

Farm Business Survey

2018/19

Pig Production in England



Simon Walton & David Hildreth

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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 Fourteenth Series

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

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

For the 2018/19 year, average Farm Business Income (FBI), derived from our work on the Farm Business Survey (FBS), fell to £50,400 per business from £56,100 in 2017/18. The 2018/19 year relates to the 2018 harvest year, which witnessed an exceptionally cold spring “The Beast from the East” followed by one of the driest summers on record (almost in line with the 1976 drought). These weather impacts led to forage shortage and thus increased livestock feeds costs in the grazing sectors, and reduced cropping yields, albeit with an increase in crop prices. The dairy and grazing livestock sectors witnessed the largest percentage decreases in FBI, as they faced the higher costs of feed and lower prices for stock, particularly in the less favoured areas (LFAs).

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

Professor Paul Wilson

Chief Executive Officer, Rural Business Research
January 2020

www.ruralbusinessresearch.co.uk

2 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 Craig Ashford, Ashford Bros.

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Key Findings

The Pig Sector

- The total number of pigs in the UK herd increased by 0.5% in 2019 compared to the previous year.
- The total number of Specialist Pig Holdings in England decreased by 11.5% in 2018 in comparison to 2017
- Prices dipped marginally in the first quarter of 2019 though noticeable price increases were seen from April onwards. Prices continued to grow to highs of 161.91p/kg in December, 20p higher than the same period in 2018.

Farm Level Results

- Farm Business Survey data from 2018/19 shows that the average Farm Business Income (FBI) on Specialist Pig Farms was £29,607, which was 11% lower than the previous year.
- Overall Management and Investment Income (MII) for the group of Specialist Pig Farms ranged from £132,151 for the top 25% to a loss of -£60,765 in the bottom 25%
- The farms with the largest standard output had a much higher MII than the 2 smaller groups, with £46,518 for the largest and £81 and £3,633 for the middle and smallest farms respectively.

Pig Enterprise Results

- Enterprise level analysis shows that in 2018/19 the net margin decreased to £3,772, compared to the previous year net margin of £10,561.
- Average costs and margins per £100 pig output showed a net margin of -£1.40, and a feed cost of £61.60. The net margin is therefore down £10.50 per £100 output compared to the previous year, the biggest change in feed costs per output.
- Net margins between breeders selling fat pigs and contract rearing were considerably different, with breeders selling fat pigs having an average margin of -£8,095 compared to £8,166 for contract rearing.

1.0 Commentary on the UK Pig Industry

- Total pig numbers per holding have remained fairly stable between 2006 and 2019 with near 4,000 per holding pigs across the period. Reduced numbers were seen between 2009 and 2012 though numbers improved in 2013 and have remained fairly steady since.
- Total number of pigs in England in 2019 increased by 0.5% when compared to 2018 remaining at over 4 million animals. The increase was driven by the rise in the number of fattening pigs, up by 0.5% and breeding pigs 0.4%.
- In 2019 the English breeding herd consisted of 71.6% Sows in pig, 13.2% Gilts in pig, and 15.3% Other sows which is very similar to the year previous.
- The total number of Specialist Pig Holdings in England decreased by 11.5% in 2018 in comparison to 2017 this negating the increase in holdings seen a year earlier. All regions saw a decrease of pig holdings, though in percentage terms the North West and East Midlands saw comparatively the biggest decreases.
- In 2018 Yorkshire and the Humber accounted for 37.2% of the total pigs in England, the Eastern region accounted for a further 25.7% and the South West for another 10.6%.
- Pig prices started nearly 3p lower at the beginning of 2019 than the previous month though pig prices were still near 9p lower than they were the January before. Prices dipped marginally in the first quarter of 2019 though noticeable price increases were seen from April onwards. Prices continued to grow to highs of 161.91p/kg in December, 20p higher than the same period in 2018.

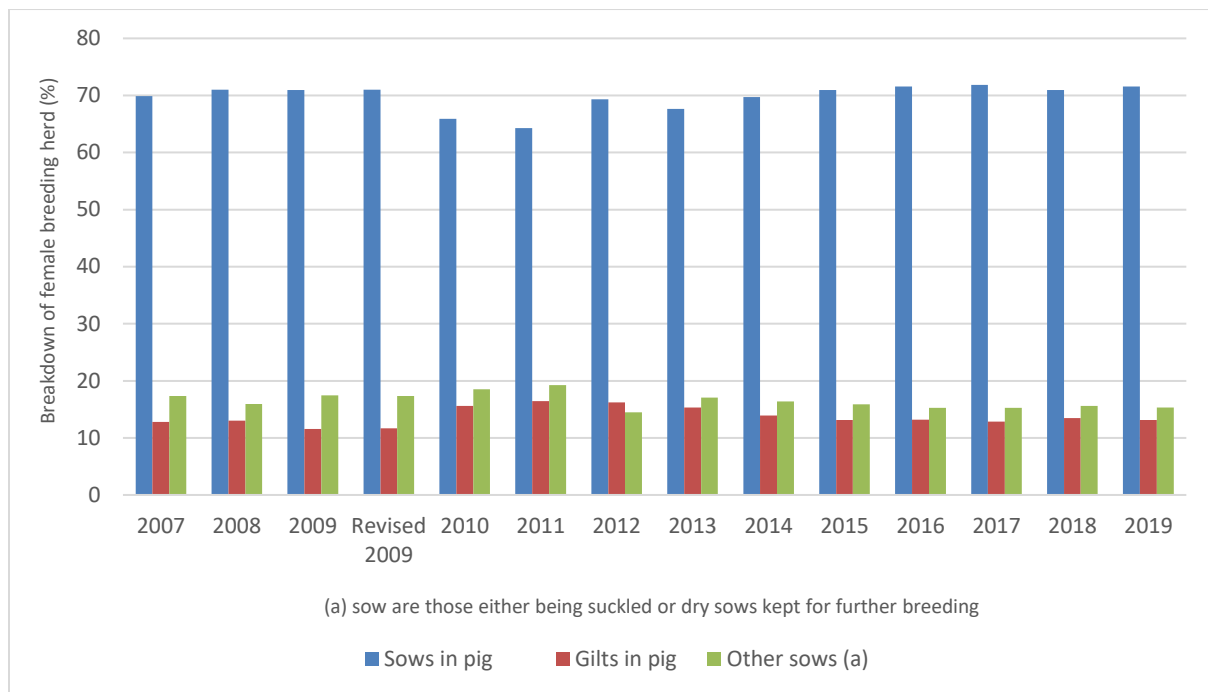
Table 1.1 Breeding Pigs on Agricultural Holdings in England 1st June ('000)

	2007	2008	2009	Revised 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% Change 2019/20 18
Total pigs	3943	3854	3872	3689	3606	3600	3662	4066	3954	3826	3911	3969	4038	4 060	0.5%
Total breeding pigs	445	410	444	421	423	433	437	434	411	413	417	416	408	410	0.4%
Female breeding herd	375	346	371	352	346	354	351	346	329	328	334	334	327	327	0.1%
Sows in pig	262	245	264	250	228	227	244	234	230	232	239	240	232	234	1.1%
Gilts in pig	48	45	43	41	54	58	57	53	46	43	44	43	44	43	-2.0%
Other sows (c)	65	55	65	61	64	68	51	59	54	52	51	51	51	50	-2.3%
Other breeding pigs	70	64	73	69	77	79	85	88	82	85	82	82	82	83	1.6%
Boars for service	16	15	16	15	14	14	14	13	12	13	13	11	11	10	-5.0%
Gilts not yet in pig	54	49	57	54	63	65	72	75	70	72	69	71	71	73	2.6%
Fattening pigs (liveweight)	3499	3445	3428	3268	3183	3167	3225	3632	3542	3413	3494	3553	3630	3 650	0.5%

Source: Defra, 2019 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 female pig breeding herd 1st June 2007-2019



Source: Defra, 2019 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture

Table 1.2 Specialist Pig Holdings by Region 2012-2018*

	2012	2013	2014	2015	2016	2017	2018
North East	43	45	48	37	47	49	47
North West and Merseyside	127	114	131	102	136	171	123
Yorkshire and The Humber	464	485	499	480	515	525	517
East Midlands	178	167	174	156	190	218	174
West Midlands	153	137	163	131	153	181	153
Eastern	382	393	406	410	422	438	418
South East	159	134	172	133	170	208	169
South West	274	260	330	252	320	397	334
England	1,780	1,735	1,923	1,701	1,953	2,187	1,935

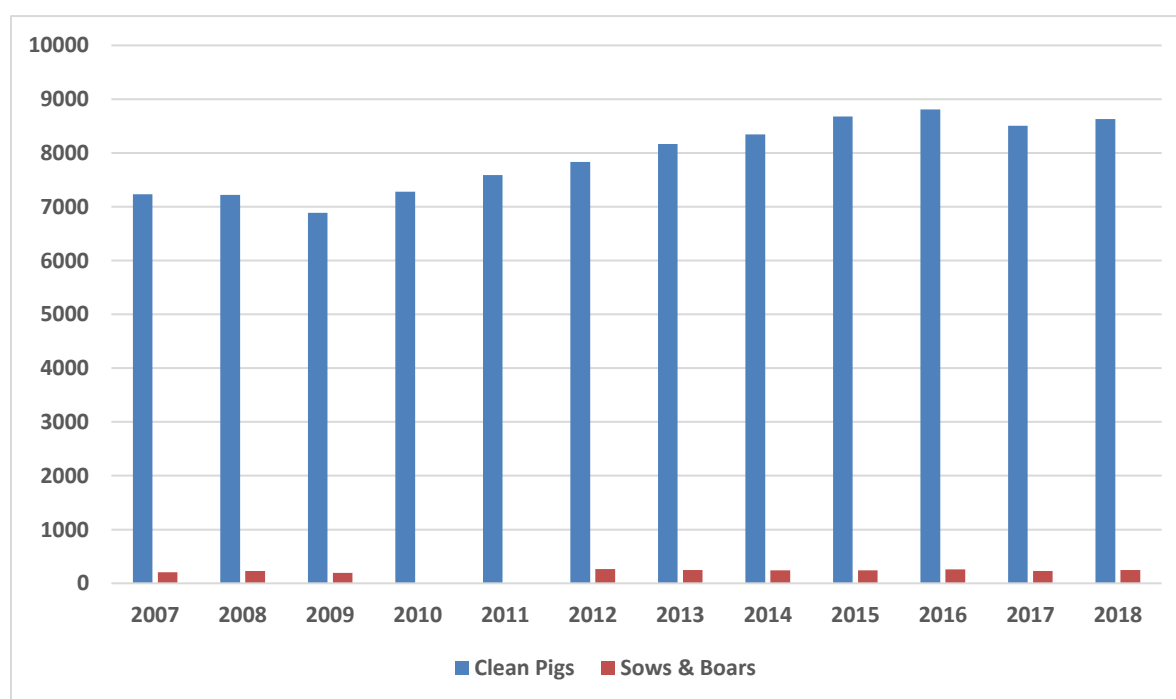
Footnote: * Data for 2012 based on 2007 Standard Output coefficients, 2013 onwards based on 2010 Standard Output coefficients

<https://www.gov.uk/guidance/structure-of-the-agricultural-industry-survey-notes-and-guidance>

Table 1.3 Number of Pigs by Region 2012-2018

	2012	2013	2014	2015	2016	2017	2018
North East	68,557	76,780	71,704	69,924	84,381	87,448	129,559
North West and Merseyside	115,782	122,932	115,403	99,333	112,815	110,565	133,462
Yorkshire and The Humber	971,222	1,112,342	1,090,853	1,078,610	1,145,337	1,161,789	1,500,834
East Midlands	276,616	301,143	287,896	277,785	299,486	281,848	377,989
West Midlands	145,102	164,078	155,057	137,067	133,713	145,078	209,680
Eastern	749,944	894,763	844,314	818,347	839,666	826,259	1,040,896
South East	140,746	136,977	118,858	143,267	150,675	164,814	217,102
South West	295,118	329,961	326,314	279,379	279,829	344,689	428,974
England	2,763,086	3,138,976	3,010,399	2,903,712	3,045,901	3,122,491	4,038,496

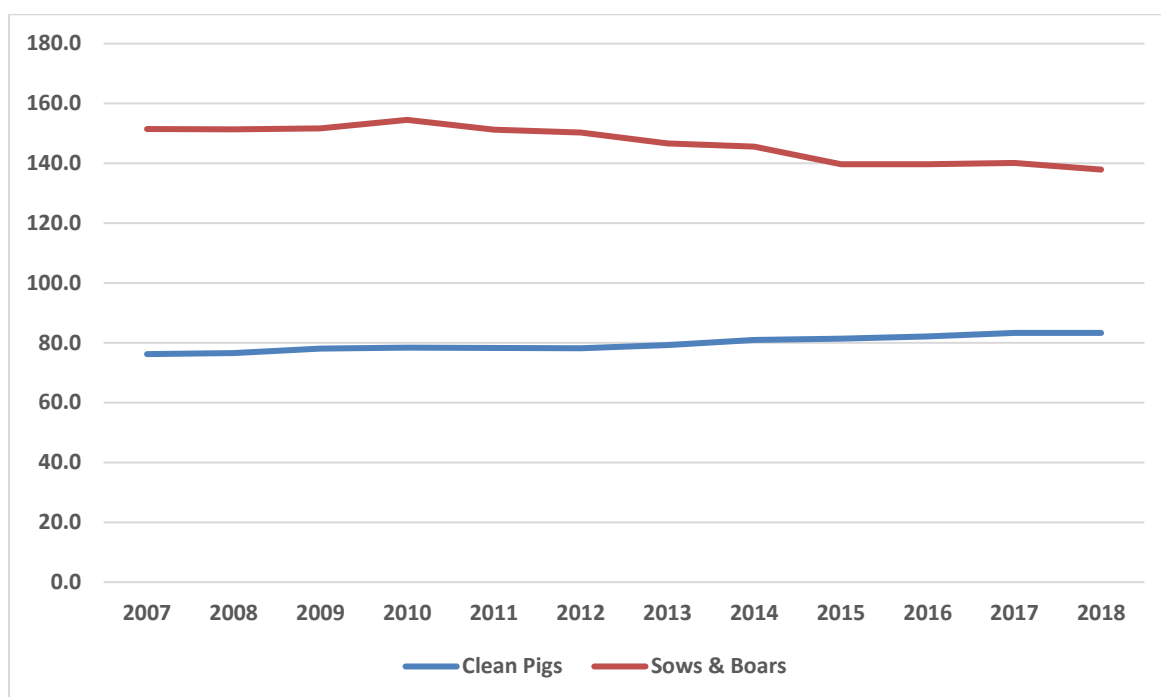
Source: Defra, June Survey <https://www.gov.uk/guidance/structure-of-the-agricultural-industry-survey-notes-and-guidance>

Figure 1.2 Pigs Slaughtered in England and Wales 2007-2018 (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.

Figure 1.3 UK Average Carcase Weights 2007-2018



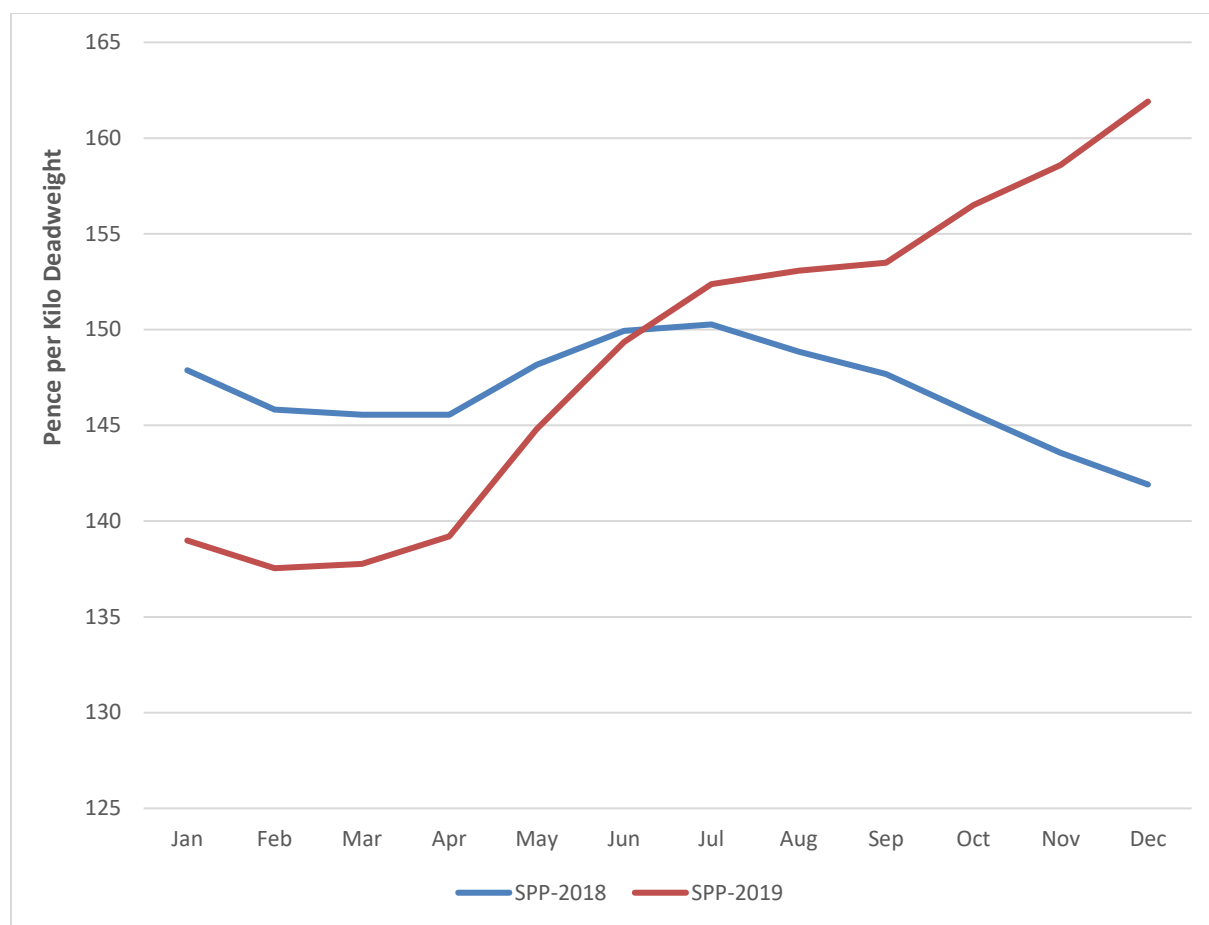
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

Figure 1.4 Deadweight Average Pig Price (SPP) 2007-2018



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

Figure 1.5 Deadweight Average Pig Prices (SPP) 2017-2018



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 2018/19 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 2018/19 FBS there were 76 farm businesses that were classified as Specialist Pig farms. This is slightly higher than the previous year when there were 68 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 76 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	26	Pigs rearing and fattening combined
5120	44	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, total farm business income amounted to £29,607 (Table 2.1) which was 11% lower than the previous year. However, a few new specialist pig farms entered the FBS sample in 2018/19 and are very influential with respect to their impact on farm business income, and when these influential outliers are given a weight of 1, which means they just represent themselves, the total farm business income was £19,829, representing a 37% decrease from 2017/18 to 2018/19. These two FBI results are presented here to show the influence of these farms on the overall change in FBI between years at overall sample level. For the purpose of the remainder of the report the full sample, including these new farms in the sample, is used in the analysis within the report. Further details about the influence of these new specialist pig farms to the survey can be found at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/847722/fbs-businessincome-statsnotice-21nov19.pdf

Total output was 29% greater than the previous financial year, averaging £616,165 per farm. Costs also increased by a similar rate across farms, resulting in the Management and Investment Income (MII) decreasing by 9% on the year.

Table 2.2 shows the range in performance in terms of FBI for Specialist Pig Farms. The table demonstrates the range of farm business incomes seen in the sector with the top performing 25% achieving an average FBI of £141,976 whilst the bottom 25% have a negative income of £72,046. The range between the top quartile by FBI and bottom quartile has increased compared to last year, (£214,022 difference this year, compared to £187,920).

Table 2.3 shows the range in performance in terms of MII for Specialist Pig farms, with the top 25% achieving £132,151 and the bottom making a loss of -£60,765 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 and FBI per farm is higher for 'predominately sows' businesses.

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 show a clear difference between the largest sized group and those of the other two groups. The largest sized group records an average MII of £46,518; whilst the other two size groups record MII's of £3,633 and £81.

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 fixed costs on average when compared to the medium group, but they had quite similar average gross margins per farm.

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/>

Table 2.1 Specialist Pig Farms – Financial Results

	2017/18	2018/19	% Change	
Number of farms	68	76		
Output	£	£		
Pigs	408,296	481,069	18	
Other livestock	4,579	6,165	35	
Crops	23,833	41,658	75	
Miscellaneous	40,734	87,273	114	
Total output	477,442	616,165	29	
Variable costs				
Feed	198,215	248,837	26	
Vet and medicines	11,157	12,628	13	
Other livestock costs	28,875	40,249	39	
Crop costs	9,898	18,699	89	
Total variable costs	248,145	320,413	29	
Farm gross margin	229,297	295,752	29	
Fixed costs				
Labour	- Paid	53,155	75,149	41
	- Unpaid	26,334	28,858	10
Machinery	- Contract	13,380	13,386	0
	- Depreciation	29,857	35,520	19
	- Repairs	14,983	20,625	38
	- Fuel and oil	9,592	16,210	69
Occupiers repairs		11,228	12,555	12
Rent and rates		29,125	40,123	38
Other farm costs (including bad debts)		23,101	36,390	58
Total fixed costs	210,750	278,815	32	
Management and investment income	18,537	16,938	-9	
Less management charges	291	362	24	
Plus farmer and spouse labour	21,184	23,483	11	
Net farm income	39,430	40,058	2	
Less net interest payments	6,961	11,583	66	
Less building depreciation and insurance	21,818	25,002	15	
Less directors remuneration	1,669	4,394	163	
Plus rental value and imputed rent	19,149	25,153	31	
Plus imputed labour	5,151	5,375	4	
Farm business income	33,279	29,607	-11	

Table 2.2 Specialist Pig Farms 2018/19 – Grouped by FBI per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	24	37	15*
Output	£	£	£
Pigs	712,446	201,213	808,879
Other livestock	4,937	5,403	8,925
Crops	64,703	30,908	40,016
Miscellaneous	166,288	44,819	92,845
Total output	948,375	282,343	950,664
Variable costs			
Feed	320,074	102,609	470,056
Vet and medicines	20,659	5,784	18,259
Other livestock costs	57,311	19,382	64,882
Crop costs	25,428	12,600	24,148
Total variable costs	423,472	140,375	577,345
Farm gross margin	524,902	141,968	373,320
Fixed costs			
Labour	- Paid		
	- Unpaid		
Machinery	- Contract		
	- Depreciation		
	- Repairs		
	- Fuel and oil		
Occupiers repairs			
Rent and rates			
Other farm costs (including bad debts)			
Total fixed costs	404,359	144,996	420,576
Management and investment income	120,544	-3,028	-47,255
Less management charges	716	10	712
Plus farmer and spouse labour	24,229	23,858	21,979
Net farm income	144,057	20,820	-25,988
Less net interest payments	8,399	9,008	19,943
Less building depreciation and insurance	19,432	12,494	55,653
Less directors remuneration	11,418	737	4,654
Plus rental value and imputed rent	33,094	19,213	29,062
Plus imputed labour	4,074	6,151	5,130
Farm business income	141,976	23,946	-72,046

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

Table 2.3 Specialist Pig Farms 2018/19 – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	26	34	16
Output	£	£	£
Pigs	1,242,634	227,753	224,691
Other livestock	1,230	8,143	7,247
Crops	60,324	45,031	16,625
Miscellaneous	191,129	52,066	53,835
Total output	1,495,317	332,993	302,398
Variable costs			
Feed	610,319	116,316	151,746
Vet and medicines	32,420	6,536	4,990
Other livestock costs	95,308	20,907	23,807
Crop costs	22,426	18,730	15,078
Total variable costs	760,473	162,489	195,621
Farm gross margin	734,843	170,504	106,777
Fixed costs			
Labour	- Paid		
	- Unpaid		
Machinery	- Contract		
	- Depreciation		
	- Repairs		
	- Fuel and oil		
Occupiers repairs			
Rent and rates			
Other farm costs (including bad debts)			
Total fixed costs	602,692	172,571	167,542
Management and investment income	132,151	-2,069	-60,765
Less management charges	716	317	100
Plus farmer and spouse labour	24,743	23,532	22,346
Net farm income	156,179	21,146	-38,519
Less net interest payments	19,105	12,338	2,646
Less building depreciation and insurance	56,397	17,128	9,380
Less directors remuneration	12,925	706	3,201
Plus rental value and imputed rent	33,837	26,708	13,588
Plus imputed labour	2,436	6,055	7,028
Farm business income	104,024	23,737	-33,131

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 2018/19 – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	32	44
Output	£/farm	£/farm
Pigs	1,027,692	210,624
Other livestock	10,411	4,064
Crops	85,222	20,105
Miscellaneous	156,087	53,227
Total output	1,279,412	288,020
Variable costs		
Feed	550,886	99,397
Vet and medicines	30,175	3,946
Other livestock costs	81,094	20,040
Crop costs	34,009	11,124
Total variable costs	696,164	134,508
Farm gross margin	583,248	153,512
Fixed costs		
Labour		
- Paid	156,970	34,669
- Unpaid	30,451	28,070
Machinery		
- Contract	27,860	6,224
- Depreciation	67,237	19,827
- Repairs	40,367	10,858
- Fuel and oil	33,457	7,677
Occupiers repairs	20,759	8,496
Rent and rates	77,460	21,649
Other farm costs (including bad debts)	65,391	22,041
Total fixed costs	519,951	159,512
Management and investment income	63,297	-5,999
Less management charges	656	216
Plus farmer and spouse labour	24,849	22,806
Net farm income	87,490	16,591
Less net interest payments	22,731	6,067
Less building depreciation and insurance	53,682	10,813
Less directors remuneration	8,512	2,356
Plus rental value and imputed rent	43,560	16,045
Plus imputed labour	5,601	5,263
Farm business income	51,727	18,663

Table 2.5 Financial Data for Specialist Pig Farms 2018/19 – Grouped by Standard Output per Farm

000 SO	0-200 *	200-500	500+
Number of farms	9	19	48
Output	£	£	£
Pigs	76,360	133,545	1,247,935
Other livestock	3,099	7,645	8,666
Crops	11	13,914	114,125
Miscellaneous	77,655	39,405	137,358
Total output	157,126	194,509	1,508,085
Variable costs			
Feed	18,802	62,151	675,997
Vet and medicines	696	3,632	34,232
Other livestock costs	8,130	17,322	97,365
Crop costs	4,702	5,712	46,000
Total variable costs	32,331	88,818	853,594
Farm gross margin	124,795	105,691	654,491
Fixed costs			
Labour	- Paid 29,481	17,148	176,796
	- Unpaid 27,341	24,577	34,128
Machinery	- Contract 859	5,354	34,929
	- Depreciation 14,158	11,806	80,317
	- Repairs 8,318	5,703	47,447
	- Fuel and oil 7,655	4,901	35,609
Occupiers repairs	2,843	4,194	30,975
Rent and rates	3,966	15,233	103,680
Other farm costs (including bad debts)	26,542	16,694	64,091
Total fixed costs	121,163	105,611	607,973
Management and investment income	3,633	81	46,518
Less management charges	20	93	990
Plus farmer and spouse labour	24,306	19,314	25,844
Net farm income	27,918	19,301	71,372
Less net interest payments	1,995	3,882	29,323
Less building depreciation and insurance	1,389	7,044	67,881
Less directors remuneration	5,897	508	5,710
Plus rental value and imputed rent	1,886	11,013	64,542
Plus imputed labour	3,035	5,263	8,284
Farm business income	23,559	24,144	41,284

*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

Table 2.6 Financial Data for Specialist Pig Farms 2018/19 – Grouped by Performance Ratio

Ratio	Low *	Medium	High
Number of farms	6	49	21
Output	£	£	£
Pigs	35,186	738,816	375,920
Other livestock	4,992	8,690	2,040
Crops	1,450	69,347	22,913
Miscellaneous	19,893	86,336	154,499
Total output	61,520	903,189	555,373
Variable costs			
Feed	16,222	420,168	117,162
Vet and medicines	402	21,162	6,689
Other livestock costs	7,741	60,146	30,277
Crop costs	8,422	28,280	8,690
Total variable costs	32,788	529,757	162,817
Farm gross margin	28,733	373,432	392,556
Fixed costs			
Labour	- Paid 2,355	100,351	93,151
	- Unpaid 26,675	30,760	27,009
Machinery	- Contract 1,531	23,044	4,744
	- Depreciation 15,096	47,087	31,201
	- Repairs 3,715	26,735	24,273
	- Fuel and oil 4,121	21,224	17,474
Occupiers repairs	2,828	19,055	8,434
Rent and rates	4,497	61,769	29,528
Other farm costs (including bad debts)	10,872	40,452	52,645
Total fixed costs	71,690	370,477	288,458
Management and investment income	-42,958	2,954	104,098
Less management charges	0	407	620
Plus farmer and spouse labour	25,718	22,024	24,356
Net farm income	-17,240	24,572	127,834
Less net interest payments	2,350	18,504	6,106
Less building depreciation and insurance	2,670	43,658	7,763
Less directors remuneration	0	3,579	10,347
Plus rental value and imputed rent	4,382	39,982	14,371
Plus imputed labour	957	8,736	2,653
Farm business income	-16,920	7,549	120,642

*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 72 Specialist Pig farms. These were classified as follows:

Type	No of farms	Definition
111	1	Breeders selling weaners (rearsers)
112	26	Breeders selling fat pigs (finishers)
113	2	Buying weaners, selling fat pigs
114	31	Contract rearing
115	12	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 decreased from £10,561 in 2017/18 to £3,772 in 2018/19. There seemed to be an increase in the average costs throughout the farm, which despite an increase in output by 30%, overall Net margin decreased by 64% when compared to the previous year.

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 -£8,095 and the contract rearing showed a net margin of £8,166.

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, 61.6% of the total output in 2018/19, whereas in 2017/18 the feed costs accounted for 53.6% of output, showing the higher 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 2018/19 there was a total Net Margin of -£35 per sow compared to a net margin of £227 in 2017/18. It is difficult to compare year on year due to some changes in the sample of pig farms, however, feed and labour costs were much greater this year compared to the previous year.

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

	2017/18	2018/19	% Change
Number of farms	63	72	
Output	£ per farm 273,875	£ per farm 339,927	24
Variable costs			
Feed	128,462	169,633	32
Vet and medicines	6,834	8,925	31
Other variable costs	19,935	30,142	51
Total variable costs	155,232	208,700	34
Gross Margin	118,644	131,227	11
Fixed costs			
Paid labour	29,910	39,958	34
Unpaid labour	4,268	4,358	2
Contract hire	3,184	3,884	22
Machinery depreciation	11,555	13,925	21
Machinery repairs	6,361	7,961	25
Fuel and oil	3,815	5,420	42
Electricity and heating fuel	5,434	6,053	11
Water	1,610	1,621	1
Insurance	2,473	3,175	28
Professional fees	2,432	2,603	7
General farm costs	3,028	4,190	38
Occupiers repairs	6,544	8,056	23
Rent and rates	9,835	9,429	-4
Total fixed costs	90,450	110,631	29
Net farm income	26,009	20,597	-21
Less farmer and spouse labour	15,713	17,162	9
Plus managerial input	265	337	27
Net margin	10,561	3,772	-64

Table 3.2 Specialist Pig Farms 2018/19 – Average Net Margins by Farm Type

Farm type	Breeders selling fat pigs	Contract rearing
Number of farms	26	31
Average number of sows per farm	230	20
	£ per farm	£ per farm
Output	576,287	98,949
Variable costs		
Feed	355,057	0
Vet and medicines	14,260	9
Other variable costs	45,470	11,622
Total variable costs	414,787	11,631
Gross Margin	161,500	87,318
Fixed costs		
Paid labour	52,821	21,266
Unpaid labour	5,941	3,778
Contract hire	5,765	1,521
Machinery depreciation	10,916	11,601
Machinery repairs	9,037	6,352
Fuel and oil	6,541	4,089
Electricity and heating fuel	13,082	1,788
Water	3,333	707
Insurance	5,239	1,645
Professional fees	3,987	1,510
General farm costs	7,497	2,464
Occupiers repairs	14,335	2,792
Rent and rates	11,901	3,454
Total fixed costs	150,395	62,966
Net farm income	11,104	24,352
Less farmer and spouse labour	19,854	16,473
Plus managerial input	655	286
Net margin	-8,095	8,166

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

Farm type	£ per £100 output	
	2017/18	2018/19
Feed	53.6	61.6
Other variable costs	9.6	10.4
Gross margin	36.8	28.0
Labour costs	8.3	10.2
Contract and machinery costs	4.7	4.5
Occupiers repairs	1.8	1.8
Rent and rates	2.7	2.1
Other fixed costs	10.2	10.8
Net margin	9.1	-1.4

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

	2017/18	2018/19
Farm Type		Breeders selling fat pigs
Number of farms	28	26
Number of sows	241	230
	£ per sow	£ per sow
Output	2,516	2,510
Variable costs		
Feed	1,348	1,547
Vet and medicines	67	62
Other variable costs	175	198
Total variable costs	1,591	1,807
Gross Margin	925	703
Fixed costs		
Paid labour	178	230
Unpaid labour	31	26
Contract hire	37	25
Machinery depreciation	45	48
Machinery repairs	38	39
Fuel and oil	18	28
Electricity and heating fuel	60	57
Water	13	15
Insurance	22	23
Professional fees	15	17
General farm costs	24	33
Occupiers repairs	46	62
Rent and rates	69	52
Total fixed costs	594	655
Net farm income	331	48
Less farmer and spouse labour	102	86
Add Management	1	3
Net margin	229	-35

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 2018/19

Dairy Farming in England 2018/19

Hill Farming in England 2018/19

Horticulture Production in England 2018/19

Lowland Grazing Livestock Production in England 2018/19

Organic Farming in England 2018/19

Pig Production in England 2018/19

Poultry Production in England 2018/19

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