



Farm Business Survey

2017/18

Pig Production in England



Simon Walton & David Hildreth

RBR

Independent research, data and analysis

Rural Business Research

Farm Business Survey

2017/18

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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

Foreword to the Thirteenth Series

This series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)* represents the thirteenth series of outputs that focus on providing independent data and analysis to the individual sectors of agriculture and horticulture. As the UK edges closer to an outcome following the EU referendum in June 2016, much uncertainty remains in the sector, the UK and across the EU. At the time of writing the political landscape remains uncertain with the three main outcomes still being possible: i) UK departure from the EU with a deal; ii) UK departure from the EU with no deal; iii) a delay in the UK's departure or a 'no Brexit' outcome. On the assumption that the UK will leave the EU, and that a new UK Agriculture Bill will be passed, then the direction of policy travel for UK agriculture and horticulture has become clearer. The seven year transition deal in subsidy payments based on the Basic Payment demonstrates the plan to transition support to farmers away from this broad land-area based payment structure to one which rewards farmers and land managers more for providing environmental public goods. Reflecting on the likely drivers of success for farm and horticultural business in the future, irrespective of the Brexit outcomes and the future trade deals that may follow, the fundamental business drivers of success remain unchanged. Successful businesses focus on margins by understanding their cost, revenue and market base and they undertake comparative analysis of their business performance against other businesses. These successful businesses look for new business opportunities, and are frequently more diversified in their business base than less successful businesses. Within our reports, RBR aims to provide businesses with the independent data, analysis and interpretation to help them identify their strengths and challenges.

For the 2017/18 year, average Farm Business Income (FBI), derived from our work on the Farm Business Survey (FBS), was £56,500, and increase of 49% on the previous year. While a number of factors led to this increase, the devaluation of the pound, leading to UK commodity prices increasing, played a key role in this income boost. Most farm types witnessed an increase in FBI, with the exception of pig farms who faced an increased cost base at the same time as a decreased closing valuations at the year end from a drop in pig prices at that point in time. Dairy farms witnessed the greatest percentage price increase from 2016/17, as they benefited from both increased milk output and improved milk prices. The influence of currency fluctuation on the performance of agriculture is well recognised. The output of the Brexit scenario on the strength or weakness of sterling alone will have a large influence on business profitability moving forward.

With this thirteenth series of reports on the performance of the different sectors of agriculture and horticulture, are core aim of helping inform agricultural and horticultural businesses about the economics in their sector remains unchanged, and is arguably of even greater importance at this historic point in time. 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
February 2019

www.ruralbusinessresearch.co.uk

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 1.7% in 2018 compared to the previous year, led mainly by a 2.2% increase in fattening pigs.
- In 2017 Yorkshire and the Humber accounted for 24.0% of the total pigs in England the Eastern region accounted for a further 20.0% and the South West for another 18.2%.
- SPP average pig price peaked in July 2018 at over 150ppk, a considerable amount lower than the previous year.

Farm Level Results

- Farm Business Survey data from 2017/18 shows that the average Farm Business Income (FBI) on Specialist Pig Farms was £31,274, which was 46% lower than the previous year.
- Overall Management and Investment Income (MII) for the group of 66 Specialist Pig Farms ranged from £144,528 for the top 25% to a loss of -£57,175 in the bottom 25%
- The farms with the largest standard output had a much higher MII than the 2 smaller groups, with £133,758 for the largest and £8,393 and -£20,182 for the middle and smallest farms respectively.

Pig Enterprise Results

- Enterprise level analysis shows that in 2017/18 the net margin decreased considerably to £10,561, compared to the previous year net margin of £42,339.
- Average costs and margins per £100 pig output showed a net margin of £9.1, and a feed cost of £53.6. The net margin is therefore down £3.3 compared to the previous year.
- Net margins between breeders selling fat pigs and contract rearing were considerably different, with breeders selling fat pigs having an average margin of £53,814 compared to -£1,043 for contract rearing.

1.0 Commentary on the UK Pig Industry

- Total pig numbers have remained fairly stable between 2006 and 2018 with near 4,000 pigs across the period. Reduced numbers were seen between 2009 and 2012 though numbers improved into 2013.
- Total number of pigs in England in 2018 increased by 1.7% to just over 4 million animals when compared to 2017. The increase was mainly driven by the increase in the number of fattening pigs, up by 2.2%; the number of breeding pigs fell.
- In 2018 the English breeding herd consisted of 70.9% Sows in pig, 13.5% Gilts in pig, and 15.6% Other sows which is very similar to the year previous.
- The total number of Specialist Pig Holdings in England increased by 12.0% in 2017 in comparison to 2016 this adding to the increase in holdings seen a year earlier. All regions saw an increase of pig holdings, though in percentage terms the North West and South West saw the comparatively biggest increases.
- In 2017 Yorkshire and the Humber accounted for 24.0% of the total pigs in England, the Eastern region accounted for a further 20.0% and the South West for another 18.2%.
- Pig prices started nearly 3p lower at the beginning of 2018 than the previous month. Pig prices were still near 3p lower than they were the January before. Prices dropped in the first quarter of 2018 though noticeable price increases were seen in May. Prices continued to grow to highs of 150.27p/kg in July though subsequent price slips left December's price at 141.91p/kg.

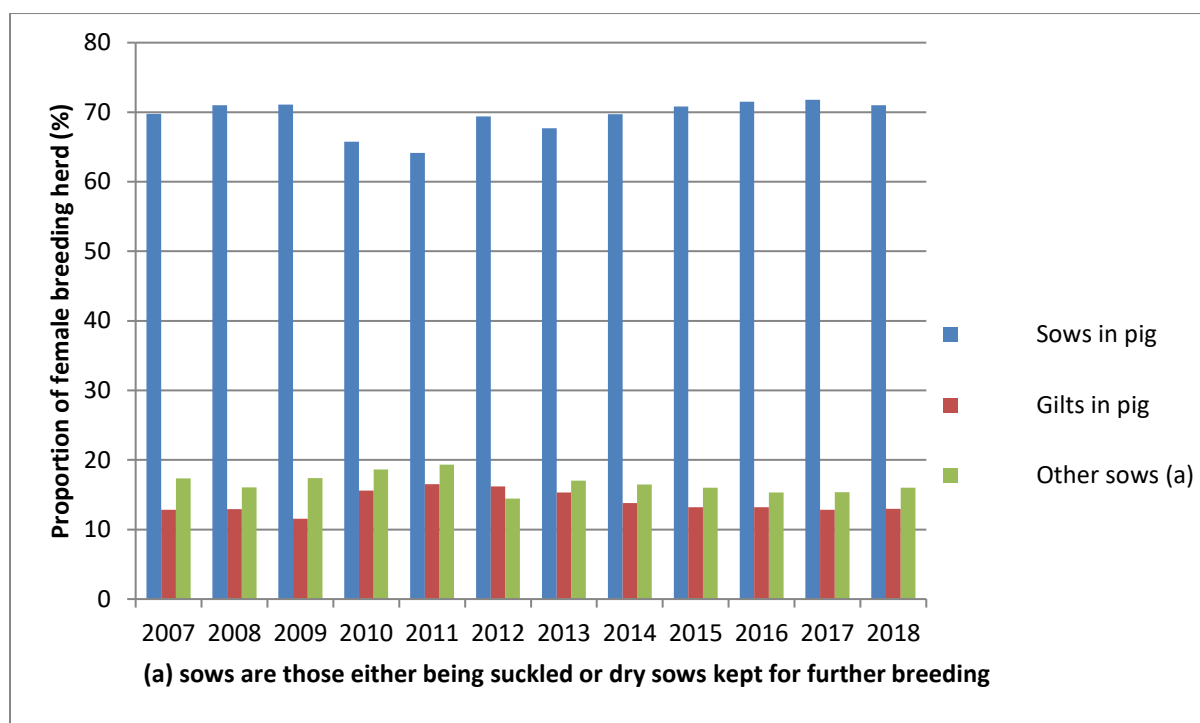
Table 1.1 Breeding Pigs on Agricultural Holdings in England 1st June ('000)

	2006	2007	2008	2009	Revised 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change 17/18
Total pigs	4057	3943	3854	3872	3689	3606	3600	3662	4066	3954	3826	3911	3969	4038	1.7%
Total breeding pigs	462	445	410	444	421	423	433	437	434	411	413	417	416	408	-1.9%
Female breeding herd	386	375	346	371	352	346	354	351	346	329	328	334	334	327	-2.1%
Sows in pig	264	262	245	264	250	228	227	244	234	230	232	239	240	232	-3.3%
Gilts in pig	58	48	45	43	41	54	58	57	53	46	43	44	43	44	2.3%
Other sows (c)	65	65	55	65	61	64	68	51	59	54	52	51	51	51	0.0%
Other breeding pigs	75	70	64	73	69	77	79	85	88	82	85	82	82	82	-0%
Boars for service	17	16	15	16	15	14	14	14	13	12	13	13	11	11	-0%
Gilts not yet in pig	58	54	49	57	54	63	65	72	75	70	72	69	71	71	-0%
Fattening pigs (liveweight)	3596	3499	3445	3428	3268	3183	3167	3225	3632	3542	3413	3494	3553	3630	2.2%

Source: Defra, 2018 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 2007-2018



Source: Defra, 2018 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture

Table 1.2 Specialist Pig Holdings by Region 2011-2017*

	2011	2012	2013	2014	2015	2016	2017
North East	46	43	45	48	37	47	49
North West and Merseyside	125	127	114	131	102	136	171
Yorkshire and The Humber	464	464	485	499	480	515	525
East Midlands	174	178	167	174	156	190	218
West Midlands	161	153	137	163	131	153	181
Eastern	398	382	393	406	410	422	438
South East	159	159	134	172	133	170	208
South West	283	274	260	330	252	320	397
England	1,810	1,780	1,735	1,923	1701	1953	2187

Footnote: * Data for 2011-2012 based on 2007 Standard Output coefficients, 2013 and 2014 based on 2010 Standard Output coefficients

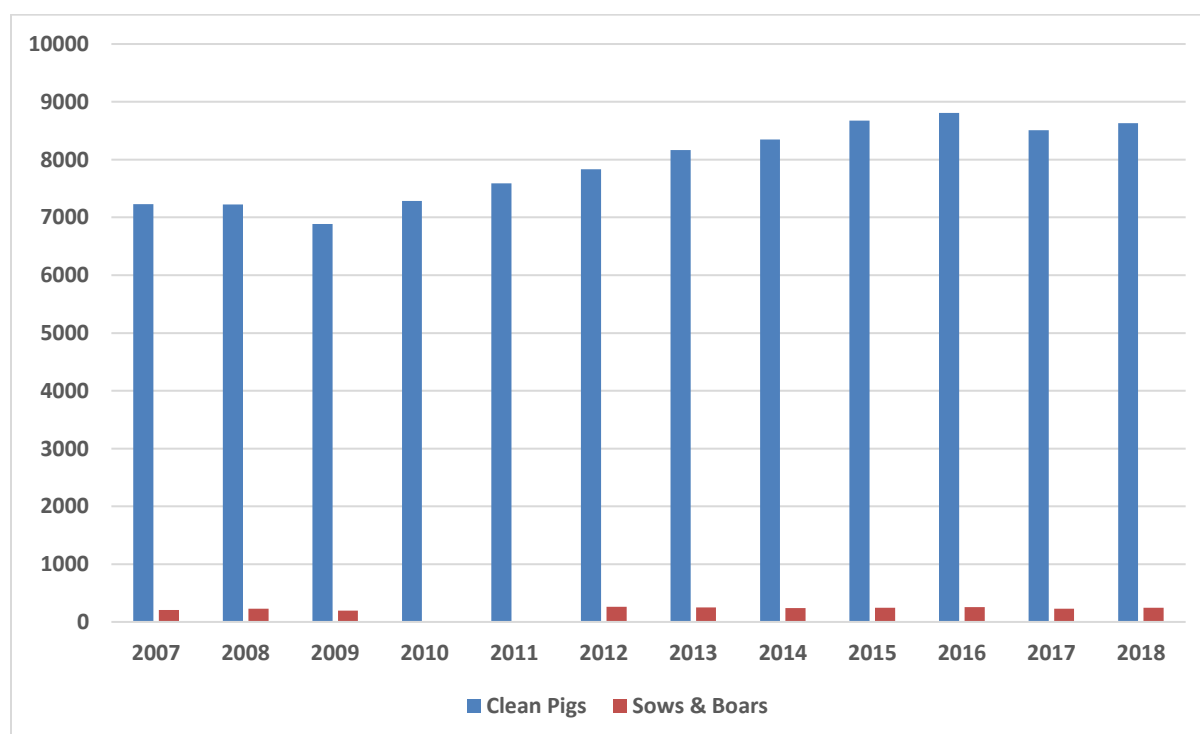
<https://www.gov.uk/guidance/structure-of-the-agricultural-industry-survey-notes-and-guidance>

Table 1.3 Number of Pigs by Region 2011-2017

	2011	2012	2013	2014	2015	2016	2017
North East	66,658	68,557	76,780	71,704	69,924	84,381	87,448
North West and Merseyside	106,292	115,782	122,932	115,403	99,333	112,815	110,565
Yorkshire and The Humber	962,479	971,222	1,112,342	1,090,853	1,078,610	1,145,337	1,161,789
East Midlands	269,572	276,616	301,143	287,896	277,785	299,486	281,848
West Midlands	143,809	145,102	164,078	155,057	137,067	133,713	145,078
Eastern	762,199	749,944	894,763	844,314	818,347	839,666	826,259
South East and London	129,613	140,746	136,977	118,858	143,267	150,675	164,814
South West	296,704	295,118	329,961	326,314	279,379	279,829	344,689
England	2,737,325	2,763,086	3,138,976	3,010,399	2,903,712	3,045,901	3,122,491

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

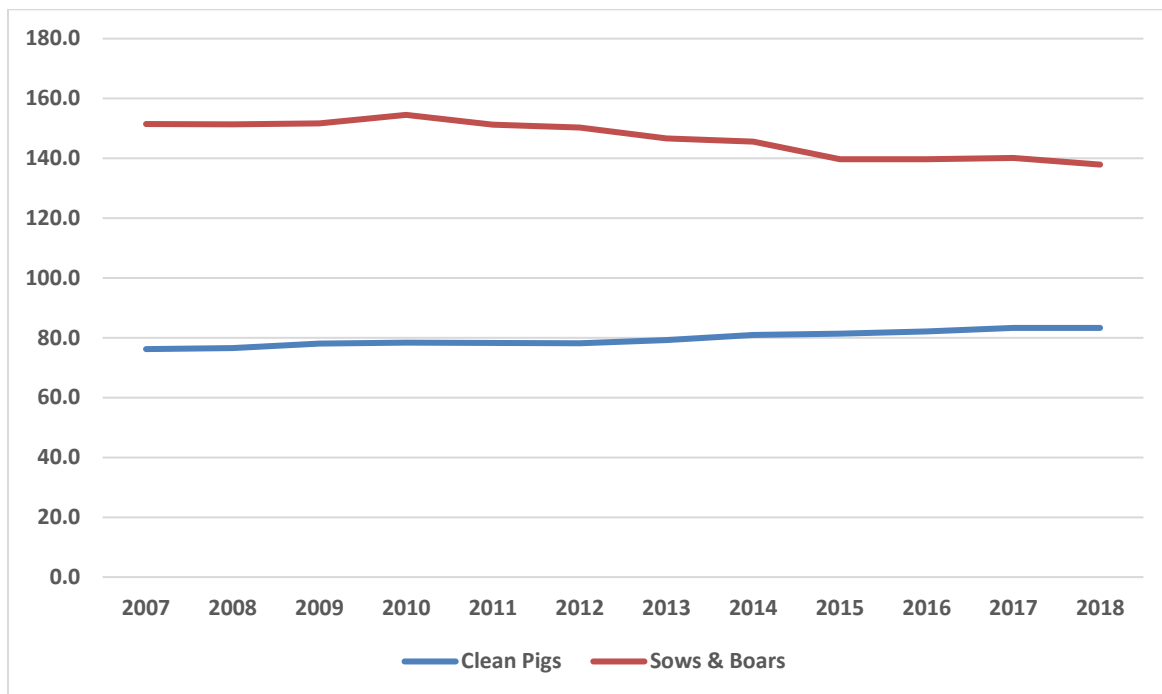
Figure 1.2 Pigs Slaughtered in England and Wales 2007-2018 (thousand head)



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



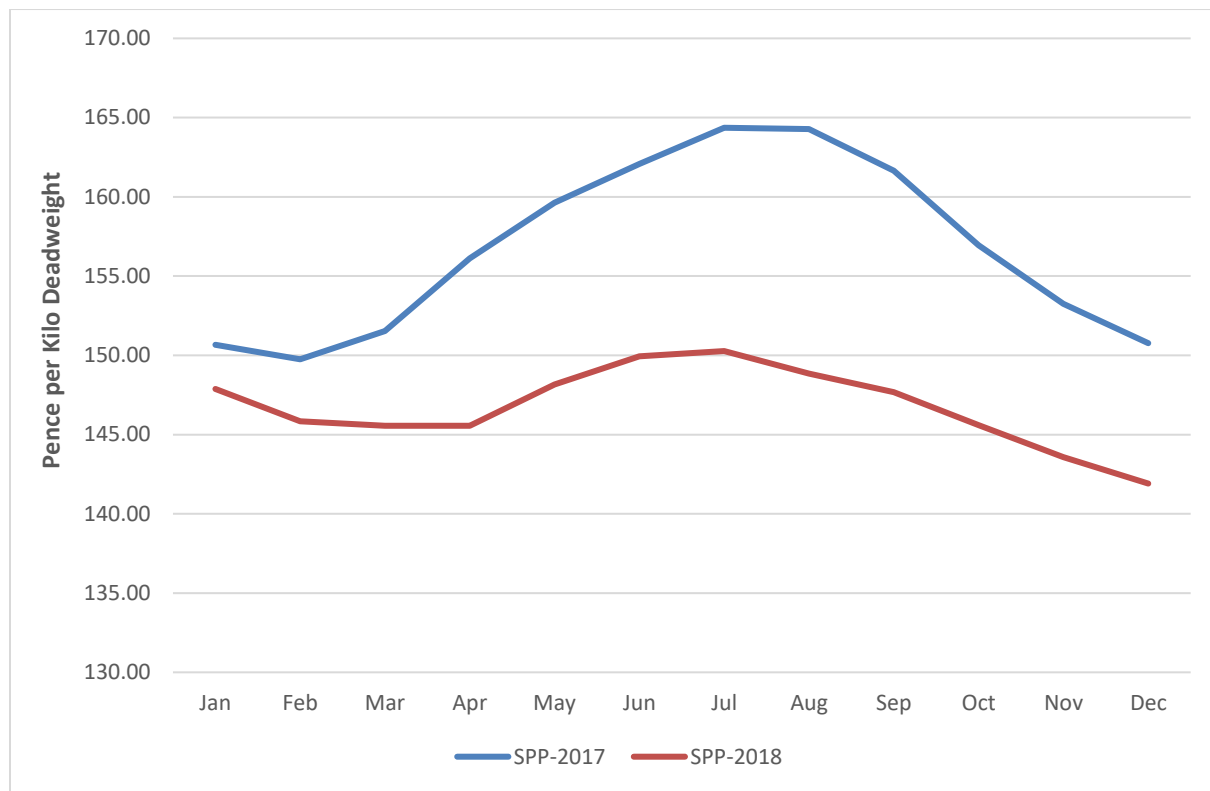
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

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/>

2.0 Financial Performance of Specialist Pig Farms

The data in this report has been extracted from the 2017/18 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 2017/18 FBS there were 68 farm businesses that were classified as Specialist Pig farms. This is slightly higher 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.

2.1 Classification of farms

The 68 Specialist Pig farms subdivided into three EU Particular Farm Types (PFT) as follows:

EU PFT	No of farms	Description
5110	4	Specialist pig rearing
5130	35	Pigs rearing and fattening combined
5120	29	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 £31,274 (Table 2.1) which was 46% lower than the previous year. Pig output accounted for 84.9% of total output which is around 2.1% greater than the previous year. These farms recorded an average gross margin of £218,000 after deduction of variable costs amounting to £236,874. This margin is 9% less compared to 2016/17 figures, mainly due to an increase in average feed costs per holding of £13,235.

Fixed costs amounted to £202,256 resulting in a Management and Investment Income (MII) of £15,744. Net Farm Income (NFI) averaged £36,543.

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 £144,528 whilst the bottom 25% have a negative income, £-43,392.

Table 2.3 shows the range in performance in terms of MII for Specialist Pig farms, with the top 25% achieving £140,793 and the bottom making a loss of -£57,175.

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 £133,758; whilst the other two size groups record MII's of £-20,182 and £8,393.

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.

Table 2.1 Specialist Pig Farms – Financial Results

	2016/17	2017/18	% Change
Number of farms	66	68	
Output	£	£	
Pigs	385,576	386,371	-
Other livestock	5,395	4,438	-18
Crops	27,737	23,785	-14
Miscellaneous	46,923	40,280	-14
Total output	465,631	454,874	-2
Variable costs			
Feed	175,741	188,976	8
Vet and medicines	11,082	10,689	-4
Other livestock costs	28,915	27,373	-5
Crop costs	11,434	9,836	-14
Total variable costs	227,172	236,874	4
Farm gross margin	238,459	218,000	-9
Fixed costs			
Labour			
- Paid	49,530	50,143	1
- Unpaid	28,948	26,070	-10
Machinery			
- Contract	15,283	12,913	-16
- Depreciation	25,979	27,899	7
- Repairs	13,269	14,348	8
- Fuel and oil	9,050	9,122	1
Occupiers repairs	9,104	11,123	22
Rent and rates	34,081	28,160	-17
Other farm costs (including bad debts)	22,030	22,478	2
Total fixed costs	207,274	202,256	-2
Management and investment income	31,185	15,744	-50
Less management charges	416	257	-38
Plus farmer and spouse labour	23,347	21,057	-10
Net farm income	54,116	36,543	-32
Less net interest payments	6,282	6,789	8
Less building depreciation and insurance	17,043	20,938	23
Less directors remuneration	2,606	1,591	-39
Plus rental value and imputed rent	24,028	19,036	-21
Plus imputed labour	5,601	5,014	-10
Farm business income	57,815	31,274	-46

Table 2.2 Specialist Pig Farms 2017/18 – Grouped by FBI per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	37	21	10
Output	£	£	£
Pigs	740,579	63,806	662,298
Other livestock	7,757	4,601	889
Crops	57,080	7,898	21,925
Miscellaneous	62,854	17,900	61,374
Total output	868,270	94,206	746,485
Variable costs			
Feed	347,446	23,007	354,130
Vet and medicines	21,533	1,441	17,931
Other livestock costs	50,760	5,863	46,001
Crop costs	22,987	4,043	8,172
Total variable costs	442,725	34,353	426,233
Farm gross margin	425,544	59,852	320,252
Fixed costs			
Labour			
- Paid	78,933	7,194	104,794
- Unpaid	34,236	26,939	16,437
Machinery			
- Contract	14,199	2,637	31,449
- Depreciation	42,913	5,231	56,917
- Repairs	21,581	3,478	28,233
- Fuel and oil	13,345	2,731	17,315
Occupiers repairs	18,535	3,769	18,059
Rent and rates	52,069	12,637	34,750
Other farm costs (including bad debts)	40,494	9,615	29,687
Total fixed costs	316,305	74,231	337,641
Management and investment income	109,240	-14,377	-17,389
Less management charges	874	78	0
Plus farmer and spouse labour	25,293	22,424	14,295
Net farm income	133,659	7,968	-3,095
Less net interest payments	9,015	2,455	12,966
Less building depreciation and insurance	25,649	6,639	43,882
Less directors remuneration	3,013	452	2,399
Plus rental value and imputed rent	39,604	9,782	16,807
Plus imputed labour	8,942	4,516	2,143
Farm business income	144,528	12,719	-43,392

*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 2.3 Specialist Pig Farms 2017/18 – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	37	18	13
Output	£	£	£
Pigs	1,236,035	77,892	187,498
Other livestock	10,460	1,608	4,615
Crops	63,064	3,954	28,309
Miscellaneous	76,375	19,128	51,651
Total output	1,385,933	102,582	272,073
Variable costs			
Feed	599,349	26,854	125,266
Vet and medicines	35,624	930	6,592
Other livestock costs	82,928	7,267	14,215
Crop costs	25,577	1,718	12,068
Total variable costs	743,478	36,769	158,140
Farm gross margin	642,455	65,813	113,933
Fixed costs			
Labour			
- Paid	142,214	11,216	42,138
- Unpaid	32,796	20,546	32,088
Machinery			
- Contract	36,411	2,434	12,210
- Depreciation	82,872	7,126	17,036
- Repairs	39,494	3,983	11,507
- Fuel and oil	26,449	3,030	4,578
Occupiers repairs	21,439	6,363	11,205
Rent and rates	71,909	10,840	21,459
Other farm costs (including bad debts)	48,078	12,208	18,887
Total fixed costs	501,662	77,746	171,108
Management and investment income	140,793	-11,933	-57,175
Less management charges	889	72	0
Plus farmer and spouse labour	25,113	16,768	27,045
Net farm income	165,016	4,762	-30,131
Less net interest payments	17,484	2,638	4,947
Less building depreciation and insurance	58,699	6,647	13,530
Less directors remuneration	4,308	79	2,252
Plus rental value and imputed rent	40,131	8,914	20,164
Plus imputed labour	7,684	3,778	5,044
Farm business income	132,341	8,090	-25,651

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. *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 2.4 Financial Data for Specialist Pig Farms 2017/18 – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	39	29
Output	£/farm	£/farm
Pigs	1,121,051	76,788
Other livestock	8,112	2,890
Crops	55,303	10,503
Miscellaneous	61,788	31,217
Total output	1,246,254	121,398
Variable costs		
Feed	604,616	13,831
Vet and medicines	34,819	522
Other livestock costs	74,996	7,306
Crop costs	22,495	4,501
Total variable costs	736,926	26,160
Farm gross margin	509,328	95,239
Fixed costs		
Labour		
- Paid	119,405	20,957
- Unpaid	30,965	24,008
Machinery		
- Contract	38,051	2,320
- Depreciation	62,733	13,220
- Repairs	33,306	6,360
- Fuel and oil	20,494	4,330
Occupiers repairs	22,146	6,478
Rent and rates	58,985	15,172
Other farm costs (including bad debts)	44,803	13,070
Total fixed costs	431,188	105,915
Management and investment income	78,441	-10,676
Less management charges	141	306
Plus farmer and spouse labour	23,886	19,865
Net farm income	102,186	8,883
Less net interest payments	15,038	3,313
Less building depreciation and insurance	52,183	7,772
Less directors remuneration	3,705	701
Plus rental value and imputed rent	37,571	11,225
Plus imputed labour	7,079	4,143
Farm business income	75,909	12,466

Table 2.5 Financial Data for Specialist Pig Farms 2017/18 – Grouped by Standard Output per Farm

000 SO	0-200	200-500	500+
Number of farms	13	22	33
Output	£	£	£
Pigs	65,993	185,497	1,615,145
Other livestock	335	9,216	10,596
Crops	2,005	19,186	95,514
Miscellaneous	10,247	55,897	110,573
Total output	78,580	269,796	1,831,829
Variable costs			
Feed	22,818	78,698	834,204
Vet and medicines	585	4,743	48,936
Other livestock costs	6,324	12,552	110,222
Crop costs	923	8,949	37,891
Total variable costs	30,650	104,941	1,031,253
Farm gross margin	47,929	164,856	800,576
Fixed costs			
Labour			
- Paid	10,482	36,710	187,357
- Unpaid	21,342	30,842	34,123
Machinery			
- Contract	1,236	4,475	59,154
- Depreciation	9,500	15,603	99,455
- Repairs	3,297	8,176	55,748
- Fuel and oil	2,478	5,645	33,708
Occupiers repairs	4,919	6,768	35,521
Rent and rates	5,756	26,462	97,995
Other farm costs (including bad debts)	9,102	21,782	63,756
Total fixed costs	68,112	156,463	666,817
Management and investment income	-20,182	8,393	133,758
Less management charges	100	158	861
Plus farmer and spouse labour	18678	24,145	24,211
Net farm income	-1,604	32,379	157,108
Less net interest payments	1,652	4,980	24,654
Less building depreciation and insurance	3,034	16,434	80,846
Less directors remuneration	0	1,446	6,584
Plus rental value and imputed rent	3,647	23,026	60,284
Plus imputed labour	2,663	6,698	9,912
Farm business income	21	39,243	115,220

*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 2017/18 – Grouped by Performance Ratio

Ratio	Low	Medium	High
Number of farms	7	39	22
Output	£	£	£
Pigs	32,938	593,019	327,800
Other livestock	1,257	6,412	3,677
Crops	3,362	34,748	22,394
Miscellaneous	3,901	60,915	35,547
Total output	41,459	695,095	389,418
Variable costs			
Feed	11,916	315,562	112,586
Vet and medicines	789	17,901	6,145
Other livestock costs	3,607	41,998	21,948
Crop costs	2,341	14,128	8,777
Total variable costs	18,653	389,589	149,456
Farm gross margin	22,806	305,505	239,962
Fixed costs			
Labour			
- Paid	6,073	80,425	33,630
- Unpaid	30,187	24,632	24,777
Machinery			
- Contract	1,446	22,356	5,426
- Depreciation	5,807	38,460	29,044
- Repairs	5,510	20,840	10,182
- Fuel and oil	1,294	13,548	8,133
Occupiers repairs	2,527	17,788	6,353
Rent and rates	6,819	37,627	30,766
Other farm costs (including bad debts)	6,325	31,584	20,492
Total fixed costs	65,988	287,260	168,803
Management and investment income	-43,182	18,247	71,159
Less management charges	0	83	876
Plus farmer and spouse labour	23,367	20,925	18,953
Net farm income	-19,814	39,088	89,236
Less net interest payments	1,067	10,326	5,451
Less building depreciation and insurance	5,369	31,249	15,892
Less directors remuneration	0	3,173	0
Plus rental value and imputed rent	6,759	23,755	22,017
Plus imputed labour	6,820	3,707	5,824
Farm business income	-12,671	21,802	95,734

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

Type	No of farms	Definition
111	1	Breeders selling weaners (rearers)
112	28	Breeders selling fat pigs (finishers)
113	1	Buying weaners, selling fat pigs
114	25	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 decreased considerably from £42,339 in 2016/17 to £10,561 in 2017/18. The most noticeable change year on year to have this impact is a decrease in the average farm output which led to an overall decrease in margin, despite a decrease in costs.

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 £53,814 and the contract rearing showed a negative margin of -£1,043.

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, 53.6% of the total output in 2017/18, whereas in 2016/17 the feed costs accounted for 50.2% 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 2017/18 there was a total Net Margin of £227 per sow compared to a net margin of £265 in 2016/17. It is difficult to compare year on year due to some changes in the sample of pig farms, however, total output seemed to be greater per sow, but also feed per sow was increased by £270 compared to the previous year.

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

	2016/17	2017/18	% Change
Number of farms	55	63	
	£ per farm	£ per farm	
Output	373,578	261,978	-30
Variable costs			
Feed	162,232	124,439	-23
Vet and medicines	8,834	6,659	-25
Other variable costs	25,473	19,122	-25
Total variable costs	196,539	150,221	-24
Gross Margin	176,979	111,757	-37
Fixed costs			
Paid labour	39,842	28,156	-29
Unpaid labour	4,348	4,171	-4
Contract hire	12,485	3,058	-76
Machinery depreciation	17,698	10,514	-41
Machinery repairs	8,819	6,136	-30
Fuel and oil	6,346	3,646	-43
Electricity and heating fuel	5,493	5,137	-6
Water	1,843	1,564	-15
Insurance	3,007	2,381	-21
Professional fees	2,800	2,916	4
General farm costs	2,860	2,385	-17
Occupiers repairs	6,048	6,358	5
Rent and rates	5,941	9,327	57
Total fixed costs	117,531	85,748	-27
Net farm income	59,448	26,009	-56
Less farmer and spouse labour	17,586	15,713	-11
Plus managerial input	477	265	-44
Net margin	42,339	10,561	-75

Table 3.2 Specialist Pig Farms 2017/18 – Average Net Margins by Farm Type

Farm type	Breeders selling fat pigs	Contract rearing
Number of farms	28	25
Average number of sows per farm	237	13
	£ per farm	£ per farm
Output	593,345	65,502
Variable costs		
Feed	318,003	0
Vet and medicines	15,839	2
Other variable costs	41,294	5,726
Total variable costs	375,136	5,728
Gross Margin	218,209	59,774
Fixed costs		
Paid labour	41,643	12,630
Unpaid labour	7,230	3,924
Contract hire	8,657	707
Machinery depreciation	10,484	9,240
Machinery repairs	8,899	3,414
Fuel and oil	4,281	2,877
Electricity and heating fuel	14,147	1,573
Water	3,177	708
Insurance	5,184	1,527
Professional fees	4,454	2,022
General farm costs	4,710	1,201
Occupiers repairs	10,747	2,639
Rent and rates	16,256	4,986
Total fixed costs	139,867	47,446
Net farm income	78,342	12,329
Less farmer and spouse labour	24,720	13,738
Plus managerial input	193	367
Net margin	53,814	-1043

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

Farm type	£ per £100 output	
	2016/17	2017/18
Feed	50.2	53.6
Other variable costs	9.7	9.6
Gross margin	40.2	36.8
Labour costs	11.6	12.4
Contract and machinery costs	8.7	4.7
Occupiers repairs	1.2	1.8
Rent and rates	1.5	2.7
Other fixed costs	4.8	6.1
Net margin	12.4	9.1

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

	2016/17	2017/18
Farm Type		Breeders selling fat pigs
Number of farms	25	28
Number of sows	457	237
	£ per sow	£ per sow
Output	2,142	2,507
Variable costs		
Feed	1,074	1,344
Vet and medicines	57	67
Other variable costs	150	175
Total variable costs	1,281	1,585
Gross Margin	861	922
Fixed costs		
Paid labour	172	176
Unpaid labour	21	31
Contract hire	76	37
Machinery depreciation	71	44
Machinery repairs	40	38
Fuel and oil	25	18
Electricity and heating fuel	31	60
Water	9	13
Insurance	14	22
Professional fees	9	19
General farm costs	14	18
Occupiers repairs	27	45
Rent and rates	32	69
Total fixed costs	541	591
Net farm income	320	331
Less farmer and spouse labour	55	104
Add Management	0	1
Net margin	265	227

4.0 Appendix A

Notes and Definitions

Classification of Farms in the FBS

Farms are classified by both type and size. Standard Outputs (SOs) are calculated per hectare of crops and per head of livestock and used to calculate the standard output associated with each part of the Farm Business. They are expressed in terms of euros per ha or per head of livestock. The SOs now in use are based on several years centred on 2010. Holdings on which pigs account for more than two thirds of their total SO are classified as Specialist Pig holdings.

Farms are classified by size by utilising the Standard Labour Requirements (SLR). These are based on standard figures for different enterprises – they are not based on the actual labour utilised on a particular farm. In order to be included in the FBS they generally require at least 0.5 SLR.

Further details on the classification system can be accessed at:

http://webarchive.nationalarchives.gov.uk/20130123162956/http://www.defra.gov.uk/statistics/files/defra-stats-foodfarm-farmmanage-fbs-UK_Farm_Classification.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 <http://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 2017/18

Dairy Farming in England 2017/18

Hill Farming in England 2017/18

Horticulture Production in England 2017/18

Lowland Grazing Livestock Production in England 2017/18

Organic Farming in England 2017/18

Pig Production in England 2017/18

Poultry Production in England 2017/18

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