



Farm Business Survey

2011/2012

Pig Production in England



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Foreword to the First Series

This report is one of a series being produced based on the results of the Farm Business Survey (FBS) for England. The annual Farm Business Survey is the most comprehensive and independent survey of farm incomes and provides a definitive data source on the economic and physical performance of farm businesses in England. It is conducted by a Consortium comprising the Universities of Cambridge, Newcastle upon Tyne, Nottingham and Reading, and Askham Bryan, Duchy and Imperial Colleges. The Consortium is lead 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 new 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

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.

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 Pig World.

Foreword to the Seventh Series

After months of negotiations Europe's leaders and finance ministers have finally agreed a finance package for the EU for the period up to 2020. To many people and businesses this may be of minor interest to their daily lives, but to those engaged in agriculture and horticulture such news carries more weight. Crucially, there are many farm businesses which rely heavily on the Single Farm Payment (SFP). Of course, not all sectors are equally reliant upon the SFP, in particular those in the pig, poultry and horticultural sectors for which the SFP is often a minor or non-existent revenue source. However, as Europe's leaders have now agreed the budget deal, the focus now turns to looking for clarity over the future of the Common Agricultural Policy (CAP). As noted in the foreword to the Sixth series of these reports, the only realistic direction of the value of the SFP is downwards; focusing upon the market, reducing business inefficiencies and dealing with risk and volatility are key areas for business development and growth.

Having witnessed one of the wettest summers on record during 2012, many businesses have observed first-hand the extreme production and price volatility that can result from operating within the natural environment. While the 2011 cropping and production year, upon which the results presented in this series are based, represented a more benign agricultural and horticultural environment, the variation in business and enterprise performance remains a strong feature of the analyses we present. Set against an environment of increased volatility, farmers and growers need to be aware of the strengths and weaknesses of their business and of their comparative position within their particular sector; having the data to undertake this analysis is therefore a key business requirement.

Rural Business Research's (RBR) series of enterprise and farm type reports based upon independent analysis from the Defra-funded Farm Business Survey (FBS) for England is now in its seventh series. It has, over a short space of time, become increasingly recognised as a key independent information source for businesses, business advisors and government to turn to for their data needs. In business standing still often equates to moving backwards as those around you grow and develop. In the competitive sectors in which agriculture and horticulture operates, knowledge and information remain key business tools for success.

As our series of reports has grown in popularity, I thank all the farmers and growers who take part in the FBS research programme which allows us to produce these valued information sources. I trust that the independent data produced within these reports continues to offer value to all the reports' readers.

Dr Paul Wilson

Chief Executive Officer, Rural Business Research
Spring 2013

www.ruralbusinessresearch.co.uk

Summary

This report presents the results collated from those farms with pig enterprises in the 2011/12 Farm Business Survey. They relate to farm businesses with financial year ends between 31st December 2011 and 31st March 2012. Most of the data is drawn from those farms defined as Specialist Pig Farms, that is, more than two-thirds of their total standard output is derived from pigs.

June Census data for England showed that pig numbers continued to fall in 2011 compared to 2010 but recovered slightly in 2012 compared to the previous two years. In 2009 there had been a change in methodology so comparisons with previous years are not so straight forward. The number of specialist pig holdings increased in 2011.

The Yorkshire and the Humber and Eastern regions taken together account for 62% of the pigs in England. In consequence, the other six regions only account for the remaining 38%.

Slaughter statistics indicate that 7592 thousand head of pigs were killed in 2011, an increase of 4% on the previous year. There was a further 3% increase in 2012. In consequence of these increasing numbers the percentage contribution made by home produced meat to total supply increased to 56%. This is the highest level recorded for some years although ten years ago it would have been 75%.

In 2011 prices improved and averaged 145 pence per kg for the year. In 2012 prices improved again and the annual average price was 150 pence per kg. For the financial year 2011/12 prices were 4% higher than for the previous year.

The full sample of 74 Specialist pig farms recorded an average gross margin of £198,956 after deduction of variable costs amounting to £304,231. Feed costs accounted for 83% of total variable costs and just over half of all costs. Compared to the previous year, feed costs rose by 9%. Fixed costs amounted to £185,086 resulting in an average Management and Investment Income (MII) of £13,870 (previous year £21,413). Average Net Farm Income (NFI) was £34,833 (£41,034). Average Farm Business Income (FBI) was £37,980 (£44,439). Following a more profitable year in 2009/10 pig producers have now experienced two years of very low returns.

There is always a great variation in profit performance between farms and it was noticeable that nearly one-half of all farms showed a negative MII figure (34 out of 74). Of perhaps greater concern is the fact that nearly one-quarter (17 farms) showed negative FBI figures. The top 25% show an average MII of £122,258 whilst the bottom 25% shows an average negative MII of £51,424. The high MII farms are significantly larger than the others with a pig output over three times larger than the middle 50% band. The gap between the top and bottom performers appears to have grown in recent years.

In 2012, pig prices have increased and were 4% higher for the calendar year 2012 compared to the calendar year 2011. However feed prices have risen even faster and consequently there has been further downward pressure on income. Indeed, it is expected that incomes on pig farms in 2012/13 will fall by over 50% on the previous year.

Net Margins for pigs derived from the FBS sample are also presented in this report. On a sample of 70 Specialist Pig Farms there was an average Net Margin Loss of £1,296 which compares with a positive Net Margin of £26,677 for the previous year. More significantly, the key group comprising farms which both breed and sell finished pigs made a Net Margin Loss of £11735 per farm which is clearly not sustainable. This translates into a loss per sow figure of £41. A category of mixed farms comprising a number of different farming systems showed a Net Margin of £24,120 per farm. A sample of contract rearing pig farms showed a Net Margin of £3,134 per farm.

Chapter 1

Economic Background

The purpose of this chapter is to collate relevant pig data for England. Data has been presented for different time series in order to show the key changes. The following figures clearly portray the dramatic structural change that has taken place in the industry during this period.

Pig Population – June Census

Table 1.1 shows the pig population in England according to the June census data. Data for the four years 2009-2012 is presented together with historic data for 1990 and 2000 as a comparison. The 2009 data has been revised so there is break in the data series.

Pig numbers have declined by 42% in the last two decades between 1990 and 2012. In 2012 there was a slight increase in the number of breeding pigs (0.9%) and fattening pigs (1.8%), which has resulted in a small increase in overall pig numbers (1.7%), compared to the previous year.

Regional Specialist Pig Holdings and number of pigs

Table 1.2 shows the number of holdings in 2011 classified as specialist pig holdings according to region in England. Pre 2010 farm type was classified by the predominant farming activity taking place on the holdings, based on economic measure and profitability (Standard Gross Margin, SGM). The farm type is defined as the activity which contributes more than two thirds of the total SGM for the holding. For 2010 onwards the methodology for classifying farms has changed to one based on Standard Outputs (SO). The table shows that the switch to SO in 2009 increased the number of farms classified as pig holdings by 15%. In 2011, the number of holdings classified as pigs, using SO, increased by 13%. All regions showed an increase; however the greatest potential increase was seen in the West Midlands, with an increase of 21%. In terms of absolute numbers, however, the largest increase was seen in the Yorkshire and Humber region.

Table 1.3 shows the distribution of pigs by region in 2011. This highlights the fact that the Yorkshire and the Humber account for 35% of the total pigs in England with the Eastern region accounting for a further 27%. There was an overall decrease of 0.2% of the total number of pigs in 2011, compared with 2010. Eastern regions saw the biggest decrease of 4%.

Collectively data from Table 1.2 and 1.3 suggests that in 2011, the number of pig holdings in England increased, but the average number of pigs on each holding decreased.

Pig slaughter data for England

Table 1.4 shows the number of clean pigs and sows and boars slaughtered in England for the period 2001- 2012. In 2010 and 2011 Defra were unable to release data on the number of sows and boars slaughtered. This is for confidentiality reasons. However, data is available for 2012.

In 2009 the number of pigs slaughtered in England reached its lowest recorded level at 6886 thousand. However over the last couple of years we have seen a steady increase to 7831 thousand pigs slaughtered in 2012, an increase of 13% compared to 2009. Not shown in the table is the average carcass weight. In 2000 the average carcass weight was 70kg, however over the last decade this has increased by 10%, with average carcass figures reported in 2010 at 78kg. However, the relentless, upward trend appears to have ceased and average carcass weights were slightly lower in 2012 compared to the previous years.

UK Supply and use of Pork and Bacon

Table 1.5 shows the impact of the falling numbers of pigs on the percentage contribution made by home produced meat to total supply. Ten years ago home fed production accounted for three-quarters of total new supply, whereas between 2008 and 2010 it had dropped to one-half. There has been a modest improvement in 2012 to 56% of total supply. Exports were also stronger in 2011, with an increase of 5% to EU countries and 56% to the rest of the world when compared to 2010 figures.

UK Pig prices

Table 1.6 shows pig prices for the period 2001-2011. In the late 1990s pig prices collapsed and the sector contracted considerably as a consequence of these low prices. In the period 2004-2007 the monthly pig price was relatively stable. In the period 2007-2009 prices improved and peaked at 155 pence per kg in July of 2009. In 2010, prices fell back 3% on the previous year. In 2011 prices improved and averaged 145 pence per kg for the year. In 2012 prices improved again and the annual average price was 150 pence per kg.

Table 1.1 Pigs on agricultural holdings in England 1st June ('000)

	1990	2000	2009	Revised 2009	2010	2011	2012	% change 2012/2011
Total pigs	6308	5442	3872	3689	3606	3600	3662	1.7%
Breeding pigs	757	595	444	421	423	433	437	0.9%
Sows in pig	417	340	264	250	228	227	244	7.3%
Gilts in pig	92	60	43	41	54	58	57	-2.8%
Other sows	137	103	65	61	64	68	51	-25.8%
Boars	37	25	16	15	14	14	14	-1.5%
Gilts not yet in pig	73	68	57	54	63	65	72	10.6%
Fattening pigs (liveweight)	5552	4847	3428	3268	3183	3167	3225	1.8%
110kg and over	52	47	39	38	38	38	39	1.8%
80-110kg	513	643	532	511	503	500	510	1.8%
50-80kg	1473	1280	821	770	796	792	806	1.8%
20-50kg	1785	1468	1029	982	921	917	934	1.8%
Under 20kg	1728	1409	1006	967	925	920	937	1.8%

Footnotes:

June 2009 figures were revised on 16th September 2010. For explanation see June Census Statistical release:
<http://www.defra.gov.uk/evidence/statistics/foodfarm/landuselivestock/junesurvey/index.htm>

Source:

<http://www.defra.gov.uk/statistics/files/defra-stats-foodfarm-landuselivestock-june-results-englandtimeseries-121101.xls>

Table 1.2 Specialist Pig holdings by region 2011

	2009 sgm	2009 so	2010 so	2011 so
North East	42	50	39	46
North West and Merseyside	106	117	110	125
Yorkshire and The Humber	301	421	410	464
East Midlands	128	156	159	174
West Midlands	137	138	133	161
Eastern	330	398	369	398
South East	149	154	137	159
South West	269	253	244	283
England	1462	1687	1601	1810

Source: defra farming statistics

Table 1.3 Number of pigs by region 2011

	2010	2011
North East	89,056	89,832
North West and Merseyside	138,284	141,882
Yorkshire and The Humber	1,222,505	1,257,909
East Midlands	344,131	332,655
West Midlands	188,840	193,304
Eastern	1,032,016	989,187
South East (incl. London)	204,756	201,053
South West	386,529	393,737
England	3,606,117	3,599,559

Source: defra farming statistics

Table 1.4 Pigs slaughtered in England 2001-2012 (thousand head)

Year	Clean pigs	Sows and boars
2001	8646	163
2002	8231	289
2003	7074	226
2004	7126	227
2005	6984	198
2006	7020	196
2007	7231	206
2008	7223	231
2009	6886	196
2010	7282	c
2011	7592	c
2012	7831	263

Footnotes:

C data are confidential

Source:

<http://www.defra.gov.uk/statistics/foodfarm/food/slaughter/>

Table 1.5 Supply and Use of Pigmeat 2005-2011 (thousand tonnes)

	2005	2006	2007	2008	2009	2010	2011
Home-fed production	669	667	707	706	681	712	759
Imports from:							
the EU (a)	836	837	864	801	804	801	770
the rest of the world	6	7	5	12	12	12	11
Exports to:							
the EU	101	110	113	130	109	146	154
the rest of the world	12	10	12	25	26	25	39
Total new supply	1398	1391	1451	1364	1362	1353	1347
Home-fed production as % of total new supply for use in the UK	48%	48%	49%	52%	50%	53%	56%

Footnotes:

The figures for 2011 are provisional and have been adjusted from a 53-week to a 52-week basis where appropriate.

(a) Includes meat from imports of live finished animals.

Source: Agriculture in the United Kingdom 2011

Table 1.6 Pig Prices 2001-2011**Clean Pigs (AESAs) UK (a)**

pence per kg dwt

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2001	98.14	96.50	97.40	95.96	96.44	103.01	104.20	95.74	92.81	94.11	99.50	102.60
2002	93.38	88.29	95.03	98.06	101.07	103.39	95.55	88.76	88.07	88.66	90.31	91.50
2003	94.78	98.93	108.36	105.88	110.02	112.39	102.32	96.52	97.48	103.75	106.90	101.97
2004	98.71	99.35										

Deadweight Pig Prices (DAPP GB (EU)) (a)

pence per kg dwt

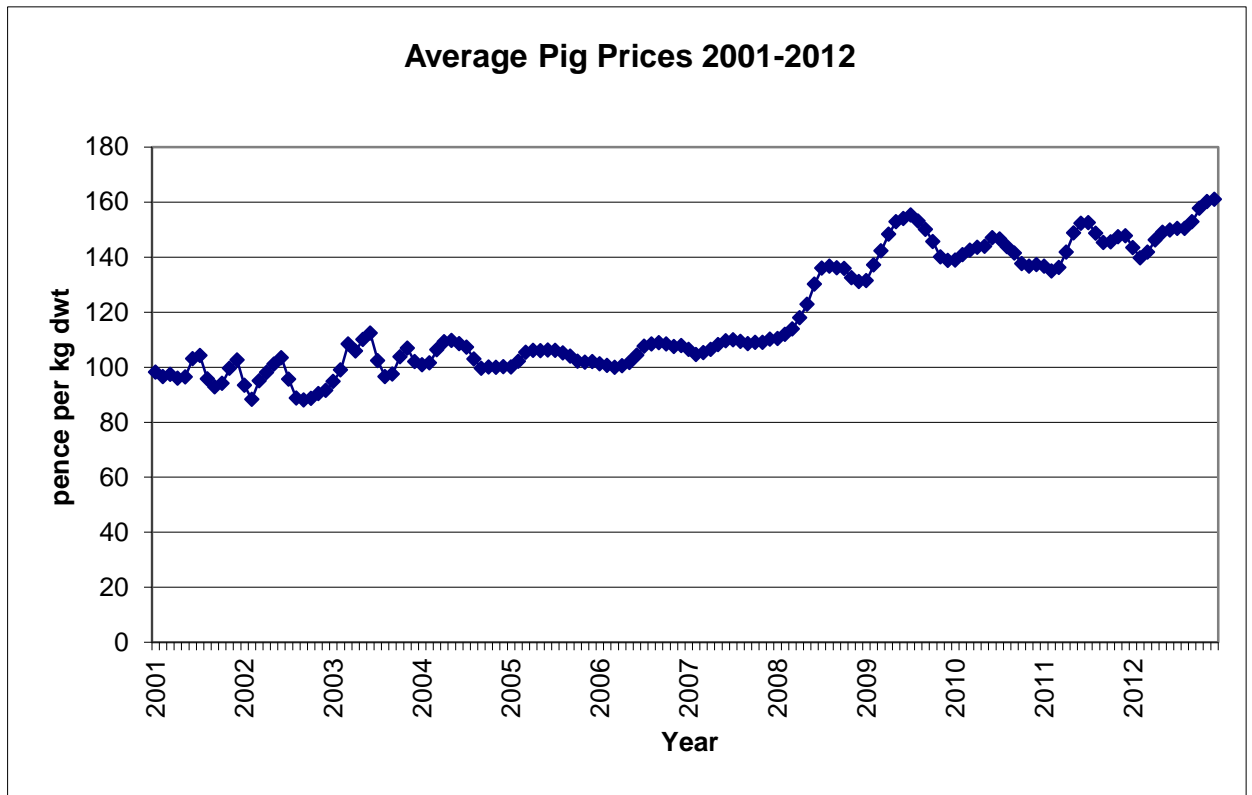
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					109.24	111.53	104.00	98.26	98.49	103.75	107.27	103.28
2004	100.80	101.56	106.26	109.27	109.64	108.54	107.52	102.96	99.57	100.08	99.95	100.18
2005	99.99	102.09	105.39	106.03	106.01	106.19	106.06	105.12	103.95	102.07	101.74	101.95
2006	101.23	100.61	99.96	100.54	101.68	104.37	107.59	108.42	108.87	108.42	107.47	107.82
2007	106.45	104.54	105.28	106.40	108.13	109.55	109.96	109.37	108.52	109.04	108.99	110.17
2008	110.34	111.85	113.86	118.00	122.87	130.21	136.03	136.70	136.06	135.86	132.48	131.14
2009	131.46	137.14	142.32	148.30	152.81	154.04	155.27	153.06	150.05	145.62	140.01	138.79
2010	138.89	140.92	142.51	143.60	143.86	147.04	146.54	143.74	141.43	137.57	136.69	137.23
2011	136.69	134.93	136.21	141.84	148.76	152.24	152.46	148.62	145.34	145.52	147.41	147.74
2012	143.46	139.66	141.85	146.17	148.97	149.79	150.45	150.40	152.91	157.74	160.25	160.95

Footnotes:

- (a) In 2003 the Meat and Livestock Commission, with the support of the British Pig Executive, launched a new deadweight pig price reporting survey – the Deadweight Average Pig Price (DAPP). The DAPP replaced the Adjusted Euro Spec Average (AESAs), the price formally reported. In March 2004 the AESAs ceased to be calculated and the DAPP became the official pig price indicator.

Source: ADHB/Defra

Figure 1 Average Pig Prices 2001-2012



Chapter 2

Financial Performance of Specialist Pig Farms

The data in this report has been extracted from the 2011/12 Farm Business Survey (FBS). Full results for this survey, together with previous years, can be accessed at <http://www.farmbusinesssurvey.co.uk>. 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 2011/12 FBS there were 74 farm businesses that were classified as Specialist Pig farms. This is similar to the previous year when there were 75 recorded pig farms. Farms are classified according to Standard Outputs (SO). Please see the explanatory document at <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/> 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.

Classification of farms

The 74 Specialist Pig farms subdivided into three EU Particular Farm Types as follows :

EU PFT	No of farms	Description
5110	7	Specialist pig rearing
5130	45	Pigs rearing and fattening combined
5120	22	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 with predominantly sows selling either weaners or fat pigs and type 5120 are predominantly farms without sows but selling fat pigs, many on a contract basis.

Financial Results

For the full sample of 74 farms total farm output amounted to £503,187 (Table 2.1) which was 6% higher than the previous year. Pig output accounted for 83% of total output with miscellaneous income accounting for 8%. Receipts from the Single Payment Scheme (SPS) are included in the account under miscellaneous income. SPS income is not significant on these farms because they have very little land area on which to claim the regional payment and also an insignificant historic payment element.

These farms recorded an average gross margin of £199,000 after deduction of variable costs amounting to £304,200. This margin is the same as that recorded in the previous year with the higher level of output offset by the higher level of variable costs. Feed costs accounted for 83% of total variable costs which is the same as the previous year. Fixed costs amounted to £185,000 resulting in a Management and Investment Income (MII) of just under £14,000. Net Farm Income (NFI) averaged £34,833. Farm Business Income (FBI) was slightly higher at £37,980. In summary, incomes have fallen by 14%. Average prices in 2011/12 were 6

pence per kg higher than in the previous year and were higher in every corresponding month for the period April 2011 to March 2012 apart from April 2011.

There is always a great variation in profit performance between farms and it was noticeable that nearly one-half of all farms showed a negative MII figure (34 out of 74). The number of farms showing negative FBI figures has increased considerably from 12% of the sample in the previous year to 23% of the sample. Table 2.2 shows the range in performance in terms of MII for Specialist Pig farms. The top 25% recorded an average MII of £122,000 whilst the middle and bottom 25% recorded negative MII of £7100 and £51,400 respectively. The high MII farms are significantly larger than the other farms with a pig output three times as large as the middle 50% band. Also noticeable is that feed costs equate to 69% of pig output on the bottom MII farms whereas this figure is only 54% for top performers. This year farms in the top quartile by MII figures have the highest proportion of output from crops and miscellaneous income. It would appear that farms in the middle band of performance were smaller on average than farms in the lowest band. This result has occurred because of the influence of one very large farm in the bottom quartile.

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 2.3. On this sample of farms, the 'predominantly sows' farm type is considerably larger than for that of the other farm types. Whilst the associated variable and fixed costs are also higher the overall profit measures are still higher. For instance the average FBI recorded for the 'predominantly sows' group is £48,907 compared to £21,076 for the other farms.

In order to examine the influence of size on financial performance the results have been analysed in terms of SO. Table 2.4 shows the results and indicates the range of SO for each size category. There is a good distribution of farms across the three size categories.

The results show a clear difference between the largest size group and that of the other two groups. The largest size group records an average MII of £70,922; whilst the other two size groups record MII losses of £2903 and £7032. When these results are compared with those from previous years it appears that the gap in profitability between the different size groups is growing.

A note on 2012/13

We have seen how the 2011/12 results represented a fall in profitability compared to that of the previous year. Looking ahead, the situation for pig farmers for the 2012/13 year looks very worrying. In contrast to 2011 when feed prices fell in the second half of the year, feed prices have been steadily rising. In December 2012 feed wheat is valued at £220 per tonne compared to £140 per tonne in December 2011. Based on the net margin calculation presented in Table 3.1 feed represents 62% of production costs and therefore this large rise will have a dramatic negative impact on profitability. Given the difficult planting conditions for the 2013 cereal crop there would appear to be little prospects for feed prices to start falling. The high cost of feed together with the increases in other input costs, means that there is continued downward pressure on profit margins. Indeed, industry sources (ADHB/BPEX) state that the net margins for pig production have been negative every month except one since the last quarter of 2010 with little prospect of this changing in 2013.

On a more optimistic note pig prices have risen steadily throughout 2012. The key question is what will happen to pig prices in 2013. Some analysts predict a tightening of supply in the EU due to the ban on sow stalls which comes into effect on 1st January even though there is expected to be considerable degree of non-compliance. If there is a major fall in production in the EU then this will strengthen pig prices further and thereby at least partly offset the rise in costs. The report on Family Food 2011 (published December 2012) shows that expenditure on pork fell by 18% in the period 2007-2011. However, the same report indicated that there was a 4% increase in pork consumption in terms of grams per person in

2011 compared to 2010. This compared to a fall of 16% in mutton and lamb for the same period. In other words it might well be that rising pig meat prices will not result in a fall in consumption because the competing products of beef and lamb have also risen in price.

Table 2.1 Specialist Pig Farms – Financial Results

	2010/11	2011/12
Number of farms	75	74
Output	£	£
Pigs	424270	419787
Other livestock	4954	9054
Crops	21998	33497
Miscellaneous	25115	40849
Total output	476337	503187
Variable costs		
Feed	230768	251438
Vet and medicines	13096	12246
Other livestock costs	26014	27959
Crop costs	7640	12588
Total variable costs	277518	304231
Farm gross margin	198819	198956
Fixed costs		
Labour		
- Paid	53377	53666
- Unpaid	19703	21021
Machinery		
- Contract	9223	9549
- Depreciation	15176	16807
- Repairs	11721	11459
- Fuel and oil	7728	10651
Occupiers repairs	11095	11791
Rent and rates	26148	27679
Other farm costs	23235	22463
Total fixed costs	177406	185086
Management and investment income	21413	13870
Less management charges	82	58
Plus farmer and spouse labour	19703	21021
Net farm income	41034	34833
Less net interest payments	6765	6388
Less building depreciation and insurance	10600	11465
Less directors remuneration	1603	1188
Plus rental value and imputed rent	17834	18881
Plus imputed labour	4539	3308
Farm business income	44439	37980

Table 2.2 Specialist Pig Farms 2011/12 – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Output	£	£	£
Pigs	821722	242298	372824
Other livestock	15177	8555	4022
Crops	83464	21312	8322
Miscellaneous	107115	22426	11893
Total output	1027477	294591	397062
Variable costs			
Feed	446815	149877	258525
Vet and medicines	22857	6879	12341
Other livestock costs	52806	19453	20231
Crop costs	32830	7438	2807
Total variable costs	555308	183647	293904
Farm gross margin	472169	110943	103158
Fixed costs			
Labour			
- Paid	111844	26568	49624
- Unpaid	21934	22593	17050
Machinery			
- Contract	20880	5374	6603
- Depreciation	38382	11139	6733
- Repairs	23102	6820	9116
- Fuel and oil	27459	5868	3520
Occupiers repairs	22361	4200	16277
Rent and rates	48748	17860	26225
Other farm costs	35200	17625	19435
Total fixed costs	349912	118047	154583
Management and investment income	122258	-7103	-51424
Less management charges	142	46	0
Plus farmer and spouse labour	21934	22593	17050
Net farm income	144050	15444	-34375
Less net interest payments	14691	4170	2585
Less building depreciation and insurance	24862	6555	7932
Less directors remuneration	1086	1847	0
Plus rental value and imputed rent	39387	12733	10794
Plus imputed labour	3393	3005	3818
Farm business income	146191	18610	-30279

Table 2.3 Specialist Pig Farms 2011/12 – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	52	22
Output	£	£
Pigs	631343	92558
Other livestock	11093	5898
Crops	42270	19925
Miscellaneous	60507	10443
Total output	745214	128824
Variable costs		
Feed	397212	25964
Vet and medicines	19561	933
Other livestock costs	41733	6655
Crop costs	17922	4337
Total variable costs	476428	37889
Farm gross margin	268786	90935
Fixed costs		
Labour		
- Paid	76484	18371
- Unpaid	21287	20607
Machinery		
- Contract	13713	3107
- Depreciation	21405	9693
- Repairs	14891	6149
- Fuel and oil	13804	5772
Occupiers repairs	16453	4580
Rent and rates	36163	14555
Other farm costs	30772	9609
Total fixed costs	244973	92444
Management and investment income	23813	-1510
Less management charges	96	0
Plus farmer and spouse labour	21287	20607
Net farm income	45005	19098
Less net interest payments	8006	3886
Less building depreciation and insurance	14695	6469
Less directors remuneration	1906	79
Plus rental value and imputed rent	24325	10457
Plus imputed labour	4183	1955
Farm business income	48907	21076

Table 2.4 Specialist Pig Farms 2011/12 – Grouped by Standard Output per Farm

000 SO	0-200	200-500	500+
Number of farms	20	26	28
Output	£	£	£
Pigs	96254	206166	1241495
Other livestock	4377	7530	18843
Crops	11464	33541	69979
Miscellaneous	2816	36221	110100
Total output	114912	283458	1440418
Variable costs			
Feed	50123	124196	755152
Vet and medicines	1740	6428	37436
Other livestock costs	7000	14277	80984
Crop costs	1509	10731	33441
Total variable costs	60372	155632	907013
Farm gross margin	54541	127826	533405
Fixed costs			
Labour			
- Paid	12504	30225	153221
- Unpaid	20903	22125	19746
Machinery			
- Contract	1293	7314	26224
- Depreciation	4844	11187	44149
- Repairs	2951	7569	30759
- Fuel and oil	3658	5712	28841
Occupiers repairs	2578	7837	32349
Rent and rates	5787	18390	76383
Other farm costs	7054	20369	50811
Total fixed costs	61572	130729	462483
Management and investment income	-7032	-2903	70922
Less management charges	0	0	232
Plus farmer and spouse labour	20903	22125	19746
Net farm income	13871	19222	90436
Less net interest payments	2139	2910	18079
Less building depreciation and insurance	2019	9431	29845
Less directors remuneration	0	810	3665
Plus rental value and imputed rent	4656	15413	47098
Plus imputed labour	2864	3917	3232
Farm business income	17233	25402	89177

Chapter 3

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 co-efficients for each enterprise. Data on the validity of these co-efficients 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.

Classification of farms

Net and gross margins were completed for 70 Specialist Pig farms. This is because of the 74 farms reported in Chapter 2 data for net margins were not available for four farms.

These were classified as follows:

Type	No of farms	Definition
111	6	Breeders selling weaners (rearers)
112	36	Breeders selling fat pigs (finishers)
113	2	Buying weaners, selling fat pigs
114	21	Contract rearing
115	5	Other

Due to the small sample sizes it is not possible to show the results for each type listed above. Consequently, results have been presented for types 112, 114 and combined types 111, 113, and 115.

Net Margin results

Table 3.1 shows that the full sample of 70 Specialist Pig Farms recorded an average net margin loss of £296. In the previous year there was a positive Net Margin of £26,667. Whilst there were 70 farms in both years it should be noted that these did not represent an identical sample. There were 58 farms in both years with 12 new farms replacing 12 farms that had dropped out. This average figure masks a huge variation in performance. Within this figure there are 40 farms (57%) making a negative Net Margin. This compares to the previous year where 22 farms, 31% of the sample, were showing a negative Net Margin.

Table 3.2 presents the results split into three different categories, namely breeding farms selling finished pigs, contract rearing only farms and all other farms. The latter comprises both breeders selling weaners and also a number of farms that do not easily fit into one specific category. This analysis shows that there is a clear difference between the different farm types. Breeding farms selling finished pigs made a loss of £11,735. The contract rearing only farms and the 'other' farm type showed positive Net Margins of £3,134 and £24,120 respectively.

Table 3.3 presents the costs and margins per £100 output for two categories of farms – combined breeding and finishing units (type 112) and others (excluding contract rearing).

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 2011/12 there is a Net Margin loss of £41 per sow compared to a margin of £17 in 2010/11. To put this in perspective in 2009/10 there was a Net Margin of £247 per sow recorded. The main reason for the further fall in profitability per sow is that output was lower at £2,095 compared to £2,222 the previous year. Variable costs per sow were very similar at £1541. Fixed costs fell from £586 to £526. This may be partly because average sow numbers per farm increased from 251 to 288 although it should be noted that it is not an identical sample.

The Net Margins presented in this chapter further illustrate how the pig sector, especially the breeding units have been making losses in 2011/12.

Table 3.1 Specialist Pig Farms – Net Margins

	2010/11	2011/12
Number of farms	70	70
Output	435517	420208
Variable costs		
Feed	236051	248400
Vet and medicines	13176	12031
Other variable costs	25901	26657
Total variable costs	275128	287088
Gross Margin	160389	133120
Fixed costs		
Paid labour	39475	45039
Unpaid labour	2997	2508
Contract hire	5728	4228
Machinery depreciation	11653	10011
Machinery repairs	9114	7034
Fuel and oil	5778	6799
Electricity and heating fuel	7872	5982
Water	2256	2272
Insurance	3134	3147
Professional fees	3035	2568
General farm costs	3531	3047
Occupiers repairs	9631	9387
Rent and rates	17114	14568
Total fixed costs	121316	116589
Net farm income	39072	16531
Less farmer and spouse labour	12466	16877
Plus managerial input	71	49
Net margin	26677	-296

Table 3.2 Specialist Pig Farms 2011/12 – Net Margins by Farm Type

Farm type	Breeders selling fat pigs	Others	Contract rearing
Number of farms	36	13	21
Average number of sows	288	429	54
	£	£	£
Output	603776	772164	67206
Variable costs			
Feed	391153	456913	-
Vet and medicines	17098	27441	5
Other variable costs	35906	58100	3380
Total variable costs	444157	542454	3385
Gross Margin	159619	229711	63821
Fixed costs			
Paid labour	55733	86861	15933
Unpaid labour	4257	0	1493
Contract hire	6559	5710	942
Machinery depreciation	12676	12915	5769
Machinery repairs	9828	8209	3336
Fuel and oil	7054	13394	4092
Electricity and heating fuel	9889	7727	540
Water	3022	3507	910
Insurance	4016	4242	1705
Professional fees	3116	3376	1610
General farm costs	3910	5064	1243
Occupiers repairs	10044	22897	3215
Rent and rates	21367	19831	4608
Total fixed costs	151472	193734	45397
Net farm income	8147	35977	18424
Less farmer and spouse labour	19882	12172	15290
Plus managerial input	0	315	0
Net margin	-11735	24120	3134

Table 3.3 Specialist Pig Farms 2011/12 - Costs and Margins per £100 Pig Output

Farm type	Breeders selling fat pigs	Others except contract rearing
	£ per £100 output	
Feed	64.8	59.2
Other variable costs	8.8	11.1
Gross margin	26.4	29.8
Labour costs	13.2	12.8
Contract and machinery costs	5.9	5.2
Occupiers repairs	1.7	3.0
Rent and rates	3.5	2.6
Other fixed costs	4.0	3.1
Net margin	-1.9	3.1

Table 3.4 Specialist Pig Farms – Net Margins per Sow

	2010/11	2011/12
Farm Type	Breeders selling fat pigs	
Number of farms	34	36
Number of sows	251.2	288.2
	£	£
Output	2222.0	2095.0
Variable costs		
Feed	1344.8	1357.2
Vet and medicines	68.0	59.3
Other variable costs	125.1	124.6
Total variable costs	1537.9	1541.1
Gross Margin	684.1	553.8
Fixed costs		
Paid labour	213.8	193.4
Unpaid labour	22.9	14.8
Contract hire	17.9	22.8
Machinery depreciation	41.2	44.0
Machinery repairs	41.1	34.1
Fuel and oil	20.5	23.8
Electricity and heating fuel	42.2	35.0
Water	12.0	10.5
Insurance	15.5	13.9
Professional fees	14.5	10.8
General farm costs	16.3	13.6
Occupiers repairs	38.1	34.9
Rent and rates	90.7	74.1
Total fixed costs	586.8	525.6
Net farm income	97.3	28.3
Less farmer and spouse labour	80.3	69.0
Add Management	0.0	0.0
Net margin	17.0	-40.7

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 a five-year average centred on 2007. This is done in order to lessen the impact of yearly fluctuations on calculated SOs. 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://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 of size at least 0.5 SLR. 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.

Appendix B: Reports in Series

Reports in this series:

Crop Production in England 2011/12

Dairying Farming in England 2011/12

Hill Farming in England 2011/12

Horticulture Production in England 2011/12 (Horticultural Business Data)

Lowland Grazing Livestock Production 2011/12

Pig Production in England 2011/12

Poultry Production in England 2011/12

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