

## Farm Business Survey

2015/16

### Pig Production in England



**Lucy Peacock**

**Farm Business Survey**

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

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

**Prof. Martin Seabrook**

(Chief Executive of the Consortium)

Spring 2007

## Foreword to the Eleventh Series

With this eleventh series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)*, our focus of providing independent data and analysis to the individual sectors has arguably never been of such importance. The collective decision of the UK voting public on the 23 June 2016 to leave the EU will have large impacts on agricultural and horticultural sectors. Issues of policy, trade, exchange rates and labour availability are now very much front and centre in the minds of many businesses. Ensuring that the enterprises that constitute the farm business are profitable is of even greater importance given the uncertainty which now exists in the industry. Brexit will also bring opportunities, and those seeking to make the most of the opportunities that will arise will need independent data to support effective decision making. In this eleventh series, RBR seeks to provide these independent data in a revised and succinct format which places the data results at the heart of each report; we have focused our succinct comments on key results within the tables to draw to the attention of readers the central highlights. Our increasing focus on the presentation of data and results flows from internal and external feedback.

Setting the context to this series, data from the Farm Business Survey (FBS) for the 2015/16 financial year, shows that average Farm Business Income (FBI) decreased by 21% to £31,400 per farm. Examining results by farm type, on average, only General Cropping, Less Favoured Areas (LFA) Grazing Livestock and Horticulture recorded increases in FBI; by contrast Dairy and Specialist Pig farms recorded FBI decreases of around 50% on 2014/15 levels. Average FBI was at its lowest point for a number of years in 2015/16. The immediate impact of Brexit on exchange rates has however led to recent increases in commodity prices, and the overall outlook for 2016/17 is consequently more positive, though farm type variation remains and not all sectors are likely to witness improvements for 2016/17. Moving forward however, businesses will need to understand the impact of the exchange rate movement on the costs incurred, and a greater focus on budgeting and cost management will be the order of the day in order to capitalise on the exchange rate benefit. Cost comparison from the independent data produced within these reports provides valuable information in relation to costs and returns across each sector to aid managers in this respect.

With respect to the policy environment for agriculture and horticulture moving forward, the rigorous and independent FBS data presented in these reports will be of crucial importance for evidenced-based policy making. Our research work within the FBS programme could not be possible without the direct support of our farmer and grower co-operators and the wider support of agricultural and horticultural businesses and sector stakeholders; our thanks are given to them all.

### Professor Paul Wilson

Chief Executive Officer, Rural Business Research  
March 2017

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

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## **Key Findings**

### The Pig Sector

- During 2015/16 pig numbers witnessed an overall increase when compared to the previous year; however total pig numbers have declined by 38.0% since 1990.
- Total number of pigs in England in 2015/16 increased by 2.2% when compared to 2014/15, this was driven by a 2.4% rise in fattening pigs and a 1.0% rise in breeding pigs.
- The total number of specialist pig holding has reduced by 11.5% in 2015, with all regions except Eastern showing a reduction in holdings.
- Pig prices started low at the start of 2016 with January alone showing a 25.44p/kg drop in price when compared to the previous year. August through to December proved more encouraging with prices achieving 148.97p/kg.

### Farm Level Results

- Farm Business Survey data from 2015/16 shows that the average Farm Business Income (FBI) on Specialist Pig Farms was £21,645, which was a decrease of 56% compared to 2014/15. The top 25% of Specialist Pig Farms generated an income £122,215 whilst the bottom 25% generated a total FBI of -£59,840.
- Overall Management and Investment Income (MII) for the group of 21 Specialist Pig Farms ranged from £118,503 to a loss of -£56,900.

### Pig Enterprise Results

- Enterprise level analysis shows that in 2015/16 the net margin decreased to -£4,604 which is a substantial reduction when compared to the previous year's net margin of £18,689. The overall reduction for specialist pig farms is due to increases in both fixed and variable costs, which more than offset the increase in output, resulting in a negative net margin.
- Average costs and margins per £100 pig output showed a net margin of -£2.9 per £100 output.

## 1.0 Commentary on the UK Pig Industry

- Pig numbers have declined significantly between 1990 and 2016. Total pigs have reduced by 38.0% with total breeding pigs down by 44.9% and fattening pigs having reduced by 37.1%.
- Total number of pigs in England in 2016 increased by 2.2% to 3.9 million animals when compared to 2015. The growth was mainly driven by the increase in the number of fattening pigs up by 2.4%, in addition the female breeding herd showed an increase of 1.8% from 2015.
- In 2016 the English breeding herd consisted of 71.6% Sows in pig, 13.2% Gilts in pig, and 15.2% Other sows which is very similar to that of 2015.
- The total number of Specialist Pig Holdings in England reduced by 11.5% in 2015 with all regions except Eastern showing a reduction in holdings.
- Overall Yorkshire and the Humber account for 37.2% of the total pigs in England with the Eastern region accounting for a further 28.2%. The total number of pigs overall in England reduced by 3.5% when compared to 2014 figures.
- Pig prices started low at the start of 2016 with January alone showing a 25.44p/kg drop in price when compared to the previous year. August through to December proved more encouraging with prices achieving 148.97p/kg.

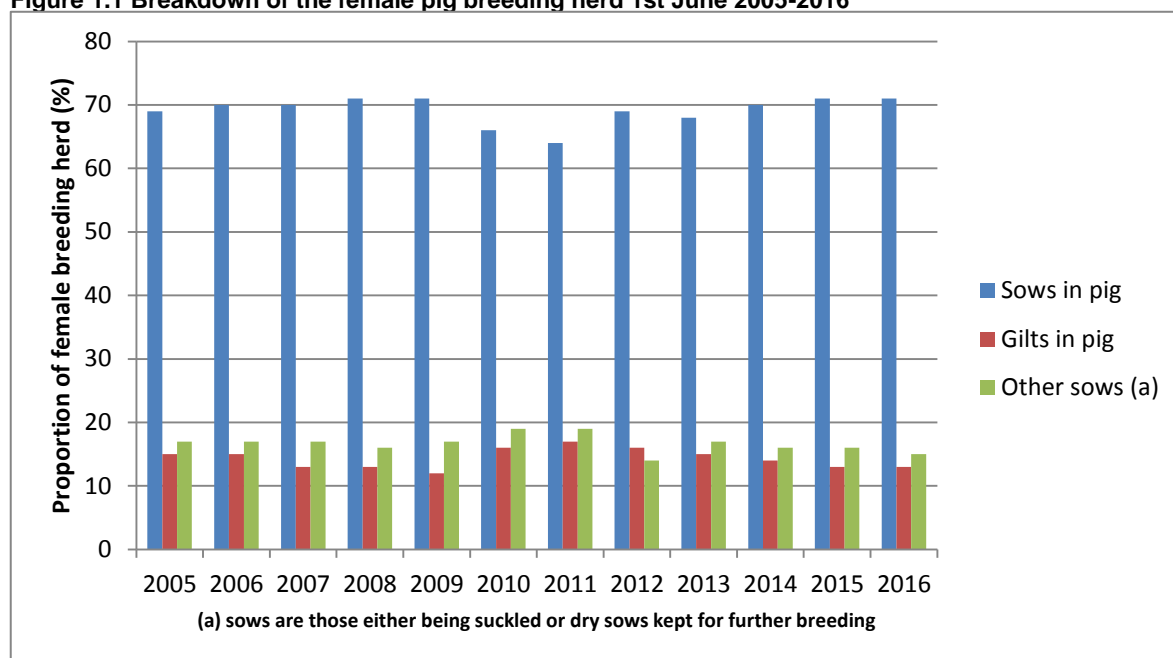
**Table 1.1 Breeding Pigs on Agricultural Holdings in England 1<sup>st</sup> June ('000)**

	1990	2000	2009	Revised 2009	2010	2011	2012	2013	2014	2015	2016	% 15/16 change
<b>Total pigs</b>	<b>6 308</b>	<b>5 442</b>	<b>3 872</b>	<b>3 689</b>	<b>3 606</b>	<b>3 600</b>	<b>3 662</b>	<b>4 066</b>	<b>3 954</b>	<b>3 826</b>	<b>3911</b>	<b>2.2</b>
<b>Total breeding pigs</b>	<b>757</b>	<b>595</b>	<b>444</b>	<b>421</b>	<b>423</b>	<b>433</b>	<b>437</b>	<b>434</b>	<b>411</b>	<b>413</b>	<b>417</b>	<b>1.0</b>
<b>Female breeding herd</b>	<b>647</b>	<b>503</b>	<b>371</b>	<b>352</b>	<b>346</b>	<b>354</b>	<b>351</b>	<b>346</b>	<b>329</b>	<b>328</b>	<b>334</b>	<b>1.8</b>
Sows in pig	417	340	264	250	228	227	244	234	230	232	239	3.0
Gilts in pig	92	60	43	41	54	58	57	53	46	43	44	2.3
Other sows <sup>(c)</sup>	137	103	65	61	64	68	51	59	54	52	51	-1.9
<b>Other breeding pigs</b>	<b>110</b>	<b>93</b>	<b>73</b>	<b>69</b>	<b>77</b>	<b>79</b>	<b>85</b>	<b>88</b>	<b>82</b>	<b>85</b>	<b>82</b>	<b>-3.5</b>
Boars for service	37	25	16	15	14	14	14	13	12	13	13	0.0
Gilts not yet in pig	73	68	57	54	63	65	72	75	70	72	69	-4.2
<b>Fattening pigs (liveweight)</b>	<b>5 552</b>	<b>4 847</b>	<b>3 428</b>	<b>3 268</b>	<b>3 183</b>	<b>3 167</b>	<b>3 225</b>	<b>3 632</b>	<b>3 542</b>	<b>3 413</b>	<b>3494</b>	<b>2.4</b>

Source: Defra, 2016 <https://www.gov.uk/government/statistics/farming-statistics-final-crop-areas-and-cattle-sheep-and-pig-populations-as-at-1-june-2016-england>



**Figure 1.1 Breakdown of the female pig breeding herd 1st June 2005-2016**



Source: Defra, 2016 <https://www.gov.uk/government/statistics/farming-statistics-final-crop-areas-and-cattle-sheep-and-pig-populations-as-at-1-june-2016-england>

**Table 1.2 Specialist Pig Holdings by Region 2010-2015\***

	2010	2011	2012	2013	2014	2015
North East	39	46	43	45	48	37
North West and Merseyside	110	125	127	114	131	102
Yorkshire and The Humber	410	464	464	485	499	480
East Midlands	159	174	178	167	174	156
West Midlands	133	161	153	137	163	131
Eastern	369	398	382	393	406	410
South East	137	159	159	134	172	133
South West	244	283	274	260	330	252
England	1,601	1,810	1,780	1,735	1,923	1701

Source: Defra, June Survey

Footnote: \* Data for 2010-2012 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>

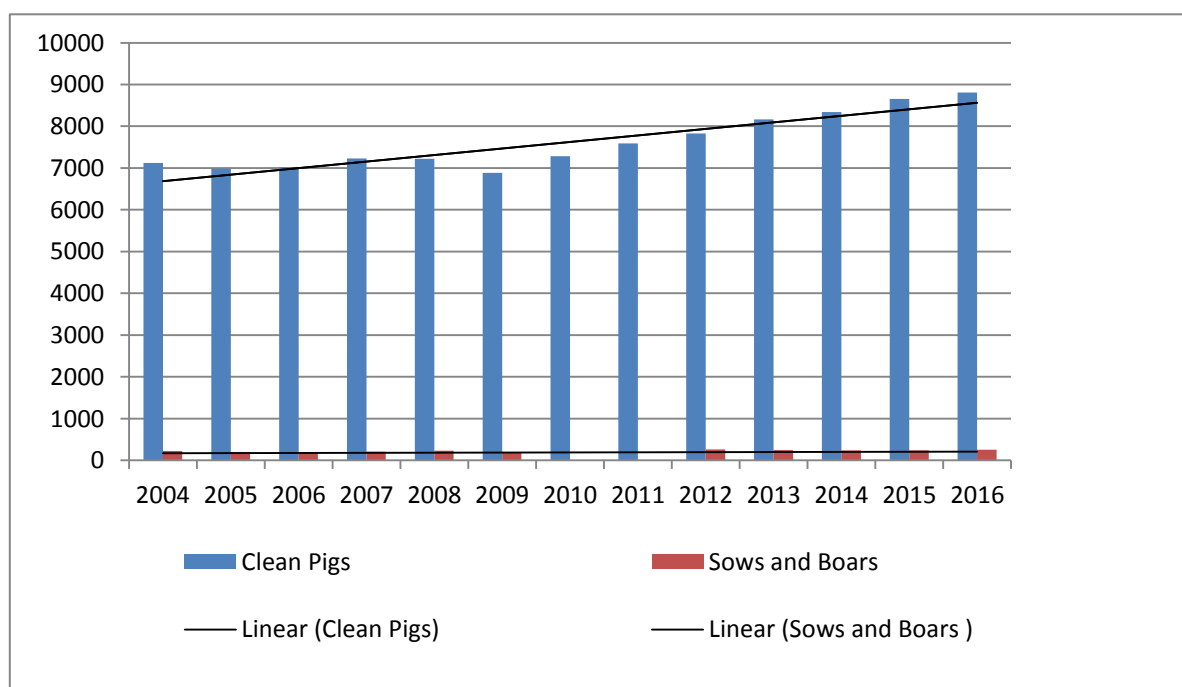
**Table 1.3 Number of Pigs by Region 2010-2015**

	2010	2011	2012	2013	2014	2015
North East	54,564	66,658	68,557	76,780	71,704	69,924
North West and Merseyside	100,800	106,292	115,782	122,932	115,403	99,333
Yorkshire and The Humber	870,824	962,479	971,222	1,112,342	1,090,853	1,078,610
East Midlands	255,962	269,572	276,616	301,143	287,896	277,785
West Midlands	130,248	143,809	145,102	164,078	155,057	137,067
Eastern	746,132	762,199	749,944	894,763	844,314	818,347
South East and London	130,158	129,613	140,746	136,977	118,858	143,267
South West	273,235	296,704	295,118	329,961	326,314	279,379
England	2,561,924	2,737,325	2,763,086	3,138,976	3,010,399	2,903,712

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 2004-2016 (thousand head)**

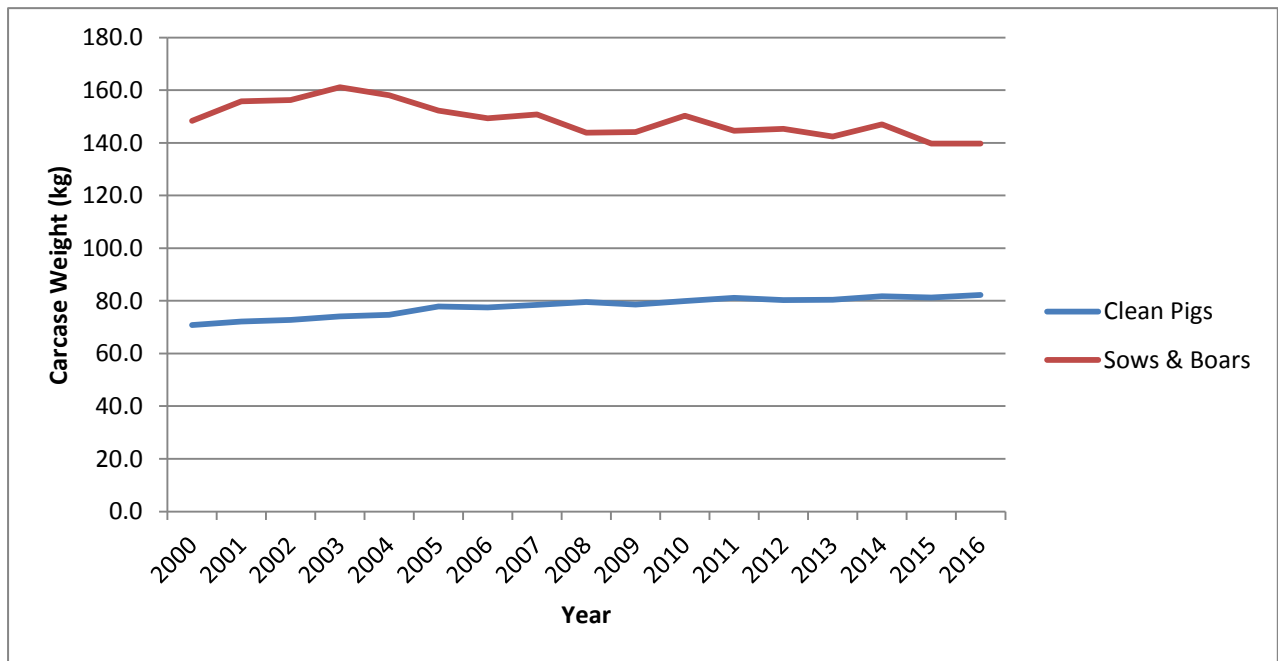


Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

Footnotes:

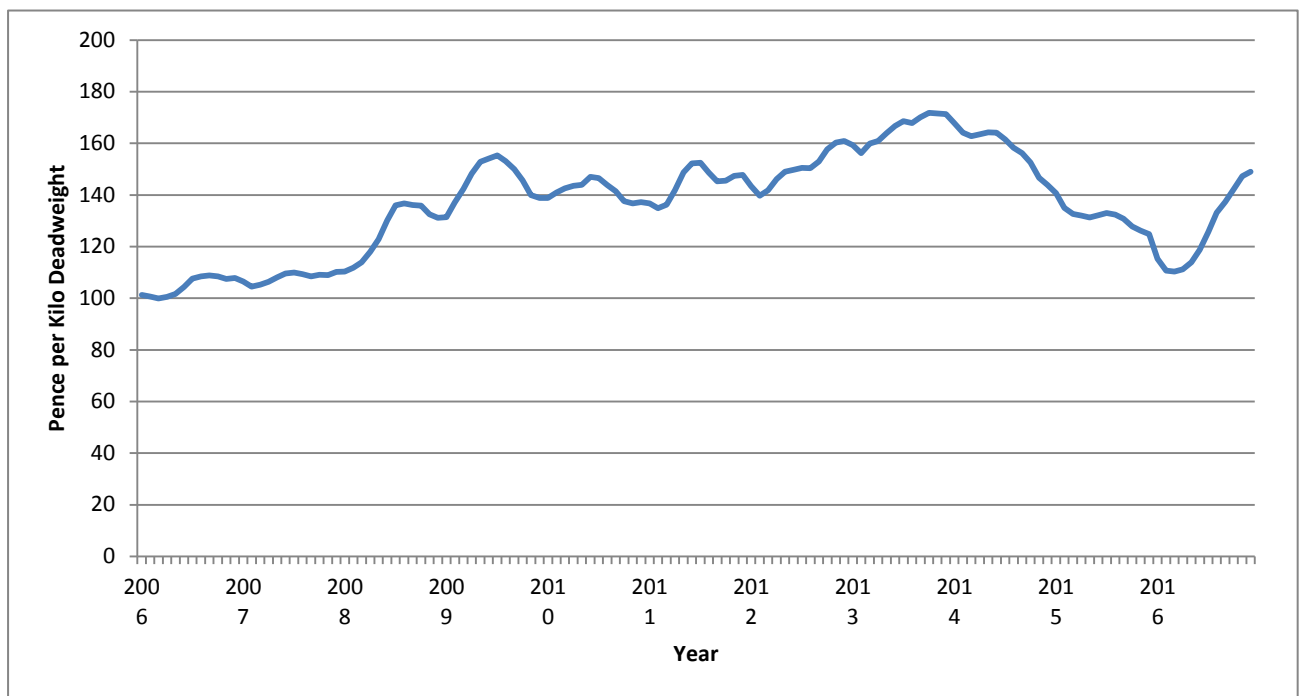
Sow and boar data missing in years 2010 and 2011 due to confidentiality constraints.

**Figure 1.3 UK Average Carcass Weights 2000-2016**



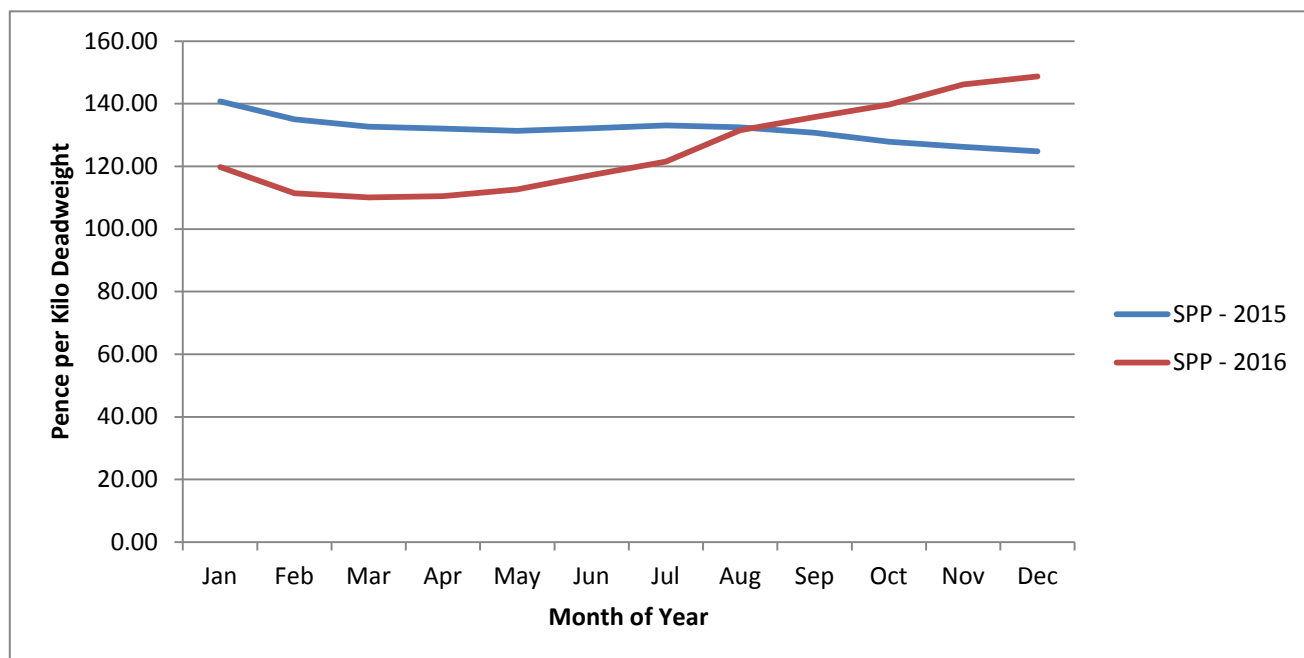
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

**Figure 1.4 Deadweight Average Pig Price (SPP) 2005-2016**



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

Figure 1.5 Deadweight Average Pig Prices (SPP) 2015-2016



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 2015/16 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 2015/16 FBS there were 62 farm businesses that were classified as Specialist Pig farms. This is slightly lower 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.

### 2.1 Classification of farms

The 62 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	35	Pigs rearing and fattening combined
5120	21	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 £21,645 (Table 2.1) which was 56% lower than the previous year. Pig output accounted for 83% of total output with miscellaneous income accounting for 9%. These farms recorded an average gross margin of £213,789 after deduction of variable costs amounting to £290,282. This margin is 1% higher compared to 2014/15 figures, despite an increase in variable costs of £14,920.

Fixed costs amounted to £218,502 resulting in a Management and Investment Income (MII) of £-4,714. Net Farm Income (NFI) averaged £19,499.

Table 2.2 shows the range in performance in terms of FBI for Specialist Pig Farms. The table demonstrates the range of incomes seen in the sector with those in the top 25% gaining an FBI of £122,215 and the bottom 25% making a loss of -£59,840.

Table 2.3 shows the range in performance in terms of MII for Specialist Pig farms, with the top 25% achieving £102,882 and the bottom making a loss of -£90,649.

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 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 £5,328; whilst the other two size groups record MII's of £1,729 and -£201.

**Table 2.1 Specialist Pig Farms – Financial Results**

	2014/15	2015/16	% Change
Number of farms	68	62	
<b>Output</b>	<b>£</b>	<b>£</b>	
Pigs	430,233	420,478	-2
Other livestock	8,207	7,005	-15
Crops	20,492	29,528	44
Miscellaneous	28,151	47,061	67
<b>Total output</b>	<b>487,084</b>	<b>504,071</b>	<b>4</b>
<b>Variable costs</b>			
Feed	223,220	228,502	2
Vet and medicines	12,323	14,345	16
Other livestock costs	30,212	32,791	9
Crop costs	9,608	14,644	52
<b>Total variable costs</b>	<b>275,362</b>	<b>290,282</b>	<b>5</b>
<b>Farm gross margin</b>	<b>211,721</b>	<b>213,789</b>	<b>1</b>
<b>Fixed costs</b>			
Labour			
- Paid	48,525	60,988	26
- Unpaid	21,612	24,311	13
Machinery			
- Contract	8,666	14,240	64
- Depreciation	22,412	26,150	17
- Repairs	12,871	12,620	-2
- Fuel and oil	11,211	9,655	-14
Occupiers repairs	12,071	10,542	-13
Rent and rates	26,814	33,976	27
Other farm costs	19,636	26,020	33
<b>Total fixed costs</b>	<b>183,818</b>	<b>218,502</b>	<b>19</b>
<b>Management and investment income</b>	<b>27,904</b>	<b>-4,714</b>	<b>-117</b>
Less management charges	97	98	1
Plus farmer and spouse labour	21,612	24,311	13
<b>Net farm income</b>	<b>49,419</b>	<b>19,499</b>	<b>-61</b>
Less net interest payments	6,396	7,738	21
Less building depreciation and insurance	13,999	17,098	22
Less directors remuneration	919	1,313	43
Plus rental value and imputed rent	17,200	23,904	39
Plus imputed labour	4,118	4,391	7
<b>Farm business income</b>	<b>49,423</b>	<b>21,645</b>	<b>-56</b>

**Table 2.2 Specialist Pig Farms 2015/16 – Grouped by FBI per Farm**

	<b>Top 25%</b>	<b>Middle 50%</b>	<b>Bottom 25%</b>
Number of farms	21	21	20
<b>Output</b>	<b>£</b>	<b>£</b>	<b>£</b>
Pigs	847,698	123,501	580,335
Other livestock	7,201	4,475	11,922
Crops	28,229	15,385	59,486
Miscellaneous	104,893	20,238	41,631
<b>Total output</b>	<b>988,020</b>	<b>163,599</b>	<b>693,374</b>
<b>Variable costs</b>			
Feed	402,492	60,071	389,694
Vet and medicines	23,557	3,787	26,199
Other livestock costs	57,174	10,053	53,629
Crop costs	13,998	7,182	30,411
<b>Total variable costs</b>	<b>497,221</b>	<b>81,093</b>	<b>499,933</b>
<b>Farm gross margin</b>	<b>490,799</b>	<b>82,507</b>	<b>193,441</b>
<b>Fixed costs</b>			
Labour			
- Paid	117,749	15,622	94,190
- Unpaid	23,881	25,546	22,255
Machinery			
- Contract	39,031	4,059	9,246
- Depreciation	57,030	12,865	21,152
- Repairs	21,291	5,078	18,931
- Fuel and oil	19,724	4,250	10,196
Occupiers repairs	17,027	5,423	14,205
Rent and rates	54,351	13,793	53,784
Other farm costs	40,120	14,351	35,076
<b>Total fixed costs</b>	<b>390,204</b>	<b>100,986</b>	<b>279,035</b>
<b>Management and investment income</b>	<b>100,595</b>	<b>-18,479</b>	<b>-85,593</b>
Less management charges	386	0	0
Plus farmer and spouse labour	23,881	25,546	22,255
<b>Net farm income</b>	<b>124,090</b>	<b>7,067</b>	<b>-63,338</b>
Less net interest payments	13,661	3,614	9,969
Less building depreciation and insurance	25,011	7,393	28,568
Less directors remuneration	835	250	3,956
Plus rental value and imputed rent	31,752	10,776	42,368
Plus imputed labour	5,880	4,012	3,623
<b>Farm business income</b>	<b>122,215</b>	<b>10,598</b>	<b>-59,840</b>



**Table 2.3 Specialist Pig Farms 2015/16 – Grouped by MII per Farm**

	<b>Top 25%</b>	<b>Middle 50%</b>	<b>Bottom 25%</b>
Number of farms	21	21	20
<b>Output</b>	<b>£</b>	<b>£</b>	<b>£</b>
Pigs	827,100	119,594	610,985
Other livestock	7,733	5,088	10,134
Crops	32,813	11,219	63,174
Miscellaneous	98,608	21,527	45,714
<b>Total output</b>	<b>966,254</b>	<b>157,429</b>	<b>730,006</b>
<b>Variable costs</b>			
Feed	390,469	55,157	412,568
Vet and medicines	22,875	3,532	27,445
Other livestock costs	55,902	9,849	55,431
Crop costs	15,587	4,862	33,456
<b>Total variable costs</b>	<b>484,833</b>	<b>73,399</b>	<b>528,900</b>
<b>Farm gross margin</b>	<b>481,421</b>	<b>84,029</b>	<b>201,106</b>
<b>Fixed costs</b>			
Labour			
- Paid	112,561	17,616	95,688
- Unpaid	24,863	25,020	22,308
Machinery			
- Contract	36,683	5,451	8,945
- Depreciation	56,978	8,804	29,542
- Repairs	20,204	5,501	19,222
- Fuel and oil	19,026	4,226	11,000
Occupiers repairs	15,393	6,543	13,644
Rent and rates	54,982	13,123	54,556
Other farm costs	37,849	14,652	36,850
<b>Total fixed costs</b>	<b>378,539</b>	<b>100,937</b>	<b>291,755</b>
<b>Management and investment income</b>	<b>102,882</b>	<b>-16,907</b>	<b>-90,649</b>
Less management charges	387	0	0
Plus farmer and spouse labour	24,863	25,020	22,308
<b>Net farm income</b>	<b>127,358</b>	<b>8,113</b>	<b>-68,341</b>
Less net interest payments	15,892	2,517	9,916
Less building depreciation and insurance	25,553	7,033	28,763
Less directors remuneration	2,383	250	2,361
Plus rental value and imputed rent	31,992	9,419	44,885
Plus imputed labour	2,981	3,523	7,596
<b>Farm business income</b>	<b>118,503</b>	<b>11,256</b>	<b>-56,900</b>

Table 2.4 Financial Data for Specialist Pig Farms 2015/16 – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	41	21
<b>Output</b>	<b>£/farm</b>	<b>£/farm</b>
Pigs	782,256	93,716
Other livestock	11,143	3,268
Crops	48,543	12,353
Miscellaneous	42,688	51,011
<b>Total output</b>	<b>884,630</b>	<b>160,347</b>
<b>Variable costs</b>		
Feed	463,942	15,850
Vet and medicines	29,769	414
Other livestock costs	60,500	7,765
Crop costs	23,757	6,413
<b>Total variable costs</b>	<b>577,969</b>	<b>30,441</b>
<b>Farm gross margin</b>	<b>306,661</b>	<b>129,906</b>
<b>Fixed costs</b>		
Labour		
- Paid	95,862	29,490
- Unpaid	24,456	24,179
Machinery		
- Contract	25,138	4,397
- Depreciation	35,997	17,257
- Repairs	18,756	7,078
- Fuel and oil	13,659	6,038
Occupiers repairs	15,096	6,429
Rent and rates	50,012	19,493
Other farm costs	36,780	16,302
<b>Total fixed costs</b>	<b>315,756</b>	<b>130,662</b>
<b>Management and investment income</b>	<b>-9,095</b>	<b>-756</b>
Less management charges	0	187
Plus farmer and spouse labour	24,456	24,179
<b>Net farm income</b>	<b>15,364</b>	<b>23,236</b>
Less net interest payments	9,869	5,814
Less building depreciation and insurance	27,253	7,927
Less directors remuneration	1,492	1,151
Plus rental value and imputed rent	35,053	13,835
Plus imputed labour	5,600	3,300
<b>Farm business income</b>	<b>17,402</b>	<b>25,478</b>

**Table 2.5 Financial Data for Specialist Pig Farms 2015/16 – Grouped by Standard Output per Farm**

<b>000 SO</b>	<b>0-200</b>	<b>200-500</b>	<b>500+</b>
Number of farms	11	22	29
<b>Output</b>	<b>£</b>	<b>£</b>	<b>£</b>
Pigs	86,543	186,592	1,274,125
Other livestock	4,087	7,557	11,619
Crops	1,860	18,093	91,115
Miscellaneous	27,120	47,804	81,979
<b>Total output</b>	<b>119,608</b>	<b>260,046</b>	<b>1,458,838</b>
<b>Variable costs</b>			
Feed	34,115	102,494	713,494
Vet and medicines	1,263	6,646	46,072
Other livestock costs	7,541	16,449	95,846
Crop costs	567	11,584	42,845
<b>Total variable costs</b>	<b>43,487</b>	<b>137,137</b>	<b>898,256</b>
<b>Farm gross margin</b>	<b>76,121</b>	<b>122,873</b>	<b>560,582</b>
<b>Fixed costs</b>			
Labour			
- Paid	13,709	30,129	162,643
- Unpaid	26,061	33,512	28,602
Machinery			
- Contract	2,311	5,622	45,011
- Depreciation	11,212	17,805	62,140
- Repairs	4,232	6,491	34,406
- Fuel and oil	3,866	5,125	25,055
Occupiers repairs	4,176	6,372	26,559
Rent and rates	10,301	19,818	91,867
Other farm costs	10,170	25,256	54,999
<b>Total fixed costs</b>	<b>86,037</b>	<b>150,131</b>	<b>531,281</b>
<b>Management and investment income</b>	<b>-9695</b>	<b>-27,258</b>	<b>29,300</b>
Less management charges	221	0	0
Plus farmer and spouse labour	23,830	26,826	22,955
<b>Net farm income</b>	<b>13,914</b>	<b>-432</b>	<b>52,255</b>
Less net interest payments	2,794	5,296	19,264
Less building depreciation and insurance	2,804	12,224	47,799
Less directors remuneration	0	730	4,278
Plus rental value and imputed rent	6,503	17,459	61,939
Plus imputed labour	2,231	6,686	5,647
<b>Farm business income</b>	<b>17,050</b>	<b>5,465</b>	<b>48,502</b>

**Table 2.6 Financial Data for Specialist Pig Farms 2015/16 – Grouped by Performance Ratio**

<b>Ratio</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
Number of farms	9	34	19
<b>Output</b>	<b>£</b>	<b>£</b>	<b>£</b>
Pigs	49,557	544,975	546,227
Other livestock	1,977	9,427	7,256
Crops	1,769	46,096	24,577
Miscellaneous	7,328	56,215	68,814
<b>Total output</b>	<b>60,630</b>	<b>656,713</b>	<b>646,875</b>
<b>Variable costs</b>			
Feed	23,311	333,271	226,973
Vet and medicines	1,766	20,574	14,636
Other livestock costs	4,880	46,666	33,329
Crop costs	2,612	21,846	12,457
<b>Total variable costs</b>	<b>32,570</b>	<b>422,357</b>	<b>287,396</b>
<b>Farm gross margin</b>	<b>28,060</b>	<b>234,357</b>	<b>259,479</b>
<b>Fixed costs</b>			
Labour	- Paid	6,069	76,429
	- Unpaid	29,805	29,544
Machinery	- Contract	1,153	19,565
	- Depreciation	4,146	28,998
	- Repairs	2,112	16,844
	- Fuel and oil	1,492	12,100
Occupiers repairs		3,612	12,645
Rent and rates		6,789	40,801
Other farm costs		7,813	33,998
<b>Total fixed costs</b>	<b>62,990</b>	<b>270,923</b>	<b>271,172</b>
<b>Management and investment income</b>	<b>-34,930</b>	<b>-36,566</b>	<b>88,698</b>
Less management charges	0	0	391
Plus farmer and spouse labour	25,111	24,687	22,760
<b>Net farm income</b>	<b>-9,818</b>	<b>-11,879</b>	<b>111,067</b>
Less net interest payments	2,642	9,053	10,250
Less building depreciation and insurance	5,020	22,644	18,238
Less directors remuneration	0	2,641	0
Plus rental value and imputed rent	6,056	28,200	33,312
Plus imputed labour	4,694	4,857	3,166
<b>Farm business income</b>	<b>-6,731</b>	<b>-13,160</b>	<b>119,057</b>

**Note:** Farm performance is measured as the ratio of farm business output to farm business costs. An imputed value for unpaid manual labour, including that of the farmer and spouse is added to farm business costs. The value of paid managerial input is subtracted. The farms are ranked in descending order according to this ratio and allocated to quartiles with the top quartile (25percent) representing the high performance 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.

### 3.0 Margins for Pig Enterprises

Since 2004 additional data has been collected from a sub-set of FBS farms to enable Gross and Net Margins to be calculated for specific enterprises. This was introduced as an alternative to the full survey approach previously undertaken as part of the Special Studies Programme commissioned by Defra. The last full Special Studies survey concerned with Pig production was published in 2004 and related to the financial year ending September 2003 (see Shepherd 2004 at <http://centres.exeter.ac.uk/crpr> ). This was a comprehensive survey of over 300 farms recruited from a stratified sample.

The data presented in this section is not directly comparable to the Special Study report. This data comes from a smaller sample based on farms already participating in the FBS, no additional physical data was collected and, crucially, the methodology for calculating net margins is completely different. In the Special Studies approach fixed costs are estimated by the researcher in conjunction with the co-operator. In the FBS based approach, the variable costs are allocated to enterprises by estimation but some of the fixed costs are allocated econometrically. That is to say, the total fixed costs within the account are allocated to the different enterprises according to coefficients for each enterprise. 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 62 Specialist Pig farms. These were classified as follows:

Type	No of farms	Definition
111	3	Breeders selling weaners (rearers)
112	32	Breeders selling fat pigs (finishers)
113	2	Buying weaners, selling fat pigs
114	22	Contract rearing
115	3	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.

#### 3.2 Net Margin results

Table 3.1 shows the average Net Margin of -£4,604 this is a reduction when compared to the 2014/15 average Net Margin of £18,689.

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 negative Net Margin of -£19,436 and the contract rearing only farms showed a positive Net Margin of £7,636.

Table 3.3 presents the costs and margins per £100 output for combined breeding and finishing units (type 112).

Table 3.4 presents the results in terms of Net Margins per sow. It is only possible to do this for the breeder-finisher farms because sample sizes are too small for the other groups. In 2015/16 there was a total Net Margin of -£57 per sow compared to a net margin of £63 in 2014/15.

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

	2014/15	2015/16	% Change
Number of farms	65	62	
	<b>£ per farm</b>	<b>£ per farm</b>	
<b>Output</b>	<b>300,797</b>	<b>356,117</b>	<b>18.4</b>
<b>Variable costs</b>			
Feed	149,057	189,648	27.2
Vet and medicines	8,658	11,531	33.2
Other variable costs	19,358	27,656	42.9
<b>Total variable costs</b>	<b>177,074</b>	<b>228,835</b>	<b>29.2</b>
<b>Gross Margin</b>	<b>123,723</b>	<b>127,281</b>	<b>2.8</b>
<b>Fixed costs</b>			
Paid labour	30,292	42,769	41.2
Unpaid labour	3,525	3,422	2.9
Contract hire	2,958	8,942	202.3
Machinery depreciation	10,213	14,175	38.8
Machinery repairs	7,298	7,749	6.2
Fuel and oil	5,590	5,649	1.1
Electricity and heating fuel	4,725	5,628	19.5
Water	1,841	1,657	10.0
Insurance	2,629	3,359	27.8
Professional fees	2,595	3,148	21.3
General farm costs	2,782	2,700	-2.9
Occupiers repairs	5,806	5,539	-4.6
Rent and rates	7,688	9,427	22.6
<b>Total fixed costs</b>	<b>87,942</b>	<b>114,164</b>	<b>29.8</b>
<b>Net farm income</b>	<b>35,779</b>	<b>13,119</b>	<b>-63.3</b>
Less farmer and spouse labour	17,189	17,821	3.7
Plus managerial input	99	98	1.0
<b>Net margin</b>	<b>18,689</b>	<b>-4,604</b>	<b>-124.6</b>

**Table 3.2 Specialist Pig Farms 2015/16 – Average Net Margins by Farm Type**

<b>Farm type</b>	<b>Breeders selling fat pigs</b>	<b>Contract rearing</b>
Number of farms	32	22
Average number of sows per farm	399	56
	<b>£ per farm</b>	<b>£ per farm</b>
<b>Output</b>	<b>792,100</b>	<b>85,958</b>
<b>Variable costs</b>		
Feed	482,851	0
Vet and medicines	29,263	1
Other variable costs	63,053	5,620
<b>Total variable costs</b>	<b>575,167</b>	<b>5,621</b>
<b>Gross Margin</b>	<b>216,933</b>	<b>80,337</b>
<b>Fixed costs</b>		
Paid labour	85,945	17,293
Unpaid labour	5,435	2,509
Contract hire	19,255	2,700
Machinery depreciation	20,207	11,893
Machinery repairs	13,914	4,215
Fuel and oil	9,291	3,869
Electricity and heating fuel	11,174	1,258
Water	3,093	868
Insurance	6,401	1,632
Professional fees	3,897	1,526
General farm costs	5,010	1,843
Occupiers repairs	10,442	2,687
Rent and rates	19,029	3,712
<b>Total fixed costs</b>	<b>213,093</b>	<b>56,005</b>
<b>Net farm income</b>	<b>3,840</b>	<b>24,332</b>
Less farmer and spouse labour	23,276	16,886
Plus managerial input	0	190
<b>Net margin</b>	<b>-19,436</b>	<b>7,636</b>

**Table 3.3 Specialist Pig Farms 2015/16 – Average Costs and Margins per £100 Pig Output**

<b>Farm type</b>	<b>Breeders selling fat pigs</b>
	<b>£ per £100 output</b>
Feed	61.0
Other variable costs	11.7
<b>Gross margin</b>	<b>27.4</b>
Labour costs	11.5
Contract and machinery costs	7.9
Occupiers repairs	1.3
Rent and rates	2.4
Other fixed costs	4.1
<b>Net margin</b>	<b>-2.9</b>



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

	2014/15	2015/16
<b>Farm Type</b>	<b>Breeders selling fat pigs</b>	
Number of farms	36	32
Number of sows	249	399
	<b>£ per sow</b>	<b>£ per sow</b>
<b>Output</b>	<b>2,472</b>	<b>1,985</b>
<b>Variable costs</b>		
Feed	1,497	1,210
Vet and medicines	86	73
Other variable costs	172	158
<b>Total variable costs</b>	<b>1,754</b>	<b>1,442</b>
<b>Gross Margin</b>	<b>718</b>	<b>544</b>
<b>Fixed costs</b>		
Paid labour	211	215
Unpaid labour	22	14
Contract hire	21	48
Machinery depreciation	42	51
Machinery repairs	45	36
Fuel and oil	29	23
Electricity and heating fuel	41	32
Water	14	8
Insurance	19	16
Professional fees	17	10
General farm costs	19	16
Occupiers repairs	46	26
Rent and rates	44	48
<b>Total fixed costs</b>	<b>569</b>	<b>531</b>
<b>Net farm income</b>	<b>150</b>	<b>13</b>
Less farmer and spouse labour	87	58
Add Management	0.0	0.0
<b>Net margin</b>	<b>63</b>	<b>-57</b>

## 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/](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 2015/16**

**Dairy Farming in England 2015/16**

**Hill Farming in England 2015/16**

**Horticulture Production in England 2015/16**

**Lowland Grazing Livestock Production in England 2015/16**

**Organic Farming in England 2015/16**

**Pig Production in England 2015/16**

**Poultry Production in England 2015/16**

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