



Farm Business Survey

2020/21

Pig Production in England



Simon Walton & David Hildreth

RBR

Independent research, data and analysis

Rural Business Research

Farm Business Survey

2020/21

Pig Production in England

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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

1 Foreword to the Sixteenth Series

Welcome to the sixteenth series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)*. Our sixteenth series, covering the 2020/21 financial year largely corresponds with the start of the Covid-19 pandemic impact on farm businesses. In addition, the new Agriculture Act came into being (1 January 2021), alongside other changes to how farm, and other businesses, operate given the UK's exit from the EU. Readers may also be interested in our twice annual intelligence reports, published at www.ruralbusinessresearch.co.uk, and in addition, during the spring and summer of 2020, we produced regular "Coronavirus Impact on Farming in England" reports. The importance of providing the industry and government with independent evidence on the changing fortunes of farm and horticultural business has never been greater. Through submission of data and Coronavirus reports to Defra, our work has helped to support policies that have directly benefited farm businesses, including the Dairy Response Fund in April and May 2020.

The 2020/21 financial year for farmers and growers saw seasonal, market and supply impacts in addition to, and often aligned with, Covid-19 impacts. Reduced winter cropping in 2019, led to an increase in spring cereal cropping in 2020. While cereal and oilseed crops yields were lower, strong cereal, oilseed and straw prices helped offset fixed cost increases. However, greater output prices led to higher concentrate and straw prices affecting livestock farms. There were increases in cattle and sheep prices, following temporary market collapses at the outbreak of Covid-19, but pig prices fared less well and this sector has suffered from processing capacity shortages at abattoirs. General labour shortages, alongside input supply challenges, have had short and medium term impacts. Some diversified activities were initially severely impacted by Covid-19, with "lockdown" leading to cancelled tourist and accommodation bookings, however with a subsequent large increase in demand for UK holidays, demand outstripped supply, providing welcome business recovery.

For the 2020/21 financial year, average Farm Business Income (FBI), derived from our work on the Defra-funded Farm Business Survey (FBS), increased to £51,900 per business, representing an increase of 13% on the previous 2019/20 year, and marginally greater than in 2018/19. In percentage increase terms, Lowland Grazing Livestock saw an increase of 97% in FBI, but this was from a very low base of £9,400 in 2019/20 to £18,400 in 2020/21, resulting in this farm type recording the lowest average FBI once again. Despite the challenges in the dairy sector at the start of the Covid-19 pandemic, with some farmers not having milk collected, Dairy farm businesses returned the highest average FBI of £92,500 (9% up on 2019/20), followed by Poultry (£77,700; down 12%) and Cereals (£71,700; up 14%). Of course, in order to appreciate the full drivers of these average headline data, the costs and revenues that have led to these results need to be understood. Our series of reports provide these details, and increasingly demonstrate that in some farm types it is the non-agricultural business activities that are providing important business level income.

In addition to this series of in depth reports, our free to use interactive online tools provide a further wealth of information at www.farmbusinesssurvey.co.uk. This series of reports, along with previous versions are also all available at www.ruralbusinessresearch.co.uk. The 2020/21 financial year, and our work on the FBS to accurately and independently report on the changing fortunes of farm and horticultural businesses, has been like no other in recent memory. Our sincere thanks go to the farmers and growers for their most valuable contribution, in not only continuing to provide access to their farm business data, but also doing so in the face of changing ways in which we have had to access data and interact with participating farm businesses due to the Covid-19 pandemic. I also thank all my colleagues for the positive way in which they have professionally adapted to the changing work circumstances that we have all experienced since March 2020.

Professor Paul Wilson

Chief Executive Officer, Rural Business Research
December 2021

2 www.ruralbusinessresearch.co.uk

3 Acknowledgements

The Rural Business Research (RBR) Consortium thanks sincerely all those farmers and growers who have voluntarily provided records and information on which the annual Farm Business Survey, and this report, is based. Thanks also to Keith Robbins (Duchy College) for extracting the data.

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 (Defra) and is Crown Copyright. The views expressed in this report are those of the authors and are not necessarily shared by other members of RBR or by Defra.

Cover photograph kindly supplied by Beth Fewster.

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“It is important to note that all surveys are subject to sampling error as they are not measuring the whole population, the 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>”

1.0 Commentary on the English Pig Industry

Sources used as part of this commentary on the pig industry are not from the Farm Business Survey but have been included to give the reader an overview of the wider industry for the period covered.

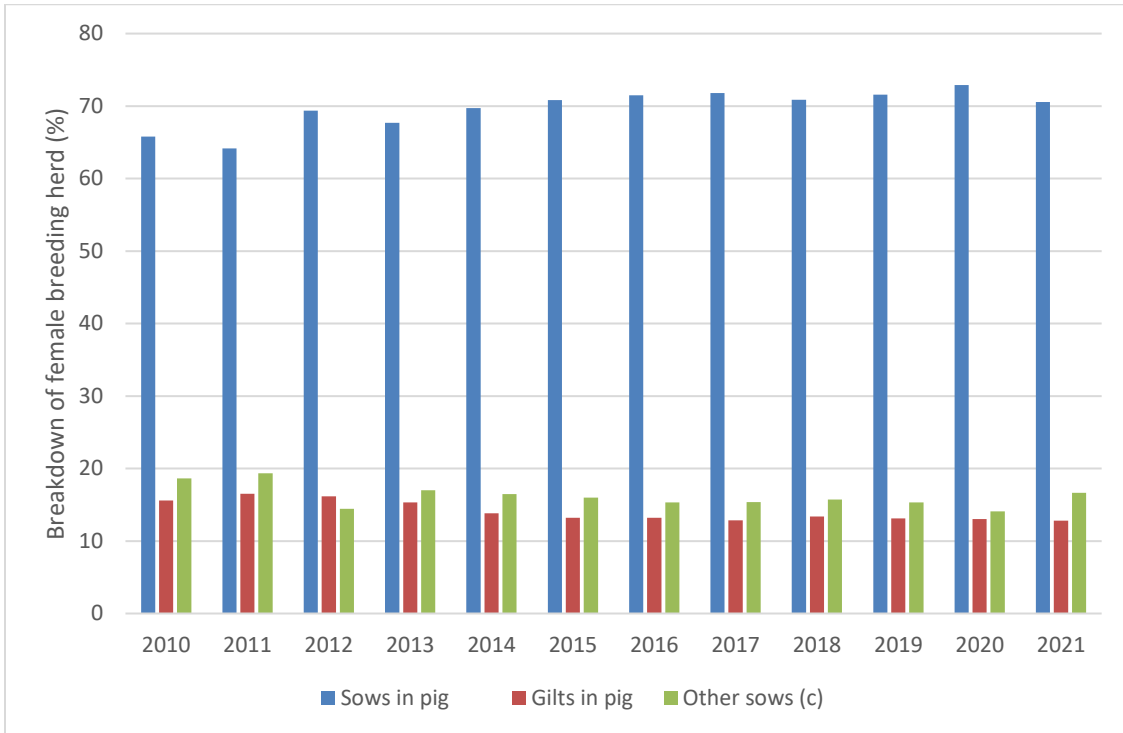
- Total pig numbers have grown nearly 15% between 2010 and 2021 with well over 4,000,000 pigs in 2021.
- Total number of pigs in England in 2021 increased by 5.4% when compared to 2020 remaining at over 4 million animals after a slight drop between 2019 and 2021.
- UK clean pig slaughtering's increased from 10,889 thousand head in 2019 to 10,923 thousand head in 2020. An increase in slaughtering's of clean pigs of 2.78% has been evident from 2015 to 2020.
- Although UK sow and boar carcass weights have been reducing over the last decade clean pig carcass weights have gradually increased to 86.9Kg in 2020.
- UK pig prices started over 23p higher at the beginning of 2020 than the previous year and 0.57p higher than the month previous. SPP pig prices climbed gradually until July then August 2020 saw the first drop in price since February 2019. Prices continued to drop to lows of 146.67p/kg in December, over 12p lower than the same period in 2019.

Table 1.1 Breeding Pigs on Agricultural Holdings in England 1st June ('000)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	% change 2020/2021
Total pigs	3,606	3,600	3,662	4,066	3,954	3,826	3,911	3,969	4,038	4,060	4,021	4,238	5.4%
Total breeding pigs	423	433	437	434	411	413	417	416	408	410	405	403	-0.5%
Female breeding herd	346	354	351	346	329	328	334	334	327	327	319	313	-1.8%
Sows in pig	228	227	244	234	230	232	239	240	232	234	232	221	-5.0%
Gilts in pig	54	58	57	53	46	43	44	43	44	43	41	40	-3.5%
Other sows (c)	64	68	51	59	54	52	51	51	51	50	45	52	15.9%
Other breeding pigs	77	79	85	88	82	85	82	82	82	83	86	90	4.3%
Boars for service	14	14	14	13	12	13	13	11	11	10	9	10	7.4%
Gilts not yet in pig	63	65	72	75	70	72	69	71	71	73	76	79	3.9%
Fattening pigs (liveweight)	3,183	3,167	3,225	3,632	3,542	3,413	3,494	3,553	3,630	3,650	3,616	3,835	6.1%

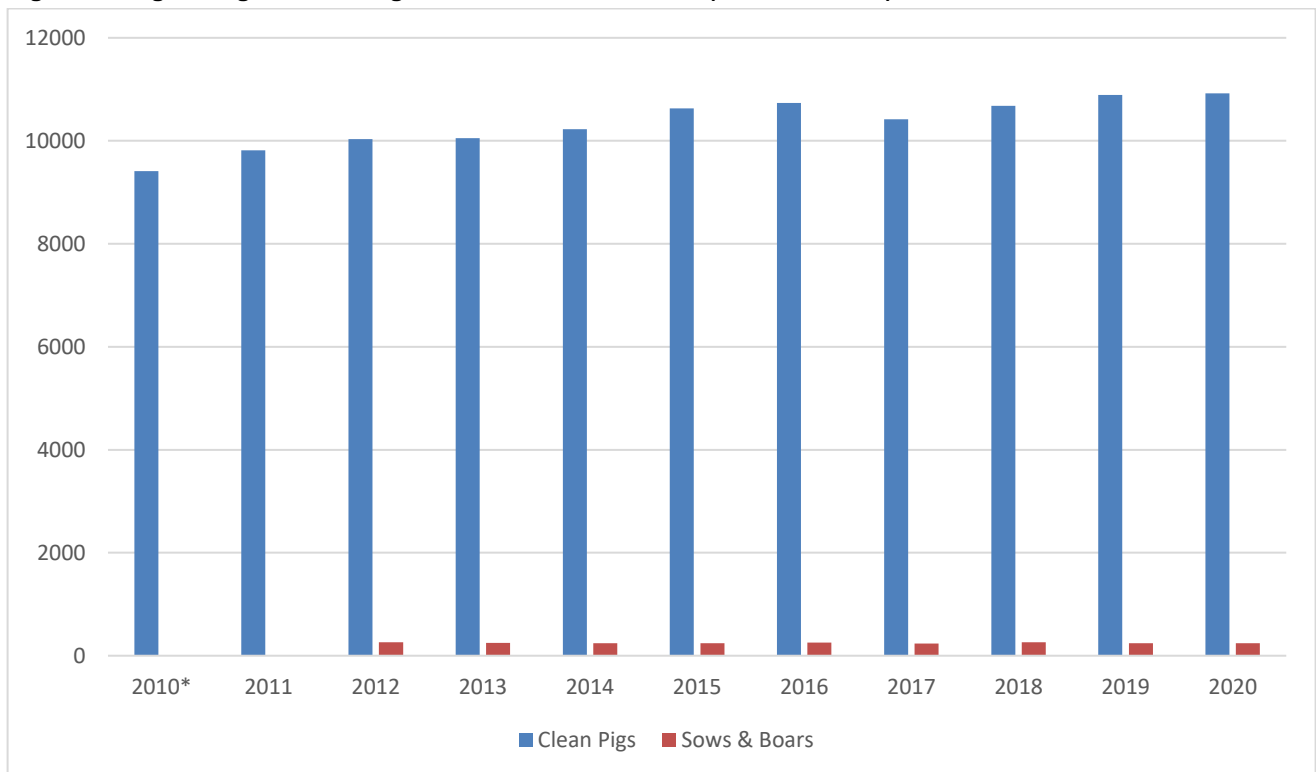
Source: Defra, 2021 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture
(c) Either being suckled or dry sows being kept for further breeding.

Figure 1.1 Breakdown of the English female pig breeding herd 1st June 2010-2021



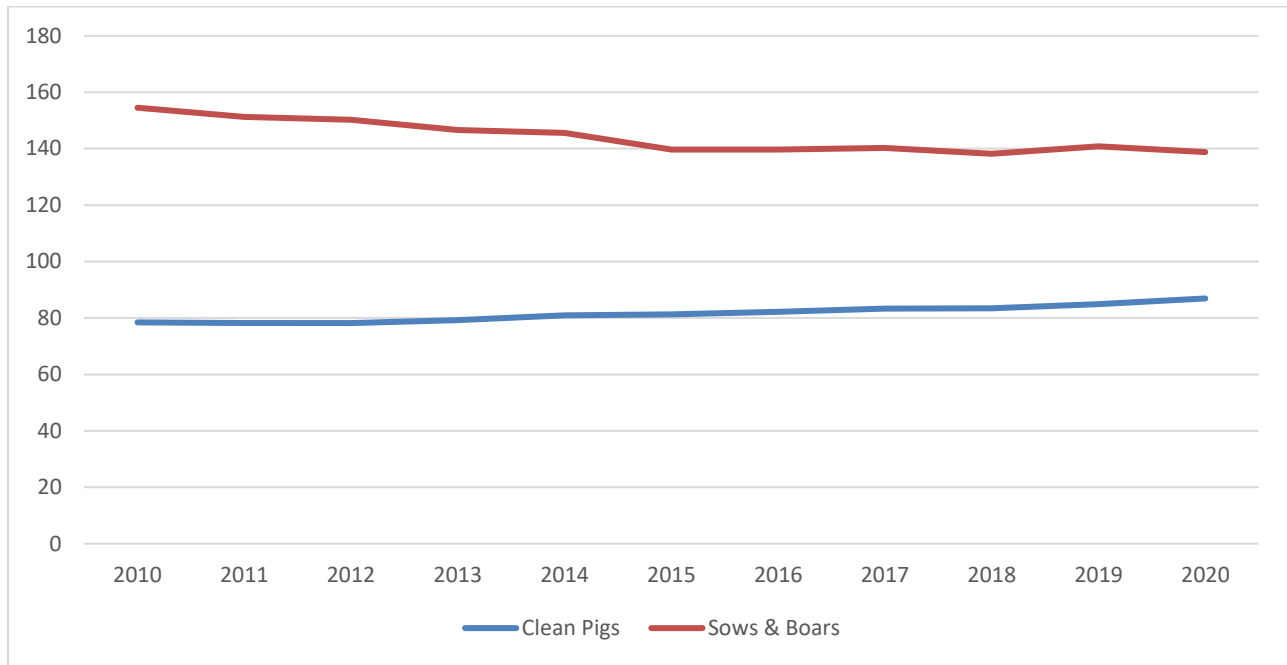
Source: Defra, 2021 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture

Figure 1.2 Pigs Slaughtered in England and Wales 2010-2020 (thousand head)



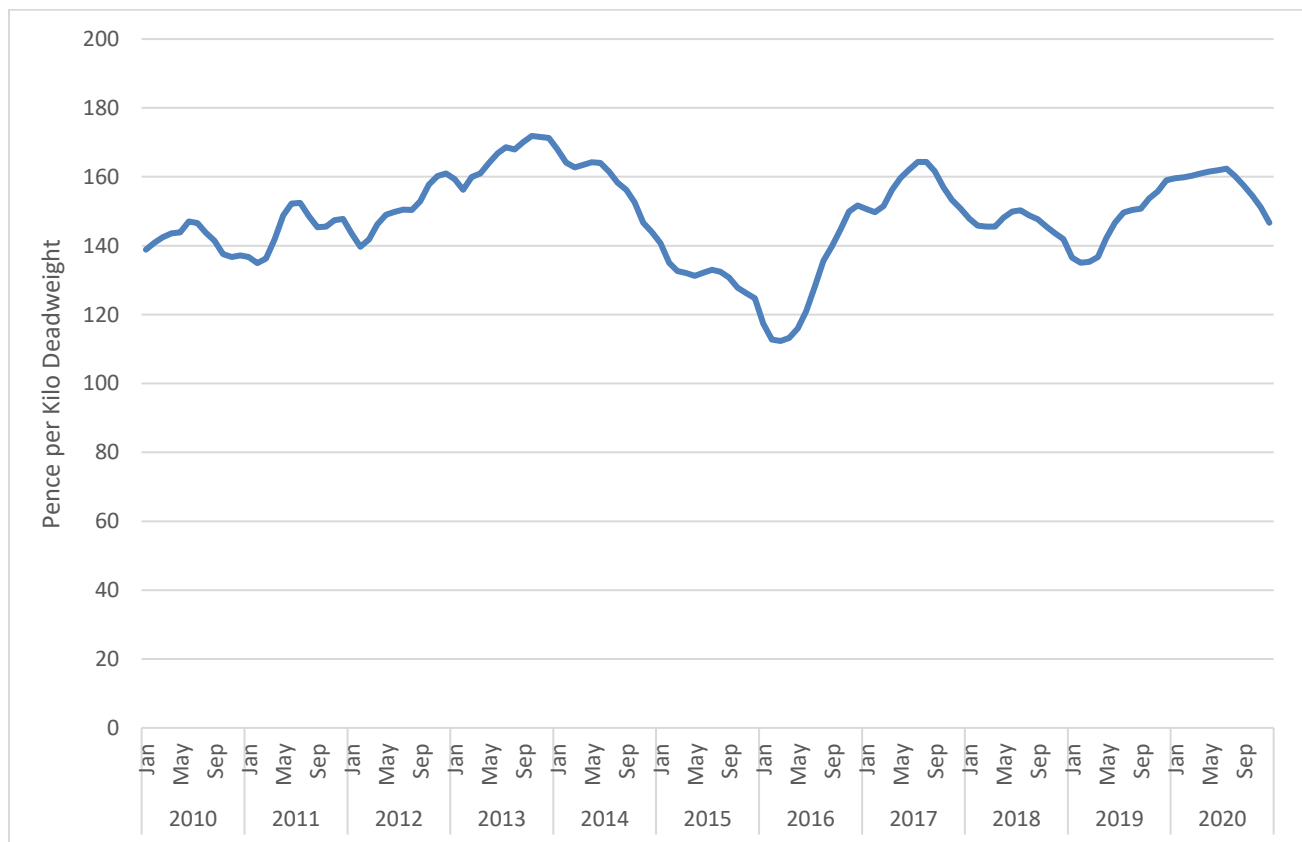
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>
 Footnotes: Sow and boar data missing in years 2010 and 2011 due to confidentiality constraints.
 * Denotes a 53 week statistical year

Figure 1.3 UK Average Carcass Weights 2010-2020 Kg



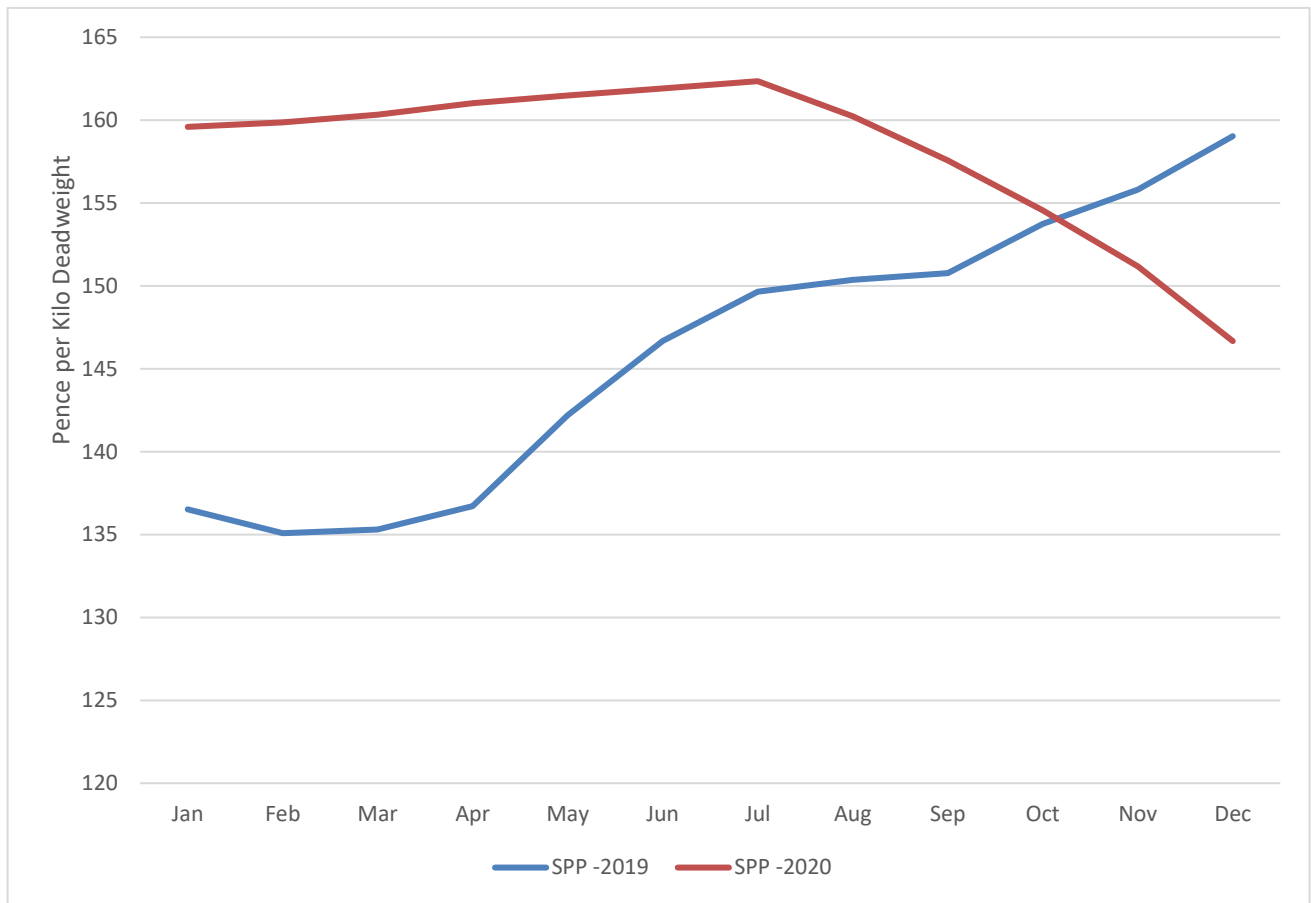
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

Figure 1.4 UK Deadweight Average Pig Price (SPP) 2010-2020



Source: AHDB, <http://pork.ahdb.org.uk/prices-stats/prices/pig-prices-uk-spec/>

Figure 1.5 UK Deadweight Average Pig Prices (SPP) 2019-2020



Source: AHDB, <http://pork.ahdb.org.uk/prices-stats/prices/pig-prices-uk-spec/>

Footnotes: SPP (Standard Pig Price) is the average price for GB standard pigs, those that have not received a premium for the production system, feed regime or breed.

2.0 Financial Performance of Specialist Pig Farms

The data in this report has been extracted from the 2020/21 Farm Business Survey (FBS). This presents data for all farm types on both a national and Government Office region (GOR) basis. The basis for the classification of farms in the FBS is described in Appendix A.

In the 2020/21 FBS there were 67 farm businesses that were classified as Specialist Pig farms. This is one more than the previous year when there were 66 recorded pig farms. Farms are classified according to Standard Outputs (SO). Please see the explanatory document at <https://www.gov.uk/government/collections/farm-business-survey> for further details on Standard Outputs.

To be classified as a Specialist Pig farm at least two-thirds of the total SO from the enterprises on the farm must have been generated by pigs.

All the results presented in this report are based on weighted data to produce population estimates for England.

2.1 Classification of farms

The 67 Specialist Pig farms subdivided into three EU Particular Farm Types (PFT) as follows:

EU PFT	No of farms	Description
5110	6	Specialist pig rearing
5130	22	Pigs rearing and fattening combined
5120	39	Specialist pig fattening

Due to the small sample numbers for type 5110, types 5110 and 5130 have been combined. Thus this group refers to farms predominantly with sows selling either weaners or fat pigs and type 5120 are predominantly farms without sows but selling fat pigs, many on a contract basis.

2.2 Financial Results

Across all Specialist pig farms, average farm business income amounted to £48,012 (Table 2.1) which was 27% higher than the previous year.

Total output was 12% more than the previous financial year, averaging £624,130 per farm. Variable costs increased by around 9% on the previous year, and also fixed costs increased by around 11%.

Table 2.2 shows the range in terms of FBI for Specialist Pig Farms. The table demonstrates the range of farm business incomes seen in the sector with the top 25% achieving an average FBI of £207,836 whilst the bottom 25% have a negative income of £78,871. The range between the top quartile by FBI and bottom quartile has increased compared to last year, (£207,836 difference this year, compared to £176,579).

Table 2.3 shows the range in terms of MII for Specialist Pig farms, with the top 25% achieving £180,178 and the bottom making a loss of -£46,484 in terms of MII.

An analysis of the results split between businesses classed as 'predominantly sows' and those classed as 'predominantly growing and fattening pigs' is presented in Table 2.4. The overall gross margin for 'predominately sows' is higher, however these businesses have much higher total fixed costs, therefore the FBI per farm is smaller than the 'predominantly growing and fattening pigs' group.

In order to examine the influence of size on financial performance the results have been analysed in terms of SO. Table 2.5 shows the results and indicates the range of SO for each size category. The results don't show much difference in FBI between the largest group (1000+) and the middle group (500-1000), £68,057 and £81,753 respectively, given that the largest group has a pig output almost 10 times greater than the middle group pig output, £2,294,453 vs £232,942.

In Table 2.6, the farms have been grouped by performance ratio, this is a measure of farm business output in comparison to farm business costs, including unpaid labour. The farms are then grouped into quartiles, high, medium (2 quartiles) and low. Interestingly, the low performing group have a much smaller pig output than the other 2 groups, but also the group with the highest pig output was the middle group, despite the high group having the highest farm business income. The highest performing group had much smaller variable costs as a percentage of the total output when compared to the other 2 groups, 26%, compared to 61% and 62% when compared to the low and medium group respectively.

Table 2.1 Specialist Pig Farms – Financial Results

	2019/20	2020/21	
Number of farms	66	67	
Output			
Pigs	447,298	518,706	16
Other livestock	5,441	6,050	11
Crops	47,072	41,231	-12
Miscellaneous	55,108	58,144	6
Total output	554,920	624,130	12
Variable costs			
Feed	223,311	243,817	9
Vet and medicines	12,820	14,476	13
Other livestock costs	37,697	45,346	20
Crop costs	20,395	16,941	-17
Total variable costs	294,223	320,581	9
Farm gross margin	260,697	303,549	16
Fixed costs			
Labour			
- Paid	59,740	74,063	24
- Unpaid	29,709	29,358	-1
Machinery			
- Contract	12,713	13,430	6
- Depreciation	30,476	38,440	26
- Repairs	15,681	20,212	29
- Fuel and oil	12,695	11,947	-6
Occupiers repairs	12,684	14,027	11
Rent and rates	42,986	42,960	0
Other farm costs (including bad debts)	30,939	29,857	-3
Total fixed costs	247,623	274,663	11
Management and investment income	13,503	29,254	117
Less management charges	430	368	-14
Plus farmer and spouse labour	24,659	24,147	-2
Net farm income	37,732	53,033	41
Less net interest payments	10,149	8,179	-19
Less building depreciation and insurance	22,256	21,197	-5
Less directors remuneration	1,796	4,603	156
Plus rental value and imputed rent	29,162	23,746	-19
Plus imputed labour	5,049	5,212	3
Farm business income	37,743	48,012	27

Table 2.2 Specialist Pig Farms 2020/21 – Grouped by FBI per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	25	28	14*
Output			
Pigs	722,728	132,955	1,099,135
Other livestock	5,561	9,154	189
Crops	46,225	29,306	60,531
Miscellaneous	110,484	37,021	47,332
Total output	884,998	208,436	1,207,186
Variable costs			
Feed	235,241	60,923	627,969
Vet and medicines	13,781	3,777	37,149
Other livestock costs	65,064	15,677	85,824
Crop costs	16,812	13,995	23,121
Total variable costs	330,899	94,372	774,062
Farm gross margin	554,099	114,065	433,124
Fixed costs			
Labour			
- Paid	120,677	11,482	155,748
- Unpaid	28,655	30,643	27,450
Machinery			
- Contract	9,819	5,401	33,641
- Depreciation	56,889	13,343	70,850
- Repairs	26,541	9,188	36,282
- Fuel and oil	13,473	4,361	25,935
Occupiers repairs	12,008	5,329	33,965
Rent and rates	57,006	21,565	72,330
Other farm costs (including bad debts)	40,877	15,104	48,725
Total fixed costs	365,947	116,414	504,927
Management and investment income	189,290	-2,349	-71,477
	188,152	-2,349	-71,803
Less management charges	1,138	0	326
Plus farmer and spouse labour	23,975	23,888	24,856
Net farm income	212,127	21,539	-46,947
Less net interest payments	9,654	3,590	16,068
Less building depreciation and insurance	1,730	679	2,678
Less directors remuneration	9,069	822	7,740
Plus rental value and imputed rent	30,304	14,042	36,875
Plus imputed labour	4,680	6,755	2,595
Farm business income	207,836	29,261	-78,871

*A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results

Note: The farms are ranked in descending order according to performance and allocated to quartiles with the top quartile (25percent) representing the top band (Premium Group). 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.

Table 2.3 Specialist Pig Farms 2020/21 – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	25	29	23
Output			
Pigs	1,311,098	139,934	481,180
Other livestock	7,946	6,278	3,657
Crops	45,808	29,652	60,089
Miscellaneous	116,044	31,929	52,431
Total output	1,480,897	207,793	597,356
Variable costs			
Feed	560,835	58,612	297,194
Vet and medicines	32,341	3,664	18,246
Other livestock costs	106,677	17,637	39,176
Crop costs	17,580	12,125	26,075
Total variable costs	717,433	92,037	380,692
Farm gross margin	763,463	115,756	216,665
Fixed costs			
Labour			
- Paid	205,189	13,046	65,967
- Unpaid	27,902	27,895	33,812
Machinery			
- Contract	19,405	4,711	25,056
- Depreciation	100,539	14,501	23,832
- Repairs	38,169	9,400	23,886
- Fuel and oil	29,261	4,194	10,065
Occupiers repairs	14,405	5,212	31,549
Rent and rates	85,382	22,096	42,143
Other farm costs (including bad debts)	50,979	14,632	39,273
Total fixed costs	571,231	115,687	295,583
Management and investment income	192,910	352	-78,694
Less management charges	679	283	224
Plus farmer and spouse labour	24,478	21,324	29,543
Net farm income	216,710	21,393	-49,376
Less net interest payments	17,625	3,047	8,984
Less building depreciation and insurance	2,856	715	1,447
Less directors remuneration	11,219	1,862	3,433
Plus rental value and imputed rent	29,852	14,872	35,556
Plus imputed labour	3,424	6,571	4,270
Farm business income	180,178	28,275	-46,484

Note: The farms are ranked in descending order according to performance and allocated to quartiles with the top quartile (25percent) representing the top band (Premium Group). 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.

Table 2.4 Financial Data for Specialist Pig Farms 2020/21 – Grouped by Type

	Predominantly Sows 39	Predominantly growing/fattening pigs 28
Number of farms		
Output		
Pigs	266,562	918,325
Other livestock	7,011	4,528
Crops	30,867	57,656
Miscellaneous	61,790	52,365
Total output	366,229	1,032,873
Variable costs		
Feed	104,650	464,381
Vet and medicines	4,439	30,383
Other livestock costs	25,612	76,623
Crop costs	13,385	22,578
Total variable costs	148,086	593,965
Farm gross margin	218,143	438,909
Fixed costs		
Labour		
- Paid	38,198	131,857
- Unpaid	27,809	31,814
Machinery		
- Contract	8,302	21,557
- Depreciation	23,382	62,307
- Repairs	14,832	28,737
- Fuel and oil	7,566	18,890
Occupiers repairs	11,004	18,819
Rent and rates	30,528	62,663
Other farm costs (including bad debts)	22,904	40,875
Total fixed costs	184,525	417,520
Management and investment income	33,759	22,116
Less management charges	141	727
Plus farmer and spouse labour	21,471	28,387
Net farm income	55,089	49,776
Less net interest payments	5,728	12,063
Less building depreciation and insurance	1,165	1,861
Less directors remuneration	4,197	5,246
Plus rental value and imputed rent	20,642	28,667
Plus imputed labour	6,338	3,426
Farm business income	57,991	32,197

Table 2.5 Financial Data for Specialist Pig Farms 2020/21 – Grouped by Standard Output per Farm

	1000+	500-1000	<500
Number of farms	23	25	19
Output	27	55	77
Pigs	2,294,453	232,942	136,120
Other livestock	6,176	13,491	3,423
Crops	115,277	73,310	9,942
Miscellaneous	114,482	102,650	27,332
Total output	2,530,388	422,393	176,816
Variable costs			
Feed	1,187,998	93,897	39,688
Vet and medicines	73,018	6,337	1,417
Other livestock costs	183,897	21,767	15,943
Crop costs	44,311	29,404	5,165
Total variable costs	1,489,224	151,404	62,212
Farm gross margin	1,041,164	270,989	114,604
Fixed costs			
Labour			
- Paid	305,775	33,854	25,755
- Unpaid	31,766	32,983	27,441
Machinery			
- Contract	53,044	10,211	3,795
- Depreciation	149,512	26,846	12,321
- Repairs	65,084	18,049	8,780
- Fuel and oil	47,904	9,469	3,047
Occupiers repairs	50,725	16,496	3,202
Rent and rates	148,535	43,830	13,989
Other farm costs (including bad debts)	97,067	32,403	10,719
Total fixed costs	949,413	224,141	109,049
Management and investment income	93,678	46,866	5,622
Less management charges	1,927	18	67
Plus farmer and spouse labour	25,227	26,486	23,038
Net farm income	116,979	73,333	28,593
Less net interest payments	29,038	11,448	1,375
Less building depreciation and insurance	4,121	1,598	647
Less directors remuneration	17,182	493	2,620
Plus rental value and imputed rent	70,202	36,885	6,552
Plus imputed labour	6,539	6,498	4,403
Farm business income	68,057	81,753	30,808

Table 2.6 Financial Data for Specialist Pig Farms 2020/21– Grouped by Performance Ratio

	High	Medium	Low
Number of farms	19	40	8*
Output			
Pigs	493,334	741,074	124,895
Other livestock	5,011	9,808	0
Crops	43,003	61,099	2,038
Miscellaneous	107,132	61,039	4,125
Total output	648,480	873,021	131,058
Variable costs			
Feed	98,137	415,697	64,399
Vet and medicines	5,957	23,504	5,912
Other livestock costs	47,791	63,668	8,403
Crop costs	15,648	25,527	2,047
Total variable costs	167,533	528,396	80,761
Farm gross margin	480,947	344,625	50,297
Fixed costs			
Labour			
- Paid	99,744	88,896	22,084
- Unpaid	25,552	30,763	30,485
Machinery			
- Contract	7,166	22,715	2,147
- Depreciation	52,515	47,707	7,029
- Repairs	25,246	23,910	8,252
- Fuel and oil	13,045	16,420	2,432
Occupiers repairs	9,364	19,830	7,718
Rent and rates	45,034	59,532	9,682
Other farm costs (including bad debts)	29,792	40,501	9,866
Total fixed costs	307,460	350,272	99,695
Management and investment income	174,462	-5,403	-49,397
Less management charges	974	244	0
Plus farmer and spouse labour	22,770	24,889	24,114
Net farm income	196,257	19,241	-25,283
Less net interest payments	5,888	12,206	2,862
Less building depreciation and insurance	1,590	1,791	607
Less directors remuneration	7,767	3,460	3,620
Plus rental value and imputed rent	19,480	34,766	7,215
Plus imputed labour	2,782	5,874	6,371
Farm business income	193,269	10,453	-25,222

*A part of this table was derived from data with less than 15 observations in the sample which could reduce the robustness of the results

3.0 Margins for Pig Enterprises

The data in the following section utilises the net margins gathered from specialist pig farms. More data is available for other farm types who keep pigs but not as their sole interest, however, only those farms specialising in pigs have been included due to the nature of the way the data is collected. Variable costs are allocated to different farm enterprise by estimation; however, some of the fixed costs are allocated econometrically, according to the set coefficients that are estimated. Data on the validity of these coefficients is being accumulated with a view to improving them over time. For specialist pig farms, the net margins for the pig enterprise should be reasonably accurate. This is because these farms have few or no other enterprises and therefore the majority of fixed costs are rightly attributable to the pig enterprise.

3.1 Classification of farms

Net and gross margins were completed for 67 Specialist Pig farms. These were classified as follows:

Type	No of farms	Definition
111	2	Breeders selling weaned pigs
112	24	Breeders selling fat pigs (finishers)
114	33	Contract rearing
115	8	Other

Due to the small sample sizes it is not possible to show the results for each type listed above. Consequently, results have only been presented for types 112 and 114, from table 3.2 onwards. Due to changes in the sample year on year it is difficult to compare year on year changes exactly as some pig farms in the sample have dropped out or joined, hence not an exact like for like comparison.

3.2 Net Margin results

Table 3.1 shows the average Net Margin has increased from £17,966 in 2019/20 to £25,764 in 2020/21.

Table 3.2 presents the results split into two different categories, namely breeding farms selling finished pigs, and contract rearing only. Breeding farms selling finished pigs made a net margin of -£3,772 and the contract rearing showed a net margin of £45,023

Table 3.3 shows the costs and margins per £100 output for breeders selling finished pigs, (type 112). The feed costs for breeders selling fat pigs are by far the biggest proportion of the costs, 57.4% of the total output in 2020/21, whereas in 2019/20 the feed costs accounted for 59.1% of output, showing the slightly lower feed costs in comparison to the finished pig price.

Table 3.4 presents the results in terms of Net Margins per sow for breeder finisher farms. In 2020/21 there was a total Net Margin of -£6 per sow compared to a net margin of £17 in 2019/20. It is difficult to compare year on year due to some changes in the sample of pig farms.

Table 3.1 Specialist Pig Farms – Average Net Margins (£/farm)

	2019/20	2020/21	% Change
Number of farms	66	67	
Output	£ per farm 447,298	£ per farm 518,706	16
Variable costs			
Feed	221,839	242,419	9
Vet and medicines	12,447	14,216	14
Other variable costs	34,818	40,950	18
Total variable costs	269,104	297,585	11
Gross Margin	178,194	221,121	24
Fixed costs			
Paid labour	53,727	69,898	30
Unpaid labour	3,580	4,021	12
Contract hire	6,962	7,113	2
Machinery depreciation	18,469	27,395	48
Machinery repairs	8,859	12,758	44
Fuel and oil	7,523	8,210	9
Electricity and heating fuel	7,145	6,696	-6
Water	2,569	2,096	-18
Insurance	3,990	4,100	3
Professional fees	3,317	3,749	13
General farm costs	4,557	4,789	5
Occupiers repairs	8,406	9,818	17
Rent and rates	11,623	15,963	37
Total fixed costs	140,728	176,605	25
Net farm income	37,466	44,516	19
Less farmer and spouse labour	19,898	19,105	-4
Plus managerial input	399	353	-12
Net margin	17,966	25,764	43

Table 3.2 Specialist Pig Farms 2020/21 – Average Net Margins by Farm Type

Farm type	Breeders selling fat pigs	Contract rearing
Number of farms	24	33
Output	£ per farm 1,217,622	£ per farm 155,518
Variable costs		
Feed	698,865	-
Vet and medicines	35,424	16
Other variable costs	90,777	12,271
Total variable costs	825,066	12,287
Gross Margin	392,556	143,231
Fixed costs		
Paid labour	140,817	31,661
Unpaid labour	5,387	3,768
Contract hire	19,295	2,349
Machinery depreciation	52,834	15,911
Machinery repairs	19,858	7,478
Fuel and oil	19,125	3,620
Electricity and heating fuel	18,883	1,229
Water	4,228	988
Insurance	8,945	2,182
Professional fees	8,543	1,622
General farm costs	10,061	2,456
Occupiers repairs	18,946	4,325
Rent and rates	41,959	4,482
Total fixed costs	368,881	82,072
Net farm income	23,675	61,159
Less farmer and spouse labour	27,857	16,521
Plus managerial input	410	385
Net margin	-3,772	45,023

Table 3.3 Specialist Pig Farms – Breeders Selling Fat Pigs, Costs and Margins per £100 Pig Output

	Farm type	£ per £100 output
Number of Farms	23	24
	2019/20	2020/21
Feed	59.1	57.4
Other variable costs	10.1	10.4
Gross margin	30.8	32.2
Labour costs	10.2	12.0
Contract and machinery costs	4.6	7.6
Occupiers repairs	2.3	1.6
Rent and rates	2.9	3.4
Other fixed costs	10.1	8.0
Net margin	0.7	-0.3

Table 3.4 Specialist Pig Farms – Average Net Margins per Sow (£/sow)

Farm Type	2019/20	Breeders selling fat pigs	2020/21
Number of farms	23		24
Number of sows	230		610
	£ per sow		£ per sow
Output	2688		1995
Variable costs			
Feed	1589		1145
Vet and medicines	73		58
Other variable costs	199		149
Total variable costs	1861		1352
Gross Margin	827		643
Fixed costs			
Paid labour	233		231
Unpaid labour	26		9
Contract hire	39		32
Machinery depreciation	48		87
Machinery repairs	31		32
Fuel and oil	25		31
Electricity and heating fuel	68		31
Water	16		7
Insurance	29		15
Professional fees	24		14
General farm costs	30		18
Occupiers repairs	57		31
Rent and rates	73		69
Total fixed costs	698		604
Net farm income	129		39
Less farmer and spouse labour	115		46
Add management	3		1
Net margin	17		-6

4.0 Appendix A

Notes and Definitions

Classification of Farms in the FBS

Farms in the Farm Business Survey are grouped by type of farm based on the EC system of classification defined by Commission Regulation 1242/2008 (with minor modifications to adapt it to United Kingdom conditions). This classification system uses Standard Outputs per hectare of crop area and per head of livestock estimated over a 5 year period. For 2010/11 (in line with the EU regulation) Standard Outputs were first introduced and were calculated for the period 2005-2009 (referred to as 2007 Standard Outputs). Prior to 2010, farm classification was based on using Standard Gross Margins. From 2013/14, Standard Outputs were recalculated for the period 2008-2012 (referred to as 2010 Standard Outputs). From 2018/19, the classification of farms is based on 2013 standard output coefficients. For more information please see https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/365564/fbs-uk-farmclassification-2014-21oct14.pdf

Management and Investment Income (MII) is defined as the return to the farmer and spouse for their management and on the tenant-type capital of the business. Management and investment income is NFI minus an imputed cost for the manual labour of the farmer and spouse plus paid management.

Net Farm Income (NFI) assumes all farms are tenanted and that all tenant type assets are owned by the farmer. It represents the return to the farmer and spouse for their manual and managerial labour and on tenant type capital in livestock, crops, machinery, etc., but excluding land and buildings. It is calculated before deduction of interest payments on any farming loans and also excludes interest earned on any financial assets owned. (Breeding livestock appreciation (BLSA) is excluded from total farm output and, therefore, is not included in net farm income).

Farm Business Income (FBI) for sole traders and partnerships represents the financial return to all unpaid labour (farmers and spouses, directors, 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. 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.

Unpaid Labour costs are based on the time spent in manual work on the farm, valued at the appropriate prevailing hourly earnings of agricultural workers. Farmer and spouse unpaid labour costs are added back in order to calculate NFI from MII.

Weighting of results

All data presented in this report has been weighted to reflect the relative significance of each farm in the population. The weighting adopted has been the same as that used in the main FBS results (see www.farmbusinesssurvey.co.uk).

All FBS results are weighted so as to represent the whole population of farms rather than just the sample. The population in this case is all farms in England has a Standard Output of 25,000 euros. Weighting of FBS data is a two-stage procedure. The first stage applies a multiple to each farm to bring the number of farms to population level and to correct for differing probabilities of selection from the June agricultural census sampling frame; the second stage readjusts these weights to correct for biases identified from a range of variables in external data sources.

Average number of sows

The average number of sows is an annual average calculated from the number of sows and in-pig gilts on the farm.

5.0 Appendix B: Reports in Series

Reports in this series:

Crop Production in England 2020/21

Dairy Farming in England 2020/21

Hill Farming in England 2020/21

Horticulture Production in England 2020/21

Lowland Grazing Livestock Production in England 2020/21

Organic Farming in England 2020/21

Pig Production in England 2020/21

Poultry Production in England 2020/21

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