearing systems show the top third group of producers having margins per head 64% higher than 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 lower variable costs.
- The output per head from the Beef Bred Finishing Cattle producers is broadly similar for all scale of enterprise but with the largest enterprises showing higher output. The variable costs also follow this trend (Figure 10). The stocking rate increases with the scale of the enterprise and so the resulting gross margin per hectare increases 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, 5.1 ewes per hectare or lower which is about half the stocking rate of Dairy farms when calculated on a GLU basis. As compared to the previous year the gross margin per ewe from both non-

[5] 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)

organic and organic lowland sheep flocks was close to a third higher (Table 12 and Figure 11).

- The gross margin achieved for the lowland ewes either per head or per hectare show no statistical differences with scale of enterprise due to the large variations in performance in any size group (Figure 12).
- Gross margins per hectare from all the main livestock enterprises are either the best for the last five years or the second best in the case of beef cows. Comparing the average gross margin per hectare across the differing livestock enterprises (Figure 13) - the cattle rearing enterprises (either store or finishing beef systems) tend to have higher margin per hectare than the breeders, beef cows having the lowest gross margin per hectare. This has been the same for at least the last five years.

Table 10 Lowland Beef Cow Gross Margin data

Gross margins per cow, per LU and per hectare				2021/22
(Weighted average performance)		Average		Top Third*
		Non-organic	Organic	Non-organic
Number of farms		136	30	45
Cows per herd		37	33	39
Stocking rate:	LU/ha	0.99	0.95	1.00
	ha/LU	1.01	1.05	1.00
		£ per cow		
Output -	calf output	562.1	590.6	676.5
	depreciation	-63.3	-122.4	-34.5
ENTERPRISE OUTPUT (excl. BLSA)		498.9	468.2	642.0
Concentrates		41.4	24.5	28.6
Coarse fodder		18.4	15.7	14.0
Veterinary and medicines		32.6	34.8	30.5
Other livestock costs		68.6	66.7	69.8
Forage †		61.7	22.7	63.4
TOTAL VARIABLE COSTS ‡		222.7	164.4	206.3
GROSS MARGIN per cow (excl. BLSA)		276.2	303.8	435.7
GROSS MARGIN per LU (excl.BLSA)		279	303	434
GROSS MARGIN per hectare (excl. BLSA)		275	288	437
Concentrates per £100 output		8	5	4
Averages - previous year				
Stocking rate:	*LU/ha*	*1.04*	*0.88*	*1.14*
Gross Margin: £/cow		*259*	*273*	*411*
Gross Margin: £/ha		*270*	*279*	*468*
* 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 7 Gross Margin per head for Beef Cows

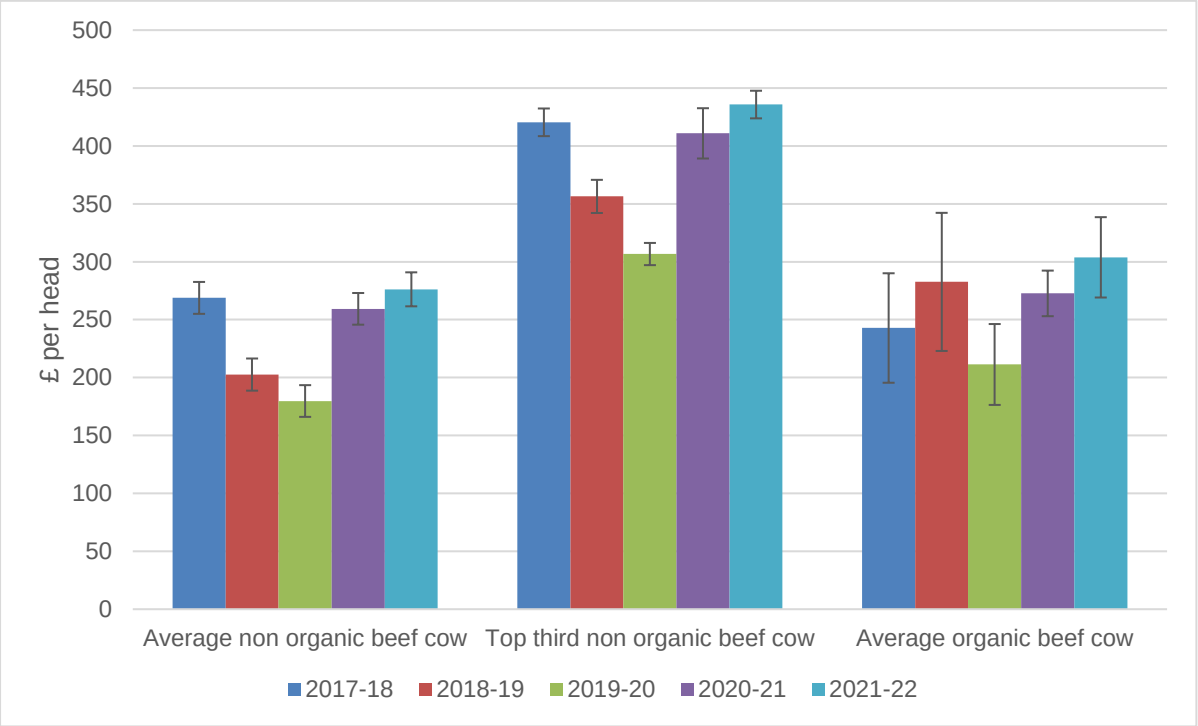
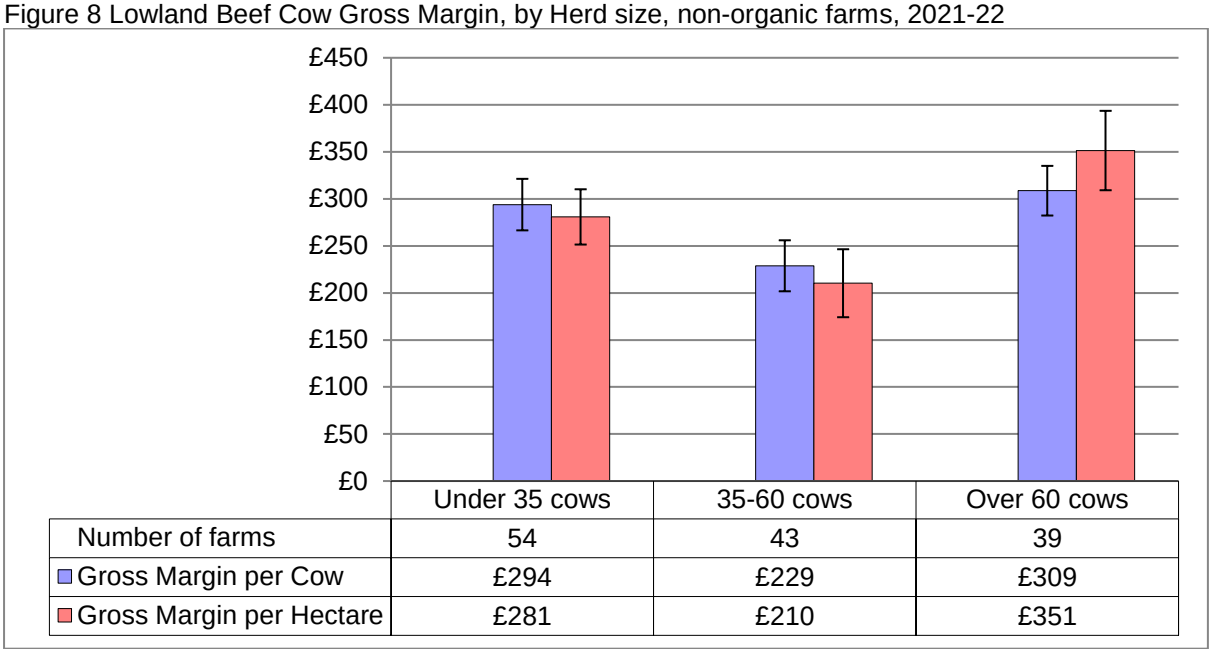


Figure 8 Lowland Beef Cow Gross Margin, by Herd size, non-organic farms, 2021-22



	Under 35 cows	35-60 cows	Over 60 cows
Number of farms	54	43	39
Gross Margin per Cow	£294	£229	£309
Gross Margin per Hectare	£281	£210	£351

Table 11- Lowland Beef Rearing Enterprise Gross Margin data

Gross margins per head, per LU and per hectare						2021/22
(Weighted average performance)		Store cattle		Finished cattle		
Beef bred cattle selling mainly-		Average	Top third*	Average		Top third*
		Non-organic	Non-organic	Non-organic	Organic	Non-organic
Number of farms		65	22	75	22	25
Cattle per herd		43	46	91	57	71
Stocking rate:	LU/ha	0.93	0.83	1.21	0.97	1.07
	ha/LU	1.07	1.20	0.83	1.03	0.93
		£ per head				
OUTPUT		549.4	688.0	694.0	518.8	857.0
Concentrates		105.2	76.7	221.9	58.7	187.8
Coarse fodder		9.5	9.7	17.6	10.7	17.7
Veterinary and medicines		19.9	19.8	16.0	10.7	14.5
Other livestock costs		65.4	75.7	73.4	53.4	71.8
Forage †		28.4	38.5	42.1	14.1	35.7
TOTAL VARIABLE COSTS ‡		228.3	220.5	371.0	147.7	327.4
GROSS MARGIN per head		321.1	467.5	323.0	371.1	529.5
GROSS MARGIN per LU		568	812	570	576	892
GROSS MARGIN per hectare		531	677	688	562	958
Concentrates per £100 output		19	11	32	11	22
Averages - previous year						
Stocking rate:	LU/ha	1.14	1.06	1.01	0.91	1.02
Gross Margin: £/head		274.3	425.8	205.0	188.1	337.2
Gross Margin: £/ha		528	701	291	237	460
* 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 9 Gross margins per head of Cattle Rearing Systems

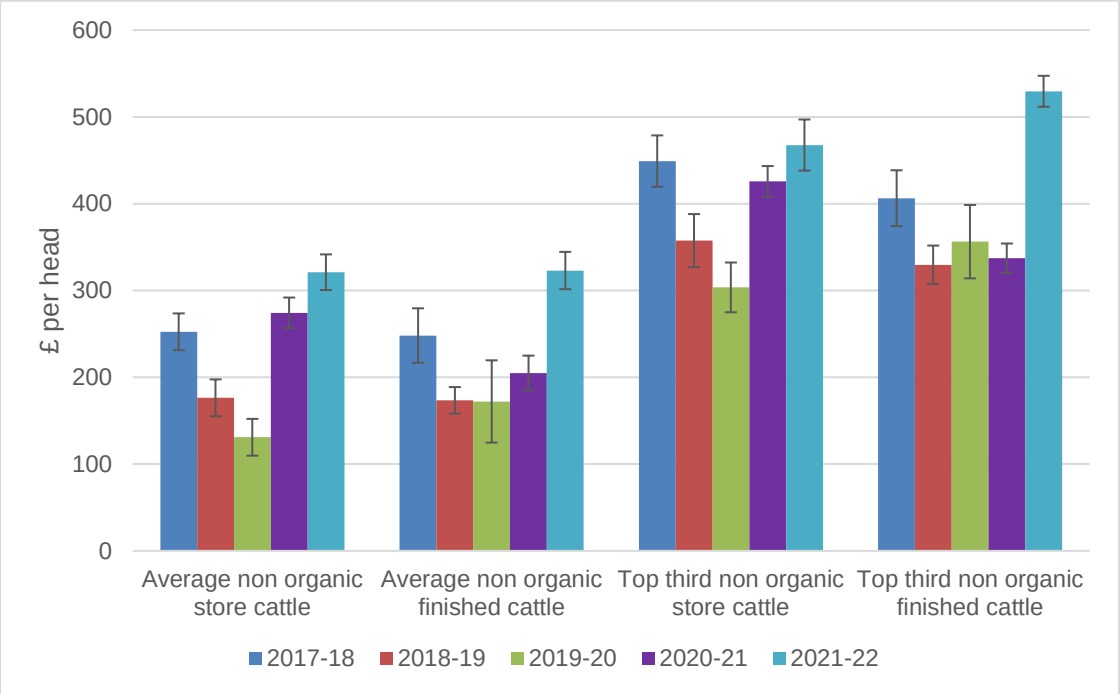
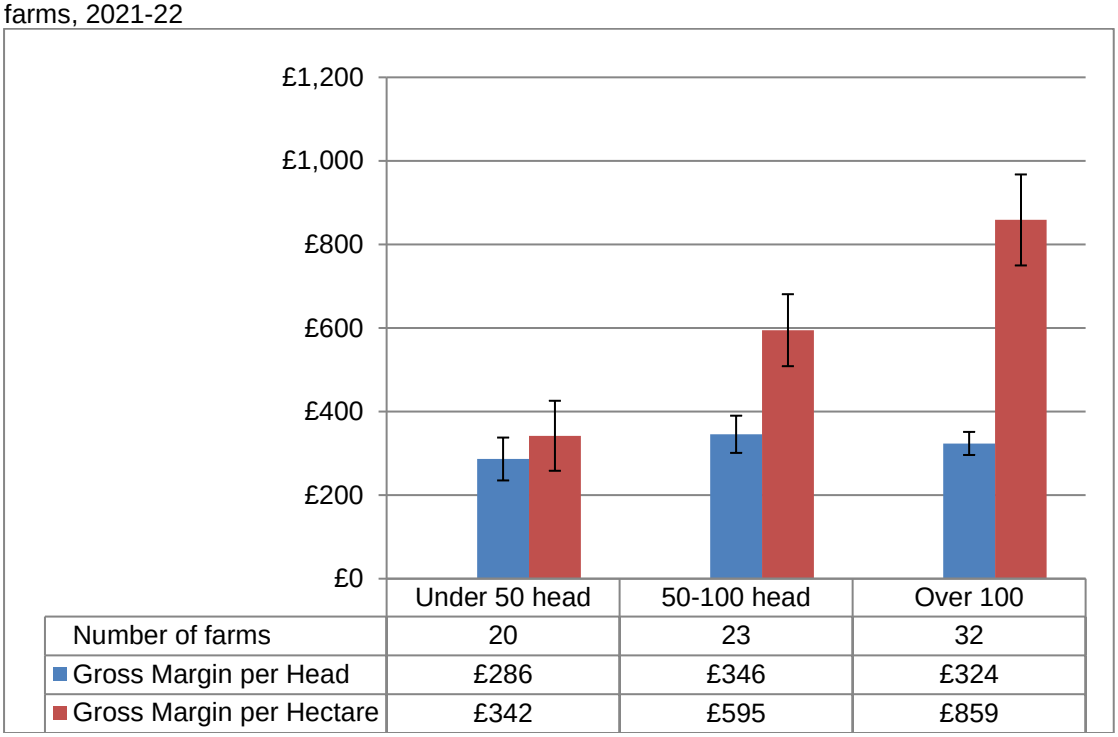


Figure 10 Beef Bred Finishing Cattle Gross Margin per Head & per Hectare, by herd size non-organic farms, 2021-22



	Under 50 head	50-100 head	Over 100
Number of farms	20	23	32
Gross Margin per Head	£286	£346	£324
Gross Margin per Hectare	£342	£595	£859

Table 12 –Lowland Ewe Gross Margin data

Gross margins per ewe and per hectare				2021/22
(Weighted average performance)		Average		Top Third*
		Non-organic	Organic	Non-organic
Number of flocks		118	20	39
Ewes per flock		364	252	254
Average lamb sale price - £/lamb		110.1	113.9	116.5
Stocking rate - ewes per hectare		5.1	5.0	5.9
		£ per head		
Output -	lambs	168.5	149.4	226.7
	wool	0.7	1.0	0.6
	depreciation	-12.2	-16.7	-10.7
ENTERPRISE OUTPUT (excl. BLSA)		157.0	133.6	216.5
Concentrates		24.8	5.4	31.4
Coarse fodder		3.1	1.4	3.4
Veterinary and medicines		9.1	8.1	11.5
Other livestock costs		15.0	11.3	18.7
Forage †		7.8	5.4	9.1
TOTAL VARIABLE COSTS ‡		59.9	31.6	74.2
GROSS MARGIN per ewe (excl. BLSA)		97.2	102.0	142.3
GROSS MARGIN per LU (excl.BLSA)		624	644	900
GROSS MARGIN per hectare (excl. BLSA)		493	513	844
Concentrates per £100 of output		16	4	15
Averages - previous year				
Stocking rate:	ewes/ hectare	5.7	4.5	5.8
Gross Margin: £/ewe		78.1	77.8	106.3
Gross Margin: £/ha		441	353	621
Average finished sale price- £ /head		93.2	96.7	95.3
* 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 11: Lowland Ewe Gross Margin per Head

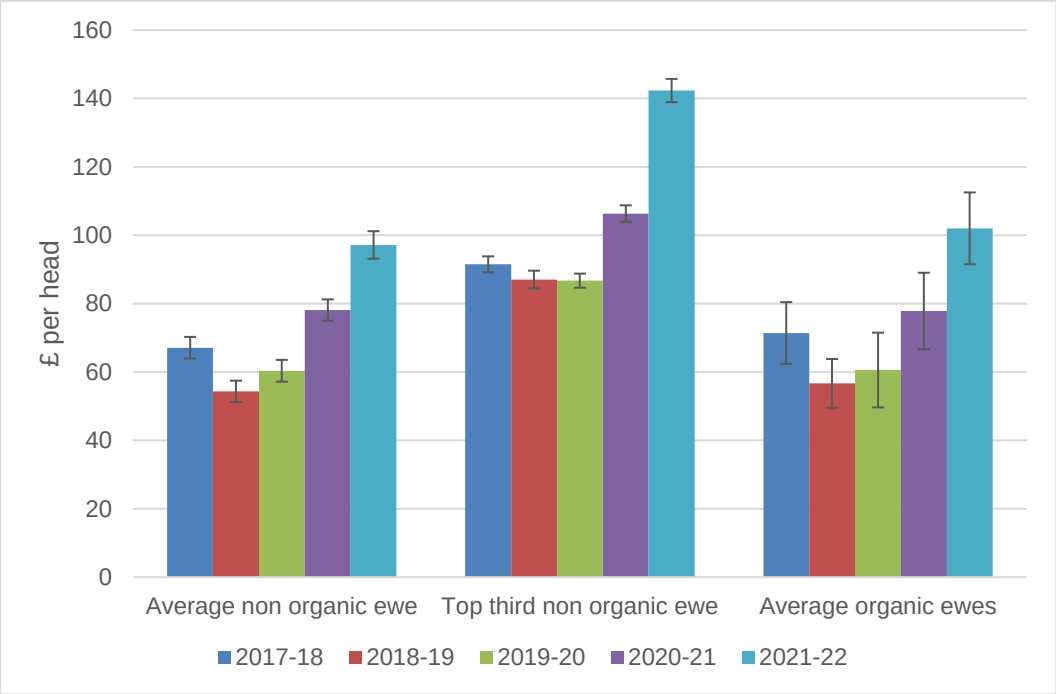
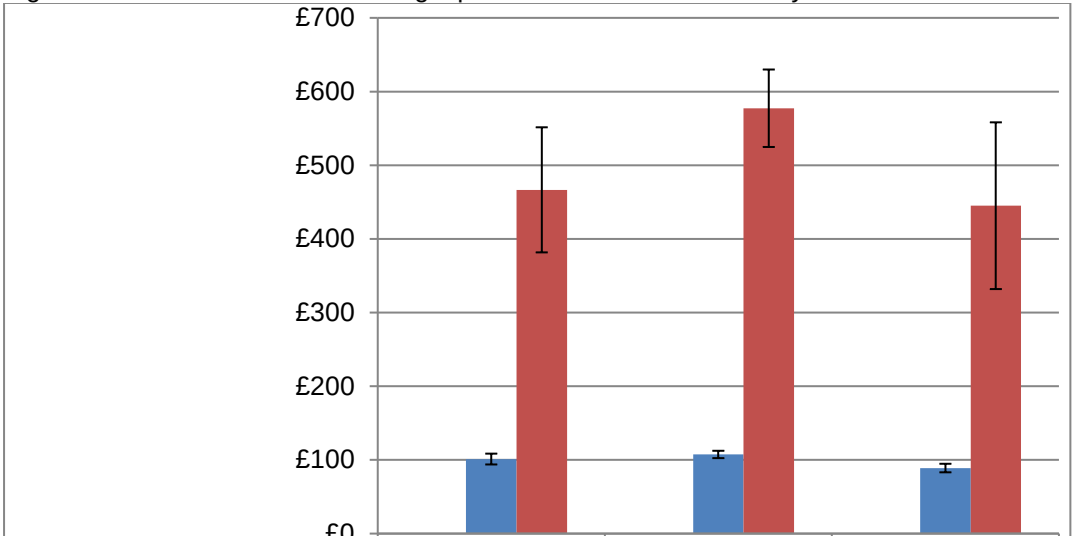


Figure 12 Lowland Ewe Gross Margin per Head and Per Hectare by flock size. 2021-22



	Under 200 ewes	200- 499 ewes	Over 500 ewes
Number of farms	31	54	33
Gross Margin per Ewe	£101	£107	£89
Gross Margin per Hectare	£467	£577	£445

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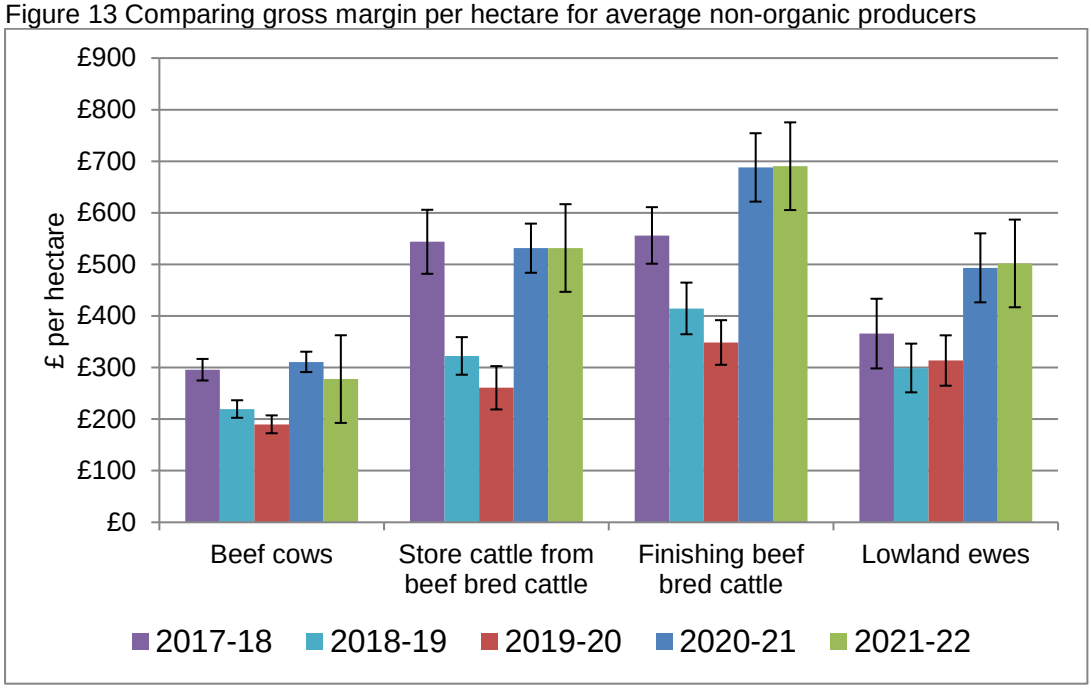
Figure 13 Comparing gross margin per hectare for average non-organic producers



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 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 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 75 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

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