



Farm Business Survey

2006/2007

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

Foreword to the Second Series

Launched in 2007, the farm types and enterprise reports based on the results of the Farm Business Survey (FBS) for England have quickly become established as the authoritative data source for a wide range of agricultural enterprises. The second series of reports builds upon the first by providing data for the most recent FBS accounting year (2006/07) and expanding the series coverage by including information on lowland grazing livestock production in addition to incorporating the well-established *Horticultural Business Data* report within this current series. Produced by **Rural Business Research**, a leading independent consortium comprising the Universities of Cambridge, Newcastle upon Tyne, Nottingham and Reading, and Askham Bryan, Duchy and Imperial Colleges, the reports draw directly upon the highly regarded annual Farm Business Survey financed by Defra.

These detailed reports, available via **Rural Business Research's** on-line service, www.ruralbusinessresearch.co.uk complement the comprehensive Farm Business Survey Reports for Government Office Regions published at www.farmbusinesssurvey.co.uk. As with the first series, **Rural Business Research** aims, via these reports and its other data and results services, to provide timely and relevant information to farmers, consultants, advisers and other organisations and individuals interested in farming and land management. Our expertise in independent research, data and analysis ensures that we understand the needs of the different agricultural and horticultural sectors. The reports have been thus developed to capture the issues of direct relevance to the farm type or sector presented whilst ensuring consistency in the treatment and presentation of key data and results. Building upon developments in the FBS, a key performance result of direct relevance to all sectors is the new headline income measure of Farm Business Income (FBI) which provides a financial accounting return measure and represents the return to unpaid labour and capital invested in the farm business, including land and farm buildings. It incorporates the four revenue and cost centres of farm businesses, these being i) agricultural production and agricultural diversification, ii) agri-environmental activity, iii) single farm payment and iv) non-agricultural diversification. We believe the FBI measure further enhances the results provided by the reports in the series, enabling readers to view the results within a financial accounting context.

As we present these results in the Spring of 2008, the industry is undergoing a period of change, with enhanced prices in some sectors considerably improving profitability, whilst for others, increased costs are leading managers to further analyse the performance of their enterprises and overall business. One issue common across all sectors is that the need for independent data upon which to base decisions remains a key tool to successful business management; **Rural Business Research's** outputs, incorporating this series, continue to lead the way in providing this independent data.

Prof. Martin Seabrook

(Chief Executive, Rural Business Research)

Acknowledgements

We sincerely thank all the farmers who have voluntarily provided records and information on which the annual FBS, and this report, is based.

Cover photograph courtesy of Sam Walton.

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 and is Crown Copyright.

Summary

This report presents the results collated from those farms with pig enterprises in the 2006/07 Farm Business Survey. Typically they relate to farm businesses with financial year ends between December 2006 and April 2007. Most of the data is drawn from those farms defined as Specialist pig farms, that is, more than two-thirds of their total standard gross margin is derived from pigs.

June survey data indicates that the UK pig population has declined by 39% during the last ten years. Although pig numbers stabilised in 2006 they have fallen again in 2007. For the first time, the number of sows has fallen below 400,000 in the UK.

Falling numbers has inevitably had a major impact on the percentage contribution made by home produced meat to total supply. Pork production as a percentage of supply has fallen from 116% in 1996-98 to 69% in 2007. Imports have increased three-fold in the same time period. Bacon and ham production as a percentage of supply has fallen from 51% to 42% in the same time period. However, since 2001, this figure has been relatively stable and the level of imports has not changed dramatically during this period.

Pig prices fluctuated considerably during the late 1990s following the typical so called 'pig cycle'. This was followed by a period of very low prices resulting in very heavy losses in the sector and consequent decline in pig numbers. In more recent years the monthly pig price data is noticeably much more stable. Since 2004 pig prices have fluctuated by only a few pence on a monthly basis. The average annual price for 2004 and 2005 was 103 pence and in 2006 it was 105 pence per kg. In 2007 it was slightly higher at 108 pence per kg.

The full sample of 54 Specialist pig farms recorded a gross margin of £138143 after deduction of variable costs amounting to £156124. Feed costs accounted for 77% of total variable costs. Fixed costs amounted to £131460 resulting in a Management and Investment Income (MII) of £6683. Net Farm Income (NFI) was £24974. There is always a great variation in profit performance between farms and it was noticeable that one-half of all farms showed a negative MII figure and one-quarter showed negative NFI and FBI (Farm Business Income) figures. The top 25% show a MII of £78906 whilst the bottom 25% show a negative MII of £49129. The high MII farms are significantly larger than the others with a pig output 324% more than the middle 50% band. It is also noticeable that the farms with high MII figures have a much higher proportion of output from miscellaneous income than the farms in the other two bands.

Net margins for pigs derived from the FBS sample are also presented in this report. On the full sample of 54 Specialist Pig Farms there was a net margin of £9890. This average figure masks a huge variation in performance with 50% of farms showing a negative net margin result. Breeding farms selling fat pigs showed a negative net margin of £10386 per farm.

This report shows that the profitability of pig farming has declined in the period 2006/07 compared to the previous year. Net margins on Specialist pig farms were just £6012 per farm compared to £15902 the previous year. The decline in the number of Specialist Pig farms in the FBS is also indicative of the tough economic conditions faced by the sector.

Furthermore, since the period covered by this report there has been a substantial increase in feed costs which has further reduced the very low levels of profitability. Pig feed prices started to increase in the last quarter of 2006, since then there has been a dramatic rise in both cereal and soya prices. The average price for pig feed for the quarter ending December 2007 was £199 compared to £158 for the same period the previous year. Whilst there has been some improvement in the pig price this has been substantially less than that required to compensate for the feed price increase. It is clear that the vast majority of producers are making substantial losses on their pig production at the time of writing (March 2008). The December 2007 Survey showed a 4.4% fall in total breeding pigs on the previous year. The fall in gilt numbers was even higher (16%) reflecting the cut-backs that are occurring in the industry.

Chapter 1

Economic Background

The purpose of this chapter is to collate relevant pig data for the UK. Data has been presented for the years 1996 to 2007. The following figures clearly portray the dramatic structural change that has taken place in the industry during this period.

Pig slaughterings

Tables 1.1 and 1.2 show the figures for pig slaughterings in UK abattoirs each month for the period January 1996 to December 2007. For the period 1996 to 1998 clean pig slaughterings increased but since 1998 the numbers killed has declined substantially. In 2007, slaughterings increased by 4% over the previous year and were the highest level for four years. During 2001 slaughterings were affected by the Foot and Mouth Disease (FMD) with some 436000 pigs slaughtered which did not enter the food chain and therefore not included in the figures.

The figures for sows and boars generally match those of clean pigs except that in 2001 there was a sharp decline in slaughterings due to the impact of FMD. It is also noticeable that in 2005 there was a 16% fall in slaughterings compared to 2004 and a further fall recorded in 2006. Slaughterings in 2007 were higher than in 2006.

UK Pig Population, Production and Prices

Table 1.3 shows that the pig population in the UK has declined by 36% during the last ten years. There has been a 35% decline in production of dressed carcass weight during the same period. This is less than number of pigs killed (marketings), which declined by 40%, due to an increase in the carcass weight. Average carcass weight in 2007 was 76kg, a rise of 10% on the average weight in 1996-1998. The value of production has fallen by 36% due to a combination of lower prices and reduced numbers. Price levels were higher in 1996-1998 compared to 2007. In 2006 there was a slight increase in pig numbers but this proved to be short-lived and numbers fell again in 2007.

UK Supply and use of Pork and Bacon

Table 1.4 shows the impact on the falling numbers on the percentage contribution made by home produced meat to total supply. Pork production as a percentage of supply has fallen from 116% in 1996-98 to 69% in 2007. Imports have increased nearly three-fold in the same time period. Bacon and ham production as a percentage of supply has fallen from 51% to 42% in the same time period. This figure has been relatively stable since 2003 and the level of imports has not changed dramatically during this period.

UK Pig prices

Table 1.5 shows pig prices for the period 1996-2007. During 1996-1997 prices were both high and fluctuated considerably from month to month. For the next two years there was a period of very low prices resulting in very heavy losses in the sector and consequent decline in pig numbers. In more recent years the monthly pig price data is noticeably much more stable. In the period 2004-2006 prices have fluctuated by only a few pence on a monthly basis. The average annual price for 2004 and 2005 was 103 pence and in 2006 it was 105 pence per kg.

Table 1.1 Clean Pigs slaughtered in the UK 1996-2007 (thousand head)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Jan	1278.1	1411.8	1522.1	1546.7	1325.2	1065.0	982.3	917.2	848.0	867.0	818.3	830.7
Feb	1026.3	1168.7	1220.5	1171.1	1026.9	702.3	817.7	719.9	701.2	695.7	684.6	718.1
Mar	1054.4	1138.0	1198.2	1096.5	995.0	781.8	775.0	713.0	666.3	648.2	681.0	715.0
Apr	1268.3	1409.9	1416.3	1315.1	1151.2	958.5	953.9	839.6	804.9	835.6	782.7	870.7
May	1000.8	1060.7	1123.3	1061.4	962.0	782.7	751.6	668.6	658.8	666.6	665.1	683.0
Jun	1053.1	1140.6	1191.6	1080.2	947.1	781.5	729.1	695.6	668.1	691.2	665.6	724.1
Jul	1314.8	1442.3	1459.0	1346.9	1203.0	984.9	981.5	841.9	843.1	836.7	832.4	882.1
Aug	1060.0	1134.9	1213.4	1060.0	926.1	794.1	781.3	679.4	704.9	686.2	686.0	645.0
Sep	1125.3	1221.5	1219.6	1108.0	912.2	856.6	819.0	728.0	705.0	706.5	725.6	729.9
Oct	1422.4	1525.9	1600.8	1396.5	1112.8	1074.0	1028.4	901.8	896.6	881.3	915.3	959.9
Nov	1179.8	1277.9	1292.5	1172.0	938.6	866.2	849.6	737.3	764.0	744.2	749.5	797.6
Dec	1113.8	1200.2	1414.4	995.3	870.3	798.7	791.1	691.0	889.6	711.3	694.0	717.8
Total	13897.1	15132.5	15871.7	14349.7	12370.3	10446.3	10260.4	9133.2	9150.5	8970.6	8900.2	9273.8

Footnotes:

1998 and 2004 are 53 week statistical years

2006 and 2007 data is provisional and subject to revision

Some months are 5 weeks

Annual totals may not appear to be the sum of monthly figures due to rounding

Source: Slaughterhouse surveys, Defra, SEERAD, DARD (NI)

Table 1.2 Sows and Boars slaughtered in the UK 1996-2007 (thousand head)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Jan	32.0	32.4	38.2	41.0	42.6	25.8	31.6	28.9	23.6	20.8	17.1	19.5
Feb	25.7	27.7	32.4	26.6	30.7	16.7	28.9	21.7	19.8	18.3	14.3	16.4
Mar	26.0	28.3	31.4	25.3	28.2	3.4	28.3	20.4	19.0	17.7	15.3	17.8
Apr	29.3	35.0	36.5	32.1	29.2	9.2	33.1	22.0	21.2	21.2	17.4	19.8
May	22.3	26.8	27.4	26.5	23.8	9.4	24.7	16.8	16.5	16.1	14.2	14.9
Jun	24.9	28.1	30.8	27.2	23.1	10.9	24.3	17.6	18.0	16.4	14.3	16.0
Jul	30.6	32.4	40.1	32.8	28.8	18.8	29.0	20.4	22.2	19.5	19.7	21.9
Aug	25.2	26.5	33.2	25.8	19.9	14.7	22.3	16.8	18.4	16.0	15.2	5.3
Sep	27.7	29.7	37.5	32.3	22.2	13.7	22.6	18.4	19.5	14.3	17.0	13.1
Oct	33.8	38.5	42.0	43.1	29.1	15.4	27.7	22.2	21.9	16.0	21.2	12.5
Nov	26.9	31.5	31.2	35.3	23.6	24.9	23.9	17.9	17.4	14.5	17.2	30.7
Dec	19.3	26.2	33.8	30.7	20.2	16.6	17.9	17.7	22.1	11.5	13.7	21.4
Total	323.8	363.1	414.5	378.7	321.5	179.6	314.3	240.8	239.6	202.4	196.4	209.3

Footnotes:

1998 and 2004 are 53 week statistical years

2006 and 2007 data is provisional and subject to revision

Some months are 5 weeks

Annual totals may not appear to be the sum of monthly figures due to rounding

Source: Slaughterhouse surveys, Defra, SEERAD, DARD (NI)

Figure 1 Clean Pigs slaughtered in the UK 1996-2007 (thousand head)

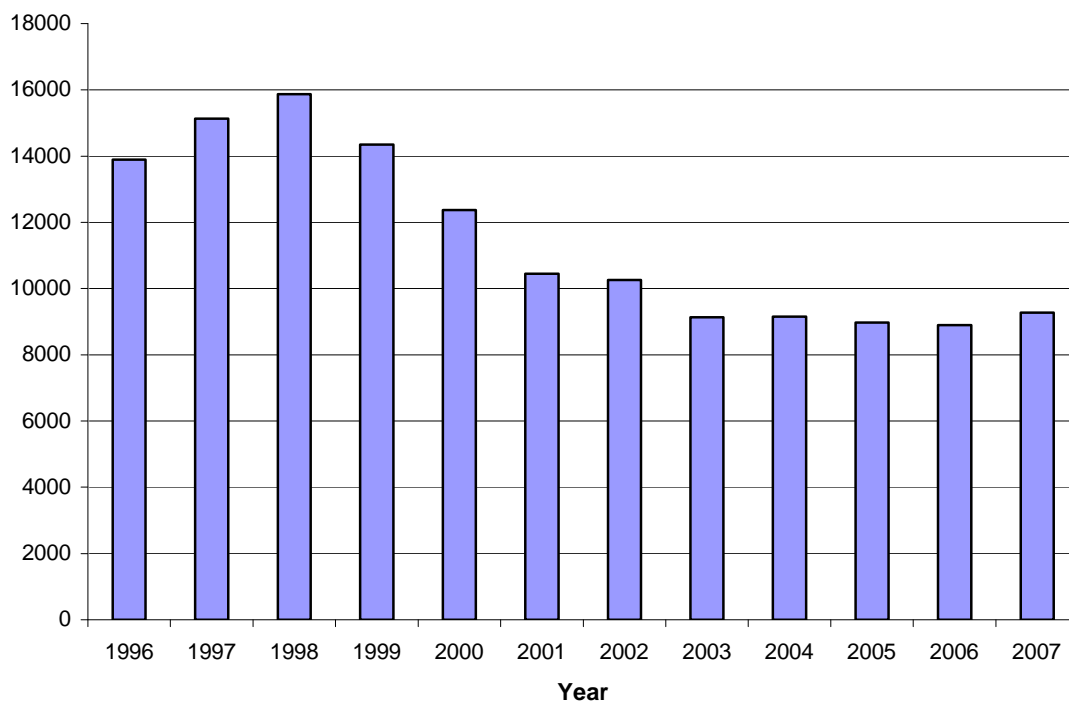


Figure 2 Sows and Boars slaughtered in the UK 1996-2007 (thousand head)

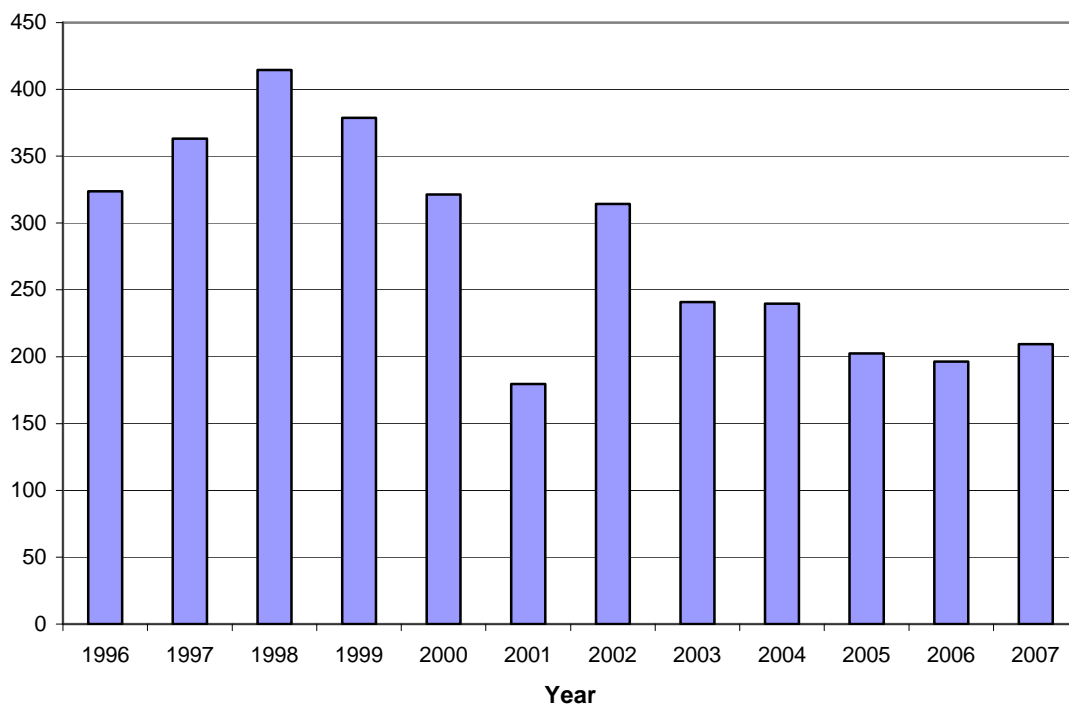


Table 1.3 UK Pig Population, Production and Prices 1996-2007

	Average of 1996-98	2003	2004	2005	2006	2007
Population						
Total pigs (thousand head at June)	7936	5046	5159	4862	4933	4834
of which:						
sows in pig and other sows for breeding	669	449	403	403	401	398
gilts in pig	109	66	67	67	67	57
other	7158	4644	4392	4392	4465	4379
Production						
Total home-fed marketings (thousand head)	15241	9007	8841	8709	8731	9084
of which:						
clean pigs	14860	8760	8597	8496	8520	8862
sows and boars	381	247	244	213	211	222
Average dressed carcass weight (kg) (a):						
clean pigs	69	74	75	75	75	76
sows and boars	141	161	158	156	153	151
Production (dressed carcass weight):						
home-fed production	1072	688	679	669	668	708
gross indigenous production	1071	689	680	670	668	707
Value of production (£ million)	1149	671	680	677	685	735
of which:						
value of home-fed production	1139	682	678	671	678	732
change in work-in-progress (b)	4	-14	-1	-	-1	-3
less imported livestock						
plus breeding animals exported	6	3	3	6	8	6
Prices (pence per kg deadweight)						
Clean pigs	109.8	102.6	102.8	102.9	104.2	106.7

Footnotes:

The figures for 2007 are provisional

(a) Average dressed carcass weight of animals fed and slaughtered in the UK.

(b) A valuation of the change in work-in-progress of animals to be slaughtered.

Source: Agriculture in the United Kingdom 2007

Table 1.4 Supply and Use of Pork and Bacon 1996-2007 (thousand tonnes)

	Average of 1996-98	2003	2004	2005	2006	2007
Supply & use of pork (dressed carcase weight) (a)(b)						
Home-fed production	866	569	577	574	575	617
Imports from: the EU (c)	125	307	297	343	369	385
the rest of the world	2	3	7	4	9	4
Exports to: the EU (d)	219	67	82	92	94	101
the rest of the world	26	7	13	9	14	9
Total new supply	748	805	787	820	843	896
Production as % of total new supply for use in the UK	116	71	73	70	68	69
Closing stocks	14	10	8	8	9	11
Supply & use of bacon and ham (product weight) (a)						
Home-cured production	242	214	211	214	209	185
Imports from: the EU	244	303	302	283	264	267
the rest of the world	-	-	-	-	-	-
Exports to: the EU	7	14	13	10	10	16
the rest of the world	-	-	1	-	-	-
Total new supply	479	504	500	487	462	435
Change in stocks	-	-2	2	1	-1	1
Production as % of total new supply for use in the UK	51	43	42	44	45	42

Footnotes:

The figures for 2007 are provisional

(a) Does not include meat offals or trade in preserved or manufactured meat products.

(b) Boneless meat has been converted to bone-in weights.

(c) Includes meat from finished animals imported from the Irish Republic.

(d) Adjusted, as necessary, for unrecorded trade in live animals.

Source: Agriculture in the United Kingdom 2007

Table 1.5 Pig Prices 1996-2007**Clean Pigs (AESAs) UK (a)**

pence per kg dwt

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1996	136.15	140.78	139.38	142.10	143.52	150.40	152.19	144.03	141.34	134.42	118.82	115.17
1997	106.37	102.64	108.06	114.34	133.40	134.03	124.49	108.79	105.90	106.51	100.03	91.99
1998	89.33	93.55	97.31	96.51	93.62	91.38	84.51	69.73	60.76	63.01	67.81	68.72
1999	65.54	72.42	79.63	83.84	84.72	84.51	85.82	83.69	81.68	77.61	75.55	75.34
2000	75.27	80.21	91.07	93.65	93.66	98.96	101.41	100.92	100.38	100.80	102.91	102.62
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

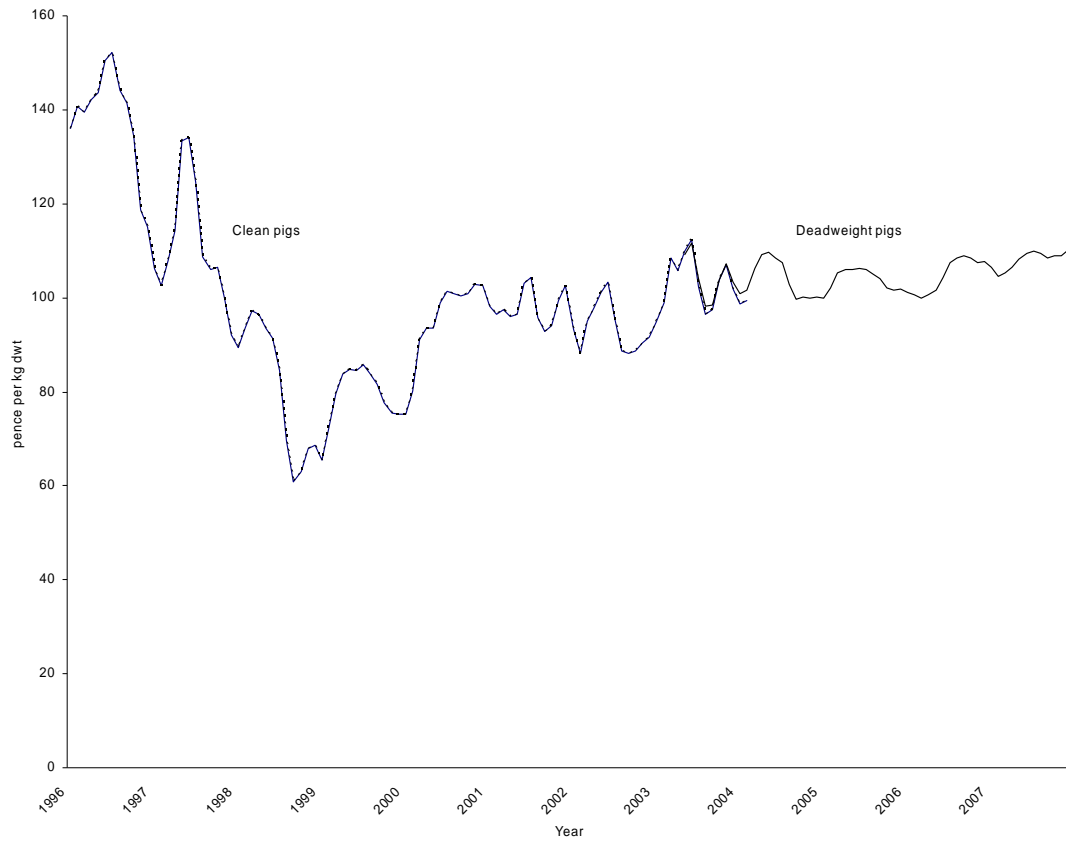
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003					109.24	111.53	104.00	98.26	98.49	103.75	107.27	103.28
2004	100.80	101.56	106.26	109.27	109.64	108.54	107.52	102.96	99.57	100.08	99.95	100.18
2005	99.99	102.09	105.39	106.03	106.01	106.19	106.06	105.12	103.95	102.07	101.74	101.95
2006	101.23	100.61	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

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: The Meat and Livestock Commission

Figure 3 Average Pig Prices 1996-2007



Chapter 2

Financial Performance of Specialist Pig Farms

The data in this report has been extracted from the 2006/07 Farm Business Survey. 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 2006/07 Farm Business Survey there were 54 farm businesses that were classified as Specialist Pig farms. The data for these farms are presented in this chapter. To be classified as a Specialist Pig farm at least two-thirds of the total Standard Gross Margin (SGM) 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 54 Specialist Pig farms subdivided into three EU Particular Farm Types as follows :

EU PFT	No of farms	Definition	Description
5011	33	Sows > 66% SGMs	Predominantly sows
5012	11	Piglets and other pigs > 66% SGMs	Predominantly growing and fattening pigs
5013	10	Other	

Due to the small sample numbers results have been presented for 'predominantly sows' (type 5011) and 'predominantly growing and fattening pigs' (types 5012 and 5013 combined). Some of the farms in types 5012 and 5013 had breeding sows and in total there were 44 farms with breeding sows.

Financial Results

For the full sample of 54 farms total farm output amounted to £294266 (Table 2.1). Pig output accounted for 85% of total output with miscellaneous income accounting for 13%. Receipts from the Single Payment Scheme (SPS) are included in the account under miscellaneous income. The average SPS income on these farms was £3793. In 2006/07 many farms would have received little or no SPS income because they had no historic entitlement and occupied a very small land area.

These farms recorded a gross margin of £138143 after deduction of variable costs amounting to £156124. Feed costs accounted for 77% of total variable costs. Fixed costs amounted to £131460 resulting in a Management and Investment Income (MII) of £6683. Net Farm Income (NFI) was £24974. Farm Business Income (FBI) was similar at £24706. One-half of all farms showed a negative MII figure and one-quarter showed negative NFI and FBI figures.

Table 2.2 shows the range in performance in terms of MII for Specialist Pig farms. The top 25% show a MII of £78906 whilst the bottom 25% show a negative MII of £49129. The high MII farms are significantly larger than the others with a pig output 324% more than the middle 50% band. It is also noticeable that the farms with high MII figures have a much higher proportion of output from miscellaneous income than the farms in the other two bands. Miscellaneous output accounts for 14% of total output on these farms compared to 10% for the other two bands.

An analysis of the results split between businesses classed as 'predominantly sows' and those classed as 'predominantly growing and fattening pigs' (Table 2.3) shows that there is a considerable difference in terms of output and cost structure between these two types of farms. Crop output is significantly more for the second type of farm. This, together with higher pig output, results in a higher level of total output. Their variable costs were also correspondingly larger mainly due to higher feed costs. However, their fixed costs were lower predominantly because of lower labour costs. Average MII, NFI and FBI is higher for those farms classed as 'predominantly growing and fattening pigs'.

In order to examine the influence of size on financial performance the results have been analysed in terms of Standard Gross Margins (SGMs). Table 2.4 shows the results and indicates the range of SGM for each size category.

The results show a clear difference between the largest size group and the other three size groups. The largest size group records an MII of £54701; the three groups with less than 200 SGMs all show a negative MII and relatively similar levels of NFI and FBI. Interestingly, the smallest size group shows the second highest level of profit. Further examination shows that this is due to higher levels of miscellaneous income than that recorded by the two other groups of less than 200 SGMs.

Table 2.1 Specialist Pig Farms – Financial Results

Number of farms	54
Output	£
Pigs	250807
Other livestock	1374
Crops	5132
Miscellaneous	36953
Total output	294266
Variable costs	
Feed	120404
Vet and medicines	6410
Other livestock costs	26824
Crop costs	2486
Total variable costs	156124
Farm gross margin	138143
Fixed costs	
Labour	
- Paid	40148
- Unpaid	22454
Machinery	
- Contract	3516
- Depreciation	11792
- Repairs	7792
- Fuel and oil	5490
Occupiers repairs	5578
Rent and rates	17440
Other farm costs	17250
Total fixed costs	131460
Management and investment income	6683
Less management charges	
Plus unpaid labour	18291
Net farm income	24974
Less net interest payments	7423
Less building depreciation and insurance	6142
Plus rental value and imputed rent	8646
Plus imputed labour	4163
Plus Section J and windfall gains	489
Farm business income	24706

Table 2.2 Specialist Pig Farms – Grouped by MII per Farm

	Top 25%	Middle 50%	Bottom 25%
Output	£	£	£
Pigs	562802	132800	174305
Other livestock	67	2670	56
Crops	5787	3926	6932
Miscellaneous	95690	15190	21624
Total output	664346	154586	202917
Variable costs			
Feed	252089	65570	98399
Vet and medicines	9324	4252	7857
Other livestock costs	68099	10166	18843
Crop costs	3382	1912	2748
Total variable costs	332894	81900	127847
Farm gross margin	331452	72686	75070
Fixed costs			
Labour			
- Paid	100321	13628	33088
- Unpaid	19884	3159	6511
Machinery			
- Contract	5849	21472	22435
- Depreciation	22955	6579	11082
- Repairs	16448	4035	6658
- Fuel and oil	11766	2448	5317
Occupiers repairs	7764	2770	9096
Rent and rates	35995	9491	14795
Other farm costs	31564	11113	15217
Total fixed costs	252546	74695	124199
Management and investment income	78906	-2009	-49129
Less management charges			
Plus unpaid labour	16012	20124	16862
Net farm income	94918	18115	-32267
Less net interest payments	14163	3804	7958
Less building depreciation and insurance	7333	4413	8467
Plus rental value and imputed rent	16669	3915	10147
Plus imputed labour	3873	3159	6511
Plus Section J and windfall gains		593	774
Farm business income	93963	17564	-31257

Table 2.3 Specialist Pig Farms – Grouped by Type

	Predominantly sows	Predominantly growing/fattening pigs
Number of farms	33	21
Output	£	£
Pigs	230606	285757
Other livestock	1051	1934
Crops	1894	10735
Miscellaneous	43371	25850
Total output	276922	324276
Variable costs		
Feed	110957	136749
Vet and medicines	7160	5112
Other livestock costs	22141	34925
Crop costs	1419	4332
Total variable costs	141677	181118
Farm gross margin	135244	143159
Fixed costs		
Labour		
- Paid	46059	29922
- Unpaid	23324	20948
Machinery		
- Contract	2688	4947
- Depreciation	10655	13759
- Repairs	6935	9275
- Fuel and oil	5056	6241
Occupiers repairs	4912	6731
Rent and rates	16611	18875
Other farm costs	18192	15620
Total fixed costs	134432	126318
Management and investment income	812	16841
Less management charges		
Plus unpaid labour	17938	18901
Net farm income	18750	35742
Less net interest payments	6196	9545
Less building depreciation and insurance	5193	7786
Plus rental value and imputed rent	8215	9390
Plus imputed labour	5386	2047
Plus Section J and windfall gains	301	815
Farm business income	21263	30663

Table 2.4 Specialist Pig Farms – Grouped by Standard Gross Margin per Farm

000 SGMs	0-50	50-100	100-200	200+
Number of farms	15	12	11	16
Output	£	£	£	£
Pigs	67818	104923	236721	703143
Other livestock	513	1692	2581	1418
Crops	472	4840	1866	16287
Miscellaneous	35093	11386	12438	85868
Total output	103896	122841	253606	806716
Variable costs				
Feed	30187	63750	119600	323990
Vet and medicines	1334	2704	10352	14618
Other livestock costs	8632	6776	17722	83943
Crop costs	868	2260	1291	6529
Total variable costs	41021	75490	148965	429080
Farm gross margin	62875	47351	104641	377636
Fixed costs				
Labour				
- Paid	11291	2628	33035	129065
- Unpaid	20945	25259	24301	20758
Machinery				
- Contract	1080	2010	2449	9964
- Depreciation	6422	5642	6764	31042
- Repairs	3482	2896	4811	22222
- Fuel and oil	2829	1653	3556	15216
Occupiers repairs	2338	2457	4160	15159
Rent and rates	8681	10388	13294	42388
Other farm costs	10167	7818	17817	37121
Total fixed costs	67235	60751	110187	322935
Management and investment income	-4360	-13400	-5546	54701
Less management charges				
Plus unpaid labour	17520	24412	16551	15716
Net farm income	13160	11012	11005	70417
Less net interest payments	2719	6828	6870	16396
Less building depreciation and insurance	3478	3678	5916	13054
Plus rental value and imputed rent	4254	5177	6124	21506
Plus imputed labour	3425	847	7750	5042
Plus Section J and windfall gains		1501	923	
Farm business income	14643	8029	13016	67516

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://www.ex.ac.uk/crr>). 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 little or no other enterprises and therefore the majority of fixed costs are rightly attributable to the pig enterprise. However, on those farms with pig enterprises which are not Specialist Pig farms, the methodology is still under test. Consequently, it has not been possible to publish net margins for these farms in this report.

Classification of farms

Net and gross margins were completed for all 54 Specialist Pig farms. These were classified as follows :

Type	No of farms	Definition
111	10	Breeders selling weaners (rearers)
112	31	Breeders selling fat pigs (finishers)
113	1	Buying weaners, selling fat pigs
114	10	Contract
115	2	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 type 112 and combined types 111, 113 and 115. The output and cost structure for type 114 (contract farms) is so different to those of non-contract farms that it would be inappropriate to include these farms in the composite group.

Net Margin results

Table 3.1 shows that the full sample of 54 Specialist Pig Farms recorded a net margin of £9890. This average figure masks a huge variation in performance with one-half of farms showing a negative net margin result. Table 3.2 presents the results split into two main categories, namely breeding farms selling finished pigs and all other farms (except contract producers). There is a considerable difference in net margin between the two groups with the combined group recording a much higher net margin than the other group (breeder finishers). It should be remembered that the combined group is comprised mainly of farms that are

producing and selling weaners. This pattern of results is the same as that recorded in the previous year and in the 2002/03 survey by Shepherd (2004). However, it should also be noted that this combined group were much larger farms with an average herd size (breeding sows) of 375 compared to 159 on the breeder-finisher farms. Indeed, the weaner producing farms on their own averaged 434.

Table 3.3 presents the costs and margins per £100 output for the two categories of farms.

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. On breeder-finisher farms the net margin was -£65 per sow. The figures for pigs produced per sow should be taken as indicative of the annual productivity and it should be noted that this figure has not been calculated the same way as in previous pig studies (see note in Appendix).

Table 3.5 presents the gross margins for pig farms that are not classified as Specialist pig farms. In other words these are the margins recorded for pigs where pigs are not the predominant enterprise. As explained earlier it has not been possible to present net margins for these enterprises because there are difficulties with the allocation of fixed costs to different enterprises. Results are presented for two types of enterprise – contract and breeder finishers. The gross margins for the latter are very much in line with those for Specialist pig farms. This is not immediately apparent when looking at Table 3.5 because the size of enterprise is inevitably smaller in these farms. Consequently both the output and margins are at a lower absolute level. However, in terms of costs and margins per £100 output the results are almost identical to that presented earlier for Specialist pig farms.

Table 3.7 looks in more detail at the fat pig producers and shows the results on a per sow basis. Compared to herds producing fat pigs on Specialist pig farms, average herd size is lower but gross margins per sow are much higher. This is mainly due to a higher level of output. Interestingly, pigs produced per sow is only slightly lower at 18.8 pigs per sow compared to 19.1 pigs on the comparable Specialist pig farms. Both these results are higher than the comparable figures in the previous year.

Table 3.1 Specialist Pig Farms – Net Margins

Number of farms	54
	£
Output	306609
Variable costs	
Feed	151669
Vet and medicines	8008
Other variable costs	30543
Total variable costs	190219
Gross Margin	116390
Fixed costs	
Paid labour	38550
Unpaid labour	3941
Contract and rental	2412
Depreciation	9829
Machinery repairs	6811
Fuel and oil	4280
Electricity and heating fuel	5176
Water	2167
Insurance	3044
Professional fees	3298
General farm costs	3412
Occupiers repairs	6082
Rent and rates	1432
Total fixed costs	90435
Net farm income	25954
Less farmer and spouse labour	16065
Plus managerial input	
Net margin	9890

Table 3.2 Specialist Pig Farms – Net Margins by Farm Type

Farm type	Breeders selling fat pigs	Others except contract
Number of farms	31	13
Average number of sows	159	375
	£	£
Output	220603	514806
Variable costs		
Feed	118601	231717
Vet and medicines	6605	11405
Other variable costs	19609	57008
Total variable costs	144815	300130
Gross Margin	75788	214676
Fixed costs		
Paid labour	29299	60945
Unpaid labour	3868	4119
Contract and rental	1673	4203
Depreciation	6680	17451
Machinery repairs	4484	12443
Fuel and oil	3357	6516
Electricity and heating fuel	5140	5264
Water	2026	2510
Insurance	2915	3356
Professional fees	2912	4233
General farm costs	2741	5038
Occupiers repairs	5717	6965
Rent and rates	382	3972
Total fixed costs	71194	137013
Net farm income	4594	77663
Less farmer and spouse labour	14980	18691
Plus managerial input		
Net margin	-10386	58972

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

Farm type	Breeders selling fat pigs	Others except contract
	£ per £100 output	
Feed	53.8	45.0
Other variable costs	11.9	13.3
Gross margin	34.3	41.7
Labour costs	15.0	12.6
Contract and machinery costs	7.6	8.0
Occupiers repairs	2.6	1.4
Other fixed costs	7.0	4.6
Net margin	-4.7	3.6

Table 3.4 Specialist Pig Farms – Net Margins per Sow

Farm Type	Breeders selling fat pigs
Number of farms	31
Number of sows	159.0
Pigs per sow	19.1
	£
Output	1388.3
Variable costs	
Feed	746.4
Vet and medicines	41.6
Other variable costs	123.4
Total variable costs	911.4
Gross Margin	477.0
Fixed costs	
Paid labour	184.4
Unpaid labour	24.3
Contract and rental	10.5
Depreciation	42.0
Machinery repairs	28.2
Fuel and oil	21.1
Electricity and heating fuel	32.4
Water	12.7
Insurance	18.3
Professional fees	18.3
General farm costs	17.3
Occupiers repairs	36.0
Rent and rates	2.4
Total fixed costs	448.0
Net farm income	28.9
Less farmer and spouse labour	94.3
Net margin	-65.4

Table 3.5 Non-specialist Pig Farms– Gross Margins by Farm Type

Farm type	Breeder-finisher	Contract
Number of farms	26	22
	£	£
Output	132265	18042
Variable costs		
Feed	65217	9
Vet and medicines	3091	9
Other variable costs	15838	1985
Total variable costs	84146	2003
Gross Margin	48119	16039

Table 3.6 Non-specialist Pig Farms - Costs and Margins per £100 Pig Output

Farm type	Breeder-finisher	Contract
	£ per £100 output	
Feed	49.3	-
Other variable costs	15.6	11.1
Gross margin	36.4	88.9

Table 3.7 Non-specialist Pig Farms - Gross Margins for Breeder-Finisher Farms (type 112)

Number of farms		26
Number of sows		87
Pigs per sow		18.8
	Per farm	Per sow
	£	£
Output	132265	1515.1
Variable costs		
Feed	65217	747.0
Vet and medicines	3091	35.4
Other variable costs	15838	181.5
Total variable costs	84146	963.9
Gross Margin	48119	551.2

Appendix A

Notes and Definitions

Classification of Farms in the FBS

Farms are classified by both type and size. The former is done using European size units (ESU) which measures the financial performance of the holding in terms of the margins which might be expected from crops and livestock. The margins used are gross margins standardised at a five year average centred on year 2000 values (SGMs). For a farm to be allocated to a particular type (e.g. Specialist pigs) the contribution of that enterprise must account for more than two-thirds of the total SGMs of that farm. Farms are classified by size by utilising the Standard Labour Requirements. 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 Single Labour Unit.

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) represents the return to all unpaid labour (farmers, spouses and others with an entrepreneurial interest in the farm business) and to all their capital invested in the farm business including land and farm buildings. It is defined as Total Farm Output (TFO) plus profit / loss on sale of assets minus cost (C): where TFO is defined as the sum of output from: crop enterprises, adjustment for disposal of previous crops, livestock enterprises, separable non-agricultural diversification, single farm payment, agri-environmental payments, other grants and subsidies, miscellaneous receipts; C is defined as variable costs plus fixed costs.

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.

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 Single Labour Requirement. 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.

Pigs per sow

The figure for pigs per sow has been estimated by calculating the net increase in total pig numbers on the farm through the year and dividing by the average number of sows.

Appendix 2: Reports in Series

Reports in this series:

Crop Production in England 2006/07

Dairying Farming in England 2006/07

Hill Farming in England 2006/07

Horticulture Production in England 2006/07 (Horticultural Business Data)

Lowland Grazing Livestock Production 2006/07

Pig Production in England 2006/07

Poultry Production in England 2006/06

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