



Farm Business Survey

2019/20

Pig Production in England



Simon Walton & David Hildreth

RBR

Independent research, data and analysis

Rural Business Research

Farm Business Survey

2019/20

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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 Fifteenth Series

Welcome to the fifteenth series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)*. At a time of change, uncertainty and opportunity, planning ahead on the basis of data and evidence is crucial. Some key points below outline the market, policy, physical and biological environments through which agriculture and horticulture have operated in the last 12 months. These also highlight the importance of our work on the Farm Business Survey (FBS) that is only achieved through the highly valued co-operation of participating agricultural and horticultural businesses.

The new Agriculture Act that received Royal Assent in the closing weeks of 2020 now means that the sector no longer operates within the Common Agricultural Policy. The development of the Agriculture Act relied extensively on evidence from the FBS that demonstrated the reliance of key sectors on the Basic Payment Scheme (BPS) and the need for a longer 'transition period' than was initially proposed. The recently published Path to Sustainable Farming outlines the broad direction of the policy environment over the 2021-2027 period, as the phased decline in BPS support makes way for increased payments for public goods. There will be opportunities for businesses to be supported to increase farm efficiency and productivity, enhance animal welfare and reduce agriculture's 'carbon footprint'. The UK-EU trade agreement has been broadly welcomed by the industry. During the last 12 months our industry has endured an exceptionally wet winter of 19/20 that impacted crop establishment and gave way to a spring drought followed by a low yielding and sometimes difficult harvest. The impact of challenging weather and the Covid-19 pandemic have been felt in very diverse ways across agricultural and horticultural businesses. While the full impact of these challenges on the economics of agriculture and horticulture won't be collected and analysed until later in 2021, the FBS was once again drawn upon by Government to evidence the need for specific Covid-19 related support packages including the Dairy Response Fund.

For the 2019/20 financial year, which covers the 2019 harvest, average Farm Business Income (FBI), derived from our work on the FBS, fell to £46,000 per business, from £50,400 in 2018/19. Seldom are the fortunes of the different agricultural and horticultural sectors aligned. In 2019/20 Upland Grazing Livestock saw an increase of 47% in FBI, from a low base to a slightly higher one (£22,800); by contrast the average Mixed farm business income fell by 36% to £28,900. Generally lower cereal prices negatively impacted Cereals farm businesses, while livestock farms, in particular Pig and Poultry businesses, benefited from lower feed costs.

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
February 2021

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 Anne Green.

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“It is important to note that all surveys are subject to sampling error as they are not measuring the whole population, the FBS is no exception. It is common practice to publish 95% confidence intervals and error bars alongside any published estimated figures to give the reader an indication of the size of the sampling error. These signify that we are 95% confident that this range contains the true value. For simplicity within these reports, the confidence intervals have not always been published. Readers should be aware that the figures calculated from the FBS data have a level of uncertainty around them and that all figures are estimates. Generally, the smaller the sample size the greater the sampling error and the less confidence we have in the estimates. For details on the FBS confidence intervals, please refer to Defra FBS publications <https://www.gov.uk/government/collections/farm-business-survey>”

1.0 Commentary on the English Pig Industry

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

- Total pig numbers have remained fairly stable between 2008 and 2020 with near 4,000,000 pigs across the period. Reduced numbers were seen between 2009 and 2012 though numbers improved in 2013 and have remained fairly steady ever since.
- Total number of pigs in England in 2020 decreased by 0.6% when compared to 2019 remaining at over 4 million animals. The decrease was driven by the drop in the female breeding herd, by 3.3%.
- The total number of Specialist Pig Holdings in England decreased by 0.72% in 2019 in comparison to 2018. All regions apart from the North East and West Midlands saw a decrease of pig holdings.
- In 2019 Yorkshire and the Humber accounted for 36.90% of the total pigs in England, the Eastern region accounted for a further 25.84% and the South West for another 11.05%.
- UK clean pig slaughtering's increased from 10,679 thousand head in 2018 to 10,889 thousand head in 2019. An increase in slaughtering's of clean pigs of 23.4% has been evident from 2009 to 2019.
- Although UK sow and boar carcass weights have been reducing over the last decade clean pig carcass weights have gradually increased to 89.4Kg in 2019.
- UK pig prices started over 5p lower at the beginning of 2019 than the previous month though pig prices were still over 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 159.03p/kg in December, over 17p higher than the same period in 2018.

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

	2008	2009	Revised 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2019/2020
Total pigs	3854	3872	3689	3606	3600	3662	4066	3954	3826	3911	3969	4038	4060	4035	-0.6%
Total breeding pigs	410	444	421	423	433	437	434	411	413	417	416	408	410	402	-1.9%
Female breeding herd	346	371	352	346	354	351	346	329	328	334	334	327	327	316	-3.3%
Sows in pig	245	264	250	228	227	244	234	230	232	239	240	232	234	231	-1.5%
Gilts in pig	45	43	41	54	58	57	53	46	43	44	43	44	43	42	-2.2%
Other sows (c)	55	65	61	64	68	51	59	54	52	51	51	51	50	44	-12.4%
Other breeding pigs	64	73	69	77	79	85	88	82	85	82	82	82	83	86	3.4%
Boars for service	15	16	15	14	14	14	13	12	13	13	11	11	10	10	-6.4%
Gilts not yet in pig	49	57	54	63	65	72	75	70	72	69	71	71	73	76	4.8%
Fattening pigs (liveweight)	3499	3445	3428	3268	3183	3167	3225	3632	3542	3413	3494	3553	3630	3633	-0.5%

Source: Defra, 2020 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture
(c) Either being suckled or dry sows being kept for further breeding.

Figure 1.1 Breakdown of the English female pig breeding herd 1st June 2008-2020



Source: Defra, 2020 Department for Environment Food and Rural Affairs – Defra June Survey of Agriculture

Table 1.2 Specialist Pig Holdings by Region 2013-2019*

	2013	2014	2015	2016	2017	2018	2019
North East	45	48	37	47	49	47	52
North West and Merseyside	114	131	102	136	171	123	117
Yorkshire and The Humber	485	499	480	515	525	517	516
East Midlands	167	174	156	190	218	174	173
West Midlands	137	163	131	153	181	153	156
Eastern	393	406	410	422	438	418	416
South East	134	172	133	170	208	169	167
South West	260	330	252	320	397	334	324
England	1,735	1,923	1,701	1,953	2,187	1,935	1,921

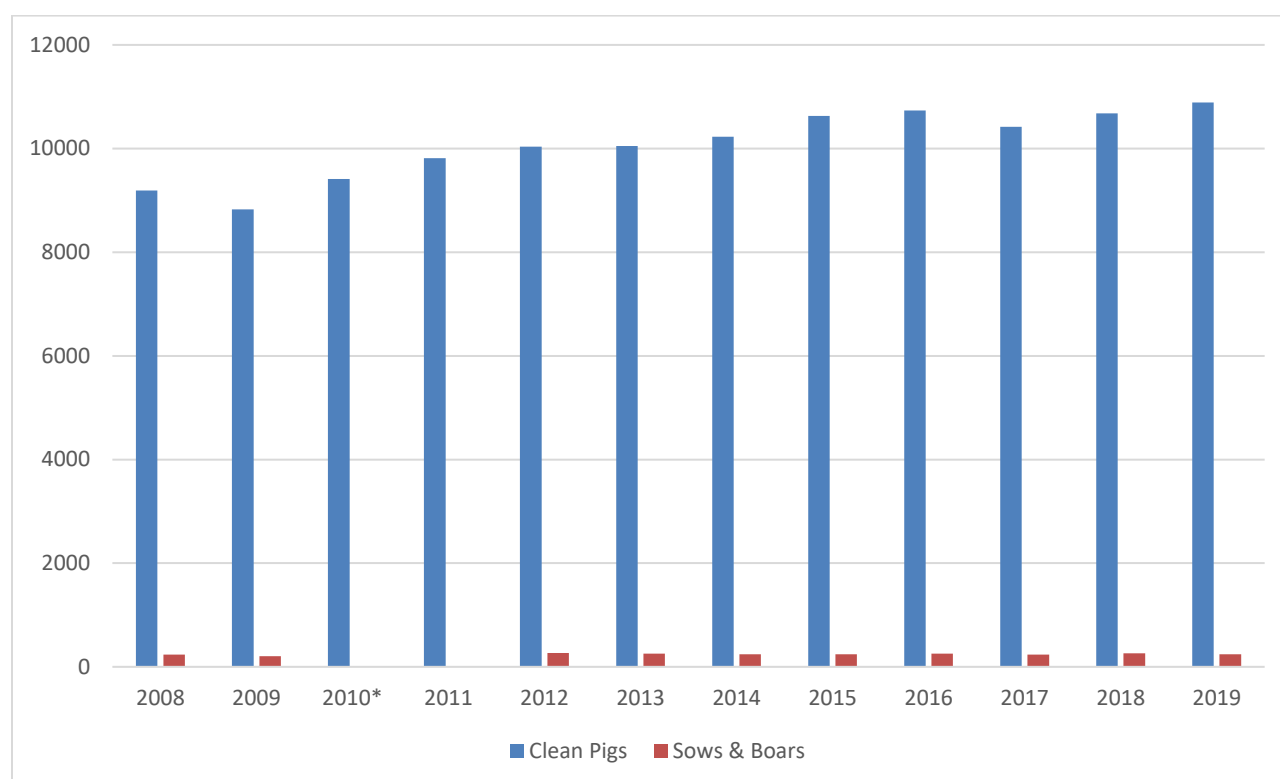
<https://www.gov.uk/guidance/structure-of-the-agricultural-industry-survey-notes-and-guidance>

Table 1.3 Number of Pigs by Region 2013-2019

	2013	2014	2015	2016	2017	2018	2019
North East	76,780	71,704	69,924	84,381	87,448	129,559	122,222
North West and Merseyside	122,932	115,403	99,333	112,815	110,565	133,462	130,410
Yorkshire and The Humber	1,112,342	1,090,853	1,078,610	1,145,337	1,161,789	1,500,834	1,498,063
East Midlands	301,143	287,896	277,785	299,486	281,848	377,989	364,735
West Midlands	164,078	155,057	137,067	133,713	145,078	209,680	222,138
Eastern South East	894,763	844,314	818,347	839,666	826,259	1,040,896	1,048,964
South West	136,977	118,858	143,267	150,675	164,814	217,102	225,069
England	3,138,976	3,010,399	2,903,712	3,045,901	3,122,491	4,038,496	4,060,201

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 2008-2019 (thousand head)

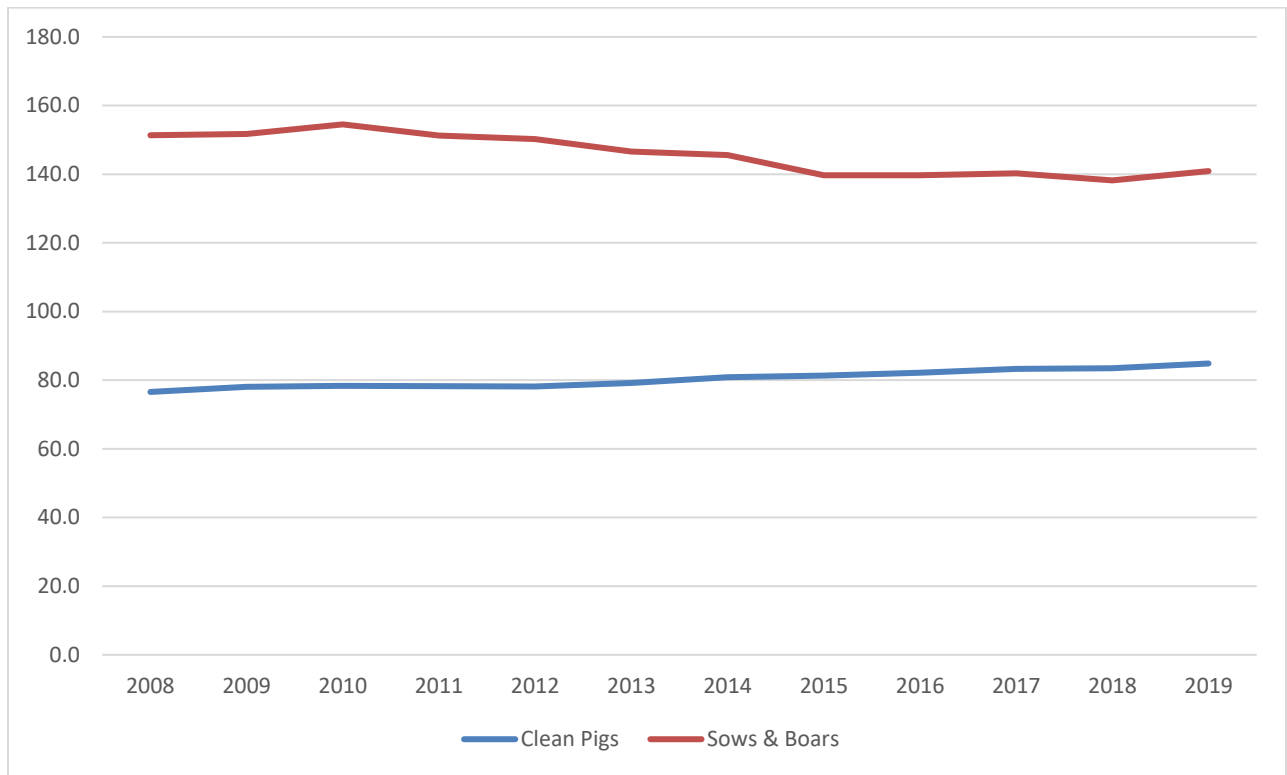


Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

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

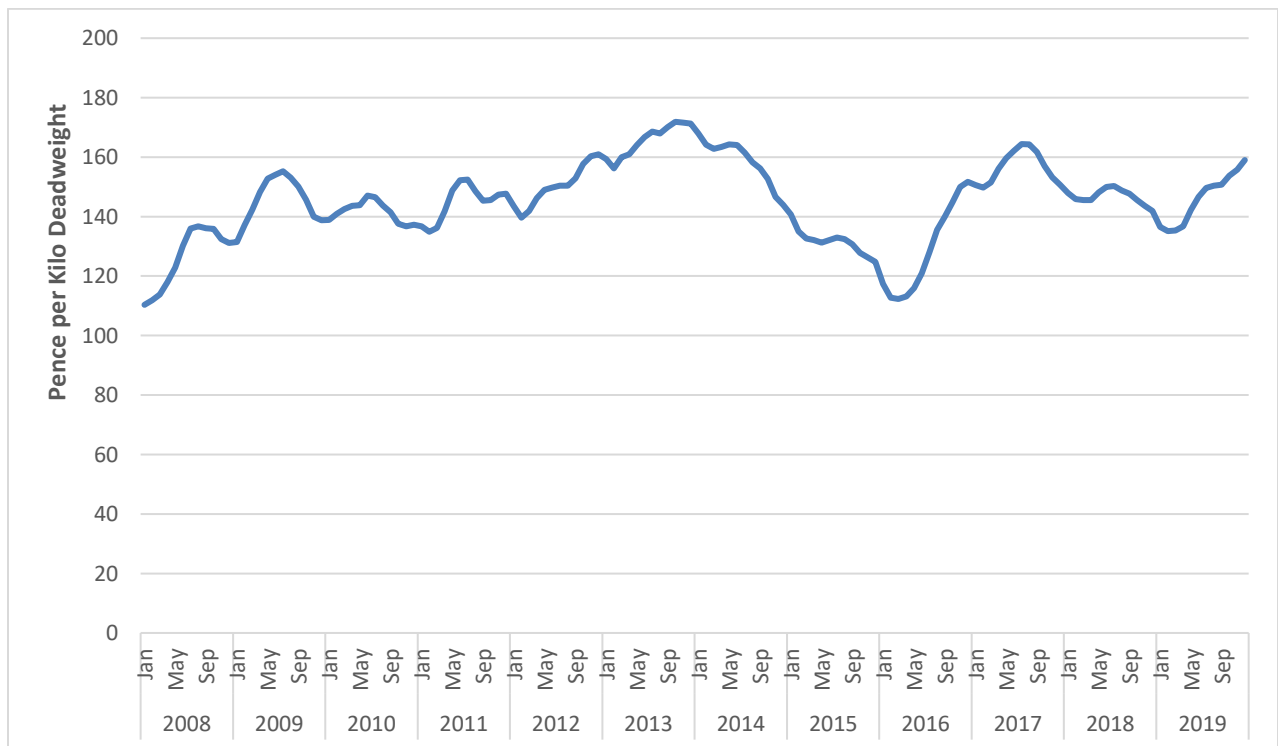
* Denotes a 53 week statistical year

Figure 1.3 UK Average Carcase Weights 2008-2019 Kg



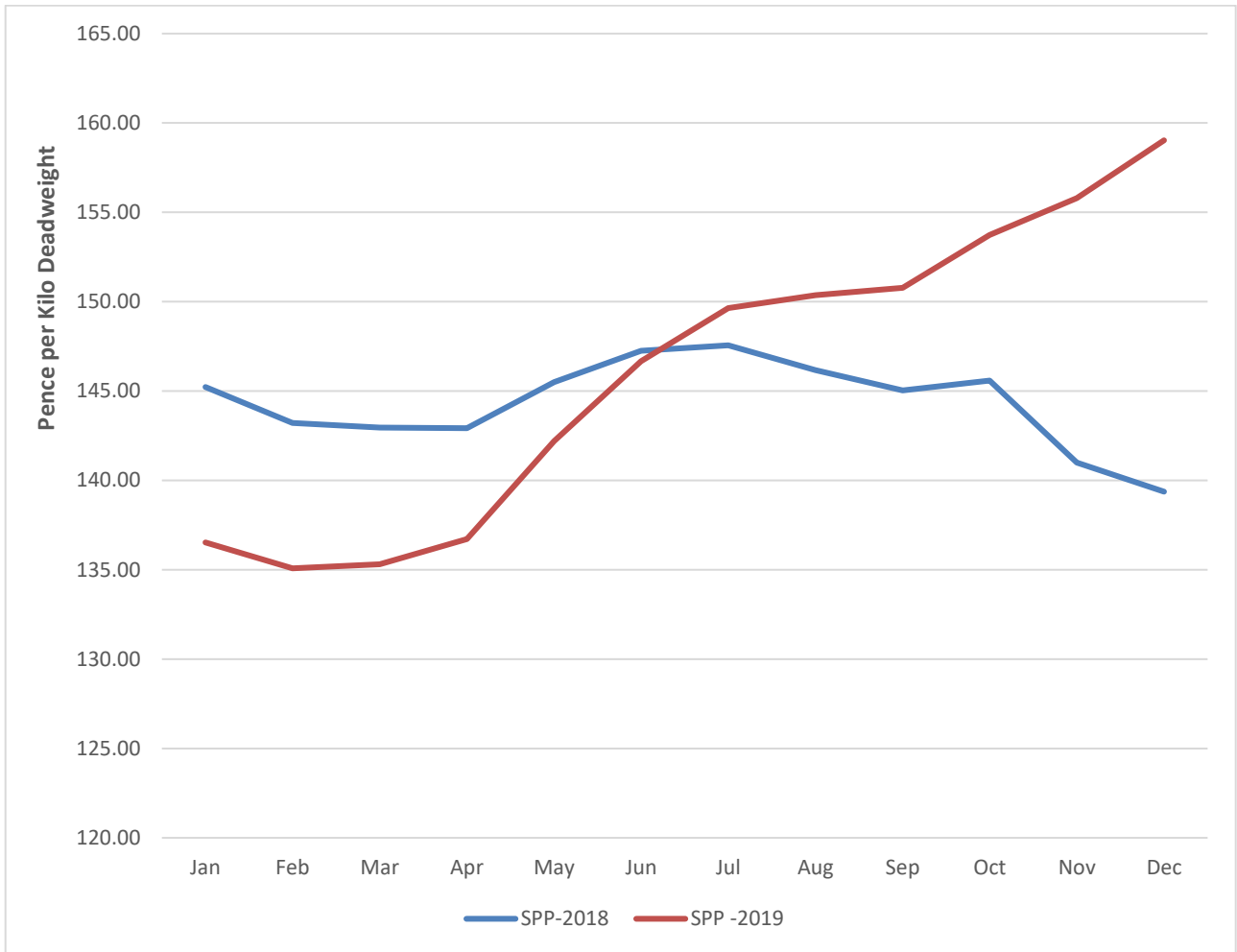
Source: Defra, <https://www.gov.uk/government/statistics/cattle-sheep-and-pig-slaughter>

Figure 1.4 UK Deadweight Average Pig Price (SPP) 2008-2019



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

Figure 1.5 UK Deadweight Average Pig Prices (SPP) 2018-2019



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 2019/20 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 2019/20 FBS there were 66 farm businesses that were classified as Specialist Pig farms. This is lower than the previous year when there were 76 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 66 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	21	Pigs rearing and fattening combined
5120	39	Specialist pig fattening

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

2.2 Financial Results

Across all Specialist pig farms, average farm business income amounted to £37,743 (Table 2.1) which was 28% higher than the previous year.

Total output was 10% less than the previous financial year, averaging £554,920 per farm. Variable costs reduced by around 8% on the previous year, and also fixed costs reduced by around 11%.

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 £143,054 whilst the bottom 25% have a negative income of £33,525. The range between the top quartile by FBI and bottom quartile has decreased compared to last year, (£176,579 difference this year, compared to £214,022).

Table 2.3 shows the range in performance in terms of MII for Specialist Pig farms, with the top 25% achieving £136,142 and the bottom making a loss of -£11,770 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 £128,355; whilst the other two size groups record MII's of £19,853 and -£11,359.

The farms have been grouped by performance ratio, this is a measure of farm business output in comparison to farm business costs, including unpaid labour. The farms are then grouped into quartiles, high, medium (2 quartiles) and low. Interestingly, the low performing group have a much smaller pig output than the other 2 groups, but also the group with the highest pig output was the middle group, despite the high group having the highest farm business income. The highest performing group had much smaller variable costs as a percentage of the total output when compared to the other 2 groups, 38%, compared to 59% and 60% when compared to the low and medium group respectively.

Table 2.1 Specialist Pig Farms – Financial Results

	2018/19	2019/20	% Change
Number of farms	76	66	
Output	£	£	
Pigs	481,069	447,298	-7
Other livestock	6,165	5,441	-12
Crops	41,658	47,072	13
Miscellaneous	87,273	55,108	-36
Total output	616,165	554,920	-10
Variable costs			
Feed	248,837	223,311	-10
Vet and medicines	12,628	12,820	2
Other livestock costs	40,249	37,697	-6
Crop costs	18,699	20,395	9
Total variable costs	320,413	294,223	-8
Farm gross margin	295,752	260,697	-11
Fixed costs			
Labour			
- Paid	75,149	59,740	-20
- Unpaid	28,858	29,709	3
Machinery			
- Contract	13,386	12,713	-5
- Depreciation	35,520	30,476	-14
- Repairs	20,625	15,681	-24
- Fuel and oil	16,210	12,695	-21
Occupiers repairs	12,555	12,684	1
Rent and rates	40,123	42,986	8
Other farm costs (including bad debts)	36,390	30,939	-15
Total fixed costs	278,815	247,623	-11
Management and investment income	16,938	13,503	-20
Less management charges	362	430	19
Plus farmer and spouse labour	23,483	24,659	5
Net farm income	40,058	37,732	-5
Less net interest payments	11,583	10,149	-12
Less building depreciation and insurance	25,002	22,256	-11
Less directors remuneration	4,394	1,796	-59
Plus rental value and imputed rent	25,153	29,162	16
Plus imputed labour	5,375	5,049	-6
Farm business income	29,607	37,743	28

Table 2.2 Specialist Pig Farms 2019/20 – Grouped by FBI per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	28	26	12*
Output	£	£	£
Pigs	712,988	242,350	585,317
Other livestock	9,543	5,950	482
Crops	85,277	22,858	56,770
Miscellaneous	124,407	27,539	41,121
Total output	932,214	298,696	683,690
Variable costs			
Feed	298,990	127,639	334,640
Vet and medicines	15,277	8,158	19,438
Other livestock costs	57,796	24,001	44,647
Crop costs	32,031	11,075	27,103
Total variable costs	404,094	170,873	425,829
Farm gross margin	528,120	127,823	257,861
Fixed costs			
Labour			
- Paid	98,491	21,073	95,139
- Unpaid	37,632	26,509	28,200
Machinery			
- Contract	17,742	8,733	15,519
- Depreciation	57,632	11,699	40,393
- Repairs	28,017	7,563	19,392
- Fuel and oil	22,473	5,044	17,985
Occupiers repairs	23,431	7,719	11,844
Rent and rates	78,803	22,986	46,863
Other farm costs (including bad debts)	55,537	18,915	30,296
Total fixed costs	419,759	130,240	305,632
Management and investment income	108,361	-2,417	-47,771
Less management charges	1,429	0	291
Plus farmer and spouse labour	26,364	22,907	26,389
Net farm income	133,297	20,489	-21,382
Less net interest payments	17,379	6,940	9,332
Less building depreciation and insurance	35,686	10,903	31,152
Less directors remuneration	3,197	1,181	1,625
Plus rental value and imputed rent	54,754	16,678	28,533
Plus imputed labour	11,268	3,603	1,811
Farm business income	143,054	21,746	-33,525

*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 2019/20 – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Number of farms	31	22	13*
Output	£	£	£
Pigs	1,373,728	81,233	47,967
Other livestock	10,276	2,695	727
Crops	98,065	12,394	10,709
Miscellaneous	134,096	19,915	6,373
Total output	1,616,164	116,237	65,777
Variable costs			
Feed	654,617	34,491	32,460
Vet and medicines	36,634	2,269	1,864
Other livestock costs	113,045	7,256	4,275
Crop costs	37,419	6,142	5,065
Total variable costs	841,714	50,157	43,663
Farm gross margin	774,450	66,080	22,113
Fixed costs			
Labour			
- Paid	183,474	10,067	6,524
- Unpaid	36,112	16,266	6,456
Machinery			
- Contract	34,796	3,345	1,507
- Depreciation	96,279	5,444	2,871
- Repairs	42,021	4,012	2,071
- Fuel and oil	36,777	2,487	1,632
Occupiers repairs	33,300	3,764	1,507
Rent and rates	108,743	11,869	6,278
Other farm costs (including bad debts)	66,807	11,098	5,037
Total fixed costs	638,308	68,352	33,883
Management and investment income	136,142	-2,272	-11,770
Less management charges	1,530	53	25
Plus farmer and spouse labour	28,151	13,460	5,686
Net farm income	162,762	11,135	-6,109
Less net interest payments	27,720	2,971	1,049
Less building depreciation and insurance	57,662	5,560	3,342
Less directors remuneration	6,248	0	248
Plus rental value and imputed rent	61,996	9,480	5,445
Plus imputed labour	7,962	2,806	771
Farm business income	141,091	14,891	-4,533

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 2019/20 – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	27	39
Output	£/farm	£/farm
Pigs	1,254,592	188,111
Other livestock	8,705	4,394
Crops	112,316	26,125
Miscellaneous	79,027	47,429
Total output	1,454,640	266,060
Variable costs		
Feed	679,009	77,007
Vet and medicines	38,016	4,731
Other livestock costs	97,621	18,458
Crop costs	47,732	11,618
Total variable costs	862,378	111,814
Farm gross margin	592,262	154,246
Fixed costs		
Labour		
- Paid	154,877	28,628
- Unpaid	36,817	27,426
Machinery		
- Contract	36,249	5,156
- Depreciation	67,352	18,637
- Repairs	34,549	9,624
- Fuel and oil	28,301	7,685
Occupiers repairs	30,631	6,922
Rent and rates	95,591	26,098
Other farm costs (including bad debts)	60,375	21,488
Total fixed costs	544,742	151,664
Management and investment income	47,520	2,582
Less management charges	1,433	108
Plus farmer and spouse labour	28,162	23,534
Net farm income	74,249	26,009
Less net interest payments	20,721	6,754
Less building depreciation and insurance	56,470	11,271
Less directors remuneration	4,672	873
Plus rental value and imputed rent	64,443	17,834
Plus imputed labour	8,654	3,892
Farm business income	65,484	28,836

Table 2.5 Financial Data for Specialist Pig Farms 2019/20 – Grouped by Standard Output per Farm

000 SO	0-500	500-1000	1000+
Number of farms	22	25	19
Output	£	£	£
Pigs	79,942	262,894	2,191,518
Other livestock	1,954	12,721	6,161
Crops	7,154	75,758	163,499
Miscellaneous	19,501	99,363	109,722
Total output	108,550	450,736	2,470,900
Variable costs			
Feed	39,369	122,571	1,110,720
Vet and medicines	2,032	7,890	63,780
Other livestock costs	9,021	27,869	162,470
Crop costs	4,274	32,552	64,384
Total variable costs	54,695	190,882	1,401,354
Farm gross margin	53,855	259,854	1,069,547
Fixed costs			
Labour			
- Paid	9,019	32,733	303,144
- Unpaid	20,138	35,373	30,960
Machinery			
- Contract	2,797	8,569	57,510
- Depreciation	6,422	33,615	119,281
- Repairs	3,269	18,249	60,104
- Fuel and oil	2,234	12,389	54,770
Occupiers repairs	2,119	14,749	51,710
Rent and rates	9,282	48,370	165,451
Other farm costs (including bad debts)	9,934	35,953	98,260
Total fixed costs	65,214	240,001	941,191
Management and investment income	-11,359	19,853	128,355
Less management charges	47	615	1,717
Plus farmer and spouse labour	17,296	28,283	23,966
Net farm income	5,890	47,521	150,605
Less net interest payments	1,833	15,605	34,674
Less building depreciation and insurance	4,892	21,548	90,567
Less directors remuneration	0	2,077	9,098
Plus rental value and imputed rent	7,733	38,130	95,592
Plus imputed labour	2,842	7,090	6,993
Farm business income	9,740	53,511	118,852

Table 2.6 Financial Data for Specialist Pig Farms 2019/20– Grouped by Performance Ratio

Ratio	Low *	Medium	High
Number of farms	7	33	26
Output	£	£	£
Pigs	70,048	626,271	468,841
Other livestock	434	7,219	6,875
Crops	9,791	57,876	62,415
Miscellaneous	3,047	54,509	106,648
Total output	83,320	745,875	644,779
Variable costs			
Feed	34,342	347,053	168,657
Vet and medicines	3,538	20,035	7,953
Other livestock costs	5,121	52,589	40,636
Crop costs	5,435	25,618	24,847
Total variable costs	48,436	445,295	242,092
Farm gross margin	34,884	300,580	402,686
Fixed costs			
Labour			
- Paid	7,674	77,317	74,720
- Unpaid	31,121	28,333	30,982
Machinery			
- Contract	2,171	20,111	8,712
- Depreciation	7,570	32,821	48,146
- Repairs	4,267	18,880	20,589
- Fuel and oil	3,391	14,905	17,459
Occupiers repairs	3,049	17,894	12,006
Rent and rates	10,917	53,373	54,086
Other farm costs (including bad debts)	10,867	37,047	38,640
Total fixed costs	81,025	300,681	305,341
Management and investment income	-46,141	-100	97,345
Less management charges	0	424	857
Plus farmer and spouse labour	29,256	22,630	24,106
Net farm income	-16,885	22,105	120,594
Less net interest payments	3,719	13,369	10,190
Less building depreciation and insurance	8,010	31,403	18,484
Less directors remuneration	0	2,569	2,051
Plus rental value and imputed rent	9,443	37,018	33,165
Plus imputed labour	1,865	5,703	6,876
Farm business income	-17,306	17,486	129,911

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

Type	No of farms	Definition
112	23	Breeders selling fat pigs (finishers)
114	29	Contract rearing
115	14	Other

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

3.2 Net Margin results

Table 3.1 shows the average Net Margin has increased from £3,772 in 2018/19 to £17,966 in 2019/20. There seemed to be a considerable increase in output on the year, but also an increase 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 £3,881 and the contract rearing showed a net margin of £15,672

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, 59.1% of the total output in 2019/20, whereas in 2018/19 the feed costs accounted for 61.6% of output, showing the slightly lower feed costs in comparison to the finished pig price.

Table 3.4 presents the results in terms of Net Margins per sow for breeder finisher farms. In 2019/20 there was a total Net Margin of £17 per sow compared to a net margin of -£35 in 2018/19. It is difficult to compare year on year due to some changes in the sample of pig farms, however this was mainly due to pig output greater on the year.

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

	2018/19	2019/20	% Change
Number of farms	72	66	
Output	£ per farm 339,927	£ per farm 447,298	32
Variable costs			
Feed	169,633	221,839	31
Vet and medicines	8,925	12,447	39
Other variable costs	30,142	34,818	16
Total variable costs	208,700	269,104	29
Gross Margin	131,227	178,194	36
Fixed costs			
Paid labour	39,958	53,727	34
Unpaid labour	4,358	3,580	-18
Contract hire	3,884	6,962	79
Machinery depreciation	13,925	18,469	33
Machinery repairs	7,961	8,859	11
Fuel and oil	5,420	7,523	39
Electricity and heating fuel	6,053	7,145	18
Water	1,621	2,569	58
Insurance	3,175	3,990	26
Professional fees	2,603	3,317	27
General farm costs	4,190	4,557	9
Occupiers repairs	8,056	8,406	4
Rent and rates	9,429	11,623	23
Total fixed costs	110,631	140,728	27
Net farm income	20,597	37,466	82
Less farmer and spouse labour	17,162	19,898	16
Plus managerial input	337	399	18
Net margin	3,772	17,966	376

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	23	29
Average number of sows per farm	230	17
	£ per farm	£ per farm
Output	618,463	100,882
Variable costs		
Feed	365,562	0
Vet and medicines	16,788	16
Other variable costs	45,797	6,578
Total variable costs	428,147	6,594
Gross Margin	190,315	94,287
Fixed costs		
Paid labour	53,530	20,763
Unpaid labour	5,909	2,751
Contract hire	8,983	1,498
Machinery depreciation	11,040	9,540
Machinery repairs	7,052	4,797
Fuel and oil	5,841	3,856
Electricity and heating fuel	15,595	1,776
Water	3,652	1,395
Insurance	6,562	2,181
Professional fees	5,598	1,409
General farm costs	6,911	2,535
Occupiers repairs	13,125	3,375
Rent and rates	16,751	6,217
Total fixed costs	160,548	62,091
Net farm income	29,767	32,196
Less farmer and spouse labour	26,537	16,905
Plus managerial input	650	381
Net margin	3,881	15,672

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

Farm type	£ per £100 output	
	2018/19	2019/20
Feed	61.6	59.1
Other variable costs	10.4	10.1
Gross margin	28.0	30.8
Labour costs	10.2	10.2
Contract and machinery costs	4.5	4.6
Occupiers repairs	1.8	2.3
Rent and rates	2.1	2.9
Other fixed costs	10.8	10.1
Net margin	-1.4	0.7

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

	2018/19	2019/20
Farm Type		Breeders selling fat pigs
Number of farms	26	23
Number of sows	230	230
	£ per sow	£ per sow
Output	2,510	2,688
Variable costs		
Feed	1,547	1,589
Vet and medicines	62	73
Other variable costs	198	199
Total variable costs	1,807	1,861
Gross Margin	703	827
Fixed costs		
Paid labour	230	233
Unpaid labour	26	26
Contract hire	25	39
Machinery depreciation	48	48
Machinery repairs	39	31
Fuel and oil	28	25
Electricity and heating fuel	57	68
Water	15	16
Insurance	23	29
Professional fees	17	24
General farm costs	33	30
Occupiers repairs	62	57
Rent and rates	52	73
Total fixed costs	655	698
Net farm income	48	129
Less farmer and spouse labour	86	115
Add Management	3	3
Net margin	-35	17

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 2019/20

Dairy Farming in England 2019/20

Hill Farming in England 2019/20

Horticulture Production in England 2019/20

Lowland Grazing Livestock Production in England 2019/20

Organic Farming in England 2019/20

Pig Production in England 2019/20

Poultry Production in England 2019/20

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